

ANALYTICAL REPORT

Job Number: 200-10004-1

SDG Number: PRR1171

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
3/27/2012 9:13 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
03/27/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	15

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1171 (200- 10004-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 03/24/2012 as a transfer from the TestAmerica Edison laboratory. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 1.6 °C.

USEPA Method 410.1 Chemical Oxygen Demand

The samples in this sample set were analyzed for chemical oxygen demand by the referenced method. Matrix spike and replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the samples, and there was an acceptable recovery of the spiked component in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10004-1

Sdg Number: PRR1171

Description	Lab Location	Method	Preparation Method
Matrix: Water			
COD	TAL BUR	MCAWW 410.4	
COD	TAL BUR		MCAWW 410.4

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10004-1

Sdg Number: PRR1171

Method	Analyst	Analyst ID
MCAWW 410.4	Tam, Michelle N	MNT

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10004-1
Sdg Number: PRR1171

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10004-1	PRR1WATGACI-02	Water	03/22/2012 1455	03/24/2012 0900
200-10004-2	PRR1WATGACE-02	Water	03/22/2012 1455	03/24/2012 0900

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10004-1
Sdg Number: PRR1171

General Chemistry

Client Sample ID: PRR1WATGACI-02

Lab Sample ID: 200-10004-1

Client Matrix: Water

Date Sampled: 03/22/2012 1455

Date Received: 03/24/2012 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	179		mg/L	40.0	40.0	2.0	410.4
	Analysis Batch: 200-35700	Analysis Date: 03/26/2012 1900					
	Prep Batch: 200-35698	Prep Date: 03/26/2012 1615					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10004-1
Sdg Number: PRR1171

General Chemistry

Client Sample ID: PRR1WATGACE-02

Lab Sample ID: 200-10004-2

Date Sampled: 03/22/2012 1455

Client Matrix: Water

Date Received: 03/24/2012 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	238		mg/L	80.0	80.0	4.0	410.4
	Analysis Batch: 200-35700	Analysis Date: 03/26/2012 1900					
	Prep Batch: 200-35698	Prep Date: 03/26/2012 1615					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10004-1

Sdg Number: PRR1171

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10004-1

Sdg Number: PRR1171

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Prep Batch: 200-35698					
LCS 200-35698/1-A	Lab Control Sample	T	Water	410.4	
MB 200-35698/2-A	Method Blank	T	Water	410.4	
200-10004-1	PRR1WATGACI-02	T	Water	410.4	
200-10004-2	PRR1WATGACE-02	T	Water	410.4	
Analysis Batch:200-35700					
LCS 200-35698/1-A	Lab Control Sample	T	Water	410.4	200-35698
MB 200-35698/2-A	Method Blank	T	Water	410.4	200-35698
200-10004-1	PRR1WATGACI-02	T	Water	410.4	200-35698
200-10004-2	PRR1WATGACE-02	T	Water	410.4	200-35698

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10004-1

Sdg Number: PRR1171

Method Blank - Batch: 200-35698

Method: 410.4 Preparation: 410.4

Lab Sample ID: MB 200-35698/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/26/2012 1900
Prep Date: 03/26/2012 1615
Leach Date: N/A

Analysis Batch: 200-35700
Prep Batch: 200-35698
Leach Batch: N/A
Units: mg/L

Instrument ID: WCS2
Lab File ID: N/A
Initial Weight/Volume: 2.0 mL
Final Weight/Volume: 2.0 mL

Analyte	Result	Qual	RL	RL
Chemical Oxygen Demand	20.0	U	20.0	20.0

Lab Control Sample - Batch: 200-35698

Method: 410.4 Preparation: 410.4

Lab Sample ID: LCS 200-35698/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/26/2012 1900
Prep Date: 03/26/2012 1615
Leach Date: N/A

Analysis Batch: 200-35700
Prep Batch: 200-35698
Leach Batch: N/A
Units: mg/L

Instrument ID: WCS2
Lab File ID: N/A
Initial Weight/Volume: 2.0 mL
Final Weight/Volume: 2.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	27.3	27.64	101	90 - 110	

T.A. Burlington

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

ARCADIS
Infrastructure, Environment, Buildings

6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

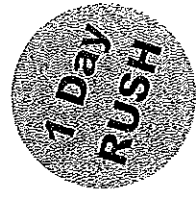
Lab Work Order #

Page 1 of 1

460-38208

PROJECT NAME		Requested Analyses																				
Tierra Phase I Removal		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17				
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PRR1WATGACI-02	3/22/2012	14:55	water	Grab	1		X															
PRR1WATGACE-02	3/22/2012	14:55	water	Grab	1		X															
PRR1WATGME-04	3/22/2012	14:50	water	Grab	1		X															
PRR1WATSP101-01	3/22/2012	14:45	water	Grab	1		X															
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions <input type="checkbox"/> Analyze Now Lab Name: TestAmerica - Edison, NJ Shipping Tracking # Specify Turnaround Requirements: 24 hr TAT Laboratory Information and Receipt: <input type="checkbox"/> Cooler packed with ice <input type="checkbox"/> Cooler custody seal intact Sample Receipt: Condition/Cooler Temp:																				
1	ISS	Requested Analyses																				
2	ECOB	Requested Analyses																				
3		Requested Analyses																				
4		Requested Analyses																				
7		Requested Analyses																				
5		Requested Analyses																				
6		Requested Analyses																				
7		Requested Analyses																				
8		Requested Analyses																				
9		Requested Analyses																				
10		Requested Analyses																				
11		Requested Analyses																				
12		Requested Analyses																				
13		Requested Analyses																				
14		Requested Analyses																				
15		Requested Analyses																				
16		Requested Analyses																				
17		Requested Analyses																				

Remarks
 1 CUD
 2 GPD
 3 FSS
 4 FSS



5.4
#50

Rec'd: JIC TARBUR 3/24/12 0900

Relinquished by: [Signature] DATE: 3/22/12 TIME: 1515
 Relinquished by: [Signature] DATE: 03/22/12 TIME: 1530
 Relinquished by: [Signature] DATE: 3/22/12 TIME: 1607

Received by: [Signature] DATE: 3/22/12
 Received by: [Signature] DATE: 3/22/12
 Received by: [Signature] DATE: 3/22/12

Relinquished by: [Signature] DATE: 3/22/12
 Relinquished by: [Signature] DATE: 3/22/12
 Relinquished by: [Signature] DATE: 3/22/12

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10004-1

SDG Number: PRR1171

Login Number: 10004

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

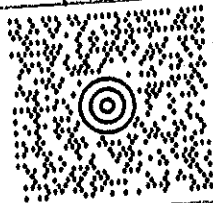
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6°C, IR GUN ID 154, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

27 LBS

1 OF 1

(732) 549-3900
SEVERN TRENT LABS
777 NEW DURHAM ROAD
EDISON NJ 08837

SHIP TO:
SAMPLE CUSTODY
(802) 655-1203
TEST AMERICA BURLINGTON
SUITE 11
30 COMMUNITY DRIVE
SOUTH BURLINGTON VT 05403



VT 054 0-02



UPS NEXT DAY AIR

1 S

TRACKING #: 1Z 083 95E 44 5322 8563



BILLING: F/C BILL RECEIVER

HS 15.0.15

LP2844 24.0A 01/2012



International Shipping Notice - Cargo hereunder may be subject to the rules relating to liability and other terms and conditions established by the Convention for the Unification of Certain Rules Relating to International Carriage by Air (the "Warsaw Convention") and/or the Convention on the Contract for the International Carriage of Goods by Road (the "CMR Convention"). These documents, technology or software were exported from the U.S. in accordance with the Export Administration Regulations. Cooperation with U.S. law enforcement and United States Customs, Excise and Border Protection is requested. For shipping rates, call 1-800-750-7522.

ANALYTICAL REPORT

Job Number: 200-10052-1

SDG Number: PRR1174

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
3/29/2012 1:33 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
03/29/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	13
QC Results	14
Qc Association Summary	15
Surrogate Recovery Report	16
Qc Reports	18
Client Chain of Custody	19
Sample Receipt Checklist	20

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1174 (200- 10052-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 03/28/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 2.4 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10052-1

Sdg Number: PRR1174

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Trace Water	TAL BUR	SOM01.2	SOM01.2/VOA_Tr
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10052-1

Sdg Number: PRR1174

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10052-1
Sdg Number: PRR1174

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10052-1	PRR1WATGACI-03	Water	03/27/2012 1450	03/28/2012 1015
200-10052-2	PRR1WATGACE-03	Water	03/27/2012 1500	03/28/2012 1015
200-10052-3	TB03272012	Water	03/27/2012 0000	03/28/2012 1015
200-10052-4	VHBLK01	Water	03/28/2012 1046	03/28/2012 1015

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10052-1

Sdg Number: PRR1174

Client Sample ID: PRR1WATGACI-03

Lab Sample ID: 200-10052-1

Date Sampled: 03/27/2012 1450

Client Matrix: Water

Date Received: 03/28/2012 1015

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35838	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdec08.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/28/2012 1501			Final Weight/Volume:	25 mL
Prep Date:	03/28/2012 1501				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	10	U	10
Chlorobenzene	2.3		1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	89		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	97		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	106		77 - 121
trans-1,3-Dichloropropene-d4	98		73 - 121
2-Hexanone-d5	97		28 - 135
1,1,2,2-Tetrachloroethane-d2	95		73 - 125
1,2-Dichlorobenzene-d4	99		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10052-1

Sdg Number: PRR1174

Client Sample ID: PRR1WATGACE-03

Lab Sample ID: 200-10052-2

Date Sampled: 03/27/2012 1500

Client Matrix: Water

Date Received: 03/28/2012 1015

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35838	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdec09.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/28/2012 1602			Final Weight/Volume:	25 mL
Prep Date:	03/28/2012 1602				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	10	U	10
Chlorobenzene	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	99		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	104		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	101		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	90		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121
2-Hexanone-d5	125		28 - 135
1,1,2,2-Tetrachloroethane-d2	104		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10052-1

Sdg Number: PRR1174

Client Sample ID: TB03272012

Lab Sample ID: 200-10052-3

Date Sampled: 03/27/2012 0000

Client Matrix: Water

Date Received: 03/28/2012 1015

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35838	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdec10.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/28/2012 1626			Final Weight/Volume:	25 mL
Prep Date:	03/28/2012 1626				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	98		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	131		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	102		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	98		73 - 121
2-Hexanone-d5	129		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10052-1

Sdg Number: PRR1174

Client Sample ID: VHBLK01

Lab Sample ID: 200-10052-4

Date Sampled: 03/28/2012 1046

Client Matrix: Water

Date Received: 03/28/2012 1015

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35838	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdec11.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/28/2012 1649			Final Weight/Volume:	25 mL
Prep Date:	03/28/2012 1649				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	99		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	99		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	102		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	90		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	98		73 - 121
2-Hexanone-d5	109		28 - 135
1,1,2,2-Tetrachloroethane-d2	97		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10052-1
Sdg Number: PRR1174

Lab Section	Qualifier	Description
GC/MS VOA	U	Analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10052-1

Sdg Number: PRR1174

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-35838					
MB 200-35838/7	Method Blank	T	Water	SOM01.2/VOA_T	
200-10052-1	PRR1WATGACI-03	T	Water	SOM01.2/VOA_T	
200-10052-2	PRR1WATGACE-03	T	Water	SOM01.2/VOA_T	
200-10052-3	TB03272012	T	Water	SOM01.2/VOA_T	
200-10052-4	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10052-1

Sdg Number: PRR1174

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10052-1	PRR1WATGACI-03	101	103	80	89	99	97	106	93
200-10052-2	PRR1WATGACE-03	96	99	76	104	98	101	100	90
200-10052-3	TB03272012	98	102	79	131	99	102	101	91
200-10052-4	VHBLK01	96	99	76	99	98	102	100	90
MB 200-35838/7		95	97	76	98	96	98	102	92

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10052-1

Sdg Number: PRR1174

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10052-1	PRR1WATGACI-03	106	98	97	95	99
200-10052-2	PRR1WATGACE-03	101	99	125	104	101
200-10052-3	TB03272012	103	98	129	99	102
200-10052-4	VHBLK01	99	98	109	97	101
MB 200-35838/7		101	99	105	95	99

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10052-1

Sdg Number: PRR1174

Method Blank - Batch: 200-35838

Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR

Lab Sample ID: MB 200-35838/7
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/28/2012 1358
Prep Date: 03/28/2012 1358
Leach Date: N/A

Analysis Batch: 200-35838
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdec07.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	95	65 - 131
Chloroethane-d5	97	71 - 131
1,1-Dichloroethene-d2	76	55 - 104
2-Butanone-d5	98	49 - 155
Chloroform-d	96	78 - 121
1,2-Dichloroethane-d4	98	78 - 129
Benzene-d6	102	77 - 124
1,2-Dichloropropane-d6	92	79 - 124
Toluene-d8	101	77 - 121
trans-1,3-Dichloropropene-d4	99	73 - 121
2-Hexanone-d5	105	28 - 135
1,1,2,2-Tetrachloroethane-d2	95	73 - 125
1,2-Dichlorobenzene-d4	99	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO. B0009964.0002.70004
PROJECT NAME Tierra Phase I Removal
SDG NUMBER PRR1174
COC Number

SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	Requested Analyses																	Remarks													
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17														
PRR1WATGACI-03	3/27/2012	14:50	water	Grab	3	X																														
PRR1WATGACE-03	3/27/2012	15:00	water	Grab	3	X																														
TB03272012	3/27/2012		water		2	X																														

Special Instructions/Comments: Special QA/QC Instructions
 Analyze Now

Laboratory Information and Receipt
 Lab Name: TestAmerica -Burlington, VT
 Shipping Tracking #
 Specify Turnaround Requirements: 24 hr TAT

Relinquished by:	DATE	TIME	Received by:	DATE	TIME
<i>[Signature]</i>	3/27/12	1530	<i>[Signature]</i>	3/29/12	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10052-1

SDG Number: PRR1174

Login Number: 10052

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417439, 440
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4°C, IR GUN ID 154, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 27MAR12
ActWgt: 10.0 LB
CAD: 103767025/NET3250

Dims: 14 X 11 X 15 IN

Delivery Address Bar Code



Ref # 1129-1616-4
Invoice #
PO #
Dept #

SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

SOUTH BURLINGTON, VT 05403

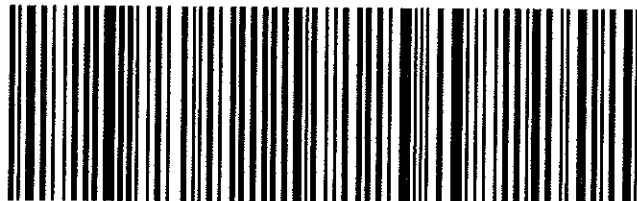
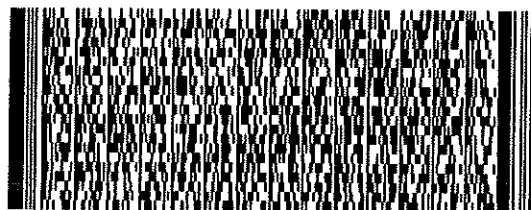
WED - 28 MAR A4
STANDARD OVERNIGHT

TRK# 7933 8605 1940

0201

05403
VT-US
BTVA

ZF BTVA



512G1K144D/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10087-1

SDG Number: PRR1177

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Ryan J Hammond
Project Manager I
3/30/2012 1:05 PM

Designee for
Kirk F Young
Project Manager I
kirk.young@testamericainc.com
03/30/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	9
QC Results	10
Qc Association Summary	11
Qc Reports	12
Sample Receipt Checklist	13

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1177 (200- 10087-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The sample in this sample set was received on 03/29/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The sample was received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 4.6 °C.

SM 2540D Total suspended Solids

The sample in this sample set was analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the sample in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10087-1
Sdg Number: PRR1177

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10087-1

Sdg Number: PRR1177

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10087-1
Sdg Number: PRR1177

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10087-1	PRR1WATCME-09	Water	03/28/2012 1145	03/29/2012 1030

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10087-1

Sdg Number: PRR1177

General Chemistry

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10087-1

Date Sampled: 03/28/2012 1145

Client Matrix: Water

Date Received: 03/29/2012 1030

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	8.2		mg/L	1.0	1.0	1.0	SM 2540D
Analysis Batch: 200-35881		Analysis Date: 03/29/2012 1312					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10087-1

Sdg Number: PRR1177

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10087-1

Sdg Number: PRR1177

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-35881					
LCS 200-35881/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-35881/1	Method Blank	T	Water	SM 2540D	
200-10087-1	PRR1WATCME-09	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10087-1
Sdg Number: PRR1177

Method Blank - Batch: 200-35881

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-35881/1	Analysis Batch:	200-35881	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/29/2012 1312	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-35881

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-35881/2	Analysis Batch:	200-35881	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/29/2012 1312	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	438.0	88	85 - 115	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10087-1

SDG Number: PRR1177

Login Number: 10087

List Source: TestAmerica Burlington

List Number: 2

Creator: Matot, Wade M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417447
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6°C IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

ANALYTICAL REPORT

Job Number: 200-10092-1

SDG Number: PRR1177

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/5/2012 4:57 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/05/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	30
QC Results	31
Qc Association Summary	32
Surrogate Recovery Report	35
Qc Reports	41
Client Chain of Custody	57
Sample Receipt Checklist	60

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1177 (200-10092-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis.

Manual integration was employed in deriving certain of the analytical results.

Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR
Semivolatiles	TAL BUR	SOM01.2 SOM01.2/SV	
Extraction of Water Samples	TAL BUR		SOM01.2 CONT
Aroclors	TAL BUR	SOM01.2 SOM01.2/PCB	
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Sulfuric Acid/Permanganate Cleanup	TAL BUR		SOM01.2 SOM01.2/SO4CU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Extraction of Low level Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Low Level CLP Extraction of Pesticides	TAL BUR		SOM01.2 SOM01.2LL_Pest
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
ISM01.2 Mercury	TAL BUR	ISM01.2 ISM01.2/HG	
7470A	TAL BUR		SW846 7470A
ISM01.2 Metals (ICPMS)	TAL BUR	ISM01.2 ISM01.2/ICPMS	
200.8	TAL BUR		EPA 200.8
ISM01.2 Cyanide	TAL BUR	ISM01.2 ISM01.2/CN	
Midi-distillation	TAL BUR		ISM01.1 Midi-Distillati

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

ISM01.1 = U.S. Environmental Protection Agency

ISM01.2 = U.S. Environmental Protection Agency

SOM01.2 = U.S. Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP
SOM01.2 SOM01.2/SV	Bissonette, Donald J	DJB
SOM01.2 SOM01.2/PCB	Duncan, Stacey L	SLD
SOM01.2 SOM01.2/Pest	Malaspina, Richard R	RRM
ISM01.2 ISM01.2/HG	Pham, Vu T	VTP
ISM01.2 ISM01.2/ICPMS	Sheldon, Travis F	TFS
ISM01.2 ISM01.2/CN	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10092-1	PRR1WATCME-09	Water	03/28/2012 1145	03/29/2012 1030
200-10092-2	PRR1WATCMI-09	Water	03/28/2012 1205	03/29/2012 1030
200-10140-1	PRR1WATCME-09	Water	03/31/2012 1420	04/02/2012 0735
200-10140-2	PRR1WATCMI-09	Water	03/31/2012 1350	04/02/2012 0735
200-10140-3TB	TB03312012	Water	03/31/2012 0000	04/02/2012 0735
200-10140-4STOBL K	VHBLK02	Water	03/31/2012 1055	04/02/2012 0735

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10140-1

Date Sampled: 03/31/2012 1420

Client Matrix: Water

Date Received: 04/02/2012 0735

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36087	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdee16.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/02/2012 1615			Final Weight/Volume:	25 mL
Prep Date:	04/02/2012 1615				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	1.0	U	1.0
Vinyl chloride	1.0	U	1.0
Bromomethane	1.0	U	1.0
Chloroethane	1.0	U	1.0
Acrolein	20	U	20
1,1-Dichloroethene	1.0	U	1.0
Methylene chloride	1.0	U	1.0
Acrylonitrile	20	U	20
trans-1,2-Dichloroethene	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
2-Butanone	10	U	10
Chloroform	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
Carbon tetrachloride	1.0	U	1.0
Benzene	1.0	U	1.0
1,2-Dichloroethane	1.0	U	1.0
Trichloroethene	1.0	U	1.0
1,2-Dichloropropane	1.0	U	1.0
Bromodichloromethane	1.0	U	1.0
cis-1,3-Dichloropropene	1.0	U	1.0
Toluene	1.0	U	1.0
trans-1,3-Dichloropropene	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0
Tetrachloroethene	1.0	U	1.0
Dibromochloromethane	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Ethylbenzene	1.0	U	1.0
Bromoform	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
1,2,3-Trichlorobenzene	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	101		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	117		49 - 155
Chloroform-d	103		78 - 121
1,2-Dichloroethane-d4	111		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	94		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	102		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10140-1

Date Sampled: 03/31/2012 1420

Client Matrix: Water

Date Received: 04/02/2012 0735

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr
Prep Method: SOM01.2/VOA_PR
Dilution: 2.0
Analysis Date: 04/02/2012 1615
Prep Date: 04/02/2012 1615

Analysis Batch: 200-36087
Prep Batch: N/A

Instrument ID: J.i
Lab File ID: jdee16.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	125		28 - 135
1,1,2,2-Tetrachloroethane-d2	101		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCMI-09

Lab Sample ID: 200-10140-2

Date Sampled: 03/31/2012 1350

Client Matrix: Water

Date Received: 04/02/2012 0735

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36087	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdee18.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/02/2012 1703			Final Weight/Volume:	25 mL
Prep Date:	04/02/2012 1703				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	10	U	10
1,2,3-Trichlorobenzene	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	117		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	99		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121
2-Hexanone-d5	130		28 - 135
1,1,2,2-Tetrachloroethane-d2	103		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: TB03312012

Lab Sample ID: 200-10140-3TB

Date Sampled: 03/31/2012 0000

Client Matrix: Water

Date Received: 04/02/2012 0735

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36087	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdee20.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/02/2012 1752			Final Weight/Volume:	25 mL
Prep Date:	04/02/2012 1752				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	1.3	J	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.41	J	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.076	J	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.35	J	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	110		49 - 155
Chloroform-d	103		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	100		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: TB03312012

Lab Sample ID: 200-10140-3TB

Date Sampled: 03/31/2012 0000

Client Matrix: Water

Date Received: 04/02/2012 0735

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr
Prep Method: SOM01.2/VOA_PR
Dilution: 1.0
Analysis Date: 04/02/2012 1752
Prep Date: 04/02/2012 1752

Analysis Batch: 200-36087
Prep Batch: N/A

Instrument ID: J.i
Lab File ID: jdee20.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	120		28 - 135
1,1,2,2-Tetrachloroethane-d2	101		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: VHBLK02

Lab Sample ID: 200-10140-4STOBLK

Date Sampled: 03/31/2012 1055

Client Matrix: Water

Date Received: 04/02/2012 0735

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-36087	Instrument ID: J.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: jdee21.d
Dilution: 1.0		Initial Weight/Volume: 25 mL
Analysis Date: 04/02/2012 1816		Final Weight/Volume: 25 mL
Prep Date: 04/02/2012 1816		

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	98		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	101		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	98		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: VHBLK02

Lab Sample ID: 200-10140-4STOBLK

Date Sampled: 03/31/2012 1055

Client Matrix: Water

Date Received: 04/02/2012 0735

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36087	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdee21.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/02/2012 1816			Final Weight/Volume:	25 mL
Prep Date:	04/02/2012 1816				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	112		28 - 135
1,1,2,2-Tetrachloroethane-d2	95		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10092-1

Date Sampled: 03/28/2012 1145

Client Matrix: Water

Date Received: 03/29/2012 1030

SOM01.2/SV Semivolatiles

Analysis Method: SOM01.2/SV	Analysis Batch: 200-36232	Instrument ID: R.i
Prep Method: CONT	Prep Batch: 200-35919	Lab File ID: rjxqj17.d
Dilution: 1.0		Initial Weight/Volume: 1045 mL
Analysis Date: 04/05/2012 1205		Final Weight/Volume: 1000 uL
Prep Date: 03/29/2012 1729		Injection Volume: 2 uL

Analyte	Result (ug/L)	Qualifier	RL
N-Nitrosodimethylamine	9.6	U	9.6
Phenol	4.8	U	4.8
Bis(2-chloroethyl)ether	4.8	U	4.8
2-Chlorophenol	4.8	U	4.8
2,2'-Oxybis(1-chloropropane)	4.8	U	4.8
Hexachloroethane	4.8	U	4.8
Nitrobenzene	4.8	U	4.8
Isophorone	4.8	U	4.8
2-Nitrophenol	4.8	U	4.8
2,4-Dimethylphenol	4.8	U	4.8
2,4-Dichlorophenol	4.8	U	4.8
Naphthalene	4.8	U	4.8
Hexachlorobutadiene	4.8	U	4.8
Hexachlorocyclopentadiene	4.8	U	4.8
2,4,6-Trichlorophenol	4.8	U	4.8
2,4,5-Trichlorophenol	4.8	U	4.8
Dimethylphthalate	4.8	U	4.8
2,6-Dinitrotoluene	4.8	U	4.8
2,4-Dinitrophenol	9.6	U	9.6
4-Nitrophenol	9.6	U	9.6
2,4-Dinitrotoluene	4.8	U	4.8
Diethylphthalate	4.8	U	4.8
Fluorene	4.8	U	4.8
4,6-Dinitro-2-methylphenol	9.6	U	9.6
N-Nitrosodiphenylamine	4.8	U	4.8
Hexachlorobenzene	4.8	U	4.8
Pentachlorophenol	9.6	U	9.6
Phenanthrene	4.8	U	4.8
Anthracene	4.8	U	4.8
Di-n-butylphthalate	4.8	U	4.8
Fluoranthene	4.8	U	4.8
Benzidine	9.6	U	9.6
Pyrene	4.8	U	4.8
Butylbenzylphthalate	0.25	J B	4.8
3,3'-Dichlorobenzidine	4.8	U	4.8
Benzo(a)anthracene	4.8	U	4.8
Chrysene	4.8	U	4.8
Bis(2-ethylhexyl)phthalate	4.8	U	4.8
Benzo(b)fluoranthene	4.8	U	4.8
Benzo(k)fluoranthene	4.8	U	4.8
Benzo(a)pyrene	4.8	U	4.8
Indeno(1,2,3-cd)pyrene	4.8	U	4.8
Dibenzo(a,h)anthracene	4.8	U	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	80		39 - 106

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10092-1

Date Sampled: 03/28/2012 1145

Client Matrix: Water

Date Received: 03/29/2012 1030

SOM01.2/SV Semivolatiles

Analysis Method: SOM01.2/SV	Analysis Batch: 200-36232	Instrument ID: R.i
Prep Method: CONT	Prep Batch: 200-35919	Lab File ID: rjxqj17.d
Dilution: 1.0		Initial Weight/Volume: 1045 mL
Analysis Date: 04/05/2012 1205		Final Weight/Volume: 1000 uL
Prep Date: 03/29/2012 1729		Injection Volume: 2 uL

Surrogate	%Rec	Qualifier	Acceptance Limits
Bis(2-chloroethyl)ether-d8	67		40 - 105
2-Chlorophenol-d4	73		41 - 106
4-Methylphenol-d8	85		25 - 111
Nitrobenzene-d5	78		43 - 108
2-Nitrophenol-d4	75		40 - 108
2,4-Dichlorophenol-d3	72		37 - 105
4-Chloroaniline-d4	75		1 - 145
Dimethylphthalate-d6	93		47 - 114
Acenaphthylene-d8	83		41 - 107
4-Nitrophenol-d4	110		33 - 116
Fluorene-d10	98		42 - 111
4,6-Dinitro-2-methylphenol-d2	64		22 - 104
Anthracene-d10	84		44 - 110
Pyrene-d10	73		52 - 119
Benzo(a)pyrene-d12	79		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCMI-09

Lab Sample ID: 200-10092-2

Date Sampled: 03/28/2012 1205

Client Matrix: Water

Date Received: 03/29/2012 1030

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-36232	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-35921	Lab File ID:	rjqj20.d
Dilution:	1.0			Initial Weight/Volume:	975 mL
Analysis Date:	04/05/2012 1423			Final Weight/Volume:	1000 uL
Prep Date:	03/29/2012 1804			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	RL
2,4,5-Trichlorophenol	2.5	J	5.1
4,6-Dinitro-2-methylphenol	10	U	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	67		39 - 106
Bis(2-chloroethyl)ether-d8	52		40 - 105
2-Chlorophenol-d4	63		41 - 106
4-Methylphenol-d8	71		25 - 111
Nitrobenzene-d5	68		43 - 108
2-Nitrophenol-d4	67		40 - 108
2,4-Dichlorophenol-d3	70		37 - 105
4-Chloroaniline-d4	7		1 - 145
Dimethylphthalate-d6	76		47 - 114
Acenaphthylene-d8	68		41 - 107
4-Nitrophenol-d4	79		33 - 116
Fluorene-d10	77		42 - 111
4,6-Dinitro-2-methylphenol-d2	81		22 - 104
Anthracene-d10	69		44 - 110
Pyrene-d10	49	*	52 - 119
Benzo(a)pyrene-d12	59		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10092-1

Date Sampled: 03/28/2012 1145

Client Matrix: Water

Date Received: 03/29/2012 1030

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-35980	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-35935	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	03/30/2012 1244			Injection Volume:	1 uL
Prep Date:	03/30/2012 0013			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Aroclor-1016	0.95	U	0.95
Aroclor-1221	0.95	U	0.95
Aroclor-1232	0.95	U	0.95
Aroclor-1242	0.95	U	0.95
Aroclor-1248	0.95	U	0.95
Aroclor-1254	0.95	U	0.95
Aroclor-1260	0.95	U	0.95

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	85		30 - 150
Decachlorobiphenyl	64		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10092-1

Date Sampled: 03/28/2012 1145

Client Matrix: Water

Date Received: 03/29/2012 1030

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-35980	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-35935	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	03/30/2012 1244			Injection Volume:	1 uL
Prep Date:	03/30/2012 0013			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	85		30 - 150
Decachlorobiphenyl	68		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10092-1

Date Sampled: 03/28/2012 1145

Client Matrix: Water

Date Received: 03/29/2012 1030

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36042	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-35928	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	03/30/2012 2024			Injection Volume:	1 uL
Prep Date:	03/29/2012 1949			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.0048	U	0.0048
beta-BHC	0.0011	J P B	0.0048
delta-BHC	0.0048	U	0.0048
gamma-BHC (Lindane)	0.0048	U	0.0048
Heptachlor	0.0048	U	0.0048
Aldrin	0.0048	U	0.0048
Heptachlor epoxide	0.00034	J P	0.0048
Endosulfan I	0.0048	U	0.0048
Dieldrin	0.0095	U	0.0095
4,4'-DDE	0.00032	J P	0.0095
Endrin	0.0095	U	0.0095
Endosulfan II	0.0095	U	0.0095
4,4'-DDD	0.0011	J P	0.0095
Endosulfan sulfate	0.0095	U	0.0095
4,4'-DDT	0.0017	J P	0.0095
Endrin aldehyde	0.0095	U	0.0095
alpha-Chlordane	0.0048	U	0.0048
gamma-Chlordane	0.0048	U	0.0048
Toxaphene	0.48	U	0.48

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	65		30 - 150
Decachlorobiphenyl	62		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10092-1

Date Sampled: 03/28/2012 1145

Client Matrix: Water

Date Received: 03/29/2012 1030

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36042	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-35928	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	03/30/2012 2024			Injection Volume:	1 uL
Prep Date:	03/29/2012 1949			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	68		30 - 150
Decachlorobiphenyl	64		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10092-1

Date Sampled: 03/28/2012 1145

Client Matrix: Water

Date Received: 03/29/2012 1030

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36029	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-35928	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	03/30/2012 1544			Injection Volume:	1 uL
Prep Date:	03/29/2012 1949			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	0.0095	U	0.0095
2,4'-DDT	0.00061	J P	0.0095
2,4'-DDD	0.00067	J P	0.0095

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	68		30 - 150
Decachlorobiphenyl	65		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10092-1

Date Sampled: 03/28/2012 1145

Client Matrix: Water

Date Received: 03/29/2012 1030

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36029	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-35928	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	03/30/2012 1544			Injection Volume:	1 uL
Prep Date:	03/29/2012 1949			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	70		30 - 150
Decachlorobiphenyl	66		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCHMI-09

Lab Sample ID: 200-10092-2

Date Sampled: 03/28/2012 1205

Client Matrix: Water

Date Received: 03/29/2012 1030

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36029	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-35927	Initial Weight/Volume:	975 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	03/30/2012 1414			Injection Volume:	1 uL
Prep Date:	03/29/2012 1912			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	0.0096	J P	0.10
2,4'-DDD	0.039	J P	0.10
2,4'-DDT	0.019	J P	0.10

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	83		30 - 150
Decachlorobiphenyl	48		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCHMI-09

Lab Sample ID: 200-10092-2

Date Sampled: 03/28/2012 1205

Client Matrix: Water

Date Received: 03/29/2012 1030

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36029	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-35927	Initial Weight/Volume:	975 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	03/30/2012 1414			Injection Volume:	1 uL
Prep Date:	03/29/2012 1912			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	96		30 - 150
Decachlorobiphenyl	49		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCHMI-09

Lab Sample ID: 200-10092-2

Date Sampled: 03/28/2012 1205

Client Matrix: Water

Date Received: 03/29/2012 1030

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36042	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-35927	Initial Weight/Volume:	975 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	03/30/2012 1915			Injection Volume:	1 uL
Prep Date:	03/29/2012 1912			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
delta-BHC	0.018	J P	0.051

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	81		30 - 150
Decachlorobiphenyl	48		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCHMI-09

Lab Sample ID: 200-10092-2

Date Sampled: 03/28/2012 1205

Client Matrix: Water

Date Received: 03/29/2012 1030

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36042	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-35927	Initial Weight/Volume:	975 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	03/30/2012 1915			Injection Volume:	1 uL
Prep Date:	03/29/2012 1912			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	87		30 - 150
Decachlorobiphenyl	50		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10092-1

Date Sampled: 03/28/2012 1145

Client Matrix: Water

Date Received: 03/29/2012 1030

ISM01.2/HG ISM01.2 Mercury

Analysis Method: ISM01.2/HG Analysis Batch: 200-36203 Instrument ID: MEPCV3 II
Prep Method: 7470A Prep Batch: 200-36137 Lab File ID: 040412AA.PRN
Dilution: 1.0 Initial Weight/Volume: 50 mL
Analysis Date: 04/04/2012 1437 Final Weight/Volume: 50 mL
Prep Date: 04/03/2012 1500

Analyte	Result (ug/L)	Qualifier	MDLE	RL
Mercury	0.11	J	0.084	0.20

ISM01.2/ICPMS ISM01.2 Metals (ICPMS)

Analysis Method: ISM01.2/ICPMS Analysis Batch: 200-36197 Instrument ID: METICPMS2
Prep Method: 200.8 Prep Batch: 200-36066 Lab File ID: 040412-02ISM.xml
Dilution: 1.0 Initial Weight/Volume: 100 mL
Analysis Date: 04/04/2012 1311 Final Weight/Volume: 100 mL
Prep Date: 04/02/2012 1520

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	3.8		0.15	2.0
Arsenic	6.4		0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	2.8		0.21	2.0
Copper	6.2		0.60	2.0
Lead	1.1		0.10	1.0
Nickel	25.1		0.14	1.0
Selenium	16.0		0.15	5.0
Silver	1.0	U	0.028	1.0
Zinc	12.6		0.57	2.0

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

General Chemistry

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10092-1
Client Matrix: Water

Date Sampled: 03/28/2012 1145
Date Received: 03/29/2012 1030

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide	10.0	U	ug/L	1.0	10.0	1.0	ISM01.2/CN
	Analysis Batch: 200-36037	Analysis Date: 04/02/2012 1214					
	Prep Batch: 200-36021	Prep Date: 04/02/2012 1000					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	*	Surrogate exceeds the control limit
	B	The analyte was found in an associated blank, as well as in the sample.
GC Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	P	The % Difference between columns is greater than 25%.
	B	The analyte was found in an associated blank, as well as in the sample.
Metals		
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL
General Chemistry		
	U	Indicates analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-36087					
MB 200-36087/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10140-1	PRR1WATCME-09	T	Water	SOM01.2/VOA_T	
200-10140-2	PRR1WATCMI-09	T	Water	SOM01.2/VOA_T	
200-10140-3TB	TB03312012	T	Water	SOM01.2/VOA_T	
200-10140-4STOBLK	VHBLK02	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

GC/MS Semi VOA

Prep Batch: 200-35919					
MB 200-35919/1-A	Method Blank	T	Water	CONT	
200-10092-1	PRR1WATCME-09	T	Water	CONT	
Prep Batch: 200-35921					
MB 200-35921/1-A	Method Blank	T	Water	CONT	
200-10092-2	PRR1WATCMI-09	T	Water	CONT	
Analysis Batch:200-36232					
MB 200-35919/1-A	Method Blank	T	Water	SOM01.2/SV	200-35919
MB 200-35921/1-A	Method Blank	T	Water	SOM01.2/SV	200-35921
200-10092-1	PRR1WATCME-09	T	Water	SOM01.2/SV	200-35919
200-10092-2	PRR1WATCMI-09	T	Water	SOM01.2/SV	200-35921

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-35927					
LCS 200-35927/2-C	Lab Control Sample	T	Water	SEPF	
LCS 200-35927/3-C	Lab Control Sample	T	Water	SEPF	
MB 200-35927/1-C	Method Blank	T	Water	SEPF	
200-10092-2	PRR1WATCMI-09	T	Water	SEPF	
Prep Batch: 200-35928					
LCS 200-35928/2-C	Lab Control Sample	T	Water	SEPF	
LCS 200-35928/3-C	Lab Control Sample	T	Water	SEPF	
MB 200-35928/1-C	Method Blank	T	Water	SEPF	
MB 200-35928/1-C	Method Blank	T	Water	SOM01.2LL_Pest	
200-10092-1	PRR1WATCME-09	T	Water	SEPF	
200-10092-1	PRR1WATCME-09	T	Water	SOM01.2LL_Pest	
Prep Batch: 200-35935					
LCS 200-35935/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-35935/1-C	Method Blank	T	Water	SEPF	
200-10092-1	PRR1WATCME-09	T	Water	SEPF	
Analysis Batch:200-35980					
LCS 200-35935/2-C	Lab Control Sample	T	Water	SOM01.2/PCB	200-35935
MB 200-35935/1-C	Method Blank	T	Water	SOM01.2/PCB	200-35935
200-10092-1	PRR1WATCME-09	T	Water	SOM01.2/PCB	200-35935
Analysis Batch:200-36029					
LCS 200-35927/3-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-35927
MB 200-35927/1-C	Method Blank	T	Water	SOM01.2/Pest	200-35927
LCS 200-35928/3-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-35928
MB 200-35928/1-C	Method Blank	T	Water	SOM01.2/Pest	200-35928
200-10092-1	PRR1WATCME-09	T	Water	SOM01.2/Pest	200-35928
200-10092-2	PRR1WATCMI-09	T	Water	SOM01.2/Pest	200-35927
Analysis Batch:200-36042					
LCS 200-35927/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-35927
MB 200-35927/1-C	Method Blank	T	Water	SOM01.2/Pest	200-35927
LCS 200-35928/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-35928
MB 200-35928/1-C	Method Blank	T	Water	SOM01.2/Pest	200-35928
200-10092-1	PRR1WATCME-09	T	Water	SOM01.2/Pest	200-35928
200-10092-2	PRR1WATCMI-09	T	Water	SOM01.2/Pest	200-35927

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-36066					
LCS 200-36066/2-A	Lab Control Sample	T	Water	200.8	
MB 200-36066/1-A	Method Blank	T	Water	200.8	
200-10092-1	PRR1WATCME-09	T	Water	200.8	
Prep Batch: 200-36137					
MB 200-36137/11-A	Method Blank	T	Water	7470A	
200-10092-1	PRR1WATCME-09	T	Water	7470A	
Analysis Batch:200-36197					
LCS 200-36066/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-36066
MB 200-36066/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-36066
200-10092-1	PRR1WATCME-09	T	Water	ISM01.2/ICPMS	200-36066
Analysis Batch:200-36203					
MB 200-36137/11-A	Method Blank	T	Water	ISM01.2/HG	200-36137
200-10092-1	PRR1WATCME-09	T	Water	ISM01.2/HG	200-36137
Report Basis					
T = Total					
General Chemistry					
Prep Batch: 200-36021					
MB 200-36021/11-A	Method Blank	T	Water	Midi-Distillati	
200-10092-1	PRR1WATCME-09	T	Water	Midi-Distillati	
Analysis Batch:200-36037					
MB 200-36021/11-A	Method Blank	T	Water	ISM01.2/CN	200-36021
200-10092-1	PRR1WATCME-09	T	Water	ISM01.2/CN	200-36021
Report Basis					
T = Total					

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10140-1	PRR1WATCME-09	100	101	79	117	103	111	101	94
200-10140-2	PRR1WATCMI-09	96	98	75	117	98	105	99	91
200-10140-3	TB03312012	100	103	80	110	103	107	102	93
200-10140-4	VHBLK02	98	103	78	103	98	101	101	92
MB 200-36087/4		98	101	78	107	100	104	101	92

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10140-1	PRR1WATCME-09	102	102	125	101	103
200-10140-2	PRR1WATCMI-09	99	99	130	103	101
200-10140-3	TB03312012	103	100	120	101	103
200-10140-4	VHBLK02	102	98	112	95	102
MB 200-36087/4		102	100	111	99	103

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	PHL %Rec	BCE %Rec	2CP %Rec	4MP %Rec	NBZ %Rec	2NP %Rec	DCP %Rec	4CA %Rec
200-10092-1	PRR1WATCME-09	80	67	73	85	78	75	72	75
200-10092-2	PRR1WATCMI-09	67	52	63	71	68	67	70	7
MB 200-35919/1-A		64	63	62	71	78	71	67	73
MB 200-35921/1-A		69	55	64	74	69	69	72	81

Surrogate	Acceptance Limits
PHL = Phenol-d5	39-106
BCE = Bis(2-chloroethyl)ether-d8	40-105
2CP = 2-Chlorophenol-d4	41-106
4MP = 4-Methylphenol-d8	25-111
NBZ = Nitrobenzene-d5	43-108
2NP = 2-Nitrophenol-d4	40-108
DCP = 2,4-Dichlorophenol-d3	37-105
4CA = 4-Chloroaniline-d4	1-145

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	DMP %Rec	ACY %Rec	4NP %Rec	FLR %Rec	NMP %Rec	ANC %Rec	PYR %Rec	BAP %Rec
200-10092-1	PRR1WATCME-09	93	83	110	98	64	84	73	79
200-10092-2	PRR1WATCMI-09	76	68	79	77	81	69	49*	59
MB 200-35919/1-A		90	79	110	99	45	82	78	73
MB 200-35921/1-A		108	75	98	108	52	87	104	82

Surrogate	Acceptance Limits
DMP = Dimethylphthalate-d6	47-114
ACY = Acenaphthylene-d8	41-107
4NP = 4-Nitrophenol-d4	33-116
FLR = Fluorene-d10	42-111
NMP = 4,6-Dinitro-2-methylphenol-d2	22-104
ANC = Anthracene-d10	44-110
PYR = Pyrene-d10	52-119
BAP = Benzo(a)pyrene-d12	32-121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Surrogate Recovery Report

SOM01.2/PCB Aroclors

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10092-1	PRR1WATCME-09	85	85	68	64
MB 200-35935/1-C		74	75	84	78
LCS 200-35935/2-C		77	81	97	92

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Surrogate Recovery Report

SOM01.2/Pest Pesticides

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10092-1	PRR1WATCME-09	68	70	65	66
200-10092-1	PRR1WATCME-09	65	68	62	64
200-10092-2	PRR1WATCMI-09	96	83	48	49
200-10092-2	PRR1WATCMI-09	87	81	48	50
MB 200-35927/1-C		71	78	89	89
MB 200-35927/1-C		70	76	83	87
MB 200-35928/1-C		69	72	90	91
MB 200-35928/1-C		74	76	96	96
LCS 200-35927/2-C		73	78	80	85
LCS 200-35927/3-C		74	80	82	83
LCS 200-35928/2-C		63	66	85	86
LCS 200-35928/3-C		60	64	93	93

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Method Blank - Batch: 200-36087

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-36087/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/02/2012 1125
Prep Date: 04/02/2012 1125
Leach Date: N/A

Analysis Batch: 200-36087
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdee04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	98	65 - 131
Chloroethane-d5	101	71 - 131
1,1-Dichloroethene-d2	78	55 - 104
2-Butanone-d5	107	49 - 155
Chloroform-d	100	78 - 121
1,2-Dichloroethane-d4	104	78 - 129
Benzene-d6	101	77 - 124
1,2-Dichloropropane-d6	92	79 - 124
Toluene-d8	102	77 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Surrogate	% Rec	Acceptance Limits
trans-1,3-Dichloropropene-d4	100	73 - 121
2-Hexanone-d5	111	28 - 135
1,1,2,2-Tetrachloroethane-d2	99	73 - 125
1,2-Dichlorobenzene-d4	103	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Method Blank - Batch: 200-35919

Method: SOM01.2/SV

Preparation: CONT

Lab Sample ID: MB 200-35919/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/05/2012 1129
 Prep Date: 03/29/2012 1729
 Leach Date: N/A

Analysis Batch: 200-36232
 Prep Batch: 200-35919
 Leach Batch: N/A
 Units: ug/L

Instrument ID: R.i
 Lab File ID: rjxqj16.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1000 uL
 Injection Volume: 2 uL

Analyte	Result	Qual	RL
N-Nitrosodimethylamine	10	U	10
Phenol	5.0	U	5.0
Bis(2-chloroethyl)ether	5.0	U	5.0
2-Chlorophenol	5.0	U	5.0
2,2'-Oxybis(1-chloropropane)	5.0	U	5.0
Hexachloroethane	5.0	U	5.0
Nitrobenzene	5.0	U	5.0
Isophorone	5.0	U	5.0
2-Nitrophenol	5.0	U	5.0
2,4-Dimethylphenol	5.0	U	5.0
2,4-Dichlorophenol	5.0	U	5.0
Naphthalene	5.0	U	5.0
Hexachlorobutadiene	5.0	U	5.0
Hexachlorocyclopentadiene	5.0	U	5.0
2,4,6-Trichlorophenol	5.0	U	5.0
2,4,5-Trichlorophenol	5.0	U	5.0
Dimethylphthalate	5.0	U	5.0
2,6-Dinitrotoluene	5.0	U	5.0
2,4-Dinitrophenol	10	U	10
4-Nitrophenol	10	U	10
2,4-Dinitrotoluene	5.0	U	5.0
Diethylphthalate	5.0	U	5.0
Fluorene	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10
N-Nitrosodiphenylamine	5.0	U	5.0
Hexachlorobenzene	5.0	U	5.0
Pentachlorophenol	10	U	10
Phenanthrene	5.0	U	5.0
Anthracene	5.0	U	5.0
Di-n-butylphthalate	5.0	U	5.0
Fluoranthene	5.0	U	5.0
Benzidine	10	U	10
Pyrene	5.0	U	5.0
Butylbenzylphthalate	0.25	J	5.0
3,3'-Dichlorobenzidine	5.0	U	5.0
Benzo(a)anthracene	5.0	U	5.0
Chrysene	5.0	U	5.0
Bis(2-ethylhexyl)phthalate	5.0	U	5.0
Benzo(b)fluoranthene	5.0	U	5.0
Benzo(k)fluoranthene	5.0	U	5.0
Benzo(a)pyrene	5.0	U	5.0
Indeno(1,2,3-cd)pyrene	5.0	U	5.0
Dibenzo(a,h)anthracene	5.0	U	5.0

Surrogate

% Rec

Acceptance Limits

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

Sdg Number: PRR1177

Surrogate	% Rec	Acceptance Limits
Phenol-d5	64	39 - 106
Bis(2-chloroethyl)ether-d8	63	40 - 105
2-Chlorophenol-d4	62	41 - 106
4-Methylphenol-d8	71	25 - 111
Nitrobenzene-d5	78	43 - 108
2-Nitrophenol-d4	71	40 - 108
2,4-Dichlorophenol-d3	67	37 - 105
4-Chloroaniline-d4	73	1 - 145
Dimethylphthalate-d6	90	47 - 114
Acenaphthylene-d8	79	41 - 107
4-Nitrophenol-d4	110	33 - 116
Fluorene-d10	99	42 - 111
4,6-Dinitro-2-methylphenol-d2	45	22 - 104
Anthracene-d10	82	44 - 110
Pyrene-d10	78	52 - 119
Benzo(a)pyrene-d12	73	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Method Blank - Batch: 200-35921

**Method: SOM01.2/SV
Preparation: CONT**

Lab Sample ID: MB 200-35921/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/05/2012 1240
Prep Date: 03/29/2012 1804
Leach Date: N/A

Analysis Batch: 200-36232
Prep Batch: 200-35921
Leach Batch: N/A
Units: ug/L

Instrument ID: R.i
Lab File ID: rjxqj18.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 2 uL

Analyte	Result	Qual	RL
2,4,5-Trichlorophenol	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10

Surrogate	% Rec	Acceptance Limits
Phenol-d5	69	39 - 106
Bis(2-chloroethyl)ether-d8	55	40 - 105
2-Chlorophenol-d4	64	41 - 106
4-Methylphenol-d8	74	25 - 111
Nitrobenzene-d5	69	43 - 108
2-Nitrophenol-d4	69	40 - 108
2,4-Dichlorophenol-d3	72	37 - 105
4-Chloroaniline-d4	81	1 - 145
Dimethylphthalate-d6	108	47 - 114
Acenaphthylene-d8	75	41 - 107
4-Nitrophenol-d4	98	33 - 116
Fluorene-d10	108	42 - 111
4,6-Dinitro-2-methylphenol-d2	52	22 - 104
Anthracene-d10	87	44 - 110
Pyrene-d10	104	52 - 119
Benzo(a)pyrene-d12	82	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Method Blank - Batch: 200-35935

**Method: SOM01.2/PCB
Preparation: SEPF**

Lab Sample ID: MB 200-35935/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2012 1156
Prep Date: 03/30/2012 0013
Leach Date: N/A

Analysis Batch: 200-35980
Prep Batch: 200-35935
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 30ma121104-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Aroclor-1016	1.0	U	1.0
Aroclor-1221	1.0	U	1.0
Aroclor-1232	1.0	U	1.0
Aroclor-1242	1.0	U	1.0
Aroclor-1248	1.0	U	1.0
Aroclor-1254	1.0	U	1.0
Aroclor-1260	1.0	U	1.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	74	30 - 150
Decachlorobiphenyl	78	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	75	30 - 150
Decachlorobiphenyl	84	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Lab Control Sample - Batch: 200-35935

Method: SOM01.2/PCB
Preparation: SEPF

Lab Sample ID: LCS 200-35935/2-C	Analysis Batch: 200-35980	Instrument ID: 5253.i
Client Matrix: Water	Prep Batch: 200-35935	Lab File ID: 30ma121104-r041.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/30/2012 1220	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 03/30/2012 0013		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.2	121	50 - 150	
Aroclor-1260	1.00	1.0	100	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		77		30 - 150	
Decachlorobiphenyl		92		30 - 150	

Lab Control Sample - Batch: 200-35935

Method: SOM01.2/PCB
Preparation: SEPF

Lab Sample ID: LCS 200-35935/2-C	Analysis Batch: 200-35980	Instrument ID: 5253.i
Client Matrix: Water	Prep Batch: 200-35935	Lab File ID: 30ma121104-r041.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/30/2012 1220	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 03/30/2012 0013		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.2	123	50 - 150	
Aroclor-1260	1.00	1.0	105	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		81		30 - 150	
Decachlorobiphenyl		97		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Method Blank - Batch: 200-35927

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-35927/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2012 1314
Prep Date: 03/29/2012 1912
Leach Date: N/A

Analysis Batch: 200-36029
Prep Batch: 200-35927
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 30ma121202-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
2,4'-DDE	0.10	U	0.10
2,4'-DDT	0.10	U	0.10
2,4'-DDD	0.10	U	0.10

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	71	30 - 150
Decachlorobiphenyl	89	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	78	30 - 150
Decachlorobiphenyl	89	30 - 150

Method Blank - Batch: 200-35927

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-35927/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2012 1829
Prep Date: 03/29/2012 1912
Leach Date: N/A

Analysis Batch: 200-36042
Prep Batch: 200-35927
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 30ma121738-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
delta-BHC	0.050	U	0.050

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	70	30 - 150
Decachlorobiphenyl	83	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	76	30 - 150
Decachlorobiphenyl	87	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Lab Control Sample - Batch: 200-35927

Method: SOM01.2/Pest
Preparation: SEPF

Lab Sample ID: LCS 200-35927/3-C	Analysis Batch: 200-36029	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-35927	Lab File ID: 30ma121202-r041.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/30/2012 1344	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 03/29/2012 1912		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.100	0.089	89	50 - 150	J
Surrogate		% Rec	Acceptance Limits		
Tetrachloro-m-xylene		74	30 - 150		
Decachlorobiphenyl		82	30 - 150		

Lab Control Sample - Batch: 200-35927

Method: SOM01.2/Pest
Preparation: SEPF

Lab Sample ID: LCS 200-35927/3-C	Analysis Batch: 200-36029	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-35927	Lab File ID: 30ma121202-r041.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/30/2012 1344	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 03/29/2012 1912		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.100	0.10	101	50 - 150	
Surrogate		% Rec	Acceptance Limits		
Tetrachloro-m-xylene		80	30 - 150		
Decachlorobiphenyl		83	30 - 150		
Surrogate		% Rec	Acceptance Limits		
Tetrachloro-m-xylene		73	30 - 150		
Decachlorobiphenyl		80	30 - 150		
Surrogate		% Rec	Acceptance Limits		
Tetrachloro-m-xylene		78	30 - 150		
Decachlorobiphenyl		85	30 - 150		

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Method Blank - Batch: 200-35928

Method: SOM01.2/Pest Preparation: SOM01.2LL_Pest

Lab Sample ID: MB 200-35928/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2012 1444
Prep Date: 03/29/2012 1949
Leach Date: N/A

Analysis Batch: 200-36029
Prep Batch: 200-35928
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 30ma121202-r061.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
2,4'-DDE	0.010	U	0.010
2,4'-DDT	0.010	U	0.010
2,4'-DDD	0.010	U	0.010

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	69	30 - 150
Decachlorobiphenyl	90	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	72	30 - 150
Decachlorobiphenyl	91	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Method Blank - Batch: 200-35928

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-35928/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2012 1938
Prep Date: 03/29/2012 1949
Leach Date: N/A

Analysis Batch: 200-36042
Prep Batch: 200-35928
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 30ma121738-r061.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
alpha-BHC	0.0050	U	0.0050
beta-BHC	0.0032	J	0.0050
delta-BHC	0.0050	U	0.0050
Heptachlor	0.0050	U	0.0050
Aldrin	0.0050	U	0.0050
gamma-BHC (Lindane)	0.0050	U	0.0050
Heptachlor epoxide	0.0050	U	0.0050
Endosulfan I	0.0050	U	0.0050
Dieldrin	0.010	U	0.010
4,4'-DDE	0.010	U	0.010
Endrin	0.010	U	0.010
Endosulfan II	0.010	U	0.010
4,4'-DDD	0.010	U	0.010
Endosulfan sulfate	0.010	U	0.010
4,4'-DDT	0.010	U	0.010
Methoxychlor	0.050	U	0.050
Endrin aldehyde	0.010	U	0.010
alpha-Chlordane	0.0050	U	0.0050
gamma-Chlordane	0.0050	U	0.0050
Toxaphene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	74	30 - 150
Decachlorobiphenyl	96	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	76	30 - 150
Decachlorobiphenyl	96	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Lab Control Sample - Batch: 200-35928

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-35928/3-C	Analysis Batch: 200-36029	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-35928	Lab File ID: 30ma121202-r071.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/30/2012 1514	Units: ug/L	Final Weight/Volume: 1000 uL
Prep Date: 03/29/2012 1949		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.0081	81	50 - 150	J
Surrogate		% Rec	Acceptance Limits		
Tetrachloro-m-xylene		60	30 - 150		
Decachlorobiphenyl		93	30 - 150		

Lab Control Sample - Batch: 200-35928

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-35928/3-C	Analysis Batch: 200-36029	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-35928	Lab File ID: 30ma121202-r071.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/30/2012 1514	Units: ug/L	Final Weight/Volume: 1000 uL
Prep Date: 03/29/2012 1949		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.0092	92	50 - 150	J
Surrogate		% Rec	Acceptance Limits		
Tetrachloro-m-xylene		64	30 - 150		
Decachlorobiphenyl		93	30 - 150		

Lab Control Sample - Batch: 200-35928

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-35928/2-C	Analysis Batch: 200-36042	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-35928	Lab File ID: 30ma121738-r071.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/30/2012 2001	Units: ug/L	Final Weight/Volume: 1000 uL
Prep Date: 03/29/2012 1949		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0037	75	50 - 120	J
Heptachlor epoxide	0.00500	0.0042	84	50 - 150	J
Dieldrin	0.0100	0.0083	83	30 - 130	J
4,4'-DDE	0.0100	0.0078	78	50 - 150	J
Endrin	0.0100	0.0086	86	50 - 120	J

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Lab Control Sample - Batch: 200-35928

Method: SOM01.2/Pest
Preparation: SEPF

Lab Sample ID: LCS 200-35928/2-C	Analysis Batch: 200-36042	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-35928	Lab File ID: 30ma121738-r071.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/30/2012 2001	Units: ug/L	Final Weight/Volume: 1000 uL
Prep Date: 03/29/2012 1949		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Endosulfan sulfate	0.0100	0.0077	77	50 - 120	J
gamma-Chlordane	0.00500	0.0039	78	30 - 130	J
Surrogate		% Rec	Acceptance Limits		
Tetrachloro-m-xylene		63	30 - 150		
Decachlorobiphenyl		85	30 - 150		

Lab Control Sample - Batch: 200-35928

Method: SOM01.2/Pest
Preparation: SEPF

Lab Sample ID: LCS 200-35928/2-C	Analysis Batch: 200-36042	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-35928	Lab File ID: 30ma121738-r071.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/30/2012 2001	Units: ug/L	Final Weight/Volume: 1000 uL
Prep Date: 03/29/2012 1949		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0041	81	50 - 120	J
Heptachlor epoxide	0.00500	0.0046	91	50 - 150	J
Dieldrin	0.0100	0.0083	83	30 - 130	J
4,4'-DDE	0.0100	0.0079	79	50 - 150	J
Endrin	0.0100	0.0088	88	50 - 120	J
Endosulfan sulfate	0.0100	0.0078	78	50 - 120	J
gamma-Chlordane	0.00500	0.0044	88	30 - 130	J
Surrogate		% Rec	Acceptance Limits		
Tetrachloro-m-xylene		66	30 - 150		
Decachlorobiphenyl		86	30 - 150		

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Method Blank - Batch: 200-36137

Method: ISM01.2/HG
Preparation: 7470A

Lab Sample ID: MB 200-36137/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/04/2012 1408
Prep Date: 04/03/2012 1500
Leach Date: N/A

Analysis Batch: 200-36203
Prep Batch: 200-36137
Leach Batch: N/A
Units: ug/L

Instrument ID: MEPCV3 II
Lab File ID: 040412AA.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDLE	RL
Mercury	0.087	J	0.084	0.20

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Method Blank - Batch: 200-36066

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: MB 200-36066/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/04/2012 1258
Prep Date: 04/02/2012 1520
Leach Date: N/A

Analysis Batch: 200-36197
Prep Batch: 200-36066
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 040412-02ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Antimony	0.37	J	0.15	2.0
Arsenic	1.0	U	0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	0.67	J	0.21	2.0
Copper	2.0	U	0.60	2.0
Lead	0.30	J	0.10	1.0
Nickel	1.0	U	0.14	1.0
Selenium	-0.40	J	0.15	5.0
Silver	-0.091	J	0.028	1.0
Zinc	0.78	J	0.57	2.0

Lab Control Sample - Batch: 200-36066

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: LCS 200-36066/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/04/2012 1305
Prep Date: 04/02/2012 1520
Leach Date: N/A

Analysis Batch: 200-36197
Prep Batch: 200-36066
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 040412-02ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	4.00	4.3	107	70 - 130	
Arsenic	2.00	2.0	101	70 - 130	
Beryllium	2.00	2.0	102	70 - 130	
Cadmium	2.00	2.1	104	70 - 130	
Chromium	4.00	4.4	110	70 - 130	
Copper	4.00	4.2	105	70 - 130	
Lead	2.00	2.1	107	70 - 130	
Nickel	2.00	1.9	94	70 - 130	
Selenium	10.0	10.4	104	70 - 130	
Silver	2.00	2.0	102	70 - 130	
Zinc	4.00	5.0	125	70 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1
Sdg Number: PRR1177

Method Blank - Batch: 200-36021

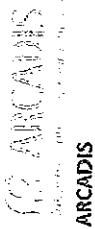
Method: ISM01.2/CN
Preparation: Midi-Distillati

Lab Sample ID: MB 200-36021/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/02/2012 1213
Prep Date: 04/02/2012 1000
Leach Date: N/A

Analysis Batch: 200-36037
Prep Batch: 200-36021
Leach Batch: N/A
Units: ug/L

Instrument ID: WCLachat
Lab File ID: OM_04-02-12_12-01-0
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Cyanide	10.0	U	1.0	10.0



CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

ARCADIS
6723 Township Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9608

PROJ. NO. B000964.0002.70004		PROJECT NAME Terra Phase I Removal		SDG NUMBER/COC Number PRR1177																			
SAMPLERS:		Requested Analyses																					
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
PRR11WATCME-09	3/28/2012	11:45	water	Grab		X	X	X	X	X	X	X	X	X									
PRR11WATCMI-09	3/28/2012	12:05	water	Grab		X	X	X	X	X	X	X	X	X									
TB03282012	3/28/2012		water		3	X																	
Special Instructions/Comments: Refer to RAWP QAPP Worksheet 15-4 for Effluent Samples and 15-5 for Influent Samples																							
Requested Analyses																	Special QA/QC Instructions						
1	TOC																						
2	VOCS																						
3	SVOCs																						
4	Aroclor PCBs																						
5	Pesticides																						
6	Metals + Hg																						
7	Cyanide																						
8	Herbicides																						
9	TSS																						
10																							
11																							
12																							
13																							
14																							
15																							
16																							

Shipping Tracking #
Specify Turnaround Requirements: 24 hr TAT

Lab Name: TestAmerica -Burlington, VT

Sample Receipt:
Condition/Cooler Temp: 1.1e

Received by: [Signature] DATE: 3/29/12
Relinquished by: [Signature] DATE: 3/29/12

COPY - ORIGINAL ON FILE
COC # PRR1177 ETR # 200-10087

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order # Page 1 of 1

PROJ. NO.	PROJECT NAME	SDG NUMBER	COC Number	Requested Analyses																							
B0009964.0002.70004	Tierra Phase I Removal	PRR1177																									
SAMPLERS:				DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Remarks		
	PRR1WATCME-09	3/28/2012	11:45	water	Grab				X	X	X	X	X	X	X	X	X										
	PRR1WATCMI-09	3/28/2012	12:05	water	Grab				X	X	X	X	X	X	X	X											
	TB03282012	3/28/2012		water	---			3	X																		
Special Instructions/Comments: Refer to RAWP QAPP Worksheet 15-4 for Effluent Samples and 15-5 for Influent Samples																											
Requested Analyses <input type="checkbox"/> Special QA/QC Instructions																											
Requested Analyses 1 TOC 2 VOCs 3 SVOCs 4 Aroclor PCBs 5 Pesticides 6 Metals + Hg 7 Cyanide 8 Herbicides 9 TSS 10 11 12 13 14 15 16																											
Special Instructions/Comments: Refer to RAWP QAPP Worksheet 15-4 for Effluent Samples and 15-5 for Influent Samples																											
Requested Analyses <input type="checkbox"/> Special QA/QC Instructions																											
Laboratory Information and Receipt																											
Lab Name: TestAmerica - Burlington, VT														<input checked="" type="checkbox"/> Cooler packed with ice													
Shipping Tracking #														<input type="checkbox"/> Cooler custody seal intact													
Specify Turnaround Requirements: 24 hr TAT																											
Relinquished by: <i>[Signature]</i>							DATE: 3/28/12							TIME: 1400							Received by: <i>[Signature]</i>						
Relinquished by:							DATE:							TIME:							Relinquished by:						
Relinquished by:							DATE:							TIME:							Relinquished by:						
Relinquished by:							DATE:							TIME:							Relinquished by:						
Sample Receipt:														Condition/Cooler Temp:													
DATE														DATE													
DATE														DATE													
DATE														DATE													

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

SDG Number: PRR1177

Login Number: 10092

List Number: 1

Creator: Holt, Jamie

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417447
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6°C, IR GUN ID 154, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	ONE OF TWO COOLERS REC'D ON 3/29/12
Is the Field Sampler's name present on COC?	False	SAMPLER'S NAME NOT LISTED ON COC
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10092-1

SDG Number: PRR1177

Login Number: 10140
List Number: 2
Creator: Matot, Wade M

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417433, 434
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8°C IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



J12101112190225

Newark, NJ 07105

Ship Date: 28MAR12
ActWgt: 30.0 LB
CAD: 103767025/NET3250

Dims: 24 X 16 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO #
Dept #

SOUTH BURLINGTON, VT 05403

2 of 2

THU - 29 MAR A4
STANDARD OVERNIGHT

MPS# 7982 2049 1917

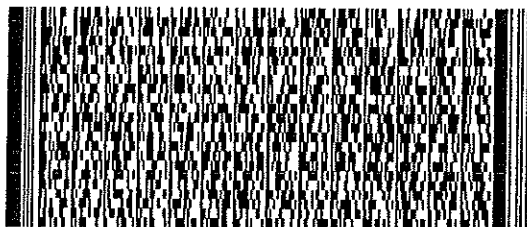
0263

Mstr# 7982 2049 1906

0201

05403
VT-US
BTV

ZF BTVA



512G1AC44DIA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

COPY - ORIGINAL ON FILE
LOG # PRR-1173 ETR # 200-10067

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



J12101112190225

Newark, NJ 07105

Ship Date: 28MAR12
ActWgt: 30.0 LB
CAD: 103767025/NET3250

Dims: 24 X 16 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO #
Dept #

SOUTH BURLINGTON, VT 05403

2 of 2

THU - 29 MAR A4
STANDARD OVERNIGHT

MPS# 7982 2049 1917

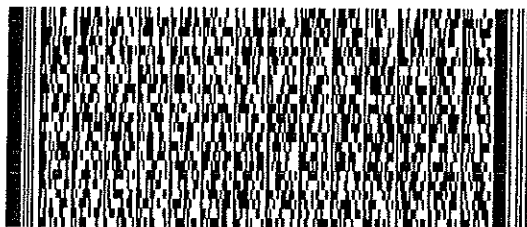
0263

Mstr# 7982 2049 1906

0201

05403
VT-US
BTVA

ZF BTVA



512G1AC44DIA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

COPY - ORIGINAL ON FILE
LOG # PRR-1173 ETR # 200-10067

From: (315) 438-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



J12101112190225

Newark, NJ 07105

Ship Date: 31MAR12
ActWgt: 30.0 LB
CAD: 103767025/NET3250

Dims: 24 X 16 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990

BILL SENDER

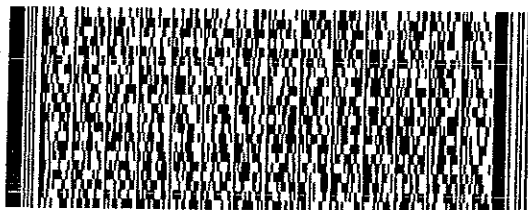
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

SOUTH BURLINGTON, VT 05403

Ref # 1129-1616-4
Invoice #
PO # B009964.0002.70004-11128
Dept #

MON - 02 APR A4
FIRST OVERNIGHT

TRK# 7934 0418 8920
0201



X1 BTVA

05403
VT-US
BTV



512G1/C44D/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

COPY - ORIGINAL ON FILE

NO # PRR1180 ETR # 200-10136

ANALYTICAL REPORT

Job Number: 200-10092-2

SDG Number: PRR1177

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/5/2012 12:22 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/05/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	14
QC Results	15
Qc Association Summary	16
Surrogate Recovery Report	17
Qc Reports	18
Client Chain of Custody	21
Sample Receipt Checklist	22

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1177 (200-10092-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Manual integration was employed in deriving certain of the analytical results. The values that have been derived from manual integration are qualified on the quantitation reports, and further document with chromatographic profiles. An itemized listing of the manual integrations that were performed is provided at the end of this submittal, referencing the specific acquisition file names and the compounds for which manual integration was applied.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 03/29/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping Documentation section of this submittal. The samples were received in one cooler. The temperature of the contents of that cooler was determined at the time of receipt. The temperature was 4.6 °C

SW846 Method 8151A (Chlorinated Herbicides)

The samples in this sample set were extracted for the analysis of chlorinated herbicides by the referenced method. A nominal 1000 milliliters of sample was extracted, and the final extract volume was brought to 10.0 milliliters for analysis.

The sample extracts were analyzed without a dilution. DCAA (2,4-dichlorophenylacetic acid) was used as a surrogate in the performance of the work. There was an acceptable recovery of the surrogate control in each of the analyses associated with the sample set. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. A laboratory control sample was prepared and analyzed in association with the samples. There was an acceptable recovery of 2,4-D, 2,4-DB, and 2,4,5-T in that analysis. The recovery of dinoseb in the laboratory control sample analysis was 50 percent. While that recovery value is above the lower control limit of 10 percent that is established by the laboratory for this method of analysis, it is below the lower control limit of 70 percent that is referenced in the project QAPP. SW846 Method 8151A does formally identify the fact that dinoseb (specifically) may be lost in the alkaline hydrolysis clean-up step within the defined extraction process.

The initial calibration was established using five concentration levels. The relative standard deviation of the responses for each analyte in the initial calibration was below 20.0 percent.

The initial calibration was verified with an analytical standard from a source different than was used for calibration. There was an acceptable performance of each analyte in the initial calibration verification as measured against a ± 20.0 percent tolerance. There was an acceptable performance of each analyte in each calibration check as measured against a ± 15.0 percent tolerance.

Peak height response was used for calibration and quantification. Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL). In performing the analytical work, the laboratory did evaluate the results that were generated from each column in deriving a result for a particular compound, and has reported the higher of the two values. In those instances when the results from each of the two columns differed by more than 40 percent, the lower value is reported and qualified with a "p" qualifier.

SM 5310B (Total Organic Carbon)

Sample PRR1WATCME-09 was analyzed for total organic carbon by the cited method. Matrix spike and replicate analyses were not performed on the sample in this sample set. Laboratory control samples were analyzed in association with the sample, and there was an acceptable recovery of the spiked organic carbon in each of those analyses. The analysis of each method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2

Sdg Number: PRR1177

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Herbicides (GC)	TAL BUR	SW846 8151A	
Extraction (Herbicides)	TAL BUR		SW846 8151A
Organic Carbon, Total (TOC)	TAL BUR	SM SM 5310B	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2

Sdg Number: PRR1177

Method	Analyst	Analyst ID
SW846 8151A	Lambert, Kelly T	KTL
SM SM 5310B	Sutton, Zachariah M	ZMS

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2
Sdg Number: PRR1177

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10092-1	PRR1WATCME-09	Water	03/28/2012 1145	03/29/2012 1030
200-10092-2	PRR1WATCMI-09	Water	03/28/2012 1205	03/29/2012 1030

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2
Sdg Number: PRR1177

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10092-1
Client Matrix: Water

Date Sampled: 03/28/2012 1145
Date Received: 03/29/2012 1030

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-36107	Instrument ID:	5005.i
Prep Method:	8151A	Prep Batch:	200-35950	Initial Weight/Volume:	1025 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/02/2012 1843			Injection Volume:	1 uL
Prep Date:	03/30/2012 1020			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	1.9	U	0.63	1.9
2,4-DB	1.7	U	0.46	1.7
Dinoseb	0.93	U	0.19	0.93
2,4,5-T	0.46	U	0.13	0.46

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	72		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2

Sdg Number: PRR1177

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10092-1

Date Sampled: 03/28/2012 1145

Client Matrix: Water

Date Received: 03/29/2012 1030

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-36107	Instrument ID:	5005.i
Prep Method:	8151A	Prep Batch:	200-35950	Initial Weight/Volume:	1025 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/02/2012 1843			Injection Volume:	1 uL
Prep Date:	03/30/2012 1020			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	71		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2
Sdg Number: PRR1177

Client Sample ID: PRR1WATCMI-09

Lab Sample ID: 200-10092-2
Client Matrix: Water

Date Sampled: 03/28/2012 1205
Date Received: 03/29/2012 1030

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-36107	Instrument ID:	5005.i
Prep Method:	8151A	Prep Batch:	200-35950	Initial Weight/Volume:	1020 mL
Dilution:	10			Final Weight/Volume:	10000 uL
Analysis Date:	04/02/2012 1918			Injection Volume:	1 uL
Prep Date:	03/30/2012 1020			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4,5-T	34		1.3	4.6

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	85		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2

Sdg Number: PRR1177

Client Sample ID: PRR1WATCHMI-09

Lab Sample ID: 200-10092-2

Date Sampled: 03/28/2012 1205

Client Matrix: Water

Date Received: 03/29/2012 1030

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-36107	Instrument ID:	5005.i
Prep Method:	8151A	Prep Batch:	200-35950	Initial Weight/Volume:	1020 mL
Dilution:	10			Final Weight/Volume:	10000 uL
Analysis Date:	04/02/2012 1918			Injection Volume:	1 uL
Prep Date:	03/30/2012 1020			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	84		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2

Sdg Number: PRR1177

General Chemistry

Client Sample ID: PRR1WATCME-09

Lab Sample ID: 200-10092-1

Date Sampled: 03/28/2012 1145

Client Matrix: Water

Date Received: 03/29/2012 1030

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	3.3		mg/L	0.14	1.0	1.0	SM 5310B
	Analysis Batch: 200-36059	Analysis Date: 04/02/2012 1314					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2

Sdg Number: PRR1177

Lab Section	Qualifier	Description
GC Semi VOA	U	Indicates the analyte was analyzed for but not detected.
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2

Sdg Number: PRR1177

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-35950					
LCS 200-35950/2-A	Lab Control Sample	T	Water	8151A	
MB 200-35950/1-A	Method Blank	T	Water	8151A	
200-10092-1	PRR1WATCME-09	T	Water	8151A	
200-10092-2	PRR1WATCMI-09	T	Water	8151A	
Analysis Batch:200-36107					
LCS 200-35950/2-A	Lab Control Sample	T	Water	8151A	200-35950
MB 200-35950/1-A	Method Blank	T	Water	8151A	200-35950
200-10092-1	PRR1WATCME-09	T	Water	8151A	200-35950
200-10092-2	PRR1WATCMI-09	T	Water	8151A	200-35950

Report Basis

T = Total

General Chemistry

Analysis Batch:200-36059					
LCS 200-36059/1	Lab Control Sample	T	Water	SM 5310B	
LCS 200-36059/4	Lab Control Sample	T	Water	SM 5310B	
MB 200-36059/2	Method Blank	T	Water	SM 5310B	
MB 200-36059/5	Method Blank	T	Water	SM 5310B	
200-10092-1	PRR1WATCME-09	T	Water	SM 5310B	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2

Sdg Number: PRR1177

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
200-10092-1	PRR1WATCME-09	71	72
200-10092-2	PRR1WATCMI-09	84	85
MB 200-35950/1-A		74	73
LCS 200-35950/2-A		72	72

Surrogate	Acceptance Limits
DCPA = 2,4-Dichlorophenylacetic acid	60-130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2
Sdg Number: PRR1177

Method Blank - Batch: 200-35950

Lab Sample ID: MB 200-35950/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/02/2012 1732
Prep Date: 03/30/2012 1020
Leach Date: N/A

Analysis Batch: 200-36107
Prep Batch: 200-35950
Leach Batch: N/A
Units: ug/L

**Method: 8151A
Preparation: 8151A**

Instrument ID: 5005.i
Lab File ID: 02ap121258-r081.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95
2,4,5-T	0.47	U	0.13	0.47

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	74	60 - 130

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	73	60 - 130

Lab Control Sample - Batch: 200-35950

Lab Sample ID: LCS 200-35950/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/02/2012 1808
Prep Date: 03/30/2012 1020
Leach Date: N/A

Analysis Batch: 200-36107
Prep Batch: 200-35950
Leach Batch: N/A
Units: ug/L

**Method: 8151A
Preparation: 8151A**

Instrument ID: 5005.i
Lab File ID: 02ap121258-r091.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	7.15	89	75 - 135	
2,4-DB	4.02	4.09	102	40 - 165	
Dinoseb	4.00	1.99	50	10 - 115	
2,4,5-T	2.00	2.05	103	60 - 155	

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	72	60 - 130

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	72	60 - 130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2
Sdg Number: PRR1177

Method Blank - Batch: 200-36059

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-36059/2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/02/2012 1259
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-36059
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 040212A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.14	1.0

Method Blank - Batch: 200-36059

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-36059/5
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/02/2012 1347
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-36059
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 040212A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.14	1.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2

Sdg Number: PRR1177

Lab Control Sample - Batch: 200-36059

Method: SM 5310B

Preparation: N/A

Lab Sample ID: LCS 200-36059/1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/02/2012 1242
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-36059
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 040212A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.49	95	85 - 115	

Lab Control Sample - Batch: 200-36059

Method: SM 5310B

Preparation: N/A

Lab Sample ID: LCS 200-36059/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/02/2012 1331
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-36059
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 040212A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.79	98	85 - 115	



ARCADIS
 6723 Towpath Rd
 Syracuse, NY 13214
 Phone/Fax: (315) 671-9608

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order # Page 1 of 1

PROJ. NO. B000964.0002.70004		PROJECT NAME Terra Phase I Removal		SDG NUMBER/COC Number PRR1177																				
SAMPLERS:		Requested Analyses		<input type="checkbox"/> Special QA/QC Instructions																				
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR11WATCME-09	3/28/2012	11:45	water	Grab		X	X	X	X	X	X	X	X	X										
PRR11WATCMI-09	3/28/2012	12:05	water	Grab		X	X	X	X	X	X	X	X	X										
TB03282012	3/28/2012		water		3	X																		
Special Instructions/Comments: Refer to RAWP QAPP Worksheet 15-4 for Effluent Samples and 15-5 for Influent Samples																								
Requested Analyses												Laboratory Information and Receipt												
1 TOC 2 VOCs 3 SVOCs 4 Aroclor PCBs 5 Pesticides 6 Metals + Hg 7 Cyanide 8 Herbicides 9 TSS												Lab Name: TestAmerica -Burlington, VT Shipping Tracking # Specify Turnaround Requirements: 24 hr TAT												
Requested by: [Signature]						Received by: [Signature]						Relinquished by: [Signature]						Received by: [Signature]						
DATE 3/28/12						DATE 3/28/12						DATE 3/29/12						DATE 3/29/12						
TIME 1400						TIME 1400						TIME 1400						TIME 1400						
Relinquished by: [Signature]						Received by: [Signature]						Relinquished by: [Signature]						Received by: [Signature]						
DATE [Blank]						DATE [Blank]						DATE [Blank]						DATE [Blank]						
TIME [Blank]						TIME [Blank]						TIME [Blank]						TIME [Blank]						
Relinquished by: [Blank]						Received by: [Blank]						Relinquished by: [Blank]						Received by: [Blank]						
DATE [Blank]						DATE [Blank]						DATE [Blank]						DATE [Blank]						
TIME [Blank]						TIME [Blank]						TIME [Blank]						TIME [Blank]						
Relinquished by: [Blank]						Received by: [Blank]						Relinquished by: [Blank]						Received by: [Blank]						
DATE [Blank]						DATE [Blank]						DATE [Blank]						DATE [Blank]						
TIME [Blank]						TIME [Blank]						TIME [Blank]						TIME [Blank]						
Relinquished by: [Blank]						Received by: [Blank]						Relinquished by: [Blank]						Received by: [Blank]						

COPY - ORIGINAL ON FILE
 REC # PRR1177 ETR # 200-10087

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10092-2

SDG Number: PRR1177

Login Number: 10092

List Source: TestAmerica Burlington

List Number: 1

Creator: Holt, Jamie

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417447
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6°C, IR GUN ID 154, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	ONE OF TWO COOLERS REC'D ON 3/29/12
Is the Field Sampler's name present on COC?	False	SAMPLER'S NAME NOT LISTED ON COC
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



J12101112190225

Newark, NJ 07105

Ship Date: 28MAR12
ActWgt: 30.0 LB
CAD: 103767025/NET3250

Dims: 24 X 16 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO #
Dept #

SOUTH BURLINGTON, VT 05403

2 of 2

THU - 29 MAR A4
STANDARD OVERNIGHT

MPS# 7982 2049 1917

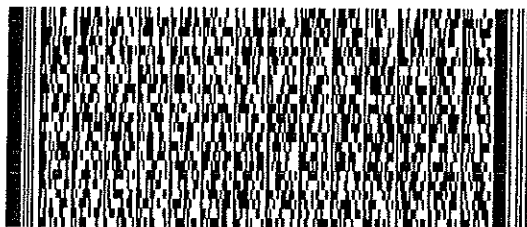
0263

Mstr# 7982 2049 1906

0201

05403
VT-US
BTVA

ZF BTVA



512G1AC44DIA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

COPY - ORIGINAL ON FILE
SOG # PRR-1173 ETR # 200-10067

ANALYTICAL REPORT

Job Number: 200-10136-1

SDG Number: PRR1180

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/3/2012 1:46 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/03/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	14
QC Results	15
Qc Association Summary	16
Surrogate Recovery Report	17
Qc Reports	19
Client Chain of Custody	20
Sample Receipt Checklist	21

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1180 (200- 10136-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 04/02/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 3.8 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10136-1

Sdg Number: PRR1180

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Trace Water	TAL BUR	SOM01.2	SOM01.2/VOA_Tr
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10136-1
Sdg Number: PRR1180

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10136-1
Sdg Number: PRR1180

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10136-4	PRR1WATGACI-04	Water	03/31/2012 1410	04/02/2012 0735
200-10136-5	PRR1WATGACE-04	Water	03/31/2012 1400	04/02/2012 0735
200-10136-7TB	TB03312012	Water	03/31/2012 0000	04/02/2012 0735
200-10136-8STOBL K	VHBLK01	Water	04/02/2012 1055	04/02/2012 0735

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10136-1

Sdg Number: PRR1180

Client Sample ID: PRR1WATGACI-04

Lab Sample ID: 200-10136-4

Date Sampled: 03/31/2012 1410

Client Matrix: Water

Date Received: 04/02/2012 0735

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36087	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdee12.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/02/2012 1439			Final Weight/Volume:	25 mL
Prep Date:	04/02/2012 1439				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	9.9	J	10
Chlorobenzene	49	E	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	99		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	116		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	108		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	94		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121
2-Hexanone-d5	131		28 - 135
1,1,2,2-Tetrachloroethane-d2	107		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10136-1

Sdg Number: PRR1180

Client Sample ID: PRR1WATGACI-04

Lab Sample ID: 200-10136-4

Date Sampled: 03/31/2012 1410

Client Matrix: Water

Date Received: 04/02/2012 0735

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36087	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdee22.d
Dilution:	3.7			Initial Weight/Volume:	25 mL
Analysis Date:	04/02/2012 1840	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	04/02/2012 1840				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	14	J D	19
Chlorobenzene	50	D	1.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	99		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	115		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	111		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	97		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121
2-Hexanone-d5	130		28 - 135
1,1,2,2-Tetrachloroethane-d2	105		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10136-1

Sdg Number: PRR1180

Client Sample ID: PRR1WATGACE-04

Lab Sample ID: 200-10136-5

Date Sampled: 03/31/2012 1400

Client Matrix: Water

Date Received: 04/02/2012 0735

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36087	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdee13.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/02/2012 1503			Final Weight/Volume:	25 mL
Prep Date:	04/02/2012 1503				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	10	U	10
Chlorobenzene	0.18	J	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	113		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	99		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	102		73 - 121
2-Hexanone-d5	125		28 - 135
1,1,2,2-Tetrachloroethane-d2	102		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10136-1

Sdg Number: PRR1180

Client Sample ID: TB03312012

Lab Sample ID: 200-10136-7TB

Date Sampled: 03/31/2012 0000

Client Matrix: Water

Date Received: 04/02/2012 0735

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36087	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdee14.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/02/2012 1527			Final Weight/Volume:	25 mL
Prep Date:	04/02/2012 1527				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	103		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	81		55 - 104
2-Butanone-d5	107		49 - 155
Chloroform-d	103		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	101		73 - 121
2-Hexanone-d5	113		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10136-1

Sdg Number: PRR1180

Client Sample ID: VHBLK01

Lab Sample ID: 200-10136-8STOBLK

Date Sampled: 04/02/2012 1055

Client Matrix: Water

Date Received: 04/02/2012 0735

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36087	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdee23.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/02/2012 1904			Final Weight/Volume:	25 mL
Prep Date:	04/02/2012 1904				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	104		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	113		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	109		78 - 129
Benzene-d6	104		77 - 124
1,2-Dichloropropane-d6	95		79 - 124
Toluene-d8	104		77 - 121
trans-1,3-Dichloropropene-d4	102		73 - 121
2-Hexanone-d5	116		28 - 135
1,1,2,2-Tetrachloroethane-d2	102		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10136-1

Sdg Number: PRR1180

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10136-1

Sdg Number: PRR1180

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-36087					
MB 200-36087/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10136-4	PRR1WATGACI-04	T	Water	SOM01.2/VOA_T	
200-10136-4DL	PRR1WATGACI-04	T	Water	SOM01.2/VOA_T	
200-10136-5	PRR1WATGACE-04	T	Water	SOM01.2/VOA_T	
200-10136-7TB	TB03312012	T	Water	SOM01.2/VOA_T	
200-10136-8STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10136-1

Sdg Number: PRR1180

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10136-4	PRR1WATGACI-04	99	102	77	116	99	108	101	94
200-10136-4 DL	PRR1WATGACI-04 DL	99	103	79	115	102	111	103	97
200-10136-5	PRR1WATGACE-04	100	102	77	113	101	107	99	93
200-10136-7	TB03312012	103	103	81	107	103	105	102	93
200-10136-8	VHBLK01	100	104	80	113	102	109	104	95
MB 200-36087/4		98	101	78	107	100	104	101	92

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10136-1

Sdg Number: PRR1180

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10136-4	PRR1WATGACI-04	102	103	131	107	102
200-10136-4 DL	PRR1WATGACI-04 DL	103	104	130	105	103
200-10136-5	PRR1WATGACE-04	100	102	125	102	102
200-10136-7	TB03312012	103	101	113	98	103
200-10136-8	VHBLK01	104	102	116	102	103
MB 200-36087/4		102	100	111	99	103

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10136-1
Sdg Number: PRR1180

Method Blank - Batch: 200-36087

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-36087/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/02/2012 1125
Prep Date: 04/02/2012 1125
Leach Date: N/A

Analysis Batch: 200-36087
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdee04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	98	65 - 131
Chloroethane-d5	101	71 - 131
1,1-Dichloroethene-d2	78	55 - 104
2-Butanone-d5	107	49 - 155
Chloroform-d	100	78 - 121
1,2-Dichloroethane-d4	104	78 - 129
Benzene-d6	101	77 - 124
1,2-Dichloropropane-d6	92	79 - 124
Toluene-d8	102	77 - 121
trans-1,3-Dichloropropene-d4	100	73 - 121
2-Hexanone-d5	111	28 - 135
1,1,2,2-Tetrachloroethane-d2	99	73 - 125
1,2-Dichlorobenzene-d4	103	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO.		PROJECT NAME		Requested Analyses																	SDG NUMBER / COC Number										
B0009964.0002.70004		Tierra Phase I Removal																			PRR1180										
SAMPLERS:				DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks					
PRR1WATCME-10	3/29/2012	22:00	water	Grab	1				X																						
PRR1WATCME-11	3/30/2012	23:00	water	Grab	1				X																						
PRR1WATCME-12	3/31/2012	14:25	water	Grab	1				X																						
PRR1WATGACI-04	3/31/2012	14:10	water	Grab	4				X																						
PRR1WATGACE-04	3/31/2012	14:00	water	Grab	4				X																						
PRR1WATCME-09	3/31/2012	14:20	water	Grab	3				X																						
PRR1WATCMI-09	3/31/2012	13:50	water	Grab	3				X																						
PRR1WATSP101-03	3/31/2012	13:45	water	Grab	1				X																						
TB03312012	3/31/2012		water		2				X																						
Special Instructions/Comments:				<input type="checkbox"/> Special QA/QC Instructions																											
Requested Analyses				<input type="checkbox"/> Special QA/QC Instructions																											
1 2-Etananone, Chlorobenzene																															
2 COD																															
3 TSS																															
4 VOCs - see WS 15-4 for effluent and WS 15-5 for Influent																															
7																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															
17																															
Laboratory Information and Receipt																															
Lab Name: TestAmerica -Burlington, VT																															
Shipping Tracking #																															
Specify Turnaround Requirements: 24 hr TAT for 2-butanone, chlorobenzene																															
24 hr TAT for COD, ISS, 7 day TAT for VOCs (CME-09, CMI-09)																															
Relinquished by: <i>[Signature]</i>				DATE	03/31/2012	TIME	1530	Received by:	<i>[Signature]</i>	DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME	
Relinquished by: <i>[Signature]</i>				DATE	03/31/2012	TIME	1600	Received by:	<i>[Signature]</i>	DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME	
Relinquished by: <i>[Signature]</i>				DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME	
Sample Receipt:																															
Condition/Cooler Temp: 3.8°C																															
Cooler packed with ice																															
Cooler custody seal intact																															

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10136-1

SDG Number: PRR1180

Login Number: 10136
List Number: 2
Creator: Matot, Wade M

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	417433, 434
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8°C IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 31MAR12
ActWgt: 30.0 LB
CAD: 103787025/NET3250
Dims: 24 X 16 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

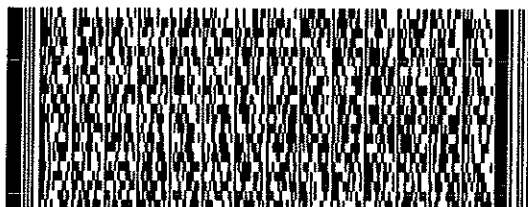
BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # B009964.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

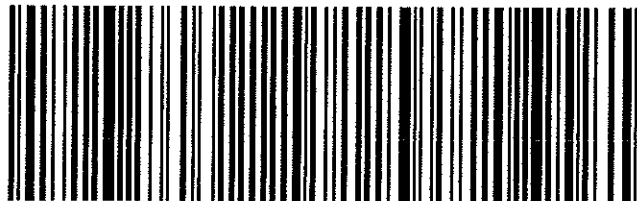
MON - 02 APR A4
FIRST OVERNIGHT

TRK# 7934 0418 8920
0201



X1 BTVA

05403
VT-US
BTV



512G1K44D/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10136-2

SDG Number: PRR1180

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/3/2012 3:07 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/03/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	14
QC Results	15
Qc Association Summary	16
Qc Reports	17
Client Chain of Custody	19
Sample Receipt Checklist	20

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1180 (200- 10136-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 04/02/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 3.8 °C.

USEPA Method 410.1 Chemical Oxygen Demand

The samples in this sample set were analyzed for chemical oxygen demand by the referenced method. Matrix spike and replicate analyses were performed on sample PRR1WATGACE-04. There was an acceptable recovery of the spiked component in the matrix spike analysis, and there was an acceptable correlation in the results of the replicate analyses. A laboratory control sample was analyzed in association with the samples, and there was an acceptable recovery of the spiked component in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the samples in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10136-2
Sdg Number: PRR1180

Description	Lab Location	Method	Preparation Method
Matrix: Water			
COD	TAL BUR	MCAWW 410.4	
COD	TAL BUR		MCAWW 410.4
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10136-2

Sdg Number: PRR1180

Method	Analyst	Analyst ID
MCAWW 410.4	Tam, Michelle N	MNT
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10136-2
Sdg Number: PRR1180

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10136-1	PRR1WATCME-10	Water	03/29/2012 2200	04/02/2012 0735
200-10136-2	PRR1WATCME-11	Water	03/30/2012 2300	04/02/2012 0735
200-10136-3	PRR1WATCME-12	Water	03/31/2012 1425	04/02/2012 0735
200-10136-4	PRR1WATGACI-04	Water	03/31/2012 1410	04/02/2012 0735
200-10136-5	PRR1WATGACE-04	Water	03/31/2012 1400	04/02/2012 0735
200-10136-5MS	PRR1WATGACE-04	Water	03/31/2012 1400	04/02/2012 0735
200-10136-5DU	PRR1WATGACE-04	Water	03/31/2012 1400	04/02/2012 0735
200-10136-6	PRR1WATSP101-03	Water	03/31/2012 1345	04/02/2012 0735

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10136-2
Sdg Number: PRR1180

General Chemistry

Client Sample ID: PRR1WATCME-10

Lab Sample ID: 200-10136-1

Client Matrix: Water

Date Sampled: 03/29/2012 2200

Date Received: 04/02/2012 0735

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	1.9	U	mg/L	1.9	1.9	1.0	SM 2540D

Analysis Batch: 200-36027 Analysis Date: 04/02/2012 1144

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10136-2
Sdg Number: PRR1180

General Chemistry

Client Sample ID: PRR1WATCME-11

Lab Sample ID: 200-10136-2

Date Sampled: 03/30/2012 2300

Client Matrix: Water

Date Received: 04/02/2012 0735

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	4.3		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-36027		Analysis Date: 04/02/2012 1144					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10136-2

Sdg Number: PRR1180

General Chemistry

Client Sample ID: PRR1WATCME-12

Lab Sample ID: 200-10136-3

Date Sampled: 03/31/2012 1425

Client Matrix: Water

Date Received: 04/02/2012 0735

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	6.6		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-36027		Analysis Date: 04/02/2012 1144					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10136-2

Sdg Number: PRR1180

General Chemistry

Client Sample ID: PRR1WATGACI-04

Lab Sample ID: 200-10136-4

Date Sampled: 03/31/2012 1410

Client Matrix: Water

Date Received: 04/02/2012 0735

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	115		mg/L	40.0	40.0	2.0	410.4
	Analysis Batch: 200-36093		Analysis Date: 04/02/2012	1900			
	Prep Batch: 200-36091		Prep Date: 04/02/2012	1400			

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10136-2
Sdg Number: PRR1180

General Chemistry

Client Sample ID: PRR1WATGACE-04

Lab Sample ID: 200-10136-5

Date Sampled: 03/31/2012 1400

Client Matrix: Water

Date Received: 04/02/2012 0735

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	101		mg/L	40.0	40.0	2.0	410.4
	Analysis Batch: 200-36093	Analysis Date: 04/02/2012 1900					
	Prep Batch: 200-36091	Prep Date: 04/02/2012 1400					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10136-2

Sdg Number: PRR1180

General Chemistry

Client Sample ID: PRR1WATSP101-03

Lab Sample ID: 200-10136-6

Client Matrix: Water

Date Sampled: 03/31/2012 1345

Date Received: 04/02/2012 0735

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	61.7		mg/L	3.1	3.1	1.0	SM 2540D
Analysis Batch: 200-36027		Analysis Date: 04/02/2012 1144					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10136-2

Sdg Number: PRR1180

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10136-2

Sdg Number: PRR1180

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:200-36027					
200-10136-1	PRR1WATCME-10	T	Water	SM 2540D	
200-10136-2	PRR1WATCME-11	T	Water	SM 2540D	
200-10136-3	PRR1WATCME-12	T	Water	SM 2540D	
200-10136-6	PRR1WATSP101-03	T	Water	SM 2540D	
Prep Batch: 200-36091					
LCS 200-36091/1-A	Lab Control Sample	T	Water	410.4	
MB 200-36091/2-A	Method Blank	T	Water	410.4	
200-10136-4	PRR1WATGACI-04	T	Water	410.4	
200-10136-5	PRR1WATGACE-04	T	Water	410.4	
200-10136-5DU	Duplicate	T	Water	410.4	
200-10136-5MS	Matrix Spike	T	Water	410.4	
Analysis Batch:200-36093					
LCS 200-36091/1-A	Lab Control Sample	T	Water	410.4	200-36091
MB 200-36091/2-A	Method Blank	T	Water	410.4	200-36091
200-10136-4	PRR1WATGACI-04	T	Water	410.4	200-36091
200-10136-5	PRR1WATGACE-04	T	Water	410.4	200-36091
200-10136-5DU	Duplicate	T	Water	410.4	200-36091
200-10136-5MS	Matrix Spike	T	Water	410.4	200-36091

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10136-2
Sdg Number: PRR1180

Method Blank - Batch: 200-36091

Method: 410.4
Preparation: 410.4

Lab Sample ID: MB 200-36091/2-A	Analysis Batch: 200-36093	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-36091	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/02/2012 1900	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/02/2012 1400		
Leach Date: N/A		

Analyte	Result	Qual	RL	RL
Chemical Oxygen Demand	20.0	U	20.0	20.0

Lab Control Sample - Batch: 200-36091

Method: 410.4
Preparation: 410.4

Lab Sample ID: LCS 200-36091/1-A	Analysis Batch: 200-36093	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-36091	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/02/2012 1900	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/02/2012 1400		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	27.3	27.64	101	90 - 110	

Matrix Spike - Batch: 200-36091

Method: 410.4
Preparation: 410.4

Lab Sample ID: 200-10136-5	Analysis Batch: 200-36093	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-36091	Lab File ID: N/A
Dilution: 2.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/02/2012 1900	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/02/2012 1400		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	101	50.0	150.6	99	90 - 110	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10136-2
Sdg Number: PRR1180

Duplicate - Batch: 200-36091

Method: 410.4
Preparation: 410.4

Lab Sample ID:	200-10136-5	Analysis Batch:	200-36093	Instrument ID:	WCS2
Client Matrix:	Water	Prep Batch:	200-36091	Lab File ID:	N/A
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	2.0 mL
Analysis Date:	04/02/2012 1900	Units:	mg/L	Final Weight/Volume:	2.0 mL
Prep Date:	04/02/2012 1400				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chemical Oxygen Demand	101	101.2	0	20	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

6723 Towpath Rd
 Syracuse, NY 13214
 Phone/Fax: (315) 671-9688

PROJ. NO. B0009964.0002.70004		PROJECT NAME Tierra Phase I Removal		Requested Analyses																	SDG NUMBER/COC Number PRR1180					
SAMPLERS:		MATRIX		Composite/Grab		# Containers		Requested Analyses																	Remarks	
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks			
PRR1WATCME-10	3/29/2012	22:00	water	Grab	1		X																			
PRR1WATCME-11	3/30/2012	23:00	water	Grab	1		X																			
PRR1WATCME-12	3/31/2012	14:25	water	Grab	1		X																			
PRR1WATGACI-04	3/31/2012	14:10	water	Grab	4		X																			
PRR1WATGACE-04	3/31/2012	14:00	water	Grab	4		X																			
PRR1WATCME-09	3/31/2012	14:20	water	Grab	3		X																			
PRR1WATCMI-09	3/31/2012	13:50	water	Grab	3		X																			
PRR1WATSP101-03	3/31/2012	13:45	water	Grab	1		X																			
TB03312012	3/31/2012		water		2		X																			
Special Instructions/Comments: <input type="checkbox"/> Special QA/QC Instructions																										
Requested Analyses																										
1 2-Etananone, Chlorobenzene																										
2 COD																										
3 TSS																										
4 VOCs - see WS 15-4 for effluent and WS 15-5 for Influent																										
7																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										
13																										
14																										
15																										
16																										
17																										

Shipping Tracking #				Received by:				Relinquished by:				Sample Receipt:			
DATE				TIME				DATE				DATE			
03/31/2012				1530				WAP				Cooler packed with ice			
03/31/2012				1600				WAP				Cooler custody seal intact			
04/12/12				1735				TA BUR				Condition/Cooler Temp: 3.8°C OK!			

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10136-2

SDG Number: PRR1180

Login Number: 10136
List Number: 2
Creator: Matot, Wade M

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	417433, 434
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8°C IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 31MAR12
ActWgt: 30.0 LB
CAD: 103787025/NET3250
Dims: 24 X 16 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

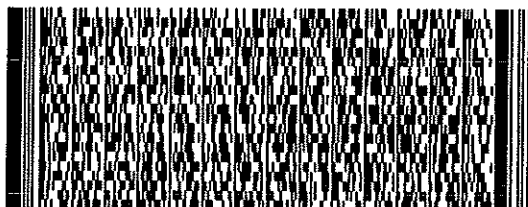
BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # B009964.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

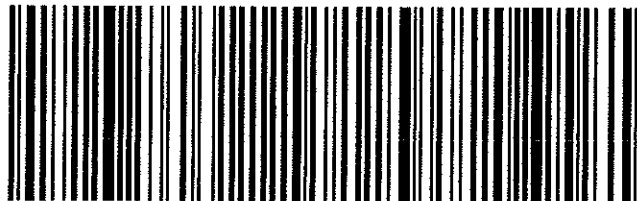
MON - 02 APR A4
FIRST OVERNIGHT

TRK# 7934 0418 8920
0201



X1 BTVA

05403
VT-US
BTV



512G1K44D/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10182-1

SDG Number: PRR1198

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/5/2012 11:27 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/05/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	13
QC Results	14
Qc Association Summary	15
Surrogate Recovery Report	16
Qc Reports	18
Client Chain of Custody	20
Sample Receipt Checklist	21

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1198 (200- 10182-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 04/04/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 1.0 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of each sample in the sample set did meet the technical acceptance criteria specific to DMC recoveries, although not all DMC recoveries were within the control range in each analysis. The method allowance criteria provide for the recovery of up to three DMCs to be outside the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were performed on sample in this sample set. There was an acceptable recovery of the spiked analyte, chlorobenzene, in both the matrix spike and the matrix spike duplicate analysis, and for each spiked analyte there was an acceptable correlation of the results in the interanalysis comparison. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10182-1

Sdg Number: PRR1198

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Trace Water	TAL BUR	SOM01.2	SOM01.2/VOA_Tr
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10182-1
Sdg Number: PRR1198

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10182-1

Sdg Number: PRR1198

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10182-3	PRR1WATGACI-05	Water	04/03/2012 1320	04/04/2012 1045
200-10182-4	PRR1WATGACE-05	Water	04/03/2012 1310	04/04/2012 1045
200-10182-4MS	PRR1WATGACE-05	Water	04/03/2012 1310	04/04/2012 1045
200-10182-4MSD	PRR1WATGACE-05	Water	04/03/2012 1310	04/04/2012 1045
200-10182-5	TB04032012	Water	04/03/2012 0000	04/04/2012 1045
200-10182-7STOBL K	VHBLK01	Water	04/04/2012 1145	04/04/2012 1045

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10182-1

Sdg Number: PRR1198

Client Sample ID: PRR1WATGACI-05

Lab Sample ID: 200-10182-3

Date Sampled: 04/03/2012 1320

Client Matrix: Water

Date Received: 04/04/2012 1045

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36238	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdef05.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/04/2012 1443			Final Weight/Volume:	25 mL
Prep Date:	04/04/2012 1443				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	22		10
Chlorobenzene	19		1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	95		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	97		49 - 155
Chloroform-d	95		78 - 121
1,2-Dichloroethane-d4	96		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	89		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	97		73 - 121
2-Hexanone-d5	111		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	99		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10182-1

Sdg Number: PRR1198

Client Sample ID: PRR1WATGACE-05

Lab Sample ID: 200-10182-4

Date Sampled: 04/03/2012 1310

Client Matrix: Water

Date Received: 04/04/2012 1045

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36238	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdef06.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/04/2012 1507			Final Weight/Volume:	25 mL
Prep Date:	04/04/2012 1507				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	10	U	10
Chlorobenzene	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	118		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	108		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	96		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	106		73 - 121
2-Hexanone-d5	133		28 - 135
1,1,2,2-Tetrachloroethane-d2	108		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10182-1

Sdg Number: PRR1198

Client Sample ID: TB04032012

Lab Sample ID: 200-10182-5

Date Sampled: 04/03/2012 0000

Client Matrix: Water

Date Received: 04/04/2012 1045

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36238	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdef09.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/04/2012 1619			Final Weight/Volume:	25 mL
Prep Date:	04/04/2012 1619				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	103		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	98		73 - 121
2-Hexanone-d5	120		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10182-1

Sdg Number: PRR1198

Client Sample ID: VHBLK01

Lab Sample ID: 200-10182-7STOBLK

Date Sampled: 04/04/2012 1145

Client Matrix: Water

Date Received: 04/04/2012 1045

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36238	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdef10.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/04/2012 1644			Final Weight/Volume:	25 mL
Prep Date:	04/04/2012 1644				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	101		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	104		49 - 155
Chloroform-d	100		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	98		73 - 121
2-Hexanone-d5	110		28 - 135
1,1,2,2-Tetrachloroethane-d2	96		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10182-1

Sdg Number: PRR1198

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	*	Surrogate exceeds the control limit

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10182-1

Sdg Number: PRR1198

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-36238					
MB 200-36238/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10182-3	PRR1WATGACI-05	T	Water	SOM01.2/VOA_T	
200-10182-4	PRR1WATGACE-05	T	Water	SOM01.2/VOA_T	
200-10182-4MS	Matrix Spike	T	Water	SOM01.2/VOA_T	
200-10182-4MSD	Matrix Spike Duplicate	T	Water	SOM01.2/VOA_T	
200-10182-5	TB04032012	T	Water	SOM01.2/VOA_T	
200-10182-7STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10182-1

Sdg Number: PRR1198

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10182-3	PRR1WATGACI-05	95	98	76	97	95	96	101	89
200-10182-4	PRR1WATGACE-05	100	102	79	118	101	108	102	96
200-10182-5	TB04032012	97	102	78	105	99	103	100	91
200-10182-7	VHBLK01	100	101	79	104	100	104	103	92
MB 200-36238/4		99	102	79	112	101	106	102	91
200-10182-4 MS	PRR1WATGACE-05 MS	98	99	102	117	101	110	103	94
200-10182-4 MSD	PRR1WATGACE-05 MSD	96	101	103	120	101	108	103	96

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10182-1

Sdg Number: PRR1198

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10182-3	PRR1WATGACI-05	103	97	111	93	99
200-10182-4	PRR1WATGACE-05	103	106	133	108	106
200-10182-5	TB04032012	101	98	120	98	100
200-10182-7	VHBLK01	102	98	110	96	101
MB 200-36238/4		102	105	115	95	104
200-10182-4 MS	PRR1WATGACE-05 MS	101	104	135	104	102
200-10182-4 MSD	PRR1WATGACE-05 MSD	102	106	136*	102	102

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10182-1
Sdg Number: PRR1198

Method Blank - Batch: 200-36238

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-36238/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/04/2012 1402
Prep Date: 04/04/2012 1402
Leach Date: N/A

Analysis Batch: 200-36238
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdef04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	99	65 - 131
Chloroethane-d5	102	71 - 131
1,1-Dichloroethene-d2	79	55 - 104
2-Butanone-d5	112	49 - 155
Chloroform-d	101	78 - 121
1,2-Dichloroethane-d4	106	78 - 129
Benzene-d6	102	77 - 124
1,2-Dichloropropane-d6	91	79 - 124
Toluene-d8	102	77 - 121
trans-1,3-Dichloropropene-d4	105	73 - 121
2-Hexanone-d5	115	28 - 135
1,1,2,2-Tetrachloroethane-d2	95	73 - 125
1,2-Dichlorobenzene-d4	104	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10182-1

Sdg Number: PRR1198

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-36238**

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

MS Lab Sample ID: 200-10182-4
Client Matrix: Water
Dilution: 2.0
Analysis Date: 04/04/2012 1531
Prep Date: 04/04/2012 1531
Leach Date: N/A

Analysis Batch: 200-36238
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: J.i
Lab File ID: jdef07.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

MSD Lab Sample ID: 200-10182-4
Client Matrix: Water
Dilution: 2.0
Analysis Date: 04/04/2012 1555
Prep Date: 04/04/2012 1555
Leach Date: N/A

Analysis Batch: 200-36238
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: J.i
Lab File ID: jdef08.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Chlorobenzene	102	104	75 - 130	2	13		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Vinyl chloride-d3	98	96	65 - 131
Chloroethane-d5	99	101	71 - 131
1,1-Dichloroethene-d2	102	103	55 - 104
2-Butanone-d5	117	120	49 - 155
Chloroform-d	101	101	78 - 121
1,2-Dichloroethane-d4	110	108	78 - 129
Benzene-d6	103	103	77 - 124
1,2-Dichloropropane-d6	94	96	79 - 124
Toluene-d8	101	102	77 - 121
trans-1,3-Dichloropropene-d4	104	106	73 - 121
2-Hexanone-d5	135	136	28 - 135
1,1,2,2-Tetrachloroethane-d2	104	102	73 - 125
1,2-Dichlorobenzene-d4	102	102	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #
 Page 1 of 1

PROJ. NO. B0009964.0002.70004
 PROJECT NAME: Tierra Phase I Removal
 SDG NUMBER: PRR1198
 COC Number:

SAMPLERS:

SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	Requested Analyses																				
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17				
PRR1WATCME-13	4/2/2012	19:00	water	Grab	1																					
PRR1WATCME-14	4/3/2012	13:05	water	Grab	1					X																
PRR1WATGACI-05	4/3/2012	13:20	water	Grab	4				X	X																
PRR1WATGACE-05	4/3/2012	13:10	water	Grab	12				X	X																
TB04032012	4/3/2012		water		3				X																	
PRR1WATSP101-4	4/3/2012	13:30	water	Grab	1					X																

Special Instructions/Comments: Special QA/QC Instructions

Requested Analyses:
 12-Buranone, Chlorobenzene

Triple volume submitted for PRR1WATGACE-05 for MS/MSD

Lab Name: TestAmerica - Burlington, VT

Shipping Tracking #

Specify Turnaround Requirements: 24 hr TAT

Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE
Les Bouney	4/3/12	1400	TJ Thor				
TJ Thor	4/3/12	1600					

Relinquished by:	DATE	TIME	Received by:	DATE	TIME

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10182-1

SDG Number: PRR1198

Login Number: 10182
List Number: 1
Creator: Marion, Greg T

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417431,432
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0°C IR GUN ID 154/CF=0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	False	Insufficient volume received for requested analysis.
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
 Thomas ORourke
 ARCADIS OF NEW YORK INC
 117 Blanchard St

Origin ID: VAKA



J12101112190225

Newark, NJ 07105

Ship Date: 03APR12
 ActWgt: 20.0 LB
 CAD: 103767025/NET3250
 Dims: 24 X 14 X 14 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1618-4
 Invoice #
 PO # B0009964.0002.70004
 Dept #

SOUTH BURLINGTON, VT 05403

WED - 04 APR A4
PRIORITY OVERNIGHT

TRK# 7982 4244 8679

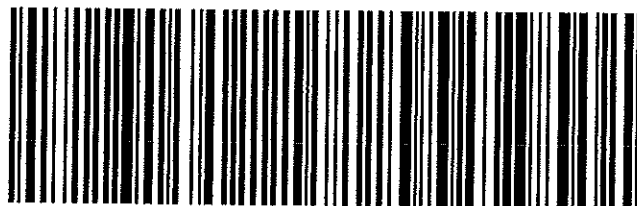
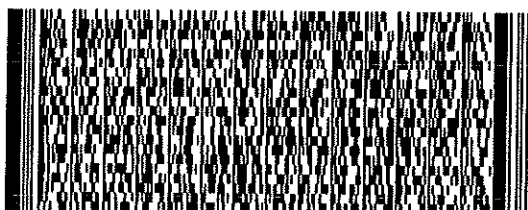
0201

05403

VT-US

BTV

ZF BTVA



512G1K140/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10182-2

SDG Number: PRR1198

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/5/2012 1:22 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/05/2012
Revision: 1

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	13
QC Results	14
Qc Association Summary	15
Qc Reports	16
Client Chain of Custody	19
Sample Receipt Checklist	20

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1198 (200- 10182-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 04/04/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping Documentation section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 1.0 °C.

USEPA Method 410.1 Chemical Oxygen Demand

The samples in this sample set were analyzed for chemical oxygen demand by the referenced method. Matrix spike and replicate analyses were performed on sample PRR1WATGACE-05. There was low recovery of the spiked component in the matrix spike analysis (46 percent). The replicate analyses that were performed on sample PRR1WATGACE-05 did yield results with an acceptable correlation in the interanalysis comparison. A laboratory control sample was analyzed in association with the samples, and there was an acceptable recovery of the spiked component in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the samples in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10182-2

Sdg Number: PRR1198

Description	Lab Location	Method	Preparation Method
Matrix: Water			
COD	TAL BUR	MCAWW 410.4	
COD	TAL BUR		MCAWW 410.4
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10182-2
Sdg Number: PRR1198

Method	Analyst	Analyst ID
MCAWW 410.4	Tam, Michelle N	MNT
SM SM 2540D	Sutton, Zachariah M	ZMS

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10182-2
Sdg Number: PRR1198

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10182-1	PRR1WATCME-13	Water	04/02/2012 1900	04/04/2012 1045
200-10182-2	PRR1WATCME-14	Water	04/03/2012 1305	04/04/2012 1045
200-10182-3	PRR1WATGACI-05	Water	04/03/2012 1320	04/04/2012 1045
200-10182-4	PRR1WATGACE-05	Water	04/03/2012 1310	04/04/2012 1045
200-10182-4MS	PRR1WATGACE-05	Water	04/03/2012 1310	04/04/2012 1045
200-10182-4DU	PRR1WATGACE-05	Water	04/03/2012 1310	04/04/2012 1045
200-10182-6	PRR1WATSP101-4	Water	04/03/2012 1330	04/04/2012 1045

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10182-2

Sdg Number: PRR1198

General Chemistry

Client Sample ID: PRR1WATCME-13

Lab Sample ID: 200-10182-1

Date Sampled: 04/02/2012 1900

Client Matrix: Water

Date Received: 04/04/2012 1045

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	6.9		mg/L	1.8	1.8	1.0	SM 2540D
Analysis Batch: 200-36190		Analysis Date: 04/04/2012 1215					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10182-2

Sdg Number: PRR1198

General Chemistry

Client Sample ID: PRR1WATCME-14

Lab Sample ID: 200-10182-2

Date Sampled: 04/03/2012 1305

Client Matrix: Water

Date Received: 04/04/2012 1045

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	2.2		mg/L	1.8	1.8	1.0	SM 2540D

Analysis Batch: 200-36190 Analysis Date: 04/04/2012 1215

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10182-2
Sdg Number: PRR1198

General Chemistry

Client Sample ID: PRR1WATGACI-05

Lab Sample ID: 200-10182-3

Date Sampled: 04/03/2012 1320

Client Matrix: Water

Date Received: 04/04/2012 1045

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	273		mg/L	80.0	80.0	4.0	410.4
	Analysis Batch: 200-36234	Analysis Date: 04/04/2012 1630					
	Prep Batch: 200-36208	Prep Date: 04/04/2012 1345					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10182-2

Sdg Number: PRR1198

General Chemistry

Client Sample ID: PRR1WATGACE-05

Lab Sample ID: 200-10182-4

Date Sampled: 04/03/2012 1310

Client Matrix: Water

Date Received: 04/04/2012 1045

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	238		mg/L	80.0	80.0	4.0	410.4
	Analysis Batch: 200-36234		Analysis Date: 04/04/2012 1630				
	Prep Batch: 200-36208		Prep Date: 04/04/2012 1345				

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10182-2

Sdg Number: PRR1198

General Chemistry

Client Sample ID: PRR1WATSP101-4

Lab Sample ID: 200-10182-6

Client Matrix: Water

Date Sampled: 04/03/2012 1330

Date Received: 04/04/2012 1045

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	32.4		mg/L	1.8	1.8	1.0	SM 2540D
Analysis Batch: 200-36190		Analysis Date: 04/04/2012 1215					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10182-2

Sdg Number: PRR1198

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.
	F	MS/MSD Recovery or RPD exceeds the control limits

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10182-2

Sdg Number: PRR1198

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:200-36190					
LCS 200-36190/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-36190/1	Method Blank	T	Water	SM 2540D	
200-10182-1	PRR1WATCME-13	T	Water	SM 2540D	
200-10182-2	PRR1WATCME-14	T	Water	SM 2540D	
200-10182-6	PRR1WATSP101-4	T	Water	SM 2540D	
Prep Batch: 200-36208					
LCS 200-36208/1-A	Lab Control Sample	T	Water	410.4	
MB 200-36208/2-A	Method Blank	T	Water	410.4	
200-10182-3	PRR1WATGACI-05	T	Water	410.4	
200-10182-4	PRR1WATGACE-05	T	Water	410.4	
200-10182-4DU	Duplicate	T	Water	410.4	
200-10182-4MS	Matrix Spike	T	Water	410.4	
Analysis Batch:200-36234					
LCS 200-36208/1-A	Lab Control Sample	T	Water	410.4	200-36208
MB 200-36208/2-A	Method Blank	T	Water	410.4	200-36208
200-10182-3	PRR1WATGACI-05	T	Water	410.4	200-36208
200-10182-4	PRR1WATGACE-05	T	Water	410.4	200-36208
200-10182-4DU	Duplicate	T	Water	410.4	200-36208
200-10182-4MS	Matrix Spike	T	Water	410.4	200-36208

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10182-2
Sdg Number: PRR1198

Method Blank - Batch: 200-36208

Method: 410.4
Preparation: 410.4

Lab Sample ID: MB 200-36208/2-A	Analysis Batch: 200-36234	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-36208	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/04/2012 1630	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/04/2012 1345		
Leach Date: N/A		

Analyte	Result	Qual	RL	RL
Chemical Oxygen Demand	20.0	U	20.0	20.0

Lab Control Sample - Batch: 200-36208

Method: 410.4
Preparation: 410.4

Lab Sample ID: LCS 200-36208/1-A	Analysis Batch: 200-36234	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-36208	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/04/2012 1630	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/04/2012 1345		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	27.3	27.64	101	90 - 110	

Matrix Spike - Batch: 200-36208

Method: 410.4
Preparation: 410.4

Lab Sample ID: 200-10182-4	Analysis Batch: 200-36234	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-36208	Lab File ID: N/A
Dilution: 4.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/04/2012 1630	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/04/2012 1345		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	238	200	329.4	46	90 - 110	F

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10182-2
Sdg Number: PRR1198

Duplicate - Batch: 200-36208

Method: 410.4
Preparation: 410.4

Lab Sample ID:	200-10182-4	Analysis Batch:	200-36234	Instrument ID:	WCS2
Client Matrix:	Water	Prep Batch:	200-36208	Lab File ID:	N/A
Dilution:	4.0	Leach Batch:	N/A	Initial Weight/Volume:	2.0 mL
Analysis Date:	04/04/2012 1630	Units:	mg/L	Final Weight/Volume:	2.0 mL
Prep Date:	04/04/2012 1345				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chemical Oxygen Demand	238	237.6	0	20	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10182-2
Sdg Number: PRR1198

Method Blank - Batch: 200-36190

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-36190/1	Analysis Batch:	200-36190	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/04/2012 1215	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-36190

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-36190/2	Analysis Batch:	200-36190	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/04/2012 1215	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	428.0	86	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJECT NAME		Requested Analyses																						
Tierra Phase I Removal																								
PROJ. NO.	MATRIX	TIME	DATE	SAMPLE ID	COMPOSITE/GRAB	# CONTAINERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	REMARKS
B0009964.0002.70004	water	19:00	4/2/2012	PRR1WATCME-13	Grab	1			X															
	water	13:05	4/3/2012	PRR1WATCME-14	Grab	1			X															
	water	13:20	4/3/2012	PRR1WATGACI-05	Grab	4	X	X																
	water	13:10	4/3/2012	PRR1WATGACE-05	Grab	12	X	X																
	water		4/3/2012	TB04032012		3	X																	
	water	13:30	4/3/2012	PRR1WATSP101-4	Grab	1	X																	
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																						
Requested Analyses		Triple volume submitted for PRR1WATGACE-05 for MS/MSD																						
Lab Name: TestAmerica - Burlington, VT		Shipping Tracking #																						
Specify Turnaround Requirements: 24 hr TAT		Cooler packed with ice <input checked="" type="checkbox"/> Cooler custody seal intact																						
Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Condition/Cooler Temp:
Les Broun	4/3/12	1400	TJL	4/3/12	1600	TJL	4/3/12	1600	TJL	4/3/12	1600	TJL	4/3/12	1600	TJL	4/3/12	1600	TJL	4/3/12	1600	TJL	4/3/12	1600	1.0°C

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10182-2

SDG Number: PRR1198

Login Number: 10182
List Number: 1
Creator: Marion, Greg T

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417431,432
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0°C IR GUN ID 154/CF=0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	False	Insufficient volume received for requested analysis.
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
 Thomas ORourke
 ARCADIS OF NEW YORK INC
 117 Blanchard St

Origin ID: VAKA



J12101112190225

Newark, NJ 07105

Ship Date: 03APR12
 ActWgt: 20.0 LB
 CAD: 103767025/NET3250

Dims: 24 X 14 X 14 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1616-4
 Invoice #
 PO # B0009864.0002.70004
 Dept #

SOUTH BURLINGTON, VT 05403

WED - 04 APR A4
PRIORITY OVERNIGHT

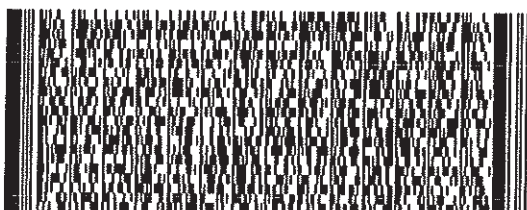
TRK# 7982 4244 8679

0201

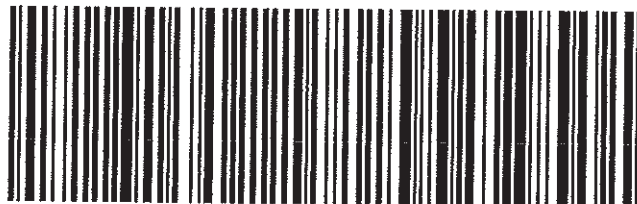
05403

VT-US

BTVA



ZF BTVA



512G1K0440JA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10228-1

SDG Number: PRR1200

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/9/2012 12:30 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/09/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	15

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1200 (200- 10228-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 04/06/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received as part of a larger sample set, which was received in five coolers. The temperature of the contents of the coolers was determined at the time of receipt. The temperatures were 0.8 °C, 4.0 °C, 3.0 °C, 4.0 °C, and 1.6°

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were performed on sample PRR1WATCME-16, and there was good correspondence in the results of those analyses. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10228-1
Sdg Number: PRR1200

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10228-1

Sdg Number: PRR1200

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10228-1
Sdg Number: PRR1200

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10228-1	PRR1WATCME-16	Water	04/05/2012 1300	04/06/2012 1010
200-10228-1DU	PRR1WATCME-16	Water	04/05/2012 1300	04/06/2012 1010
200-10228-2	PRR1WATCME-15	Water	04/04/2012 1600	04/06/2012 1010

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10228-1
Sdg Number: PRR1200

General Chemistry

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10228-1

Date Sampled: 04/05/2012 1300

Client Matrix: Water

Date Received: 04/06/2012 1010

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	6.8		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-36367		Analysis Date: 04/06/2012 1346					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10228-1
Sdg Number: PRR1200

General Chemistry

Client Sample ID: PRR1WATCME-15

Lab Sample ID: 200-10228-2

Date Sampled: 04/04/2012 1600

Client Matrix: Water

Date Received: 04/06/2012 1010

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	12.3		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-36367		Analysis Date: 04/06/2012 1346					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10228-1

Sdg Number: PRR1200

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10228-1

Sdg Number: PRR1200

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:200-36367					
LCS 200-36367/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-36367/1	Method Blank	T	Water	SM 2540D	
200-10228-1	PRR1WATCME-16	T	Water	SM 2540D	
200-10228-1DU	Duplicate	T	Water	SM 2540D	
200-10228-2	PRR1WATCME-15	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10228-1
Sdg Number: PRR1200

Method Blank - Batch: 200-36367

Method: SM 2540D
Preparation: N/A

Lab Sample ID: MB 200-36367/1	Analysis Batch: 200-36367	Instrument ID: No Equipment
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 04/06/2012 1346	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-36367

Method: SM 2540D
Preparation: N/A

Lab Sample ID: LCS 200-36367/2	Analysis Batch: 200-36367	Instrument ID: No Equipment
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 50 mL
Analysis Date: 04/06/2012 1346	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	488.0	98	85 - 115	

Duplicate - Batch: 200-36367

Method: SM 2540D
Preparation: N/A

Lab Sample ID: 200-10228-1	Analysis Batch: 200-36367	Instrument ID: No Equipment
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 280 mL
Analysis Date: 04/06/2012 1346	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	6.8	6.79	0.5	5	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJECT NAME		Requested Analyses													SDG NUMBER	COC Number												
Tierra Phase I Removal															PRR1200													
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	Requested Analyses											Remarks											
						1	2	3	4	5	6	7	8	9	10	11		12	13	14	15	16	17					
PRR1WATCME-16	4/5/2012	13:00	water	Grab	52	X	X	X	X	X	X	X	X	X	X													
PRR1WATCMI-16	4/5/2012	12:45	water	Grab	9	X	X	X	X	X	X	X	X	X	X													
T804052012	4/5/2012		water		3	X	X	X	X	X	X	X	X	X	X													
PRR1WATCME-15	4/4/2012	16:00	water	Grab	1	X																						
SAMPLERS:																												
PROJ. NO.																												
B0009964.0002.70004																												
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions Refer to RAWP QAPP WS 15-4 for Effluent Samples and 15-5 for Influent Samples Triple volume collected for MS/MSD for PRR1WATCME-15 (except TSS and WET Testing)																										
Lab Name:		TestAmerica -Burlington, VT																										
Shipping Tracking #																												
Specify Turnaround Requirements:		7 day TAT																										
Reinquired by:		DATE	TIME	Reinquired by:											DATE	TIME	Reinquired by:											
DOR		4/5/12	1400	JTA-PRR																								
Reinquired by:		DATE	TIME	Reinquired by:											DATE	TIME	Reinquired by:											
Reinquired by:		DATE	TIME	Reinquired by:											DATE	TIME	Reinquired by:											

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10228-1

SDG Number: PRR1200

Login Number: 10228
List Number: 1
Creator: Marion, Greg T

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417836
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8,4.0,3.0,4.01.6°
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas O'Rourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



Ship Date: 05APR12
Act/Wgt: 39.0 LB
CAD: 103787025/NET3250

Dims: 23 X 14 X 15 W

Newark, NJ 07105

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11
SOUTH BURLINGTON, VT 05403

BILL SENDER

J12101112190225

Ref # 1129-1816-4
Invoice #
PO # B0009984.0002.70034-11128
Dept #

1 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

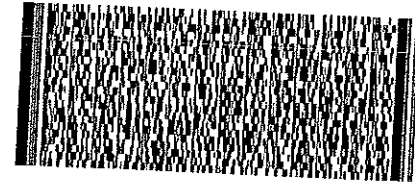
TRK# 7982 5389 8605
0201
MASTER

ZF BTVA

05403
VT-US
BTV



512GUC410JA278



SOUTH BURLINGTON, VT 05403

2 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

MPS# 7982 5389 8833
0263
Mstr# 7982 5389 8605

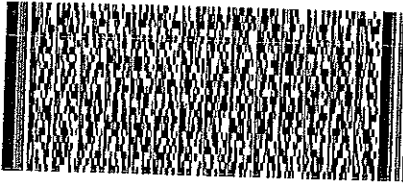
0201

ZF BTVA

05403
VT-US
BTV



512GUC410JA278



4 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

MPS# 7982 5389 8914
0263
Mstr# 7982 5389 8605

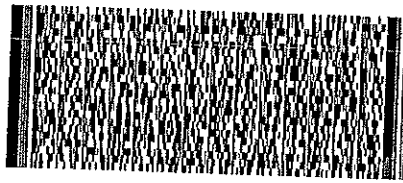
0201

ZF BTVA

05403
VT-US
BTV



512GUC410JA278



After printing this label:
SOUTH BURLINGTON, VT 05403

5 of 5

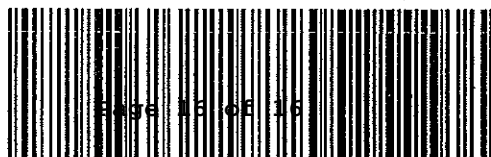
FRI - 06 APR A4
PRIORITY OVERNIGHT

MPS# 7982 5389 9060
0263
Mstr# 7982 5389 8605

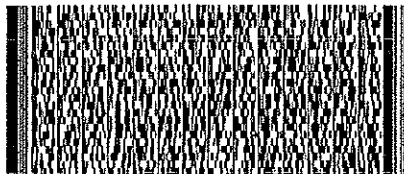
0201

ZF BTVA

05403
VT-US
BTV



Page 13 of 15



ANALYTICAL REPORT

Job Number: 200-10231-1

SDG Number: PRR1200

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/13/2012 5:49 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/13/2012
Revision: 1

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Sample Summary	4
Sample Results	5
Data Qualifiers	6
QC Results	7
Subcontracted Data	8
Client Chain of Custody	36
Sample Receipt Checklist	37

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1200 (200-10231-1)

Enclosed is the report for the whole effluent toxicity test (*Americamysis bahia* 96-hour static renewal acute toxicity test) for the referenced project work. The analytical work was performed by Aquatec Biological Sciences (Williston, Vermont). The report from that laboratory is reproduced in its entirety.

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10231-1

Sdg Number: PRR1200

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10231-1	PRR1WATCME-16	Water	04/05/2012 1300	04/06/2012 1010

SAMPLE RESULTS

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description
--------------------	------------------	--------------------

QUALITY CONTROL RESULTS



Aquatec Biological Sciences, Inc.

273 Commerce Street
Williston, VT 05495
Tel: (802) 860 - 1638 Fax: (802) 658 - 3189

SDG: 13141
Project: 12023

Toxicity Summary Report

TestAmerica Burlington
30 Community Drive

Tel: (802) 923-1017
Fax:

South Burlington, VT 05403

E-Mail: kirk.young@testamericainc.com

Project: Mysid acute test

Permit No. N/A

Sample Name: **200-10231-1**

Sample ID: **42546**

Method	Species	ACUTE		CHRONIC	
		A-NOEC	A-LC50	C-NOEC	C-LOEC
2007.0-96r	<i>Americamysis bahia</i>	50	68.5		

Samples Received

Number	Sample Name	Date Time and Collected	Type
42546	200-10231-1	4/5/2012 1:00:00 PM	Effluent
42547	Forty Fathoms 040312	4/6/2012	Lab Water



Aquatec Biological Sciences, Inc.

273 Commerce Street
Williston, VT 05495
Tel: (802) 860 - 1638 Fax: (802) 658 - 3189

SDG: 13141
Project: 12023

Toxicity Detail Report

TestAmerica Burlington
30 Community Drive

Tel: (802) 923-1017

Fax:

South Burlington, VT 05403

E-Mail: kirk.young@testamericainc.com

Project: **Mysid acute test**

Permit No. **N/A**

Sample ID: **42546 200-10231-1**

Method: **2007.0-96r Americamysis bahia**

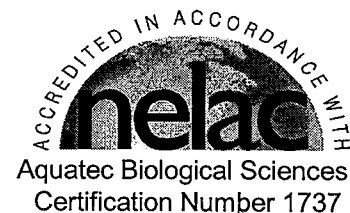
Response: Survival (%)

Day	Additional Control	%					
		0	6.25	12.5	25	50	100
2		100	100	100	100	95	67.5
4		100	97.5	100	100	95	0



Aquatec Biological Sciences, Inc.

273 Commerce Street
Williston, VT 05495
Tel: (802) 860 - 1638 Fax: (802) 658 - 3189



Toxicity Quality Assurance Report

SDG: 13141

Project: 12023

TestAmerica Burlington
30 Community Drive

Tel: (802) 923-1017

Fax:

South Burlington, VT 05403

E-Mail: kirk.young@testamericainc.com

Project: Mysid acute test

Permit No. N/A

Method: 2007.0-96r

Americamysis bahia

Response: Survival (%)

Day	Sample ID	Dilution Control
4	42546	100
2	42546	100

Special Conditions and Qualifiers

To the best of our knowledge, there are no other special conditions or qualifiers that relate to the samples in this report with the following exception: The sample was received at Aquatec Biological Sciences, Inc. (Aquatec) at an ambient temperature of 8.2 C following direct delivery of the samples from TestAmerica, Burlington, VT to Aquatec, Williston, VT. This temperature was above the temperature range recommended in the protocols for sample storage (0 C-6 C).

TestAmerica Burlington
30 Community Drive

Tel: (802) 923-1017
Fax:

South Burlington, VT 05403

E-Mail: kirk.young@testamericainc.com

Project: **Mysid acute test**

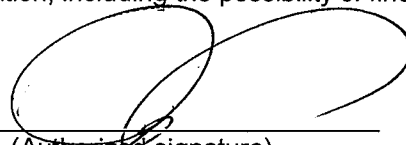
Permit No. **N/A**

WHOLE EFFLUENT TOXICITY TEST REPORT CERTIFICATION

The results reported relate only to the the samples submitted as received.

I certify under penalty of law that this document and all ATTACHMENTs were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: 4/12/12
(Date)



(Authorized signature)
John Williams
Toxicity Laboratory Manager
Aquatec Biological Sciences, Inc.

Supportive Documentation

Chain-Of-Custody

Toxicity Test Methods

2007.0-96r - Mysid, A. bahia, 96-H Renewal Acute Survival

Standard Reference Toxicant Control Charts

TestAmerica Burlington

Chain-Of-Custody

INTERNAL CHAIN OF CUSTODY LOG (ICOC)

Project Information: Method: WET TESTING
 Log In #: 200-10231 LAB IDs: 200-10231-1
 Client: ARCADIS
 Samples associated with this log-in were placed into storage on 4/6/2012 12:03 by: *[Signature]*
 (Date) (Time²) Sample-Custodian Signature

Storage Location: AQUATEC
 Storage Condition: Refrigeration Frozen Ambient
 Specify storage location (refrigerator, freezer ID or lab location) for original sample containers

Internal Transfer Information			Purpose of Transfer		Reinquinshed By:	Received By:	Storage Location Prepared Sample ¹
Sample Type Original Prepared ¹	Lab ID(s)	Transfer Date	Transfer Time ²	Prep			
	200-10231-1	4/6/12	12:10			<i>[Signature]</i>	

Temp. 8.2°C Hand delivered by T. America

¹ Extract, digestate, or any other prepared sample that is no longer in original sample container
² Military Time

Toxicity Test Methods

Mysid acute test	Permit:	N/A	Pipe 1	Project: 12023
1 Test type:		Static renewal		
2 Test duration:		96h		
3 Temperature:		25C +/- 1C; Test temperatures must not deviate (i.e., maximum minus minimum temperature) by more than 3 C during the test		
4 Light quality:		Ambient laboratory illumination		
5 Light intensity:		10-20uE/m ² /s (50-100ft-c) (ambient laboratory illumination)		
6 Photoperiod:		16h light, 8h darkness		
7 Test chamber size:		250mL		
8 Test solution volume:		200mL		
9 Renewal of test solutions:		Daily		
10 Age of test organisms:		1-5 days; less than or equal to 24h range in age		
11 No. organisms per test chamber:		10		
12 No. replicate chambers per concentration:		4		
13 No. organisms per concentration:		40		
14 Feeding regime:		Artemia nauplii are made available while holding prior to the test; add 0.1mL Artemia nauplii concentrate twice daily (once in the AM and once in the PM)		
15 Test chamber cleaning:		Cleaning not required		
16 Test solution aeration:		None, unless DO concentration falls below 4.0mg/L; rate should not exceed 100 bubbles/min		
17 Dilution water:		Forty Fathoms		
18 Test concentrations (%):		0, 6.25, 12.5, 25, 50, 100		
19 Additional control:				
20 Endpoint:		Survival		
21 Sampling and sample holding requirements:		Effluents: Grab or composite sample first used within 36h of completion of the sampling period		
22 Sample volume required:		Approximately 2L per day		
23 Test acceptability criterion:		90% or greater survival in controls		

2007.0-96r - Mysid, A. bahia, 96-H Renewal Acute Survival

CETIS Summary Report

Report Date: 11 Apr-12 13:23 (p 1 of 3)
Link/Link Code: 05-5229-1945/13141

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Test Run No: 10-1835-9235	Test Type: Survival (96h)	Analyst:
Start Date: 06 Apr-12 14:45	Protocol: EPA/821/R-02-012 (2002)	Diluent: Laboratory Seawater
Ending Date: 10 Apr-12 14:50	Species: Mysidopsis bahia	Brine: Forty Fathoms
Duration: 4d 0h	Source: Aquatic Biosystems, CO	Age: 4
Sample No: 15-0323-3264	Code: 1503233264	Client: Test America
Sample Date: 05 Apr-12 13:00	Material: Unknown	Project: Effluent Characterization (Annual)
Receive Date: 06 Apr-12 12:10	Source: Test America	
Sample Age: 26h	Station: 200-10231-1	

Comparison Summary

Analysis No	Endpoint	NOEL	LOEL	TOEL	PMSD	Method
14-5145-2050	24h Survival Rate	100	> 100	N/A	5.9%	Steel Many-One Rank Test
15-4346-8202	48h Survival Rate	50	100	70.7	12.5%	Steel Many-One Rank Test
14-4799-9475	72h Survival Rate	50	100	70.7	9.73%	Steel Many-One Rank Test
16-9028-7790	96h Survival Rate	50	100	70.7	8.04%	Steel Many-One Rank Test

Point Estimate Summary

Analysis No	Endpoint	Effect-%	Conc-%	95% LCL	95% UCL	Method
08-7728-9931	24h Survival Rate	2.5	50	26.7	N/A	Linear Interpolation (ICPIN)
		5	100	20	N/A	
		10	> 100	N/A	N/A	
		15	> 100	N/A	N/A	
		20	> 100	N/A	N/A	
		25	> 100	N/A	N/A	
		40	> 100	N/A	N/A	
12-1274-5698	48h Survival Rate	2.5	35.4	23.7	66	Linear Interpolation (ICPIN)
		5	50	20.5	65.2	
		10	56.7	29.5	79.2	
		15	64.4	41.4	106	
		20	73	51.4	N/A	
		25	82.8	53.3	N/A	
		40	> 100	N/A	N/A	
50	> 100	N/A	N/A			
01-3745-3088	72h Survival Rate	50	75.8	70.3	81.7	Trimmed Spearman-Kärber
13-7212-1511	96h Survival Rate	50	68.5	65.1	71.9	Trimmed Spearman-Kärber

Test Acceptability

Analysis No	Endpoint	Attribute	Test Stat	Acceptability Limits	Overlap	Decision
13-7212-1511	96h Survival Rate	Control Resp	1	0.9 - NL	Yes	Passes acceptability criteria
16-9028-7790	96h Survival Rate	Control Resp	1	0.9 - NL	Yes	Passes acceptability criteria

24h Survival Rate Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	1	1	1	1	1	0	0	0.0%	0.0%
6.25		4	1	1	1	1	1	0	0	0.0%	0.0%
12.5		4	1	1	1	1	1	0	0	0.0%	0.0%
25		4	1	1	1	1	1	0	0	0.0%	0.0%
50		4	0.975	0.956	0.994	0.9	1	0.00913	0.05	5.13%	2.5%
100		4	0.95	0.928	0.972	0.9	1	0.0105	0.0577	6.08%	5.0%

CETIS Summary Report

Report Date: 11 Apr-12 13:23 (p 2 of 3)

Link/Link Code: 05-5229-1945/13141

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

48h Survival Rate Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	1	1	1	1	1	0	0	0.0%	0.0%
6.25		4	1	1	1	1	1	0	0	0.0%	0.0%
12.5		4	1	1	1	1	1	0	0	0.0%	0.0%
25		4	1	1	1	1	1	0	0	0.0%	0.0%
50		4	0.95	0.913	0.987	0.8	1	0.0183	0.1	10.5%	5.0%
100		4	0.675	0.592	0.758	0.4	0.9	0.0405	0.222	32.8%	32.5%

72h Survival Rate Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	1	1	1	1	1	0	0	0.0%	0.0%
6.25		4	0.975	0.956	0.994	0.9	1	0.00913	0.05	5.13%	2.5%
12.5		4	1	1	1	1	1	0	0	0.0%	0.0%
25		4	1	1	1	1	1	0	0	0.0%	0.0%
50		4	0.95	0.913	0.987	0.8	1	0.0183	0.1	10.5%	5.0%
100		4	0.2	0.157	0.243	0.1	0.3	0.0211	0.115	57.7%	80.0%

96h Survival Rate Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	1	1	1	1	1	0	0	0.0%	0.0%
6.25		4	0.975	0.956	0.994	0.9	1	0.00913	0.05	5.13%	2.5%
12.5		4	1	1	1	1	1	0	0	0.0%	0.0%
25		4	1	1	1	1	1	0	0	0.0%	0.0%
50		4	0.95	0.913	0.987	0.8	1	0.0183	0.1	10.5%	5.0%
100		4	0	0	0	0	0	0	0		100.0%

CETIS Summary Report

Report Date: 11 Apr-12 13:23 (p 3 of 3)
 Link/Link Code: 05-5229-1945/13141

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

24h Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	1	1
6.25		1	1	1	1
12.5		1	1	1	1
25		1	1	1	1
50		1	0.9	1	1
100		0.9	0.9	1	1

48h Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	1	1
6.25		1	1	1	1
12.5		1	1	1	1
25		1	1	1	1
50		1	0.8	1	1
100		0.6	0.4	0.8	0.9

72h Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	1	1
6.25		1	1	1	0.9
12.5		1	1	1	1
25		1	1	1	1
50		1	0.8	1	1
100		0.1	0.1	0.3	0.3

96h Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	1	1
6.25		1	1	1	0.9
12.5		1	1	1	1
25		1	1	1	1
50		1	0.8	1	1
100		0	0	0	0

CETIS Analytical Report

Report Date: 11 Apr-12 13:23 (p 1 of 4)
 Link/Link Code: 05-5229-1945/13141

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Analysis No: 16-9028-7790	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.6.4
Analyzed: 11 Apr-12 13:22	Analysis: Nonparametric-Control vs Treatments	Official Results: Yes
Test Run No: 10-1835-9235	Test Type: Survival (96h)	Analyst:
Start Date: 06 Apr-12 14:45	Protocol: EPA/821/R-02-012 (2002)	Diluent: Laboratory Seawater
Ending Date: 10 Apr-12 14:50	Species: Mysidopsis bahia	Brine: Forty Fathoms
Duration: 4d 0h	Source: Aquatic Biosystems, CO	Age: 4
Sample No: 15-0323-3264	Code: 1503233264	Client: Test America
Sample Date: 05 Apr-12 13:00	Material: Unknown	Project: Effluent Characterization (Annual)
Receive Date: 06 Apr-12 12:10	Source: Test America	
Sample Age: 26h	Station: 200-10231-1	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)		C > T	Not Run	50	100	70.7	2	8.04%

Steel Many-One Rank Test

Control	vs Conc-%	Test Stat	Critical	Ties	P-Value	Decision(5%)
Dilution Water	6.25	16	10	1	0.5660	Non-Significant Effect
	12.5	18	10	1	0.8000	Non-Significant Effect
	25	18	10	1	0.8000	Non-Significant Effect
	50	16	10	1	0.5660	Non-Significant Effect

Test Acceptability

Attribute	Test Stat	Acceptability Limits	Overlap	Decision
Control Resp	1	0.9 - NL	Yes	Passes acceptability criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.018932	0.004733	4	0.792	0.5480	Non-Significant Effect
Error	0.089628	0.005975	15			
Total	0.10856	0.010708	19			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Mod Levene Equality of Variance	0.792	4.89	0.5480	Equal Variances
Distribution	Shapiro-Wilk Normality	0.689		0.0000	Non-normal Distribution

96h Survival Rate Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	1	1	1	1	1	0	0	0.0%	0.0%
6.25		4	0.975	0.956	0.994	0.9	1	0.00928	0.05	5.13%	2.5%
12.5		4	1	1	1	1	1	0	0	0.0%	0.0%
25		4	1	1	1	1	1	0	0	0.0%	0.0%
50		4	0.95	0.912	0.988	0.8	1	0.0186	0.1	10.5%	5.0%

Angular (Corrected) Transformed Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	1.41	1.41	1.41	1.41	1.41	0	0	0.0%	0.0%
6.25		4	1.37	1.34	1.4	1.25	1.41	0.0151	0.0815	5.94%	2.89%
12.5		4	1.41	1.41	1.41	1.41	1.41	0	0	0.0%	0.0%
25		4	1.41	1.41	1.41	1.41	1.41	0	0	0.0%	0.0%
50		4	1.34	1.28	1.39	1.11	1.41	0.0283	0.152	11.4%	5.4%

CETIS Analytical Report

Report Date: 11 Apr-12 13:23 (p 2 of 4)

Link/Link Code: 05-5229-1945/13141

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Analysis No: 16-9028-7790

Endpoint: 96h Survival Rate

CETIS Version: CETISv1.6.4

Analyzed: 11 Apr-12 13:22

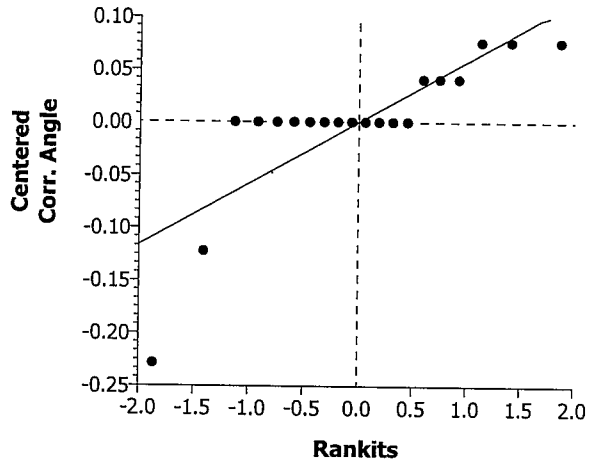
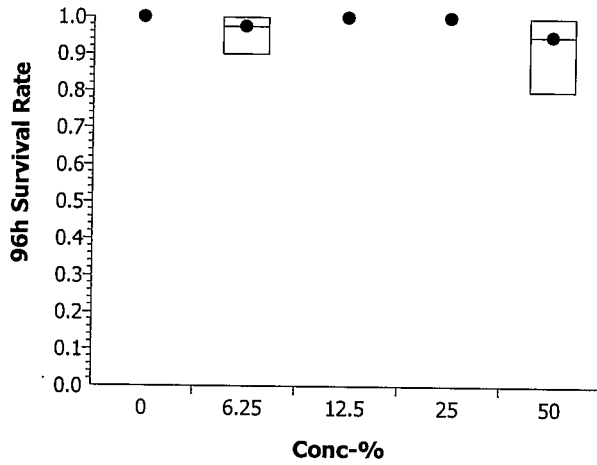
Analysis: Nonparametric-Control vs Treatments

Official Results: Yes

96h Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	1	1
6.25		1	1	1	0.9
12.5		1	1	1	1
25		1	1	1	1
50		1	1	1	0.8

Graphics



CETIS Analytical Report

Report Date: 11 Apr-12 13:23 (p 3 of 4)

Link/Link Code: 05-5229-1945/13141

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Analysis No: 15-4346-8202	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.6.4
Analyzed: 11 Apr-12 13:20	Analysis: Nonparametric-Control vs Treatments	Official Results: Yes
Test Run No: 10-1835-9235	Test Type: Survival (96h)	Analyst:
Start Date: 06 Apr-12 14:45	Protocol: EPA/821/R-02-012 (2002)	Diluent: Laboratory Seawater
Ending Date: 10 Apr-12 14:50	Species: Mysidopsis bahia	Brine: Forty Fathoms
Duration: 4d 0h	Source: Aquatic Biosystems, CO	Age: 4
Sample No: 15-0323-3264	Code: 1503233264	Client: Test America
Sample Date: 05 Apr-12 13:00	Material: Unknown	Project: Effluent Characterization (Annual)
Receive Date: 06 Apr-12 12:10	Source: Test America	
Sample Age: 26h	Station: 200-10231-1	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)		C > T	Not Run	50	100	70.7	2	12.5%

Steel Many-One Rank Test

Control	vs Conc-%	Test Stat	Critical	Ties	P-Value	Decision(5%)
Dilution Water	6.25	18	10	1	0.8330	Non-Significant Effect
	12.5	18	10	1	0.8330	Non-Significant Effect
	25	18	10	1	0.8330	Non-Significant Effect
	50	16	10	1	0.6100	Non-Significant Effect
	100*	10	10	0	0.0417	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.592741	0.118548	5	8.39	0.0003	Significant Effect
Error	0.254261	0.014126	18			
Total	0.847002	0.132674	23			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Mod Levene Equality of Variance	4.56	4.25	0.0073	Unequal Variances
Distribution	Shapiro-Wilk Normality	0.752		0.0001	Non-normal Distribution

48h Survival Rate Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	1	1	1	1	1	0	0	0.0%	0.0%
6.25		4	1	1	1	1	1	0	0	0.0%	0.0%
12.5		4	1	1	1	1	1	0	0	0.0%	0.0%
25		4	1	1	1	1	1	0	0	0.0%	0.0%
50		4	0.95	0.912	0.988	0.8	1	0.0186	0.1	10.5%	5.0%
100		4	0.675	0.591	0.759	0.4	0.9	0.0412	0.222	32.8%	32.5%

Angular (Corrected) Transformed Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	1.41	1.41	1.41	1.41	1.41	0	0	0.0%	0.0%
6.25		4	1.41	1.41	1.41	1.41	1.41	0	0	0.0%	0.0%
12.5		4	1.41	1.41	1.41	1.41	1.41	0	0	0.0%	0.0%
25		4	1.41	1.41	1.41	1.41	1.41	0	0	0.0%	0.0%
50		4	1.34	1.28	1.39	1.11	1.41	0.0283	0.152	11.4%	5.4%
100		4	0.982	0.887	1.08	0.685	1.25	0.0461	0.248	25.3%	30.5%

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

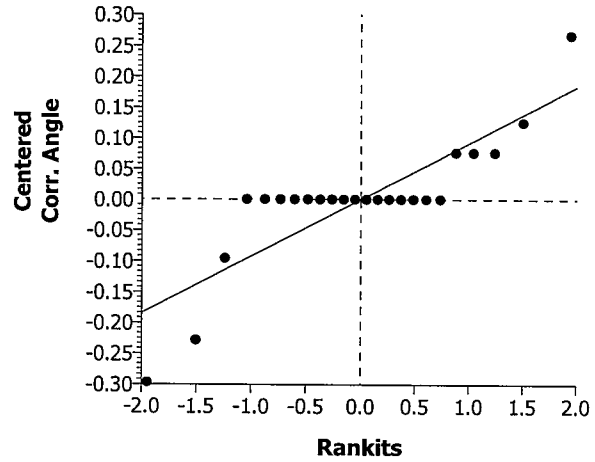
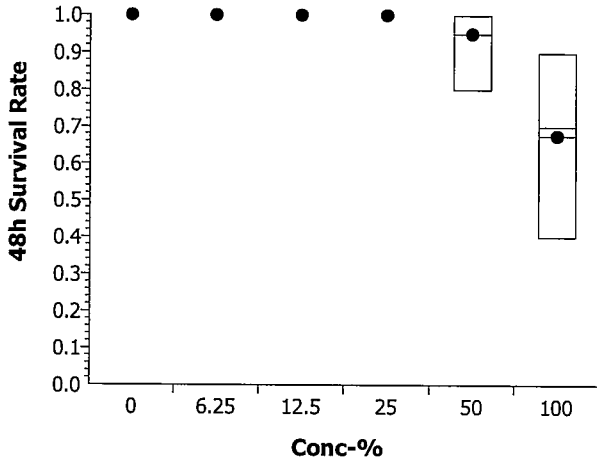
Analysis No: 15-4346-8202 Endpoint: 48h Survival Rate
 Analyzed: 11 Apr-12 13:20 Analysis: Nonparametric-Control vs Treatments

CETIS Version: CETISv1.6.4
 Official Results: Yes

48h Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	1	1
6.25		1	1	1	1
12.5		1	1	1	1
25		1	1	1	1
50		1	1	1	0.8
100		0.9	0.8	0.6	0.4

Graphics



CETIS Analytical Report

Report Date: 11 Apr-12 13:23 (p 1 of 2)
 Link/Link Code: 05-5229-1945/13141

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Analysis No: 12-1274-5698	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.6.4
Analyzed: 11 Apr-12 13:21	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes
Test Run No: 10-1835-9235	Test Type: Survival (96h)	Analyst:
Start Date: 06 Apr-12 14:45	Protocol: EPA/821/R-02-012 (2002)	Diluent: Laboratory Seawater
Ending Date: 10 Apr-12 14:50	Species: Mysidopsis bahia	Brine: Forty Fathoms
Duration: 4d 0h	Source: Aquatic Biosystems, CO	Age: 4
Sample No: 15-0323-3264	Code: 1503233264	Client: Test America
Sample Date: 05 Apr-12 13:00	Material: Unknown	Project: Effluent Characterization (Annual)
Receive Date: 06 Apr-12 12:10	Source: Test America	
Sample Age: 26h	Station: 200-10231-1	

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% C	Method
Log(X + 1)	Linear	57951	200	Yes	Two-Point Interpolation

Point Estimates

Effect-%	Conc-%	95% LCL	95% UCL
2.5	35.4	23.7	66
5	50	20.5	65.2
10	56.7	29.5	79.2
15	64.4	41.4	106
20	73	51.4	N/A
25	82.8	53.3	N/A
40	> 100	N/A	N/A
50	> 100	N/A	N/A

48h Survival Rate Summary

Calculated Variate(A/B)

Conc-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	Diff%	A	B
0	Dilution Water	4	1	1	1	0	0	0.0%	0.0%	40	40
6.25		4	1	1	1	0	0	0.0%	0.0%	40	40
12.5		4	1	1	1	0	0	0.0%	0.0%	40	40
25		4	1	1	1	0	0	0.0%	0.0%	40	40
50		4	0.95	0.8	1	0.0183	0.1	10.5%	5.0%	38	40
100		4	0.675	0.4	0.9	0.0405	0.222	32.8%	32.5%	27	40

48h Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	1	1
6.25		1	1	1	1
12.5		1	1	1	1
25		1	1	1	1
50		1	0.8	1	1
100		0.6	0.4	0.8	0.9

CETIS Analytical Report

Report Date: 11 Apr-12 13:23 (p 2 of 2)
Link/Link Code: 05-5229-1945/13141

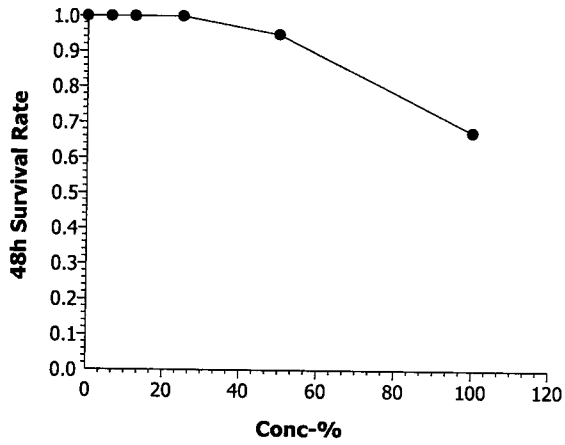
Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Analysis No: 12-1274-5698 Endpoint: 48h Survival Rate
Analyzed: 11 Apr-12 13:21 Analysis: Linear Interpolation (ICPIN)

CETIS Version: CETISv1.6.4
Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 11 Apr-12 13:23 (p 1 of 1)

Link/Link Code: 05-5229-1945/13141

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Analysis No: 13-7212-1511	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.6.4
Analyzed: 11 Apr-12 13:21	Analysis: Trimmed Spearman-Kärber	Official Results: Yes
Test Run No: 10-1835-9235	Test Type: Survival (96h)	Analyst:
Start Date: 06 Apr-12 14:45	Protocol: EPA/821/R-02-012 (2002)	Diluent: Laboratory Seawater
Ending Date: 10 Apr-12 14:50	Species: Mysidopsis bahia	Brine: Forty Fathoms
Duration: 4d 0h	Source: Aquatic Biosystems, CO	Age: 4
Sample No: 15-0323-3264	Code: 1503233264	Client: Test America
Sample Date: 05 Apr-12 13:00	Material: Unknown	Project: Effluent Characterization (Annual)
Receive Date: 06 Apr-12 12:10	Source: Test America	
Sample Age: 26h	Station: 200-10231-1	

Spearman-Kärber Estimates

Threshold Option	Threshold	Trim	Mu	Sigma	EC/LC50	95% LCL	95% UCL
Control Threshold	0	0.83%	1.84	0.0108	68.5	65.1	71.9

Test Acceptability

Attribute	Test Stat	Acceptability Limits	Overlap	Decision
Control Resp	1	0.9 - NL	Yes	Passes acceptability criteria

96h Survival Rate Summary

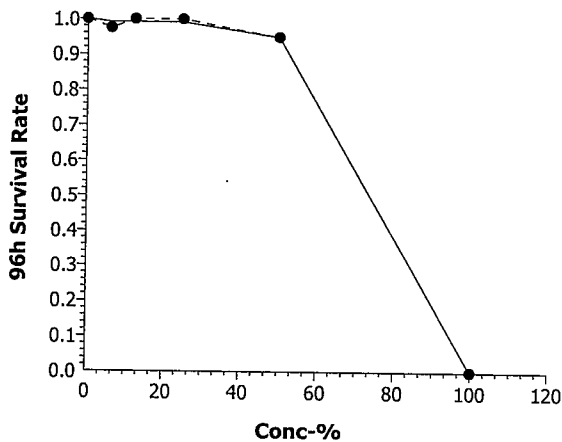
Calculated Variate(A/B)

Conc-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	Diff%	A	B
0	Dilution Water	4	1	1	1	0	0	0.0%	0.0%	40	40
6.25		4	0.975	0.9	1	0.00913	0.05	5.13%	2.5%	39	40
12.5		4	1	1	1	0	0	0.0%	0.0%	40	40
25		4	1	1	1	0	0	0.0%	0.0%	40	40
50		4	0.95	0.8	1	0.0183	0.1	10.5%	5.0%	38	40
100		4	0	0	0	0	0		100.0%	0	40

96h Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	1	1
6.25		1	1	1	0.9
12.5		1	1	1	1
25		1	1	1	1
50		1	0.8	1	1
100		0	0	0	0

Graphics



CETIS Test Data Worksheet

Report Date: 11 Apr-12 13:19 (p 1 of 1)

Link/Link Code: 05-5229-1945/13141

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Start Date: 06 Apr-12 14:45

Species: Mysidopsis bahia

Sample Code: 1503233264

Ending Date: 10 Apr-12 14:50

Protocol: EPA/821/R-02-012 (2002)

Sample Source: Test America

Sample Date: 05 Apr-12 13:00

Material: Unknown

Sample Station: 200-10231-1

Conc-%	Code	Rep	Pos	# Exposed	24h Survival	48h Survival	72h Survival	96h Survival	1hSurvival	2hSurvival
0	D	1	19	10	10	10	10	10		
0	D	2	10	10	10	10	10	10		
0	D	3	6	10	10	10	10	10		
0	D	4	24	10	10	10	10	10		
6.25		1	8	10	10	10	10	10		
6.25		2	1	10	10	10	10	10		
6.25		3	15	10	10	10	10	10		
6.25		4	22	10	10	10	9	9		
12.5		1	11	10	10	10	10	10		
12.5		2	13	10	10	10	10	10		
12.5		3	7	10	10	10	10	10		
12.5		4	5	10	10	10	10	10		
25		1	20	10	10	10	10	10		
25		2	21	10	10	10	10	10		
25		3	2	10	10	10	10	10		
25		4	12	10	10	10	10	10		
50		1	9	10	10	10	10	10		
50		2	14	10	9	8	8	8		
50		3	16	10	10	10	10	10		
50		4	17	10	10	10	10	10		
100		1	3	10	9	6	1	0		
100		2	23	10	9	4	1	0		
100		3	18	10	10	8	3	0		
100		4	4	10	10	9	3	0		

2007.0-96r Mysid, A. bahia, 96-H Renewal Acute Survival

Species: *Americamysis bahia*

Reference: EPA-821-R-02-012

SOP: TOX2-004

TOXICITY TEST DATA:

Test ID: 64025

% Effluent		Day 0	Day 1	Day 2	Day 3	Day 4
0 %	A	10	10	10	10	10
	B	10	10	10	10	10
	C	10	10	10	10	10
	D	10	10	10	10	10
6.25 %	A	10	10	10	10	10
	B	10	10	10	10	10
	C	10	10	10	10	10
	D	10	10	10	9	9
12.5 %	A	10	10	10	10	10
	B	10	10	10	10	10
	C	10	10	10	10	10
	D	10	10	10	10	10
25 %	A	10	10	10	10	10
	B	10	10	10	10	10
	C	10	10	10	10	10
	D	10	10	10	10	10
50 %	A	10	10	10	10	10
	B	10	9	8	8	8
	C	10	10	10	10	10
	D	10	10	10	10	10
100 %	A	10	9	6	1	0
	B	10	9	4	1	0
	C	10	10	8	3	0
	D	10	10	9	3	0

Sample #	42546	42546	42546	42546	42546
Fed AM	—	0850 JG	0800 RR	0840 RR	0900 JG
Fed PM	1655 JG	1510 JG	1500	1645 RR	—
Renewal (D/T/I)	4-6-12 1445 JG	4-7-12 1420 JG	4/8/12 1445 RR	4/9/12 15:15 J	4-10-12 1450 JG

NOTES: Feeding Lot Number(s): 082611

2007.0-96r Mysid, A. bahia, 96-H Renewal Acute Survival

Species: *Americamysis bahia*

Reference: EPA-821-R-02-012

SOP: TOX2-004

CHEMISTRY DATA:

% Effluent	Analysis	Initial Chemistry				Final Chemistry				
		Day 0	Day 1	Day 2	Day 3	Analysis	Day 1	Day 2	Day 3	Day 4
0 % CTRL	pH	8.0	8.0	8.0	8.0	pH	7.8	7.7	7.8	7.8
	DO	7.6	7.4	7.8	7.3	DO	6.8	6.7	6.8	6.5
	Temp.	24.7	24.8	24.4	25.9	Temp.	24.6	24.5	24.9	24.6
	Sal.	26	26	25	25	Sal.	26	26	25	25
6.25 % Effluent	pH	8.0	8.0	8.0	8.1	pH	7.8	7.7	7.7	7.8
	DO	7.7	7.6	7.7	7.3	DO	6.7	6.3	6.5	6.5
	Temp.	24.7	24.8	24.8	25.8	Temp.	24.5	24.9	24.7	24.5
	Sal.	25	25	25	25	Sal.	25	25	25	25
12.5 % Effluent	pH	8.0	8.0	8.1	8.1	pH	7.9	7.8	7.8	7.9
	DO	7.7	7.6	7.7	7.4	DO	6.7	6.6	6.7	6.4
	Temp.	24.7	24.8	24.9	25.8	Temp.	24.4	24.3	24.6	24.5
	Sal.	25	25	25	25	Sal.	25	25	25	25
25 % Effluent	pH	8.0	8.0	8.0	8.1	pH	7.9	7.9	7.9	7.9
	DO	7.8	7.6	7.8	7.4	DO	6.7	6.7	6.5	6.4
	Temp.	24.9	24.8	24.9	25.8	Temp.	24.5	24.2	24.2	24.6
	Sal.	25	25	25	25	Sal.	25	25	25	25
50 % Effluent	pH	8.0	8.0	8.0	8.0	pH	8.0	7.9	8.0	8.0
	DO	7.8	7.7	7.8	7.7	DO	6.6	6.5	6.7	6.4
	Temp.	25.2	25.1	25.1	25.8	Temp.	24.7	24.3	24.5	24.7
	Sal.	25	25	25	25	Sal.	25	25	25	25
100 % Effluent	pH	8.1	8.0	8.0	8.0	pH	8.1	8.1	8.1	8.1
	DO	7.9	7.8	8.2	8.1	DO	6.5	6.8	6.9	6.8
	Temp.	25.5	25.4	25.2	25.6	Temp.	24.6	24.7	24.9	24.6
	Sal.	25	25	25	25	Sal.	25	25	24	25
Sample #	42546	42546	42546	42546	Sample #	42546	42546	42546	42546	
Date	4/6/12	4/7	4/8/12	4/9/12	Date	4/7	4/8/12	4/9/12	4/10	
Initials	JG	JG	KK	KL	Initials	JG	KK	J	JG	

NOTES:



Aquatec Biological Sciences, Inc.

273 Commerce Street
 Williston, VT 05495
 Tel: (802) 860 - 1638 Fax: (802) 658 - 3189

TestAmerica Burlington
 30 Community Drive

Tel: (802) 923-1017
 Fax:

South Burlington, VT 05403

E-Mail: kirk.young@testam

Project: Mysid acute test

Permit No. N/A

Pipe No. 1

SAMPLE PREPARATION:

Initial Sample

	EFFLUENT	RECEIVING					LAB CONTROL
Sample No.	42546	/					42547
Filtration	60 Micron	60 Micron					N/A
Chlorine (1)	ND	/					N/A
Chlorine (2)	—	/					N/A
NaThio Lot No	—	/					N/A
Original Salinity:	N/A	N/A					N/A
Date / Initials:	4/6/12 JG	/					

- (1) Record vol. 0.025 N sodium thiosulfate to dechlorinate 100mL sample or record "ND" (Not Detected)
- (2) Dechlorination required if detected. Record vol. 0.25 N sodium thiosulfate added per gallon effluent.

Organism Holding and Acclimation

Species: <i>Americamysis bahia</i>	Date received: 4-5-12
Source: ABS	Hatch date: 4-2-12
No. ordered	Culture ID: 040512-1

Acclimation / Holding Procedures: Transfer juvenile mysids to a large beaker or bowl. Add Forty Fathoms Artificial Salt Water. Acclimate to 25°C and 25‰ salinity with Forty Fathoms. Exchange 50% of holding water daily.

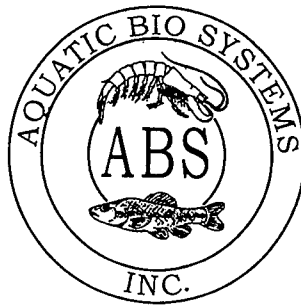
Feeding: *Artemia* nauplii twice daily (am/pm). Do not allow excess to accumulate.
Artemia lot#:

Monitoring: Daily, record apparent condition of mysids. Temperature daily; pH, D.O., salinity every other day.

2012 Date	Fed	Temp °C	pH	D.O.	Sal.	Water Change	Condition *	Init.
4/5	1005/1700	22.6	7.4	11.7	25‰	75% w / 25‰	Normal	JG
4/6	0915/	22.8	7.6	6.9	25	75% w / 25‰ FF	Normal	JG
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							

* N = normal, appear healthy. Record # dead if any observed.

1300 Blue Spruce Drive, Suite C
Fort Collins, Colorado 80524



Toll Free: 800/331-5916
Tel: 970/484-5091 Fax: 970/484-2514

ORGANISM HISTORY

DATE: 4/4/2012

SPECIES: Americamysis bahia (formerly Mysidopsis)

AGE: 2 day

LIFE STAGE: Juvenile

HATCH DATE: 4/2/2012

BEGAN FEEDING: Immediately

FOOD: Artemia sp.


Received:
4-5-12
Temp. = 22.6°C
pH = 7.4
DO = 11.7
Salinity = 25‰

Water Chemistry Record:

	Mean	Range
TEMPERATURE:	<u>25°C</u>	<u>23-26 °C</u>
SALINITY/CONDUCTIVITY:	<u>25 ppt</u>	<u>21-30 ppt</u>
TOTAL HARDNESS (as CaCO ₃):	<u>--</u>	<u>--</u>
TOTAL ALKALINITY (as CaCO ₃):	<u>125 mg/l</u>	<u>100-185 mg/l</u>
pH:	<u>7.91</u>	<u>7.20-8.32</u>

Added FF
Fed @ 1005
JG

Comments:



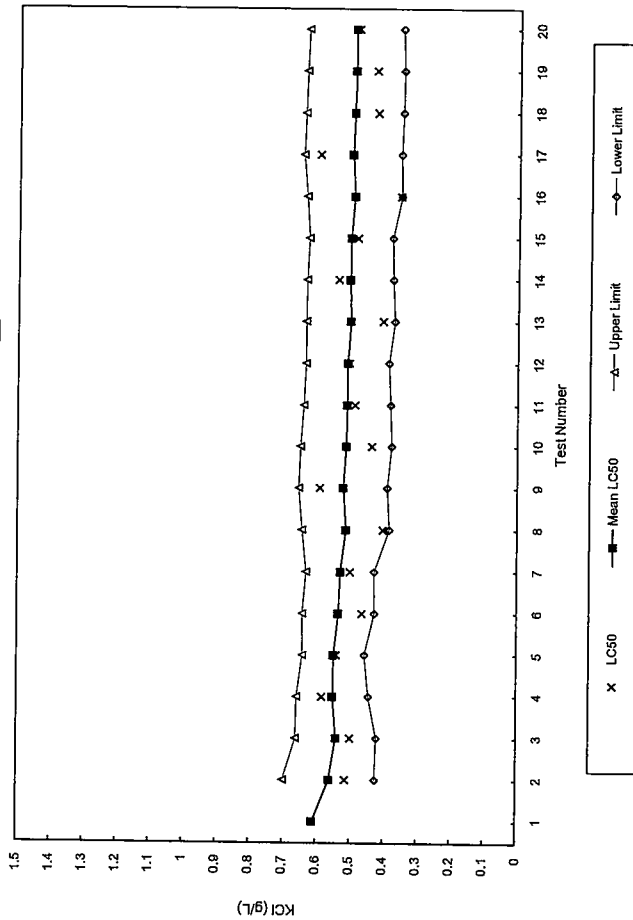
Facility Supervisor

Standard Reference Toxicant Control Charts

Americamysis bahia
Reference Toxicant Control Chart for KCl Acute Toxicity

Test Number	Test Date	LC50 (g/L)	Mean LC50	Calculated limits Upper	Calculated limits Lower	Organism Source	Age (Days)
1	10/7/08-10/9/08	0.61	0.61			Aquatic BioSystems	1
2	11/6/08-11/8/08	0.513	0.56	0.70	0.42	Aquatic BioSystems	3
3	12/10/08-12/12/08	0.5	0.54	0.66	0.42	Aquatic BioSystems	2
4	1/21/09-1/23/09	0.583	0.55	0.66	0.44	Aquatic BioSystems	2
5	2/3/09-2/5/09	0.542	0.55	0.64	0.46	Aquatic BioSystems	1
6	6/24/09-6/26/09	0.466	0.54	0.64	0.43	Aquatic BioSystems	2
7	11/1/09-11/13/09	0.501	0.53	0.63	0.43	Aquatic BioSystems	3
8	3/9/10-3/11/10	0.404	0.51	0.64	0.38	Aquatic BioSystems	2
9	6/29/10-7/1/10	0.593	0.52	0.66	0.39	Aquatic BioSystems	1
10	9/9/10-9/11/10	0.439	0.52	0.65	0.38	Aquatic BioSystems	5
11	9/24/10-9/26/10	0.49	0.51	0.64	0.38	Aquatic Indicators	5
12	12/14/10-12/21/10	0.507	0.51	0.64	0.39	Aquatic BioSystems	7
13	3/22/11-3/24/11	0.407	0.50	0.64	0.37	Aquatic BioSystems	2
14	5/17/11-5/24/11	0.541	0.51	0.64	0.38	Aquatic BioSystems	7
15	6/14/11-6/16/11	0.485	0.51	0.63	0.38	Aquatic BioSystems	3
16	9/1/11-9/3/11	0.357	0.50	0.64	0.36	Aquatic BioSystems	15
17	10/25/11-11/1/11	0.599	0.50	0.65	0.36	Aquatic BioSystems	7
18	12/10/11-12/12/11	0.427	0.50	0.64	0.35	Aquatic BioSystems	2
19	3/14/12-3/16/12	0.431	0.49	0.64	0.35	Aquatic BioSystems	7
20	04/05/12-04/12/12	0.485	0.49	0.63	0.35	Aquatic BioSystems	7

Reference Control Chart
Americamysis bahia Acute LC50



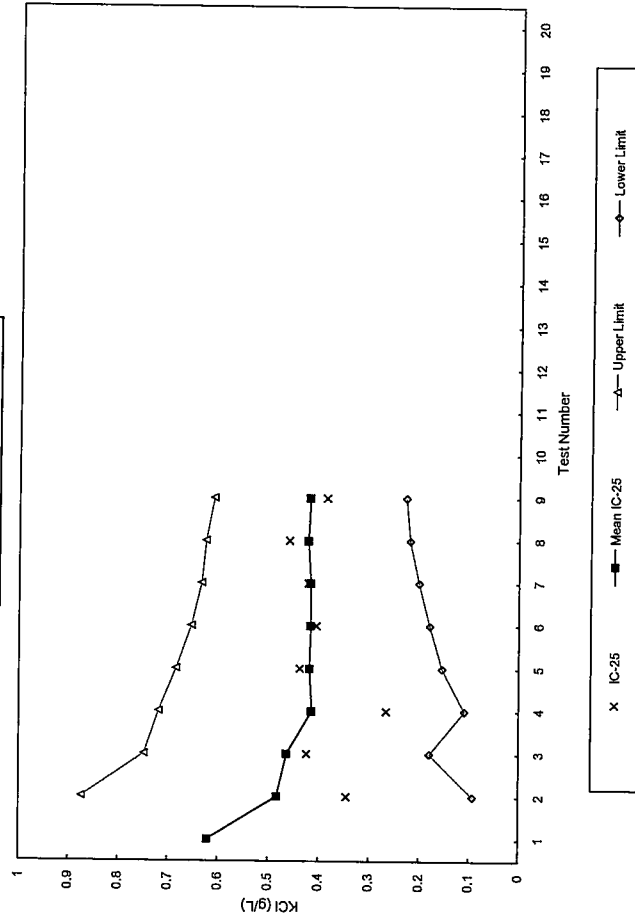
lqaqqlsrsAb acute chronic SRT

Americamysis bahia
Reference Toxicant Control Chart for KCl Chronic Toxicity

Test Number	Test Date	IC-25 (g/L)	Mean IC-25	Calculated limits Upper	Calculated limits Lower	Organism Source	Age (Days)
1	04/18/97	0.621	0.62			Aquatic Biological Scie	7
2	05/02/06	0.345	0.48	0.87	0.09	Aquatic BioSystems	7
3	08/23/06	0.424	0.46	0.75	0.18	Aquatic BioSystems	7
4	11/14/06	0.266	0.41	0.72	0.11	Aquatic BioSystems	7
5	9/27/07-10/4/07	0.438	0.42	0.68	0.15	Aquatic BioSystems	7
6	12/14/10-12/21/10	0.405	0.42	0.65	0.18	Aquatic BioSystems	7
7	5/17/11-5/24/11	0.421	0.42	0.63	0.20	Aquatic BioSystems	7
8	10/25/11-11/1/11	0.46	0.42	0.63	0.22	Aquatic BioSystems	7
9	3/14/12-3/21/12	0.385	0.42	0.61	0.23	Aquatic BioSystems	7

*3/14/12-3/21/12 control survival <80%

Reference Control Chart
Americamysis bahia Chronic IC25



CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO.	PROJECT NAME										SDG NUMBER	COC Number												
B000964.0002.70004	Tierra Phase I Removal										PRR1200													
SAMPLERS:																								
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATCME-16	4/5/2012	13:00	water	Grab	52	X	X	X	X	X	X	X	X	X	X									
PRR1WATCMI-16	4/5/2012	12:45	water	Grab	9	X	X	X	X	X														
TB04052012	4/5/2012		water		3	X	X																	
PRR1WATCME-15	4/4/2012	16:00	water	Grab	1	X																		

Requested Analyses	Special QA/QC Instructions
CO 1 TOC CO 2 VOCs CO 3 SVOCs CO 4 Aroclor PCBs CO 5 Pesticides CO 6 Metals + Hg CO 7 Cyanide CO 8 Herbicides CO 9 TSS CO 10 WET Testing	<input type="checkbox"/> Special QA/QC Instructions
Special Instructions/Comments: Refer to RAWP QAPP WS 15-4 for Effluent Samples and 15-5 for Influent Samples Triple volume collected for MS/MSD for PRR1WATCME-15 (except ISS and WET Testing)	

Laboratory Information and Receipt	Sample Receipt:	Condition/Cooler Temp:	Received by:
Lab Name: TestAmerica - Burlington, VT Shipping Tracking # Specify Turnaround Requirements: 7 day TAT	<input type="checkbox"/> Cooler packed with ice <input type="checkbox"/> Cooler custody seal intact	Received by: <i>[Signature]</i> 4/6/12 12:10 Received by: <i>[Signature]</i> 4/6/12 12:10 Received by: <i>[Signature]</i>	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10231-1

SDG Number: PRR1200

Login Number: 10231

List Number: 1

Creator: Marion, Greg T

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417836
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8,4.0,3.0,4.0,1.6°C IR GUN ID 154/CF=0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



Ship Date: 05APR12
ActWgt: 30.0 LB
CAD: 103767025/NET3250

Dims: 23 X 14 X 15 IN

Newark, NJ 07105

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11
SOUTH BURLINGTON, VT 05403

BILL ORDER

J12101112190225

Ref # 1129-1616-4
Invoice #
PO # B0009364.0002.70004-11128
Dept #

1 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

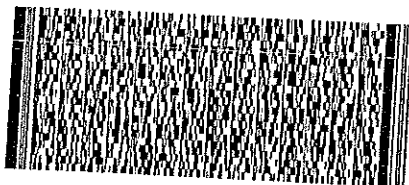
TRK# 7982 5389 8605

0201

MASTER

ZF BTVA

05403
VT-US
BTV



512GUC410A278

SOUTH BURLINGTON, VT 05403

2 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

MPS# 7982 5389 8833

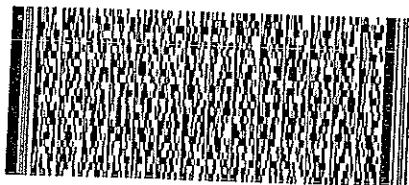
0263

Mstr# 7982 5389 8605

0201

ZF BTVA

05403
VT-US
BTV



512GUC440A278

4 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

MPS# 7982 5389 8914

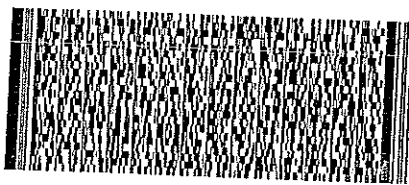
0263

Mstr# 7982 5389 8605

0201

ZF BTVA

05403
VT-US
BTV



512GUC410A278

After printing this label:

SOUTH BURLINGTON, VT 05403

5 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

MPS# 7982 5389 9060

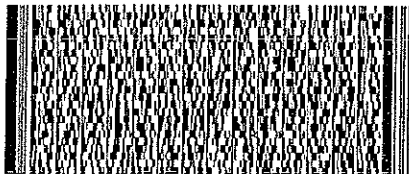
0263

Mstr# 7982 5389 8605

0201

ZF BTVA

05403
VT-US
BTV



Page 88 of 88

ANALYTICAL REPORT

Job Number: 200-10232-1

SDG Number: PRR1200

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/13/2012 5:03 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/13/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	32
QC Results	34
Qc Association Summary	35
Surrogate Recovery Report	40
Qc Reports	46
Client Chain of Custody	70
Sample Receipt Checklist	71

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1200 (200-10232-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis.

Manual integration was employed in deriving certain of the analytical results.

Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

It should be noted that there was effectively no recovery of cyanide in the matrix spike analysis that was performed on sample PRR1WATCME-16. The post distillation spike analysis did yield a recovery of 98 percent.

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR
Semivolatiles	TAL BUR	SOM01.2 SOM01.2/SV	
Extraction of Water Samples	TAL BUR		SOM01.2 CONT
Aroclors	TAL BUR	SOM01.2 SOM01.2/PCB	
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Sulfuric Acid/Permanganate Cleanup	TAL BUR		SOM01.2 SOM01.2/SO4CU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Extraction of Low level Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Low Level CLP Extraction of Pesticides	TAL BUR		SOM01.2 SOM01.2LL_Pest
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
ISM01.2 Mercury	TAL BUR	ISM01.2 ISM01.2/HG	
7470A	TAL BUR		SW846 7470A
ISM01.2 Metals (ICPMS)	TAL BUR	ISM01.2 ISM01.2/ICPMS	
200.8	TAL BUR		EPA 200.8
ISM01.2 Cyanide	TAL BUR	ISM01.2 ISM01.2/CN	
Midi-distillation	TAL BUR		ISM01.1 Midi-Distillati

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

ISM01.1 = U.S. Environmental Protection Agency

ISM01.2 = U.S. Environmental Protection Agency

SOM01.2 = U.S. Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP
SOM01.2 SOM01.2/SV	Bissonette, Donald J	DJB
SOM01.2 SOM01.2/PCB	Duncan, Stacey L	SLD
SOM01.2 SOM01.2/Pest	Lambert, Kelly T	KTL
ISM01.2 ISM01.2/HG	Pham, Vu T	VTP
ISM01.2 ISM01.2/ICPMS	Lyons, Benjamin	BL
ISM01.2 ISM01.2/CN	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10232-1	PRR1WATCME-16	Water	04/05/2012 1300	04/06/2012 1010
200-10232-1MS	PRR1WATCME-16	Water	04/05/2012 1300	04/06/2012 1010
200-10232-1MSD	PRR1WATCME-16	Water	04/05/2012 1300	04/06/2012 1010
200-10232-1DU	PRR1WATCME-16	Water	04/05/2012 1300	04/06/2012 1010
200-10232-2	PRR1WATCMI-16	Water	04/05/2012 1245	04/06/2012 1010
200-10232-3	TB04052012	Water	04/05/2012 0000	04/06/2012 1010
200-10232-4	VHBLK01	Water	04/06/2012 1250	04/06/2012 1010

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1

Date Sampled: 04/05/2012 1300

Client Matrix: Water

Date Received: 04/06/2012 1010

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdeg13.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/09/2012 1426			Final Weight/Volume:	25 mL
Prep Date:	04/09/2012 1426				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	100		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	121		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	111		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1
Client Matrix: Water

Date Sampled: 04/05/2012 1300
Date Received: 04/06/2012 1010

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdeg13.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/09/2012 1426			Final Weight/Volume:	25 mL
Prep Date:	04/09/2012 1426				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	142	*	28 - 135
1,1,2,2-Tetrachloroethane-d2	107		73 - 125
1,2-Dichlorobenzene-d4	104		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Client Sample ID: PRR1WATCMI-16

Lab Sample ID: 200-10232-2

Date Sampled: 04/05/2012 1245

Client Matrix: Water

Date Received: 04/06/2012 1010

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-36494	Instrument ID: J.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: jdeg18.d
Dilution: 8.8		Initial Weight/Volume: 25 mL
Analysis Date: 04/09/2012 1627		Final Weight/Volume: 25 mL
Prep Date: 04/09/2012 1627		

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	87		44
1,2,3-Trichlorobenzene	13		4.4

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	90		65 - 131
Chloroethane-d5	91		71 - 131
1,1-Dichloroethene-d2	69		55 - 104
2-Butanone-d5	119		49 - 155
Chloroform-d	91		78 - 121
1,2-Dichloroethane-d4	101		78 - 129
Benzene-d6	97		77 - 124
1,2-Dichloropropane-d6	90		79 - 124
Toluene-d8	96		77 - 121
trans-1,3-Dichloropropene-d4	95		73 - 121
2-Hexanone-d5	152	*	28 - 135
1,1,2,2-Tetrachloroethane-d2	103		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Client Sample ID: TB04052012

Lab Sample ID: 200-10232-3

Date Sampled: 04/05/2012 0000

Client Matrix: Water

Date Received: 04/06/2012 1010

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdeg16.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/09/2012 1539			Final Weight/Volume:	25 mL
Prep Date:	04/09/2012 1539				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	2.2	J	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.29	J	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.076	J	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.15	J	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	101		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	109		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	106		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Client Sample ID: TB04052012

Lab Sample ID: 200-10232-3
Client Matrix: Water

Date Sampled: 04/05/2012 0000
Date Received: 04/06/2012 1010

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdeg16.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/09/2012 1539			Final Weight/Volume:	25 mL
Prep Date:	04/09/2012 1539				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	118		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Client Sample ID: VHBLK01

Lab Sample ID: 200-10232-4

Date Sampled: 04/06/2012 1250

Client Matrix: Water

Date Received: 04/06/2012 1010

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdeg20.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/09/2012 1716			Final Weight/Volume:	25 mL
Prep Date:	04/09/2012 1716				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.029	J	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	102		65 - 131
Chloroethane-d5	104		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	117		49 - 155
Chloroform-d	100		78 - 121
1,2-Dichloroethane-d4	108		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Client Sample ID: VHBLK01

Lab Sample ID: 200-10232-4
Client Matrix: Water

Date Sampled: 04/06/2012 1250
Date Received: 04/06/2012 1010

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdeg20.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/09/2012 1716			Final Weight/Volume:	25 mL
Prep Date:	04/09/2012 1716				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	129		28 - 135
1,1,2,2-Tetrachloroethane-d2	103		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1

Date Sampled: 04/05/2012 1300

Client Matrix: Water

Date Received: 04/06/2012 1010

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-36591	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-36382	Lab File ID:	rjyqt06.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/10/2012 1120			Final Weight/Volume:	1000 uL
Prep Date:	04/06/2012 1719			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	RL
N-Nitrosodimethylamine	10	U	10
Phenol	5.0	U	5.0
Bis(2-chloroethyl)ether	5.0	U	5.0
2-Chlorophenol	5.0	U	5.0
2,2'-Oxybis(1-chloropropane)	5.0	U	5.0
Hexachloroethane	5.0	U	5.0
Nitrobenzene	5.0	U	5.0
Isophorone	5.0	U	5.0
2-Nitrophenol	5.0	U	5.0
2,4-Dimethylphenol	5.0	U	5.0
2,4-Dichlorophenol	5.0	U	5.0
Naphthalene	5.0	U	5.0
Hexachlorobutadiene	5.0	U	5.0
Hexachlorocyclopentadiene	5.0	U	5.0
2,4,6-Trichlorophenol	5.0	U	5.0
2,4,5-Trichlorophenol	0.36	J	5.0
Dimethylphthalate	5.0	U	5.0
2,6-Dinitrotoluene	5.0	U	5.0
2,4-Dinitrophenol	10	U	10
4-Nitrophenol	10	U	10
2,4-Dinitrotoluene	5.0	U	5.0
Diethylphthalate	5.0	U	5.0
Fluorene	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10
N-Nitrosodiphenylamine	5.0	U	5.0
Hexachlorobenzene	5.0	U	5.0
Pentachlorophenol	10	U	10
Phenanthrene	5.0	U	5.0
Anthracene	5.0	U	5.0
Di-n-butylphthalate	0.17	J B	5.0
Fluoranthene	5.0	U	5.0
Benzidine	10	U	10
Pyrene	5.0	U	5.0
Butylbenzylphthalate	0.31	J B	5.0
3,3'-Dichlorobenzidine	5.0	U	5.0
Benzo(a)anthracene	5.0	U	5.0
Chrysene	5.0	U	5.0
Bis(2-ethylhexyl)phthalate	0.66	J B	5.0
Benzo(b)fluoranthene	5.0	U	5.0
Benzo(k)fluoranthene	5.0	U	5.0
Benzo(a)pyrene	5.0	U	5.0
Indeno(1,2,3-cd)pyrene	5.0	U	5.0
Dibenzo(a,h)anthracene	5.0	U	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	57		39 - 106

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1

Date Sampled: 04/05/2012 1300

Client Matrix: Water

Date Received: 04/06/2012 1010

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-36591	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-36382	Lab File ID:	rjyqt06.d
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	04/10/2012 1120			Final Weight/Volume:	1000 uL
Prep Date:	04/06/2012 1719			Injection Volume:	2 uL

Surrogate	%Rec	Qualifier	Acceptance Limits
Bis(2-chloroethyl)ether-d8	63		40 - 105
2-Chlorophenol-d4	51		41 - 106
4-Methylphenol-d8	79		25 - 111
Nitrobenzene-d5	75		43 - 108
2-Nitrophenol-d4	71		40 - 108
2,4-Dichlorophenol-d3	64		37 - 105
4-Chloroaniline-d4	68		1 - 145
Dimethylphthalate-d6	80		47 - 114
Acenaphthylene-d8	70		41 - 107
4-Nitrophenol-d4	89		33 - 116
Fluorene-d10	78		42 - 111
4,6-Dinitro-2-methylphenol-d2	73		22 - 104
Anthracene-d10	77		44 - 110
Pyrene-d10	96		52 - 119
Benzo(a)pyrene-d12	83		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Client Sample ID: PRR1WATCMI-16

Lab Sample ID: 200-10232-2

Date Sampled: 04/05/2012 1245

Client Matrix: Water

Date Received: 04/06/2012 1010

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-36627	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-36384	Lab File ID:	rjyqx07.d
Dilution:	500			Initial Weight/Volume:	980 mL
Analysis Date:	04/11/2012 0928			Final Weight/Volume:	1000 uL
Prep Date:	04/06/2012 1748			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	RL
2,4,5-Trichlorophenol	24000		2600
4,6-Dinitro-2-methylphenol	5100	U	5100

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	135	D	39 - 106
Bis(2-chloroethyl)ether-d8	107	D	40 - 105
2-Chlorophenol-d4	112	D	41 - 106
4-Methylphenol-d8	168	D	25 - 111
Nitrobenzene-d5	135	D	43 - 108
2-Nitrophenol-d4	95		40 - 108
2,4-Dichlorophenol-d3	0	D	37 - 105
4-Chloroaniline-d4	0	D	1 - 145
Dimethylphthalate-d6	214	D	47 - 114
Acenaphthylene-d8	125	D	41 - 107
4-Nitrophenol-d4	131	D	33 - 116
Fluorene-d10	186	D	42 - 111
4,6-Dinitro-2-methylphenol-d2	73		22 - 104
Anthracene-d10	340	D	44 - 110
Pyrene-d10	251	D	52 - 119
Benzo(a)pyrene-d12	170	D	32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1

Date Sampled: 04/05/2012 1300

Client Matrix: Water

Date Received: 04/06/2012 1010

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-36495	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-36390	Initial Weight/Volume:	1030 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/09/2012 1143			Injection Volume:	1 uL
Prep Date:	04/06/2012 2001			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Aroclor-1016	0.97	U	0.97
Aroclor-1221	0.97	U	0.97
Aroclor-1232	0.97	U	0.97
Aroclor-1242	0.97	U	0.97
Aroclor-1248	0.97	U	0.97
Aroclor-1254	0.97	U	0.97
Aroclor-1260	0.97	U	0.97

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	88		30 - 150
Decachlorobiphenyl	77		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1
Client Matrix: Water

Date Sampled: 04/05/2012 1300
Date Received: 04/06/2012 1010

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-36495	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-36390	Initial Weight/Volume:	1030 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/09/2012 1143			Injection Volume:	1 uL
Prep Date:	04/06/2012 2001			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	88		30 - 150
Decachlorobiphenyl	86		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1

Date Sampled: 04/05/2012 1300

Client Matrix: Water

Date Received: 04/06/2012 1010

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36528	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-36389	Initial Weight/Volume:	1020 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	04/09/2012 1722			Injection Volume:	1 uL
Prep Date:	04/06/2012 2020			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.00065	J P B	0.0049
beta-BHC	0.00061	J P B	0.0049
delta-BHC	0.00068	J P B	0.0049
gamma-BHC (Lindane)	0.000038	J P	0.0049
Heptachlor	0.00037	J P B	0.0049
Aldrin	0.00024	J P	0.0049
Heptachlor epoxide	0.00016	J P	0.0049
Endosulfan I	0.00036	J	0.0049
Dieldrin	0.000088	J P B	0.0098
4,4'-DDE	0.0014	J	0.0098
Endrin	0.00011	J P	0.0098
Endosulfan II	0.00024	J P	0.0098
4,4'-DDD	0.0082	J	0.0098
Endosulfan sulfate	0.0098	U	0.0098
4,4'-DDT	0.0014	J P B	0.0098
Endrin aldehyde	0.0098	U	0.0098
alpha-Chlordane	0.0049	U	0.0049
gamma-Chlordane	0.00024	J P B	0.0049
Toxaphene	0.49	U	0.49

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	68		30 - 150
Decachlorobiphenyl	54		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1
Client Matrix: Water

Date Sampled: 04/05/2012 1300
Date Received: 04/06/2012 1010

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36528	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-36389	Initial Weight/Volume:	1020 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	04/09/2012 1722			Injection Volume:	1 uL
Prep Date:	04/06/2012 2020			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	69		30 - 150
Decachlorobiphenyl	55		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1
Client Matrix: Water

Date Sampled: 04/05/2012 1300
Date Received: 04/06/2012 1010

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36609	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-36389	Initial Weight/Volume:	1020 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	04/10/2012 1710			Injection Volume:	1 uL
Prep Date:	04/06/2012 2020			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	0.0098	U	0.0098
2,4'-DDT	0.0030	J P	0.0098
2,4'-DDD	0.0044	J	0.0098

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	66		30 - 150
Decachlorobiphenyl	57		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1
Client Matrix: Water

Date Sampled: 04/05/2012 1300
Date Received: 04/06/2012 1010

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36609	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-36389	Initial Weight/Volume:	1020 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	04/10/2012 1710			Injection Volume:	1 uL
Prep Date:	04/06/2012 2020			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	69		30 - 150
Decachlorobiphenyl	60		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Client Sample ID: PRR1WATCMI-16

Lab Sample ID: 200-10232-2
Client Matrix: Water

Date Sampled: 04/05/2012 1245
Date Received: 04/06/2012 1010

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36609	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-36391	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/10/2012 1840			Injection Volume:	1 uL
Prep Date:	04/06/2012 2004			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	2.2	E P	0.095
2,4'-DDD	0.57	P	0.095
2,4'-DDT	1.1	P	0.095

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	429	*	30 - 150
Decachlorobiphenyl	44		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Client Sample ID: PRR1WATCMI-16

Lab Sample ID: 200-10232-2
Client Matrix: Water

Date Sampled: 04/05/2012 1245
Date Received: 04/06/2012 1010

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36609	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-36391	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/10/2012 1840			Injection Volume:	1 uL
Prep Date:	04/06/2012 2004			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	877	*	30 - 150
Decachlorobiphenyl	62		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Client Sample ID: PRR1WATCMI-16

Lab Sample ID: 200-10232-2

Date Sampled: 04/05/2012 1245

Client Matrix: Water

Date Received: 04/06/2012 1010

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36610	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-36391	Initial Weight/Volume:	1050 mL
Dilution:	5.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/10/2012 2040	Run Type:	DL	Injection Volume:	1 uL
Prep Date:	04/06/2012 2004			Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	2.1	P D	0.48
2,4'-DDD	0.54	P D	0.48
2,4'-DDT	0.96	P D	0.48

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	550	D	30 - 150
Tetrachloro-m-xylene	1367	D	30 - 150
Decachlorobiphenyl	64		30 - 150
Decachlorobiphenyl	44		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Client Sample ID: PRR1WATCMI-16

Lab Sample ID: 200-10232-2
Client Matrix: Water

Date Sampled: 04/05/2012 1245
Date Received: 04/06/2012 1010

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36528	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-36391	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/09/2012 1918			Injection Volume:	1 uL
Prep Date:	04/06/2012 2004			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
delta-BHC	1.1	E P	0.048

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	926	*	30 - 150
Decachlorobiphenyl	42		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Client Sample ID: PRR1WATCMI-16

Lab Sample ID: 200-10232-2
Client Matrix: Water

Date Sampled: 04/05/2012 1245
Date Received: 04/06/2012 1010

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36528	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-36391	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/09/2012 1918			Injection Volume:	1 uL
Prep Date:	04/06/2012 2004			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	928	*	30 - 150
Decachlorobiphenyl	52		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Client Sample ID: PRR1WATCMI-16

Lab Sample ID: 200-10232-2
Client Matrix: Water

Date Sampled: 04/05/2012 1245
Date Received: 04/06/2012 1010

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36541	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-36391	Initial Weight/Volume:	1050 mL
Dilution:	10			Final Weight/Volume:	10000 uL
Analysis Date:	04/09/2012 2208	Run Type:	DL	Injection Volume:	1 uL
Prep Date:	04/06/2012 2004			Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	RL
delta-BHC	1.1	P D	0.48

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	1483	D	30 - 150
Tetrachloro-m-xylene	1471	D	30 - 150
Decachlorobiphenyl	52		30 - 150
Decachlorobiphenyl	40		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1

Date Sampled: 04/05/2012 1300

Client Matrix: Water

Date Received: 04/06/2012 1010

ISM01.2/HG ISM01.2 Mercury

Analysis Method:	ISM01.2/HG	Analysis Batch:	200-36547	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-36435	Lab File ID:	041012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/10/2012 1423			Final Weight/Volume:	50 mL
Prep Date:	04/09/2012 1000				

Analyte	Result (ug/L)	Qualifier	MDLE	RL
Mercury	0.20	U	0.084	0.20

ISM01.2/ICPMS ISM01.2 Metals (ICPMS)

Analysis Method:	ISM01.2/ICPMS	Analysis Batch:	200-36716	Instrument ID:	METICPMS2
Prep Method:	200.8	Prep Batch:	200-36555	Lab File ID:	041112-06.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	04/12/2012 0125			Final Weight/Volume:	100 mL
Prep Date:	04/10/2012 1653				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	3.8		0.15	2.0
Arsenic	6.6	*	0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	2.4		0.21	2.0
Copper	5.3		0.60	2.0
Lead	1.2		0.10	1.0
Nickel	19.3	E	0.14	1.0
Selenium	15.4	E	0.15	5.0
Silver	0.15	J	0.028	1.0

Analysis Method:	ISM01.2/ICPMS	Analysis Batch:	200-36770	Instrument ID:	METICPMS2
Prep Method:	200.8	Prep Batch:	200-36555	Lab File ID:	041212-02.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	04/12/2012 1504			Final Weight/Volume:	100 mL
Prep Date:	04/10/2012 1653				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Zinc	12.9		0.57	2.0

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

General Chemistry

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1
Client Matrix: Water

Date Sampled: 04/05/2012 1300
Date Received: 04/06/2012 1010

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide	10.0	U N	ug/L	1.0	10.0	1.0	ISM01.2/CN
	Analysis Batch: 200-36533	Analysis Date: 04/10/2012 1221					
	Prep Batch: 200-36493	Prep Date: 04/10/2012 1000					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	*	Surrogate exceeds the control limit
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	B	The analyte was found in an associated blank, as well as in the sample.
GC Semi VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	*	Surrogate exceeds the control limit
	P	The % Difference between columns is greater than 25%.
	B	The analyte was found in an associated blank, as well as in the sample.
Metals		
	*	Duplicate analysis not within control limits.
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL
	E	The reported value is estimated because of the presence of interference based on serial dilution analysis.

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Lab Section	Qualifier	Description
General Chemistry		
	U	Indicates analyzed for but not detected.
	N	PDS exceeds control limits

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-36494					
MB 200-36494/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10232-1	PRR1WATCME-16	T	Water	SOM01.2/VOA_T	
200-10232-1MS	Matrix Spike	T	Water	SOM01.2/VOA_T	
200-10232-1MSD	Matrix Spike Duplicate	T	Water	SOM01.2/VOA_T	
200-10232-2	PRR1WATCMI-16	T	Water	SOM01.2/VOA_T	
200-10232-3	TB04052012	T	Water	SOM01.2/VOA_T	
200-10232-4	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

GC/MS Semi VOA

Prep Batch: 200-36382					
MB 200-36382/1-A	Method Blank	T	Water	CONT	
200-10232-1	PRR1WATCME-16	T	Water	CONT	
200-10232-1MS	Matrix Spike	T	Water	CONT	
200-10232-1MSD	Matrix Spike Duplicate	T	Water	CONT	
Prep Batch: 200-36384					
MB 200-36384/1-A	Method Blank	T	Water	CONT	
200-10232-2	PRR1WATCMI-16	T	Water	CONT	
Analysis Batch:200-36591					
MB 200-36382/1-A	Method Blank	T	Water	SOM01.2/SV	200-36382
200-10232-1	PRR1WATCME-16	T	Water	SOM01.2/SV	200-36382
200-10232-1MS	Matrix Spike	T	Water	SOM01.2/SV	200-36382
200-10232-1MSD	Matrix Spike Duplicate	T	Water	SOM01.2/SV	200-36382
Analysis Batch:200-36627					
MB 200-36384/1-A	Method Blank	T	Water	SOM01.2/SV	200-36384
200-10232-2	PRR1WATCMI-16	T	Water	SOM01.2/SV	200-36384

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-36389					
LCS 200-36389/2-C	Lab Control Sample	T	Water	SEPF	
LCS 200-36389/3-C	Lab Control Sample	T	Water	SEPF	
MB 200-36389/1-C	Method Blank	T	Water	SEPF	
200-10232-1	PRR1WATCME-16	T	Water	SEPF	
200-10232-1MS	Matrix Spike	T	Water	SEPF	
200-10232-1MSD	Matrix Spike Duplicate	T	Water	SEPF	
200-10232-1	PRR1WATCME-16	T	Water	SOM01.2LL_Pest	
Prep Batch: 200-36390					
LCS 200-36390/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-36390/1-C	Method Blank	T	Water	SEPF	
200-10232-1	PRR1WATCME-16	T	Water	SEPF	
200-10232-1MS	Matrix Spike	T	Water	SEPF	
200-10232-1MSD	Matrix Spike Duplicate	T	Water	SEPF	
Prep Batch: 200-36391					
LCS 200-36391/2-C	Lab Control Sample	T	Water	SEPF	
LCS 200-36391/3-C	Lab Control Sample	T	Water	SEPF	
MB 200-36391/1-C	Method Blank	T	Water	SEPF	
200-10232-2	PRR1WATCMI-16	T	Water	SEPF	
200-10232-2DL	PRR1WATCMI-16	T	Water	SEPF	
Analysis Batch:200-36495					
LCS 200-36390/2-C	Lab Control Sample	T	Water	SOM01.2/PCB	200-36390
MB 200-36390/1-C	Method Blank	T	Water	SOM01.2/PCB	200-36390
200-10232-1	PRR1WATCME-16	T	Water	SOM01.2/PCB	200-36390
200-10232-1MS	Matrix Spike	T	Water	SOM01.2/PCB	200-36390
200-10232-1MSD	Matrix Spike Duplicate	T	Water	SOM01.2/PCB	200-36390
Analysis Batch:200-36528					
LCS 200-36389/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-36389
MB 200-36389/1-C	Method Blank	T	Water	SOM01.2/Pest	200-36389
LCS 200-36391/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-36391
MB 200-36391/1-C	Method Blank	T	Water	SOM01.2/Pest	200-36391
200-10232-1	PRR1WATCME-16	T	Water	SOM01.2/Pest	200-36389
200-10232-1MS	Matrix Spike	T	Water	SOM01.2/Pest	200-36389
200-10232-1MSD	Matrix Spike Duplicate	T	Water	SOM01.2/Pest	200-36389
200-10232-2	PRR1WATCMI-16	T	Water	SOM01.2/Pest	200-36391
Analysis Batch:200-36541					
200-10232-2DL	PRR1WATCMI-16	T	Water	SOM01.2/Pest	200-36391

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:200-36609					
LCS 200-36389/3-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-36389
MB 200-36389/1-C	Method Blank	T	Water	SOM01.2/Pest	200-36389
LCS 200-36391/3-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-36391
MB 200-36391/1-C	Method Blank	T	Water	SOM01.2/Pest	200-36391
200-10232-1	PRR1WATCME-16	T	Water	SOM01.2/Pest	200-36389
200-10232-2	PRR1WATCMI-16	T	Water	SOM01.2/Pest	200-36391
Analysis Batch:200-36610					
200-10232-2DL	PRR1WATCMI-16	T	Water	SOM01.2/Pest	200-36391

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-36435					
MB 200-36435/11-A	Method Blank	T	Water	7470A	
200-10232-1	PRR1WATCME-16	T	Water	7470A	
200-10232-1DU	Duplicate	T	Water	7470A	
200-10232-1MS	Matrix Spike	T	Water	7470A	
Analysis Batch:200-36547					
MB 200-36435/11-A	Method Blank	T	Water	ISM01.2/HG	200-36435
200-10232-1	PRR1WATCME-16	T	Water	ISM01.2/HG	200-36435
200-10232-1DU	Duplicate	T	Water	ISM01.2/HG	200-36435
200-10232-1MS	Matrix Spike	T	Water	ISM01.2/HG	200-36435
Prep Batch: 200-36555					
LCS 200-36555/2-A	Lab Control Sample	T	Water	200.8	
MB 200-36555/1-A	Method Blank	T	Water	200.8	
200-10232-1	PRR1WATCME-16	T	Water	200.8	
200-10232-1DU	Duplicate	T	Water	200.8	
200-10232-1MS	Matrix Spike	T	Water	200.8	
200-10232-1MSDL	Matrix Spike	T	Water	200.8	
Analysis Batch:200-36716					
LCS 200-36555/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-36555
MB 200-36555/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-36555
200-10232-1	PRR1WATCME-16	T	Water	ISM01.2/ICPMS	200-36555
200-10232-1DU	Duplicate	T	Water	ISM01.2/ICPMS	200-36555
200-10232-1MS	Matrix Spike	T	Water	ISM01.2/ICPMS	200-36555
200-10232-1MSDL	Matrix Spike	T	Water	ISM01.2/ICPMS	200-36555
Analysis Batch:200-36770					
LCS 200-36555/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-36555
MB 200-36555/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-36555
200-10232-1	PRR1WATCME-16	T	Water	ISM01.2/ICPMS	200-36555
200-10232-1DU	Duplicate	T	Water	ISM01.2/ICPMS	200-36555
200-10232-1MS	Matrix Spike	T	Water	ISM01.2/ICPMS	200-36555

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 200-36493					
MB 200-36493/11-A	Method Blank	T	Water	Midi-Distillati	
200-10232-1	PRR1WATCME-16	T	Water	Midi-Distillati	
200-10232-1DUDU	Duplicate	T	Water	Midi-Distillati	
200-10232-1MSMS	Matrix Spike	T	Water	Midi-Distillati	
Analysis Batch:200-36533					
MB 200-36493/11-A	Method Blank	T	Water	ISM01.2/CN	200-36493
200-10232-1	PRR1WATCME-16	T	Water	ISM01.2/CN	200-36493
200-10232-1DUDU	Duplicate	T	Water	ISM01.2/CN	200-36493
200-10232-1MSMS	Matrix Spike	T	Water	ISM01.2/CN	200-36493

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10232-1	PRR1WATCME-16	97	100	77	121	99	111	101	93
200-10232-2	PRR1WATCMI-16	90	91	69	119	91	101	97	90
200-10232-3	TB04052012	97	101	78	109	99	106	101	93
200-10232-4	VHBLK01	102	104	79	117	100	108	102	91
MB 200-36494/4		97	99	78	107	99	103	101	91
200-10232-1 MS	PRR1WATCME-16 MS	91	95	96	120	97	107	96	92
200-10232-1 MSD	PRR1WATCME-16 MSD	95	100	100	124	101	106	100	95

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10232-1	PRR1WATCME-16	100	104	142*	107	104
200-10232-2	PRR1WATCMI-16	96	95	152*	103	102
200-10232-3	TB04052012	102	99	118	100	101
200-10232-4	VHBLK01	101	104	129	103	103
MB 200-36494/4		101	98	112	95	100
200-10232-1 MS	PRR1WATCME-16 MS	95	101	139*	107	100
200-10232-1 MSD	PRR1WATCME-16 MSD	99	102	143*	104	102

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	PHL %Rec	BCE %Rec	2CP %Rec	4MP %Rec	NBZ %Rec	2NP %Rec	DCP %Rec	4CA %Rec
200-10232-1	PRR1WATCME-16	57	63	51	79	75	71	64	68
200-10232-2	PRR1WATCMI-16	135D	107D	112D	168D	135D	95	0D	0D
MB 200-36382/1-A		75	67	69	91	83	80	74	84
MB 200-36384/1-A		82	70	79	92	84	82	77	81
200-10232-1 MS	PRR1WATCME-16 MS	66	61	61	79	72	71	65	65
200-10232-1 MSD	PRR1WATCME-16 MSD	59	53	52	72	67	64	61	59

Surrogate	Acceptance Limits
PHL = Phenol-d5	39-106
BCE = Bis(2-chloroethyl)ether-d8	40-105
2CP = 2-Chlorophenol-d4	41-106
4MP = 4-Methylphenol-d8	25-111
NBZ = Nitrobenzene-d5	43-108
2NP = 2-Nitrophenol-d4	40-108
DCP = 2,4-Dichlorophenol-d3	37-105
4CA = 4-Chloroaniline-d4	1-145

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	DMP %Rec	ACY %Rec	4NP %Rec	FLR %Rec	NMP %Rec	ANC %Rec	PYR %Rec	BAP %Rec
200-10232-1	PRR1WATCME-16	80	70	89	78	73	77	96	83
200-10232-2	PRR1WATCMI-16	214D	125D	131D	186D	73	340D	251D	170D
MB 200-36382/1-A		94	85	105	95	24	85	103	86
MB 200-36384/1-A		92	87	102	91	46	86	89	79
200-10232-1 MS	PRR1WATCME-16 MS	93	79	96	92	81	84	104	87
200-10232-1 MSD	PRR1WATCME-16 MSD	91	76	103	88	89	87	108	89

Surrogate	Acceptance Limits
DMP = Dimethylphthalate-d6	47-114
ACY = Acenaphthylene-d8	41-107
4NP = 4-Nitrophenol-d4	33-116
FLR = Fluorene-d10	42-111
NMP = 4,6-Dinitro-2-methylphenol-d2	22-104
ANC = Anthracene-d10	44-110
PYR = Pyrene-d10	52-119
BAP = Benzo(a)pyrene-d12	32-121

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Surrogate Recovery Report

SOM01.2/PCB Aroclors

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10232-1	PRR1WATCME-16	88	88	86	77
MB 200-36390/1-C		90	89	110	102
LCS 200-36390/2-C		92	94	101	95
200-10232-1 MS	PRR1WATCME-16 MS	84	88	69	66
200-10232-1 MSD	PRR1WATCME-16 MSD	87	88	77	74

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Surrogate Recovery Report

SOM01.2/Pest Pesticides

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10232-1	PRR1WATCME-16	68	69	54	55
200-10232-1	PRR1WATCME-16	66	69	60	57
200-10232-2	PRR1WATCMI-16	926*	928*	52	42
200-10232-2 DL	PRR1WATCMI-16 DL	1483D	1471D	52	40
200-10232-2	PRR1WATCMI-16	429*	877*	62	44
200-10232-2 DL	PRR1WATCMI-16 DL	550D	1367D	64	44
MB 200-36389/1-C		66	68	86	86
MB 200-36389/1-C		65	69	94	92
MB 200-36391/1-C		100	103	116	114
MB 200-36391/1-C		95	101	121	113
LCS 200-36389/2-C		63	65	88	84
LCS 200-36389/3-C		66	69	86	83
LCS 200-36391/2-C		99	104	118	116
LCS 200-36391/3-C		97	104	113	111
200-10232-1 MS	PRR1WATCME-16 MS	77	77	58	58
200-10232-1 MSD	PRR1WATCME-16 MSD	69	70	63	61

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Method Blank - Batch: 200-36494

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-36494/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1048
Prep Date: 04/09/2012 1048
Leach Date: N/A

Analysis Batch: 200-36494
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdeg04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	97	65 - 131
Chloroethane-d5	99	71 - 131
1,1-Dichloroethene-d2	78	55 - 104
2-Butanone-d5	107	49 - 155
Chloroform-d	99	78 - 121
1,2-Dichloroethane-d4	103	78 - 129
Benzene-d6	101	77 - 124
1,2-Dichloropropane-d6	91	79 - 124
Toluene-d8	101	77 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Surrogate	% Rec	Acceptance Limits
trans-1,3-Dichloropropene-d4	98	73 - 121
2-Hexanone-d5	112	28 - 135
1,1,2,2-Tetrachloroethane-d2	95	73 - 125
1,2-Dichlorobenzene-d4	100	80 - 131

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 200-36494

Method: SOM01.2/VOA_Tr

Preparation: SOM01.2/VOA_PR

MS Lab Sample ID: 200-10232-1	Analysis Batch: 200-36494	Instrument ID: J.i
Client Matrix: Water	Prep Batch: N/A	Lab File ID: jdeg14.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 25 mL
Analysis Date: 04/09/2012 1451		Final Weight/Volume: 25 mL
Prep Date: 04/09/2012 1451		25 mL
Leach Date: N/A		

MSD Lab Sample ID: 200-10232-1	Analysis Batch: 200-36494	Instrument ID: J.i
Client Matrix: Water	Prep Batch: N/A	Lab File ID: jdeg15.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 25 mL
Analysis Date: 04/09/2012 1515		Final Weight/Volume: 25 mL
Prep Date: 04/09/2012 1515		25 mL
Leach Date: N/A		

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
1,1-Dichloroethene	100	103	61 - 145	3	14		
Benzene	96	100	76 - 127	4	11		
Trichloroethene	95	98	71 - 120	3	14		
Toluene	98	100	76 - 125	2	13		
Chlorobenzene	98	100	75 - 130	3	13		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Vinyl chloride-d3	91	95	65 - 131
Chloroethane-d5	95	100	71 - 131
1,1-Dichloroethene-d2	96	100	55 - 104
2-Butanone-d5	120	124	49 - 155
Chloroform-d	97	101	78 - 121
1,2-Dichloroethane-d4	107	106	78 - 129
Benzene-d6	96	100	77 - 124
1,2-Dichloropropane-d6	92	95	79 - 124
Toluene-d8	95	99	77 - 121
trans-1,3-Dichloropropene-d4	101	102	73 - 121
2-Hexanone-d5	139	*	28 - 135
1,1,2,2-Tetrachloroethane-d2	107	104	73 - 125
1,2-Dichlorobenzene-d4	100	102	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Method Blank - Batch: 200-36382

Method: SOM01.2/SV

Preparation: CONT

Lab Sample ID: MB 200-36382/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/10/2012 1044
 Prep Date: 04/06/2012 1719
 Leach Date: N/A

Analysis Batch: 200-36591
 Prep Batch: 200-36382
 Leach Batch: N/A
 Units: ug/L

Instrument ID: R.i
 Lab File ID: rjyqt05.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1000 uL
 Injection Volume: 2 uL

Analyte	Result	Qual	RL
N-Nitrosodimethylamine	10	U	10
Phenol	5.0	U	5.0
Bis(2-chloroethyl)ether	5.0	U	5.0
2-Chlorophenol	5.0	U	5.0
2,2'-Oxybis(1-chloropropane)	5.0	U	5.0
Hexachloroethane	5.0	U	5.0
Nitrobenzene	5.0	U	5.0
Isophorone	5.0	U	5.0
2-Nitrophenol	5.0	U	5.0
2,4-Dimethylphenol	5.0	U	5.0
2,4-Dichlorophenol	5.0	U	5.0
Naphthalene	5.0	U	5.0
Hexachlorobutadiene	5.0	U	5.0
Hexachlorocyclopentadiene	5.0	U	5.0
2,4,6-Trichlorophenol	5.0	U	5.0
2,4,5-Trichlorophenol	5.0	U	5.0
Dimethylphthalate	5.0	U	5.0
2,6-Dinitrotoluene	5.0	U	5.0
2,4-Dinitrophenol	10	U	10
4-Nitrophenol	10	U	10
2,4-Dinitrotoluene	5.0	U	5.0
Diethylphthalate	5.0	U	5.0
Fluorene	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10
N-Nitrosodiphenylamine	5.0	U	5.0
Hexachlorobenzene	5.0	U	5.0
Pentachlorophenol	10	U	10
Phenanthrene	5.0	U	5.0
Anthracene	5.0	U	5.0
Di-n-butylphthalate	0.17	J	5.0
Fluoranthene	5.0	U	5.0
Benzidine	10	U	10
Pyrene	5.0	U	5.0
Butylbenzylphthalate	0.49	J	5.0
3,3'-Dichlorobenzidine	5.0	U	5.0
Benzo(a)anthracene	5.0	U	5.0
Chrysene	5.0	U	5.0
Bis(2-ethylhexyl)phthalate	0.72	J	5.0
Benzo(b)fluoranthene	5.0	U	5.0
Benzo(k)fluoranthene	5.0	U	5.0
Benzo(a)pyrene	5.0	U	5.0
Indeno(1,2,3-cd)pyrene	5.0	U	5.0
Dibenzo(a,h)anthracene	5.0	U	5.0

Surrogate	% Rec	Acceptance Limits
-----------	-------	-------------------

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Surrogate	% Rec	Acceptance Limits
Phenol-d5	75	39 - 106
Bis(2-chloroethyl)ether-d8	67	40 - 105
2-Chlorophenol-d4	69	41 - 106
4-Methylphenol-d8	91	25 - 111
Nitrobenzene-d5	83	43 - 108
2-Nitrophenol-d4	80	40 - 108
2,4-Dichlorophenol-d3	74	37 - 105
4-Chloroaniline-d4	84	1 - 145
Dimethylphthalate-d6	94	47 - 114
Acenaphthylene-d8	85	41 - 107
4-Nitrophenol-d4	105	33 - 116
Fluorene-d10	95	42 - 111
4,6-Dinitro-2-methylphenol-d2	24	22 - 104
Anthracene-d10	85	44 - 110
Pyrene-d10	103	52 - 119
Benzo(a)pyrene-d12	86	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-36382**

**Method: SOM01.2/SV
Preparation: CONT**

MS Lab Sample ID: 200-10232-1	Analysis Batch: 200-36591	Instrument ID: R.i
Client Matrix: Water	Prep Batch: 200-36382	Lab File ID: rjyqt07.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1030 mL
Analysis Date: 04/10/2012 1156		Final Weight/Volume: 1000 uL
Prep Date: 04/06/2012 1719		Injection Volume: 2 uL
Leach Date: N/A		

MSD Lab Sample ID: 200-10232-1	Analysis Batch: 200-36591	Instrument ID: R.i
Client Matrix: Water	Prep Batch: 200-36382	Lab File ID: rjyqt08.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1015 mL
Analysis Date: 04/10/2012 1232		Final Weight/Volume: 1000 uL
Prep Date: 04/06/2012 1719		Injection Volume: 2 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Phenol	53	45	12 - 110	16	42		
2-Chlorophenol	60	50	27 - 123	18	40		
4-Nitrophenol	94	99	10 - 80	5	50		
2,4-Dinitrotoluene	97	98	24 - 96	1	38		
Pentachlorophenol	90	91	9 - 103	1	50		
Pyrene	100	102	26 - 127	2	31		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Phenol-d5	66	59	39 - 106
Bis(2-chloroethyl)ether-d8	61	53	40 - 105
2-Chlorophenol-d4	61	52	41 - 106
4-Methylphenol-d8	79	72	25 - 111
Nitrobenzene-d5	72	67	43 - 108
2-Nitrophenol-d4	71	64	40 - 108
2,4-Dichlorophenol-d3	65	61	37 - 105
4-Chloroaniline-d4	65	59	1 - 145
Dimethylphthalate-d6	93	91	47 - 114
Acenaphthylene-d8	79	76	41 - 107
4-Nitrophenol-d4	96	103	33 - 116
Fluorene-d10	92	88	42 - 111
4,6-Dinitro-2-methylphenol-d2	81	89	22 - 104
Anthracene-d10	84	87	44 - 110
Pyrene-d10	104	108	52 - 119
Benzo(a)pyrene-d12	87	89	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Method Blank - Batch: 200-36384

**Method: SOM01.2/SV
Preparation: CONT**

Lab Sample ID: MB 200-36384/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/11/2012 0740
Prep Date: 04/06/2012 1748
Leach Date: N/A

Analysis Batch: 200-36627
Prep Batch: 200-36384
Leach Batch: N/A
Units: ug/L

Instrument ID: R.i
Lab File ID: rjyqx04.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 2 uL

Analyte	Result	Qual	RL
2,4,5-Trichlorophenol	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10

Surrogate	% Rec	Acceptance Limits
Phenol-d5	82	39 - 106
Bis(2-chloroethyl)ether-d8	70	40 - 105
2-Chlorophenol-d4	79	41 - 106
4-Methylphenol-d8	92	25 - 111
Nitrobenzene-d5	84	43 - 108
2-Nitrophenol-d4	82	40 - 108
2,4-Dichlorophenol-d3	77	37 - 105
4-Chloroaniline-d4	81	1 - 145
Dimethylphthalate-d6	92	47 - 114
Acenaphthylene-d8	87	41 - 107
4-Nitrophenol-d4	102	33 - 116
Fluorene-d10	91	42 - 111
4,6-Dinitro-2-methylphenol-d2	46	22 - 104
Anthracene-d10	86	44 - 110
Pyrene-d10	89	52 - 119
Benzo(a)pyrene-d12	79	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Method Blank - Batch: 200-36390

Method: SOM01.2/PCB

Preparation: SEPF

Lab Sample ID: MB 200-36390/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1055
Prep Date: 04/06/2012 2001
Leach Date: N/A

Analysis Batch: 200-36495
Prep Batch: 200-36390
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 09ap121003-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Aroclor-1016	1.0	U	1.0
Aroclor-1221	1.0	U	1.0
Aroclor-1232	1.0	U	1.0
Aroclor-1242	1.0	U	1.0
Aroclor-1248	1.0	U	1.0
Aroclor-1254	1.0	U	1.0
Aroclor-1260	1.0	U	1.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	89	30 - 150
Decachlorobiphenyl	102	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	90	30 - 150
Decachlorobiphenyl	110	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Lab Control Sample - Batch: 200-36390

**Method: SOM01.2/PCB
Preparation: SEPF**

Lab Sample ID: LCS 200-36390/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1119
Prep Date: 04/06/2012 2001
Leach Date: N/A

Analysis Batch: 200-36495
Prep Batch: 200-36390
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 09ap121003-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.2	125	50 - 150	
Aroclor-1260	1.00	1.0	104	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		92		30 - 150	
Decachlorobiphenyl		95		30 - 150	

Lab Control Sample - Batch: 200-36390

**Method: SOM01.2/PCB
Preparation: SEPF**

Lab Sample ID: LCS 200-36390/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1119
Prep Date: 04/06/2012 2001
Leach Date: N/A

Analysis Batch: 200-36495
Prep Batch: 200-36390
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 09ap121003-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.3	128	50 - 150	
Aroclor-1260	1.00	1.1	110	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		94		30 - 150	
Decachlorobiphenyl		101		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-36390**

**Method: SOM01.2/PCB
Preparation: SEPF**

MS Lab Sample ID: 200-10232-1	Analysis Batch: 200-36495	Instrument ID: 5253.i
Client Matrix: Water	Prep Batch: 200-36390	Lab File ID: 09ap121003-r071.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1030 mL
Analysis Date: 04/09/2012 1230		Final Weight/Volume: 10000 uL
Prep Date: 04/06/2012 2001		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

MSD Lab Sample ID: 200-10232-1	Analysis Batch: 200-36495	Instrument ID: 5253.i
Client Matrix: Water	Prep Batch: 200-36390	Lab File ID: 09ap121003-r061.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1040 mL
Analysis Date: 04/09/2012 1206		Final Weight/Volume: 10000 uL
Prep Date: 04/06/2012 2001		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Aroclor-1016	104	101	29 - 135	4	15		
Aroclor-1260	77	84	29 - 135	8	20		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
Tetrachloro-m-xylene	84		87	30 - 150			
Decachlorobiphenyl	66		74	30 - 150			

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-36390**

**Method: SOM01.2/PCB
Preparation: SEPF**

MS Lab Sample ID: 200-10232-1	Analysis Batch: 200-36495	Instrument ID: 5253.i
Client Matrix: Water	Prep Batch: 200-36390	Lab File ID: 09ap121003-r071.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1030 mL
Analysis Date: 04/09/2012 1230		Final Weight/Volume: 10000 uL
Prep Date: 04/06/2012 2001		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

MSD Lab Sample ID: 200-10232-1	Analysis Batch: 200-36495	Instrument ID: 5253.i
Client Matrix: Water	Prep Batch: 200-36390	Lab File ID: 09ap121003-r061.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1040 mL
Analysis Date: 04/09/2012 1206		Final Weight/Volume: 10000 uL
Prep Date: 04/06/2012 2001		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Aroclor-1016	104	101	29 - 135	3	15		
Aroclor-1260	80	86	29 - 135	8	20		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
Tetrachloro-m-xylene	88		88	30 - 150			
Decachlorobiphenyl	69		77	30 - 150			

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Method Blank - Batch: 200-36389

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-36389/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1636
Prep Date: 04/06/2012 2020
Leach Date: N/A

Analysis Batch: 200-36528
Prep Batch: 200-36389
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 09ap121545-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
alpha-BHC	0.00030	J P	0.0050
beta-BHC	0.0024	J	0.0050
delta-BHC	0.00014	J P	0.0050
Heptachlor	0.00073	J P	0.0050
Aldrin	0.0050	U	0.0050
gamma-BHC (Lindane)	0.0050	U	0.0050
Heptachlor epoxide	0.0050	U	0.0050
Endosulfan I	0.0050	U	0.0050
Dieldrin	0.00019	J	0.010
4,4'-DDE	0.010	U	0.010
Endrin	0.010	U	0.010
Endosulfan II	0.010	U	0.010
4,4'-DDD	0.010	U	0.010
Endosulfan sulfate	0.00017	J	0.010
4,4'-DDT	0.00020	J P	0.010
Methoxychlor	0.050	U	0.050
Endrin aldehyde	0.010	U	0.010
alpha-Chlordane	0.0050	U	0.0050
gamma-Chlordane	0.000062	J P	0.0050
Toxaphene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	66	30 - 150
Decachlorobiphenyl	86	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	68	30 - 150
Decachlorobiphenyl	86	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Method Blank - Batch: 200-36389

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-36389/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/10/2012 1610
Prep Date: 04/06/2012 2020
Leach Date: N/A

Analysis Batch: 200-36609
Prep Batch: 200-36389
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 10ap121504-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
2,4'-DDE	0.010	U	0.010
2,4'-DDT	0.010	U	0.010
2,4'-DDD	0.010	U	0.010

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	65	30 - 150
Decachlorobiphenyl	92	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	69	30 - 150
Decachlorobiphenyl	94	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Lab Control Sample - Batch: 200-36389

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-36389/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1659
Prep Date: 04/06/2012 2020
Leach Date: N/A

Analysis Batch: 200-36528
Prep Batch: 200-36389
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 09ap121545-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0037	73	50 - 120	J
Heptachlor epoxide	0.00500	0.0038	76	50 - 150	J
Dieldrin	0.0100	0.0073	73	30 - 130	J B
4,4'-DDE	0.0100	0.0070	70	50 - 150	J
Endrin	0.0100	0.0077	77	50 - 120	J
Endosulfan sulfate	0.0100	0.0056	56	50 - 120	J B
gamma-Chlordane	0.00500	0.0035	69	30 - 130	J B
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		63		30 - 150	
Decachlorobiphenyl		84		30 - 150	

Lab Control Sample - Batch: 200-36389

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-36389/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1659
Prep Date: 04/06/2012 2020
Leach Date: N/A

Analysis Batch: 200-36528
Prep Batch: 200-36389
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 09ap121545-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0043	86	50 - 120	J
Heptachlor epoxide	0.00500	0.0044	87	50 - 150	J
Dieldrin	0.0100	0.0079	79	30 - 130	J B
4,4'-DDE	0.0100	0.0076	76	50 - 150	J
Endrin	0.0100	0.0085	85	50 - 120	J
Endosulfan sulfate	0.0100	0.0065	65	50 - 120	J B
gamma-Chlordane	0.00500	0.0041	82	30 - 130	J B
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		65		30 - 150	
Decachlorobiphenyl		88		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Lab Control Sample - Batch: 200-36389

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-36389/3-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/10/2012 1640
Prep Date: 04/06/2012 2020
Leach Date: N/A

Analysis Batch: 200-36609
Prep Batch: 200-36389
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 10ap121504-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.0073	73	50 - 150	J
Surrogate			% Rec	Acceptance Limits	
Tetrachloro-m-xylene			66	30 - 150	
Decachlorobiphenyl			83	30 - 150	

Lab Control Sample - Batch: 200-36389

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-36389/3-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/10/2012 1640
Prep Date: 04/06/2012 2020
Leach Date: N/A

Analysis Batch: 200-36609
Prep Batch: 200-36389
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 10ap121504-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.0087	87	50 - 150	J
Surrogate			% Rec	Acceptance Limits	
Tetrachloro-m-xylene			69	30 - 150	
Decachlorobiphenyl			86	30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-36389**

**Method: SOM01.2/Pest
Preparation: SEPF**

MS Lab Sample ID: 200-10232-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1808
Prep Date: 04/06/2012 2020
Leach Date: N/A

Analysis Batch: 200-36528
Prep Batch: 200-36389
Leach Batch: N/A

Instrument ID: 0911.i
Lab File ID: 09ap121545-r071.d
Initial Weight/Volume: 1010 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 200-10232-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1745
Prep Date: 04/06/2012 2020
Leach Date: N/A

Analysis Batch: 200-36528
Prep Batch: 200-36389
Leach Batch: N/A

Instrument ID: 0911.i
Lab File ID: 09ap121545-r061.d
Initial Weight/Volume: 1030 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
gamma-BHC (Lindane)	79	79	56 - 123	1	15		
Heptachlor	70	73	40 - 131	5	20	B	B
Aldrin	59	64	40 - 120	3	22		
Dieldrin	78	74	52 - 126	5	18	B	B
Endrin	84	79	56 - 121	7	21		
4,4'-DDT	70	63	38 - 127	10	27	B	B
Surrogate		MS % Rec	MSD % Rec			Acceptance Limits	
Tetrachloro-m-xylene		77	69			30 - 150	
Decachlorobiphenyl		58	61			30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-36389**

**Method: SOM01.2/Pest
Preparation: SEPF**

MS Lab Sample ID: 200-10232-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1808
Prep Date: 04/06/2012 2020
Leach Date: N/A

Analysis Batch: 200-36528
Prep Batch: 200-36389
Leach Batch: N/A

Instrument ID: 0911.i
Lab File ID: 09ap121545-r071.d
Initial Weight/Volume: 1010 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

MSD Lab Sample ID: 200-10232-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1745
Prep Date: 04/06/2012 2020
Leach Date: N/A

Analysis Batch: 200-36528
Prep Batch: 200-36389
Leach Batch: N/A

Instrument ID: 0911.i
Lab File ID: 09ap121545-r061.d
Initial Weight/Volume: 1030 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
gamma-BHC (Lindane)	79	81	56 - 123	3	15		
Heptachlor	72	78	40 - 131	8	20	B	B
Aldrin	62	63	40 - 120	6	22		
Dieldrin	78	76	52 - 126	3	18	B	B
Endrin	82	80	56 - 121	4	21		
4,4'-DDT	74	67	38 - 127	11	27	B	B
Surrogate		MS % Rec	MSD % Rec			Acceptance Limits	
Tetrachloro-m-xylene		77	70			30 - 150	
Decachlorobiphenyl		58	63			30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Method Blank - Batch: 200-36391

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-36391/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1831
Prep Date: 04/06/2012 2004
Leach Date: N/A

Analysis Batch: 200-36528
Prep Batch: 200-36391
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 09ap121545-r081.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
alpha-BHC	0.0021	J	0.050
beta-BHC	0.0018	J	0.050
delta-BHC	0.050	U	0.050
gamma-BHC (Lindane)	0.050	U	0.050
Endrin	0.10	U	0.10
Methoxychlor	0.0023	J	0.50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	100	30 - 150
Decachlorobiphenyl	114	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	103	30 - 150
Decachlorobiphenyl	116	30 - 150

Method Blank - Batch: 200-36391

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-36391/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/10/2012 1740
Prep Date: 04/06/2012 2004
Leach Date: N/A

Analysis Batch: 200-36609
Prep Batch: 200-36391
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 10ap121504-r061.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
2,4'-DDE	0.10	U	0.10
2,4'-DDT	0.10	U	0.10
2,4'-DDD	0.10	U	0.10

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	95	30 - 150
Decachlorobiphenyl	113	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	101	30 - 150
Decachlorobiphenyl	121	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Lab Control Sample - Batch: 200-36391

Method: SOM01.2/Pest

Preparation: SEPF

Lab Sample ID: LCS 200-36391/2-C	Analysis Batch: 200-36528	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-36391	Lab File ID: 09ap121545-r091.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 04/09/2012 1854	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 04/06/2012 2004		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.0500	0.045	89	50 - 120	J
Endrin	0.100	0.095	95	50 - 120	J
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		99		30 - 150	
Decachlorobiphenyl		116		30 - 150	

Lab Control Sample - Batch: 200-36391

Method: SOM01.2/Pest

Preparation: SEPF

Lab Sample ID: LCS 200-36391/2-C	Analysis Batch: 200-36528	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-36391	Lab File ID: 09ap121545-r091.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 04/09/2012 1854	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 04/06/2012 2004		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.0500	0.049	98	50 - 120	J
Endrin	0.100	0.10	100	50 - 120	J
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		104		30 - 150	
Decachlorobiphenyl		118		30 - 150	

Lab Control Sample - Batch: 200-36391

Method: SOM01.2/Pest

Preparation: SEPF

Lab Sample ID: LCS 200-36391/3-C	Analysis Batch: 200-36609	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-36391	Lab File ID: 10ap121504-r071.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 04/10/2012 1810	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 04/06/2012 2004		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.100	0.098	98	50 - 150	J
Surrogate		% Rec		Acceptance Limits	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	97	30 - 150
Decachlorobiphenyl	111	30 - 150

Lab Control Sample - Batch: 200-36391

Method: SOM01.2/Pest
Preparation: SEPF

Lab Sample ID: LCS 200-36391/3-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/10/2012 1810
Prep Date: 04/06/2012 2004
Leach Date: N/A

Analysis Batch: 200-36609
Prep Batch: 200-36391
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 10ap121504-r071.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.100	0.11	110	50 - 150	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	104	30 - 150
Decachlorobiphenyl	113	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Method Blank - Batch: 200-36435

**Method: ISM01.2/HG
Preparation: 7470A**

Lab Sample ID: MB 200-36435/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/10/2012 1421
Prep Date: 04/09/2012 1000
Leach Date: N/A

Analysis Batch: 200-36547
Prep Batch: 200-36435
Leach Batch: N/A
Units: ug/L

Instrument ID: MEPCV3 II
Lab File ID: 041012GG.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDLE	RL
Mercury	-0.14	J	0.084	0.20

Matrix Spike - Batch: 200-36435

**Method: ISM01.2/HG
Preparation: 7470A**

Lab Sample ID: 200-10232-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/10/2012 1427
Prep Date: 04/09/2012 1000
Leach Date: N/A

Analysis Batch: 200-36547
Prep Batch: 200-36435
Leach Batch: N/A
Units: ug/L

Instrument ID: MEPCV3 II
Lab File ID: 041012GG.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.20 U	1.00	1.1	106	75 - 125	

Duplicate - Batch: 200-36435

**Method: ISM01.2/HG
Preparation: 7470A**

Lab Sample ID: 200-10232-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/10/2012 1425
Prep Date: 04/09/2012 1000
Leach Date: N/A

Analysis Batch: 200-36547
Prep Batch: 200-36435
Leach Batch: N/A
Units: ug/L

Instrument ID: MEPCV3 II
Lab File ID: 041012GG.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.20 U	0.20			U

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Method Blank - Batch: 200-36555

Method: ISM01.2/CPMS

Preparation: 200.8

Lab Sample ID: MB 200-36555/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/12/2012 0112
Prep Date: 04/10/2012 1653
Leach Date: N/A

Analysis Batch: 200-36716
Prep Batch: 200-36555
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 041112-06.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Antimony	2.0	U	0.15	2.0
Arsenic	-0.48	J	0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	2.0	U	0.21	2.0
Copper	2.0	U	0.60	2.0
Lead	0.25	J	0.10	1.0
Nickel	1.0	U	0.14	1.0
Selenium	-0.62	J	0.15	5.0
Silver	1.0	U	0.028	1.0

Method Blank - Batch: 200-36555

Method: ISM01.2/CPMS

Preparation: 200.8

Lab Sample ID: MB 200-36555/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/12/2012 1451
Prep Date: 04/10/2012 1653
Leach Date: N/A

Analysis Batch: 200-36770
Prep Batch: 200-36555
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 041212-02.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Zinc	2.0	U	0.57	2.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

Sdg Number: PRR1200

Lab Control Sample - Batch: 200-36555

Method: ISM01.2/ICPMS

Preparation: 200.8

Lab Sample ID: LCS 200-36555/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/12/2012 0118
Prep Date: 04/10/2012 1653
Leach Date: N/A

Analysis Batch: 200-36716
Prep Batch: 200-36555
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 041112-06.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	4.00	4.4	109	70 - 130	
Arsenic	2.00	1.6	78	70 - 130	
Beryllium	2.00	2.0	101	70 - 130	
Cadmium	2.00	2.0	101	70 - 130	
Chromium	4.00	3.7	92	70 - 130	
Copper	4.00	4.0	99	70 - 130	
Lead	2.00	2.2	108	70 - 130	
Nickel	2.00	1.9	97	70 - 130	
Selenium	10.0	11.0	110	70 - 130	
Silver	2.00	2.4	121	70 - 130	

Lab Control Sample - Batch: 200-36555

Method: ISM01.2/ICPMS

Preparation: 200.8

Lab Sample ID: LCS 200-36555/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/12/2012 1458
Prep Date: 04/10/2012 1653
Leach Date: N/A

Analysis Batch: 200-36770
Prep Batch: 200-36555
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 041212-02.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Zinc	4.00	4.8	119	70 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Matrix Spike - Batch: 200-36555

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID:	200-10232-1	Analysis Batch:	200-36716	Instrument ID:	METICPMS2
Client Matrix:	Water	Prep Batch:	200-36555	Lab File ID:	041112-06.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	04/12/2012 0152	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	04/10/2012 1653				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	3.8	100	107	103	75 - 125	
Arsenic	6.6	40.0	40.3	84	75 - 125	
Beryllium	1.0 U	50.0	48.3	97	75 - 125	
Cadmium	1.0 U	50.0	44.0	88	75 - 125	
Lead	1.2	20.0	23.7	113	75 - 125	
Selenium	15.4	100	95.7	80	75 - 125	
Silver	0.15 J	50.0	41.0	82	75 - 125	

Matrix Spike - Batch: 200-36555

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID:	200-10232-1DL	Analysis Batch:	200-36716	Instrument ID:	METICPMS2
Client Matrix:	Water	Prep Batch:	200-36555	Lab File ID:	041112-06.xml
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	04/12/2012 0159	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	04/10/2012 1653	Run Type:	DL		
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chromium	2.4	200	205	101	75 - 125	
Copper	5.3	250	258	101	75 - 125	
Nickel	19.3	500	522	101	75 - 125	

Matrix Spike - Batch: 200-36555

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID:	200-10232-1	Analysis Batch:	200-36770	Instrument ID:	METICPMS2
Client Matrix:	Water	Prep Batch:	200-36555	Lab File ID:	041212-02.xml
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	04/12/2012 1538	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	04/10/2012 1653				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Zinc	12.9	500	527	103	75 - 125	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Duplicate - Batch: 200-36555

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: 200-10232-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/12/2012 0145
Prep Date: 04/10/2012 1653
Leach Date: N/A

Analysis Batch: 200-36716
Prep Batch: 200-36555
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 041112-06.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Antimony	3.8	3.7	4	2.0	
Arsenic	6.6	5.2	22		*
Beryllium	1.0 U	1.0			U
Cadmium	1.0 U	1.0			U
Chromium	2.4	2.1	16	2.0	
Copper	5.3	5.2	1	2.0	
Lead	1.2	1.2	2	1.0	
Nickel	19.3	19.1	1		
Selenium	15.4	14.1	9	5.0	
Silver	0.15 J	0.13	10	1.0	J

Duplicate - Batch: 200-36555

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: 200-10232-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/12/2012 1525
Prep Date: 04/10/2012 1653
Leach Date: N/A

Analysis Batch: 200-36770
Prep Batch: 200-36555
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 041212-02.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Zinc	12.9	12.0	7		

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1
Sdg Number: PRR1200

Method Blank - Batch: 200-36493

Method: ISM01.2/CN
Preparation: Midi-Distillati

Lab Sample ID: MB 200-36493/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/10/2012 1220
Prep Date: 04/10/2012 1000
Leach Date: N/A

Analysis Batch: 200-36533
Prep Batch: 200-36493
Leach Batch: N/A
Units: ug/L

Instrument ID: WCLachat
Lab File ID: OM_04-10-12_12-07-4
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Cyanide	10.0	U	1.0	10.0

Matrix Spike - Batch: 200-36493

Method: ISM01.2/CN
Preparation: Midi-Distillati

Lab Sample ID: 200-10232-1MS
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/10/2012 1223
Prep Date: 04/10/2012 1000
Leach Date: N/A

Analysis Batch: 200-36533
Prep Batch: 200-36493
Leach Batch: N/A
Units: ug/L

Instrument ID: WCLachat
Lab File ID: OM_04-10-12_12-07-4
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide	10.0 U	100	10.0	0	75 - 125	U

Duplicate - Batch: 200-36493

Method: ISM01.2/CN
Preparation: Midi-Distillati

Lab Sample ID: 200-10232-1DU
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/10/2012 1222
Prep Date: 04/10/2012 1000
Leach Date: N/A

Analysis Batch: 200-36533
Prep Batch: 200-36493
Leach Batch: N/A
Units: ug/L

Instrument ID: WCLachat
Lab File ID: OM_04-10-12_12-07-4
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Cyanide	10.0 U	10.0			U

**CHAIN OF CUSTODY & LABORATORY
ANALYSIS REQUEST FORM**

Lab Work Order #

PROJ. NO. B0009964.0002.70004		PROJECT NAME Tierra Phase I Removal		SDG NUMBER/COC Number PRR1200																					
SAMPLERS:																									
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks		
PRR1WATCME-16	4/5/2012	13:00	water	Grab	52	X	X	X	X	X	X	X	X	X	X	X									
PRR1WATCMI-16	4/5/2012	12:45	water	Grab	9	X	X	X	X	X															
TB04052012	4/5/2012		water		3	X	X	X	X																
PRR1WATCME-15	4/4/2012	16:00	water	Grab	1							X													
Requested Analyses																									
<input type="checkbox"/> Special QA/QC Instructions																									
Special Instructions/Comments:																									
Refer to RAWP QAPP WS 15-4 for Effluent Samples and 15-5 for Influent Samples Triple volume collected for MS/MSD for PRR1WATCME-15 (except ISS and WET Testing)																									
Laboratory Information and Receipt																									
Lab Name: TestAmerica - Burlington, VT																									
Shipping Tracking #																									
Specify Turnaround Requirements: 7 day TAT																									
Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:	
[Signature]		4/5/12		1400		[Signature]		4/6/12		1010		[Signature]		4/6/12		1010		[Signature]		4/6/12		1010		[Signature]	
Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:	
[Signature]		4/5/12		1400		[Signature]		4/6/12		1010		[Signature]		4/6/12		1010		[Signature]		4/6/12		1010		[Signature]	
Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:	
[Signature]		4/5/12		1400		[Signature]		4/6/12		1010		[Signature]		4/6/12		1010		[Signature]		4/6/12		1010		[Signature]	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10232-1

SDG Number: PRR1200

Login Number: 10232

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417836
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8,4.0,3.0,4.0,1.6°C IR GUN ID 154/CF=0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



Ship Date: 05APR12
ActWgt 30.0 LB
CAD: 103767025/ANET3250
Dims: 23 X 14 X 15 IN

Newark, NJ 07105

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11
SOUTH BURLINGTON, VT 05403

BILL SENDER

J12101112190225

Ref # 1129-1616-4
Invoice #
PO # B0009364.0002.70004-11128
Dept #

1 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

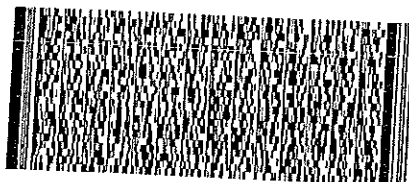
TRK# 7982 5389 8605

0201

MASTER

ZF BTVA

05403
VT-US
BTV



512G1C14D/A278

SOUTH BURLINGTON, VT 05403

2 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

MPS# 7982 5389 8833

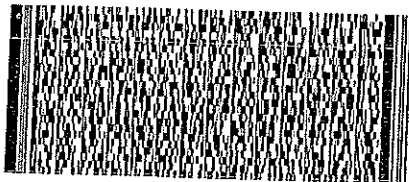
0263

Mstr# 7982 5389 8605

0201

ZF BTVA

05403
VT-US
BTV



512G1C14D/A278

4 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

MPS# 7982 5389 8914

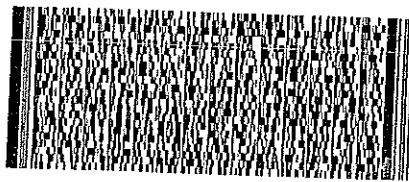
0263

Mstr# 7982 5389 8605

0201

ZF BTVA

05403
VT-US
BTV



512G1C14D/A278

After printing this label,
SC013 P030410101010, VT 05403

5 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

MPS# 7982 5389 9060

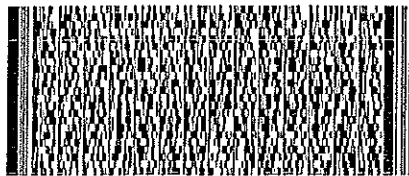
0263

Mstr# 7982 5389 8605

0201

ZF BTVA

05403
VT-US
BTV



Page 72 of 72

ANALYTICAL REPORT

Job Number: 200-10232-2

SDG Number: PRR1200

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/17/2012 6:05 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/17/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	14
QC Results	15
Qc Association Summary	16
Surrogate Recovery Report	18
Qc Reports	19
Client Chain of Custody	26
Sample Receipt Checklist	27

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1200 (200-10232-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met. Calibration and calibration verification were assessed on an analyte specific basis.

Calculations were performed before rounding to avoid round-off errors in calculated results.

Manual integration was employed in deriving certain of the analytical results.

For the Method 8151A analysis, positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

In performing the Method 8151A analysis, there was an issue with the recovery performance of dinoseb in the laboratory control sample analysis associated with the extraction set. In that analysis the recovery of dinoseb was less than 1 percent, while there was an acceptable recovery of the other target analytes. The matrix spike and matrix spike duplicate analyses exhibited a similar recovery performance of dinoseb. Based on the instructions that were received from the project team, the sample set was re-extracted to provide for a second analysis.

This report is submitted in final form, and provides the results for the re-extraction and secondary analysis of the samples for the chlorinated herbicides.

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2

Sdg Number: PRR1200

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Herbicides (GC)	TAL BUR	SW846 8151A	
Extraction (Herbicides)	TAL BUR		SW846 8151A
Organic Carbon, Total (TOC)	TAL BUR	SM SM 5310B	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2
Sdg Number: PRR1200

Method	Analyst	Analyst ID
SW846 8151A	Downing, David P	DPD
SW846 8151A	Malaspina, Richard R	RRM
SM SM 5310B	Sutton, Zachariah M	ZMS

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2
Sdg Number: PRR1200

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10232-1	PRR1WATCME-16	Water	04/05/2012 1300	04/06/2012 1010
200-10232-1MS	PRR1WATCME-16	Water	04/05/2012 1300	04/06/2012 1010
200-10232-1MSD	PRR1WATCME-16	Water	04/05/2012 1300	04/06/2012 1010
200-10232-1DU	PRR1WATCME-16	Water	04/05/2012 1300	04/06/2012 1010
200-10232-2	PRR1WATCMI-16	Water	04/05/2012 1245	04/06/2012 1010

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2

Sdg Number: PRR1200

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1

Date Sampled: 04/05/2012 1300

Client Matrix: Water

Date Received: 04/06/2012 1010

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-36828	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-36492	Initial Weight/Volume: 995 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 04/12/2012 1722		Injection Volume: 1 uL
Prep Date: 04/10/2012 0936		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	0.80	J	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U *	0.19	0.95
2,4,5-T	0.35	J	0.13	0.47

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	78		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2

Sdg Number: PRR1200

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1

Date Sampled: 04/05/2012 1300

Client Matrix: Water

Date Received: 04/06/2012 1010

8151A Herbicides (GC)

Analysis Method: 8151A

Analysis Batch: 200-36828

Instrument ID: 5005.i

Prep Method: 8151A

Prep Batch: 200-36492

Initial Weight/Volume: 995 mL

Dilution: 1.0

Final Weight/Volume: 10000 uL

Analysis Date: 04/12/2012 1722

Injection Volume: 1 uL

Prep Date: 04/10/2012 0936

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	75		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2

Sdg Number: PRR1200

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1

Date Sampled: 04/05/2012 1300

Client Matrix: Water

Date Received: 04/06/2012 1010

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-37005	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-36840	Initial Weight/Volume: 995 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 04/16/2012 1408	Run Type: RE	Injection Volume: 1 uL
Prep Date: 04/13/2012 1021		Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	0.90	J H	0.65	1.9
2,4-DB	1.7	U H	0.47	1.7
Dinoseb	0.95	U H	0.19	0.95
2,4,5-T	0.45	J H	0.13	0.47

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	89		60 - 130
2,4-Dichlorophenylacetic acid	80		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2

Sdg Number: PRR1200

Client Sample ID: PRR1WATCHMI-16

Lab Sample ID: 200-10232-2

Date Sampled: 04/05/2012 1245

Client Matrix: Water

Date Received: 04/06/2012 1010

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-36828	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-36492	Initial Weight/Volume: 955 mL
Dilution: 10000		Final Weight/Volume: 10000 uL
Analysis Date: 04/12/2012 1908		Injection Volume: 1 uL
Prep Date: 04/10/2012 0936		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4,5-T	34000		1400	4900
Surrogate	%Rec	Qualifier	Acceptance Limits	
2,4-Dichlorophenylacetic acid	0	X	60 - 130	

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2

Sdg Number: PRR1200

Client Sample ID: PRR1WATCHMI-16

Lab Sample ID: 200-10232-2

Date Sampled: 04/05/2012 1245

Client Matrix: Water

Date Received: 04/06/2012 1010

8151A Herbicides (GC)

Analysis Method: 8151A

Analysis Batch: 200-36828

Instrument ID: 5005.i

Prep Method: 8151A

Prep Batch: 200-36492

Initial Weight/Volume: 955 mL

Dilution: 10000

Final Weight/Volume: 10000 uL

Analysis Date: 04/12/2012 1908

Injection Volume: 1 uL

Prep Date: 04/10/2012 0936

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	0	X	60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2

Sdg Number: PRR1200

General Chemistry

Client Sample ID: PRR1WATCME-16

Lab Sample ID: 200-10232-1

Date Sampled: 04/05/2012 1300

Client Matrix: Water

Date Received: 04/06/2012 1010

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	3.6	B	mg/L	0.14	1.0	1.0	SM 5310B

Analysis Batch: 200-36497 Analysis Date: 04/09/2012 1337

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2

Sdg Number: PRR1200

Lab Section	Qualifier	Description
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	F	MS/MSD Recovery or RPD exceeds the control limits
	*	Recovery or RPD exceeds control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	H	Sample was prepped or analyzed beyond the specified holding time
	X	Surrogate is outside control limits
General Chemistry		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	F	MS/MSD Recovery or RPD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2

Sdg Number: PRR1200

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-36492					
LCS 200-36492/2-A	Lab Control Sample	T	Water	8151A	
MB 200-36492/1-A	Method Blank	T	Water	8151A	
200-10232-1	PRR1WATCME-16	T	Water	8151A	
200-10232-1MS	Matrix Spike	T	Water	8151A	
200-10232-1MSD	Matrix Spike Duplicate	T	Water	8151A	
200-10232-2	PRR1WATCMI-16	T	Water	8151A	
Analysis Batch:200-36828					
LCS 200-36492/2-A	Lab Control Sample	T	Water	8151A	200-36492
MB 200-36492/1-A	Method Blank	T	Water	8151A	200-36492
200-10232-1	PRR1WATCME-16	T	Water	8151A	200-36492
200-10232-1MS	Matrix Spike	T	Water	8151A	200-36492
200-10232-1MSD	Matrix Spike Duplicate	T	Water	8151A	200-36492
200-10232-2	PRR1WATCMI-16	T	Water	8151A	200-36492
Prep Batch: 200-36840					
LCS 200-36840/2-A	Lab Control Sample	T	Water	8151A	
MB 200-36840/1-A	Method Blank	T	Water	8151A	
200-10232-1RE	PRR1WATCME-16	T	Water	8151A	
200-10232-1MSRE	Matrix Spike	T	Water	8151A	
200-10232-1MSDRE	Matrix Spike Duplicate	T	Water	8151A	
Analysis Batch:200-36991					
LCS 200-36840/2-A	Lab Control Sample	T	Water	8151A	200-36840
MB 200-36840/1-A	Method Blank	T	Water	8151A	200-36840
Analysis Batch:200-37005					
200-10232-1RE	PRR1WATCME-16	T	Water	8151A	200-36840
200-10232-1MSRE	Matrix Spike	T	Water	8151A	200-36840
200-10232-1MSDRE	Matrix Spike Duplicate	T	Water	8151A	200-36840

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2

Sdg Number: PRR1200

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-36497					
LCS 200-36497/1	Lab Control Sample	T	Water	SM 5310B	
LCS 200-36497/6	Lab Control Sample	T	Water	SM 5310B	
MB 200-36497/2	Method Blank	T	Water	SM 5310B	
MB 200-36497/7	Method Blank	T	Water	SM 5310B	
200-10232-1	PRR1WATCME-16	T	Water	SM 5310B	
200-10232-1DU	Duplicate	T	Water	SM 5310B	
200-10232-1MS	Matrix Spike	T	Water	SM 5310B	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2

Sdg Number: PRR1200

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
200-10232-1	PRR1WATCME-16	75	78
200-10232-1 RE	PRR1WATCME-16 RE	89	80
200-10232-2	PRR1WATCMI-16	0X	0X
MB 200-36492/1-A		81	81
MB 200-36840/1-A		75	74
LCS 200-36492/2-A		85	81
LCS 200-36840/2-A		82	79
200-10232-1 MS	PRR1WATCME-16 MS	81	74
200-10232-1 MS RE	PRR1WATCME-16 MS RE	97	84
200-10232-1 MSD	PRR1WATCME-16 MSD	74	74
200-10232-1 MSD RE	PRR1WATCME-16 MSD RE	80	70

Surrogate

Acceptance Limits

DCPA = 2,4-Dichlorophenylacetic acid

60-130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2
Sdg Number: PRR1200

Method Blank - Batch: 200-36492

**Method: 8151A
Preparation: 8151A**

Lab Sample ID: MB 200-36492/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/12/2012 1612
Prep Date: 04/10/2012 0936
Leach Date: N/A

Analysis Batch: 200-36828
Prep Batch: 200-36492
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 12ap121444-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95
2,4,5-T	0.47	U	0.13	0.47
<hr/>				
Surrogate	% Rec	Acceptance Limits		
2,4-Dichlorophenylacetic acid	81	60 - 130		
<hr/>				
Surrogate	% Rec	Acceptance Limits		
2,4-Dichlorophenylacetic acid	81	60 - 130		

Lab Control Sample - Batch: 200-36492

**Method: 8151A
Preparation: 8151A**

Lab Sample ID: LCS 200-36492/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/12/2012 1647
Prep Date: 04/10/2012 0936
Leach Date: N/A

Analysis Batch: 200-36828
Prep Batch: 200-36492
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 12ap121444-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	6.81	85	75 - 135	
2,4-DB	4.02	3.15	78	40 - 165	
Dinoseb	4.00	0.95	0.8	10 - 115	U *
2,4,5-T	2.00	1.86	93	60 - 155	
<hr/>					
Surrogate	% Rec		Acceptance Limits		
2,4-Dichlorophenylacetic acid	85		60 - 130		
<hr/>					
Surrogate	% Rec		Acceptance Limits		
2,4-Dichlorophenylacetic acid	81		60 - 130		

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2
Sdg Number: PRR1200

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-36492**

**Method: 8151A
Preparation: 8151A**

MS Lab Sample ID: 200-10232-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/12/2012 1832
Prep Date: 04/10/2012 0936
Leach Date: N/A

Analysis Batch: 200-36828
Prep Batch: 200-36492
Leach Batch: N/A

Instrument ID: 5005.i
Lab File ID: 12ap121444-r071.d
Initial Weight/Volume: 985 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 200-10232-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/12/2012 1757
Prep Date: 04/10/2012 0936
Leach Date: N/A

Analysis Batch: 200-36828
Prep Batch: 200-36492
Leach Batch: N/A

Instrument ID: 5005.i
Lab File ID: 12ap121444-r061.d
Initial Weight/Volume: 1015 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
2,4-D	69	60	70 - 135	15	30	F	F
2,4-DB	90	75	40 - 165	21	30		
Dinoseb	0	0	10 - 115	NC	30	U F	U F
2,4,5-T	83	73	60 - 155	13	30		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
2,4-Dichlorophenylacetic acid	81		74	60 - 130			
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
2,4-Dichlorophenylacetic acid	74		74	60 - 130			

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2
Sdg Number: PRR1200

Method Blank - Batch: 200-36840

Lab Sample ID: MB 200-36840/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/14/2012 0004
Prep Date: 04/13/2012 1021
Leach Date: N/A

Analysis Batch: 200-36991
Prep Batch: 200-36840
Leach Batch: N/A
Units: ug/L

**Method: 8151A
Preparation: 8151A**

Instrument ID: 5005.i
Lab File ID: 13ap122237-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95
2,4,5-T	0.47	U	0.13	0.47
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	75		60 - 130	
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	74		60 - 130	

Lab Control Sample - Batch: 200-36840

Lab Sample ID: LCS 200-36840/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/14/2012 0039
Prep Date: 04/13/2012 1021
Leach Date: N/A

Analysis Batch: 200-36991
Prep Batch: 200-36840
Leach Batch: N/A
Units: ug/L

**Method: 8151A
Preparation: 8151A**

Instrument ID: 5005.i
Lab File ID: 13ap122237-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	6.37	80	75 - 135	
2,4-DB	4.02	3.38	84	40 - 165	
Dinoseb	4.00	0.624	16	10 - 115	J
2,4,5-T	2.00	1.78	89	60 - 155	
Surrogate	% Rec			Acceptance Limits	
2,4-Dichlorophenylacetic acid	82			60 - 130	
Surrogate	% Rec			Acceptance Limits	
2,4-Dichlorophenylacetic acid	79			60 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2
Sdg Number: PRR1200

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-36840**

**Method: 8151A
Preparation: 8151A**

MS Lab Sample ID: 200-10232-1RE
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/16/2012 1332
Prep Date: 04/13/2012 1021
Leach Date: N/A

Analysis Batch: 200-37005
Prep Batch: 200-36840
Leach Batch: N/A
Run Type: RE

Instrument ID: 5005.i
Lab File ID: 16ap121238-r021.d
Initial Weight/Volume: 1025 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

MSD Lab Sample ID: 200-10232-1RE
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/16/2012 1256
Prep Date: 04/13/2012 1021
Leach Date: N/A

Analysis Batch: 200-37005
Prep Batch: 200-36840
Leach Batch: N/A
Run Type: RE

Instrument ID: 5005.i
Lab File ID: 16ap121238-r011.d
Initial Weight/Volume: 940 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
2,4-D	81	62	70 - 135	15.2	30	H	H F
2,4-DB	119	86	40 - 165	23.9	30	H	H
Dinoseb	0	0	10 - 115	NC	30	U H F	U H F
2,4,5-T	103	74	60 - 155	19.1	30	H	H
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
2,4-Dichlorophenylacetic acid	84		70	60 - 130			
2,4-Dichlorophenylacetic acid	84		80	60 - 130			
2,4-Dichlorophenylacetic acid	97		70	60 - 130			
2,4-Dichlorophenylacetic acid	97		80	60 - 130			

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2
Sdg Number: PRR1200

Method Blank - Batch: 200-36497

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-36497/2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1322
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-36497
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 040912A1.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.14	1.0

Method Blank - Batch: 200-36497

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-36497/7
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1442
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-36497
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 040912A1.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	0.146	J	0.14	1.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2
Sdg Number: PRR1200

Lab Control Sample - Batch: 200-36497

Method: SM 5310B
Preparation: N/A

Lab Sample ID: LCS 200-36497/1	Analysis Batch: 200-36497	Instrument ID: WCCH4
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 040912A1.txt
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume:
Analysis Date: 04/09/2012 1306	Units: mg/L	Final Weight/Volume: 40 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.57	96	85 - 115	

Lab Control Sample - Batch: 200-36497

Method: SM 5310B
Preparation: N/A

Lab Sample ID: LCS 200-36497/6	Analysis Batch: 200-36497	Instrument ID: WCCH4
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 040912A1.txt
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume:
Analysis Date: 04/09/2012 1426	Units: mg/L	Final Weight/Volume: 40 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.57	96	85 - 115	

Matrix Spike - Batch: 200-36497

Method: SM 5310B
Preparation: N/A

Lab Sample ID: 200-10232-1	Analysis Batch: 200-36497	Instrument ID: WCCH4
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 040912A1.txt
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume:
Analysis Date: 04/09/2012 1408	Units: mg/L	Final Weight/Volume: 20 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	3.6	5.00	9.64	120	85 - 115	F

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2
Sdg Number: PRR1200

Duplicate - Batch: 200-36497

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	200-10232-1	Analysis Batch:	200-36497	Instrument ID:	WCCH4
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	040912A1.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	04/09/2012 1352	Units:	mg/L	Final Weight/Volume:	40 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Organic Carbon	3.6	3.69	2	20	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

PROJ. NO.		PROJECT NAME		SDG NUMBER/COC Number																					
B0009964.0002.70004		Tierra Phase I Removal		PRR1200																					
SAMPLERS:		Requested Analyses														Special QA/QC Instructions									
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks		
PRR1WATCME-16	4/5/2012	13:00	water	Grab	52	X	X	X	X	X	X	X	X	X	X										
PRR1WATCMI-16	4/5/2012	12:45	water	Grab	9	X	X	X	X	X															
TB04052012	4/5/2012		water		3	X	X	X																	
PRR1WATCME-15	4/4/2012	16:00	water	Grab	1									X											
Special Instructions/Comments:																									
Refer to RAWP QAPP WS 15-4 for Effluent Samples and 15-5 for Influent Samples																									
Triple volume collected for MS/MSD for PRR1WATCME-15 (except ISS and WET Testing)																									
Laboratory Information and Receipt																									
Lab Name: TestAmerica - Burlington, VT																									
Shipping Tracking #																									
Specify Turnaround Requirements: 7 day TAT																									
Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:	
<i>[Signature]</i>		4/5/12		1400		<i>[Signature]</i>		4/6/12		1010		<i>[Signature]</i>		4/6/12		1010		<i>[Signature]</i>		4/6/12		1010		<i>[Signature]</i>	
Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:	
Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:	
Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10232-2

SDG Number: PRR1200

Login Number: 10232

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417836
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8,4.0,3.0,4.0,1.6°C IR GUN ID 154/CF=0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



Ship Date: 05APR12
ActWgt 30.0 LB
CAD: 103767025/ANET3250

Dims: 23 X 14 X 15 IN

Newark, NJ 07105

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

SOUTH BURLINGTON, VT 05403

BILL SENDER

Ref# 1129-1616-4
Invoice #
PO# B0009364.0002.70004-11128
Dept#

1 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

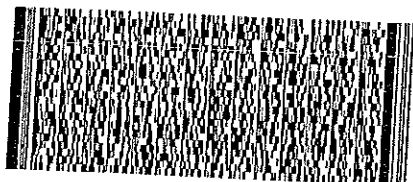
TRK# 7982 5389 8605

0201

MASTER

ZF BTVA

05403
VT-US
BTV



512G1C14D/A278

SOUTH BURLINGTON, VT 05403

2 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

MPS# 7982 5389 8833

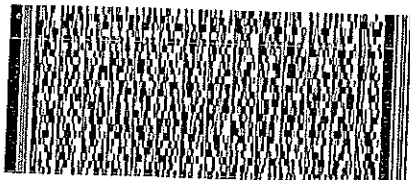
0263

Mstr# 7982 5389 8605

0201

ZF BTVA

05403
VT-US
BTV



512G1C14D/A278

4 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

MPS# 7982 5389 8914

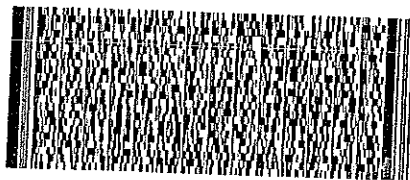
0263

Mstr# 7982 5389 8605

0201

ZF BTVA

05403
VT-US
BTV



512G1C14D/A278

After printing this label,
SC017636349101010101, VT 05403

5 of 5

FRI - 06 APR A4
PRIORITY OVERNIGHT

MPS# 7982 5389 9060

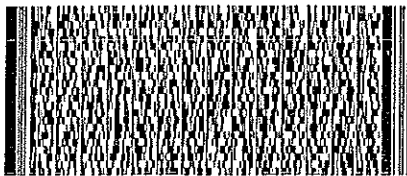
0263

Mstr# 7982 5389 8605

0201

ZF BTVA

05403
VT-US
BTV



Page 23 of 28

ANALYTICAL REPORT

Job Number: 200-10260-1

SDG Number: PRR1203

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/14/2012 7:58 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/14/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	14
QC Results	15
Qc Association Summary	16
Surrogate Recovery Report	17
Qc Reports	19
Client Chain of Custody	20
Sample Receipt Checklist	24

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1203 (200- 10260-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 04/09/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 2.0 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of each sample in the sample set did meet the technical acceptance criteria specific to DMC recoveries, although not all DMC recoveries were within the control range in each analysis. The method allowance criteria provide for the recovery of up to three DMCs to be outside the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the

50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10260-1
Sdg Number: PRR1203

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Trace Water	TAL BUR	SOM01.2	SOM01.2/VOA_Tr
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10260-1
Sdg Number: PRR1203

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10260-1

Sdg Number: PRR1203

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10260-1	PRR1WATGACI-06	Water	04/06/2012 1010	04/09/2012 0935
200-10260-2	PRR1WATGACE-06	Water	04/06/2012 1015	04/09/2012 0935
200-10260-3TB	TB04062012	Water	04/06/2012 0000	04/09/2012 0935
200-10260-6STOBL K	VHBLK01	Water	04/09/2012 1030	04/09/2012 0935

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10260-1

Sdg Number: PRR1203

Client Sample ID: PRR1WATGACI-06

Lab Sample ID: 200-10260-1

Date Sampled: 04/06/2012 1010

Client Matrix: Water

Date Received: 04/09/2012 0935

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdeg22.d
Dilution:	6.5			Initial Weight/Volume:	25 mL
Analysis Date:	04/09/2012 1804			Final Weight/Volume:	25 mL
Prep Date:	04/09/2012 1804				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	160		33

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	94		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	130		49 - 155
Chloroform-d	93		78 - 121
1,2-Dichloroethane-d4	103		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	97		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121
2-Hexanone-d5	164	*	28 - 135
1,1,2,2-Tetrachloroethane-d2	106		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10260-1

Sdg Number: PRR1203

Client Sample ID: PRR1WATGACI-06

Lab Sample ID: 200-10260-1

Date Sampled: 04/06/2012 1010

Client Matrix: Water

Date Received: 04/09/2012 0935

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdeg21.d
Dilution:	45.8			Initial Weight/Volume:	25 mL
Analysis Date:	04/09/2012 1740			Final Weight/Volume:	25 mL
Prep Date:	04/09/2012 1740				

Analyte	Result (ug/L)	Qualifier	RL
Chlorobenzene	720		23

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	96		71 - 131
1,1-Dichloroethene-d2	73		55 - 104
2-Butanone-d5	109		49 - 155
Chloroform-d	94		78 - 121
1,2-Dichloroethane-d4	103		78 - 129
Benzene-d6	99		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121
2-Hexanone-d5	129		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	99		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10260-1

Sdg Number: PRR1203

Client Sample ID: PRR1WATGACE-06

Lab Sample ID: 200-10260-2

Date Sampled: 04/06/2012 1015

Client Matrix: Water

Date Received: 04/09/2012 0935

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdeg24.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/09/2012 1852			Final Weight/Volume:	25 mL
Prep Date:	04/09/2012 1852				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	40		10
Chlorobenzene	28		1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	98		65 - 131
Chloroethane-d5	99		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	128		49 - 155
Chloroform-d	97		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	94		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	110		73 - 121
2-Hexanone-d5	157	*	28 - 135
1,1,2,2-Tetrachloroethane-d2	107		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10260-1

Sdg Number: PRR1203

Client Sample ID: TB04062012

Lab Sample ID: 200-10260-3TB

Date Sampled: 04/06/2012 0000

Client Matrix: Water

Date Received: 04/09/2012 0935

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdeg25.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/09/2012 1917			Final Weight/Volume:	25 mL
Prep Date:	04/09/2012 1917				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	106		49 - 155
Chloroform-d	94		78 - 121
1,2-Dichloroethane-d4	99		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	101		73 - 121
2-Hexanone-d5	129		28 - 135
1,1,2,2-Tetrachloroethane-d2	97		73 - 125
1,2-Dichlorobenzene-d4	99		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10260-1

Sdg Number: PRR1203

Client Sample ID: VHBLK01

Lab Sample ID: 200-10260-6STOBLK

Date Sampled: 04/09/2012 1030

Client Matrix: Water

Date Received: 04/09/2012 0935

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdeg26.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/09/2012 1941			Final Weight/Volume:	25 mL
Prep Date:	04/09/2012 1941				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	97		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	110		49 - 155
Chloroform-d	95		78 - 121
1,2-Dichloroethane-d4	101		78 - 129
Benzene-d6	98		77 - 124
1,2-Dichloropropane-d6	89		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	100		73 - 121
2-Hexanone-d5	125		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10260-1

Sdg Number: PRR1203

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	*	Surrogate exceeds the control limit

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10260-1

Sdg Number: PRR1203

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-36494					
MB 200-36494/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10260-1	PRR1WATGACI-06	T	Water	SOM01.2/VOA_T	
200-10260-2	PRR1WATGACE-06	T	Water	SOM01.2/VOA_T	
200-10260-3TB	TB04062012	T	Water	SOM01.2/VOA_T	
200-10260-6STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10260-1

Sdg Number: PRR1203

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10260-1	PRR1WATGACI-06	94	96	73	109	94	103	99	92
200-10260-1	PRR1WATGACI-06	94	94	74	130	93	103	100	91
200-10260-2	PRR1WATGACE-06	98	99	76	128	97	107	103	94
200-10260-3	TB04062012	96	98	76	106	94	99	101	91
200-10260-6	VHBLK01	96	97	76	110	95	101	98	89
MB 200-36494/4		97	99	78	107	99	103	101	91

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10260-1

Sdg Number: PRR1203

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10260-1	PRR1WATGACI-06	98	103	129	100	99
200-10260-1	PRR1WATGACI-06	97	104	164*	106	106
200-10260-2	PRR1WATGACE-06	100	110	157*	107	105
200-10260-3	TB04062012	100	101	129	97	99
200-10260-6	VHBLK01	98	100	125	99	100
MB 200-36494/4		101	98	112	95	100

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10260-1
Sdg Number: PRR1203

Method Blank - Batch: 200-36494

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-36494/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/09/2012 1048
Prep Date: 04/09/2012 1048
Leach Date: N/A

Analysis Batch: 200-36494
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdeg04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	97	65 - 131
Chloroethane-d5	99	71 - 131
1,1-Dichloroethene-d2	78	55 - 104
2-Butanone-d5	107	49 - 155
Chloroform-d	99	78 - 121
1,2-Dichloroethane-d4	103	78 - 129
Benzene-d6	101	77 - 124
1,2-Dichloropropane-d6	91	79 - 124
Toluene-d8	101	77 - 121
trans-1,3-Dichloropropene-d4	98	73 - 121
2-Hexanone-d5	112	28 - 135
1,1,2,2-Tetrachloroethane-d2	95	73 - 125
1,2-Dichlorobenzene-d4	100	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO. 80009964.0002.70004		PROJECT NAME Tierra Phase I Removal		SDG NUMBER/COC Number PRR1203																				
SAMPLERS:		Requested Analyses										Special QA/QC Instructions												
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATGACI-06	4/6/2012		water	Grab	4	X	X																	
PRR1WATGACE-06	4/6/2012		water	Grab	4	X	X																	
TB04062012	4/6/2012		water		2	X																		
PRR1WATCME-17	4/6/2012		water	Grab	1			X																
PRRWATSP101-5	4/6/2012		water	Grab	1			X																
Special Instructions/Comments:																								
Requested Analyses																								
<input type="checkbox"/> 2-Butanone, Chlorobenzene <input type="checkbox"/> COD <input type="checkbox"/> TSS																								
Laboratory Information and Receipt																								
Lab Name: TestAmerica -Burlington, VT												Sample Receipt:												
Shipping Tracking #												Condition/Cooler Temp: 20												
Specify Turnaround Requirements: 24 hr TAT												Cooler packed with ice												
												Cooler custody seal intact												
Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME		
D. Bourner		4/6/12		1030		[Signature]		4/6/12		1230		[Signature]		4/6/12		1230		[Signature]		4/6/12		1230		
Relinquished by:		DATE		TIME		Relinquished by:		DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME		
[Signature]		4/6/12		1230		[Signature]		4/6/12		1230		[Signature]		4/6/12		1230		[Signature]		4/6/12		1230		

Hammond, Ryan

From: Shatt, Ryan [Ryan.Shatt@arcadis-us.com]
Sent: Thursday, April 12, 2012 12:11 PM
To: Hammond, Ryan
Subject: RE: Hold Data for Performance Samples
Attachments: 4-6-12 COC Revised_Performance Water.pdf

Hi Ryan – Please finalize the Performance data for SDG PRR1203 (samples collected 4/6/2012).

Please revise the Sample IDs as shown in the attached COC. The revision is based on discussion with the field staff and observation from the lab that the sample labeled effluent was darker in color than the influent sample. The revised Sample IDs represents the correct sample ID for these samples based on all of the available information.

Privileged and Confidential Work Product
Prepared at the Request of Legal Counsel
for or in Anticipation of Litigation
and in Connection with Rendering Legal Advice

From: Hammond, Ryan [mailto:Ryan.Hammond@testamericainc.com]
Sent: Tuesday, April 10, 2012 1:22 PM
To: Shatt, Ryan
Subject: Hold Data for Performance Samples

Hi Ryan,

Just got your voicemail and we will hold the report until after your review of the next round of performance samples.

Thanks for keeping us in the loop,
Ryan

Ryan Hammond
Project Manager I

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

30 Community Drive, Suite 11
South Burlington, VT 05403
Tel 802.660.1990 | Direct 802.923.1038
www.testamericainc.com

NOTICE: This e-mail and any files transmitted with it are the property of ARCADIS U.S., Inc. and its affiliates. All rights, including without limitation copyright, are reserved. The proprietary information contained in this e-mail message, and any files transmitted with it, is intended for the use of the recipient(s) named above. If the reader of this e-mail is not the intended recipient, you are hereby notified that you have received this e-mail in error and that any review, distribution or copying of this e-mail or any files transmitted with it is strictly prohibited. If you have

received this e-mail in error, please notify the sender immediately and delete the original message and any files transmitted. The unauthorized use of this e-mail or any files transmitted with it is prohibited and disclaimed by ARCADIS U.S., Inc. and its affiliates. Nothing herein is intended to constitute the offering or performance of services where otherwise restricted by law.

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

PROJECT NAME		Requested Analyses																						
Tierra Phase I Removal		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17						
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
PRR1WATGAE-06	4/6/2012	1015	water	Grab	4	X	X																	
PRR1WATGAE-06	4/6/2012	1010	water	Grab	4	X	X																	
TB04062012	4/6/2012		water		2	X																		
PRR1WATCME-17	4/6/2012	1005	water	Grab	1		X																	
PRRWATSP101-5	4/6/2012	1025	water	Grab	1		X																	
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																						
Requested Analyses		N2-Butanone, Chlorobenzene COD BOD5																						
Lab Name: TestAmerica - Burlington, VT		Shipping Tracking # Specify Turnaround Requirements: 24 hr TAT																						
Requested Analyses		<input type="checkbox"/> Cooler packed with ice <input type="checkbox"/> Cooler custody seal intact																	Sample Receipt: Condition/Cooler Temp:					
7	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME
8	Relinquished by:	4/6/12	1030	RB	4/6/12	1030	Relinquished by:						Relinquished by:						Relinquished by:					
9	Relinquished by:	4/6/12	1230	RB	4/6/12	1230	Relinquished by:						Relinquished by:						Relinquished by:					
10	Relinquished by:						Relinquished by:						Relinquished by:						Relinquished by:					
11	Relinquished by:						Relinquished by:						Relinquished by:						Relinquished by:					
12	Relinquished by:						Relinquished by:						Relinquished by:						Relinquished by:					
13	Relinquished by:						Relinquished by:						Relinquished by:						Relinquished by:					
14	Relinquished by:						Relinquished by:						Relinquished by:						Relinquished by:					
15	Relinquished by:						Relinquished by:						Relinquished by:						Relinquished by:					
16	Relinquished by:						Relinquished by:						Relinquished by:						Relinquished by:					
17	Relinquished by:						Relinquished by:						Relinquished by:						Relinquished by:					

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10260-1

SDG Number: PRR1203

Login Number: 10260

List Source: TestAmerica Burlington

List Number: 1

Creator: Holt, Jamie

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	NO CUSTODY SEAL NUMBERS
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0°C, IR GUN ID 154, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	No sample time on COC, logged in per container labels.
Is the Field Sampler's name present on COC?	False	SAMPLER'S NAME NOT LISTED ON COC
There are no discrepancies between the sample IDs on the containers and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

From: (315) 439-2188
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 06APR12
ActWgt: 15.0 LB
CAD: 103767025/NET3250
Dims: 15 X 12 X 15 IN

Delivery Address Bar Code



SHIP TO: (892) 650-1998
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

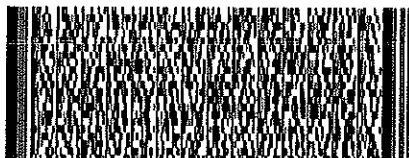
SOUTH BURLINGTON, VT 05403

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # B009968.0002.7004-11128
Dept #

MON - 09 APR A4
STANDARD OVERNIGHT

TRK# 7934 2674 9980
0201



KS BTVA

05403
VT-US
BTV



51261AC4103A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10260-2

SDG Number: PRR1203

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/15/2012 10:58 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/15/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	12
QC Results	13
Qc Association Summary	14
Qc Reports	15
Client Chain of Custody	18
Sample Receipt Checklist	19

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1203 (200- 10260-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 04/09/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping Documentation section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 2.0 °C.

USEPA Method 410.1 Chemical Oxygen Demand

The samples in this sample set were analyzed for chemical oxygen demand by the referenced method. Matrix spike and replicate analyses were performed on sample PRR1WATGACE-06. There was low recovery of the spiked component in the matrix spike analysis (71 percent). The replicate analyses that were performed on sample PRR1WATGACE-06 did yield results with an acceptable correlation in the interanalysis comparison. A laboratory control sample was analyzed in association with the samples, and there was an acceptable recovery of the spiked component in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the samples in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10260-2

Sdg Number: PRR1203

Description	Lab Location	Method	Preparation Method
Matrix: Water			
COD	TAL BUR	MCAWW 410.4	
COD	TAL BUR		MCAWW 410.4
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10260-2
Sdg Number: PRR1203

Method	Analyst	Analyst ID
MCAWW 410.4	Tam, Michelle N	MNT
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10260-2
Sdg Number: PRR1203

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10260-1	PRR1WATGACI-06	Water	04/06/2012 1010	04/09/2012 0935
200-10260-2	PRR1WATGACE-06	Water	04/06/2012 1015	04/09/2012 0935
200-10260-2MS	PRR1WATGACE-06	Water	04/06/2012 1015	04/09/2012 0935
200-10260-2DU	PRR1WATGACE-06	Water	04/06/2012 1015	04/09/2012 0935
200-10260-4	PRR1WATCME-17	Water	04/06/2012 1005	04/09/2012 0935
200-10260-5	PRRWATSP101-5	Water	04/06/2012 1025	04/09/2012 0935

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10260-2
Sdg Number: PRR1203

General Chemistry

Client Sample ID: PRR1WATGACI-06

Lab Sample ID: 200-10260-1
Client Matrix: Water

Date Sampled: 04/06/2012 1010
Date Received: 04/09/2012 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	631		mg/L	160	160	8.0	410.4
	Analysis Batch: 200-36488	Analysis Date: 04/10/2012 0909					
	Prep Batch: 200-36478	Prep Date: 04/09/2012 1450					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10260-2

Sdg Number: PRR1203

General Chemistry

Client Sample ID: PRR1WATGACE-06

Lab Sample ID: 200-10260-2

Date Sampled: 04/06/2012 1015

Client Matrix: Water

Date Received: 04/09/2012 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	188		mg/L	80.0	80.0	4.0	410.4
	Analysis Batch: 200-36488	Analysis Date: 04/10/2012 0909					
	Prep Batch: 200-36478	Prep Date: 04/09/2012 1450					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10260-2
Sdg Number: PRR1203

General Chemistry

Client Sample ID: PRR1WATCME-17

Lab Sample ID: 200-10260-4

Client Matrix: Water

Date Sampled: 04/06/2012 1005

Date Received: 04/09/2012 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	7.8		mg/L	1.0	1.0	1.0	SM 2540D
Analysis Batch: 200-36443		Analysis Date: 04/09/2012 1301					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10260-2

Sdg Number: PRR1203

General Chemistry

Client Sample ID: PRRWATSP101-5

Lab Sample ID: 200-10260-5

Date Sampled: 04/06/2012 1025

Client Matrix: Water

Date Received: 04/09/2012 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	44.0		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-36443		Analysis Date: 04/09/2012 1301					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10260-2

Sdg Number: PRR1203

Lab Section	Qualifier	Description
General Chemistry		
	U	Indicates the analyte was analyzed for but not detected.
	F	MS/MSD Recovery or RPD exceeds the control limits

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10260-2

Sdg Number: PRR1203

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:200-36443					
LCS 200-36443/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-36443/1	Method Blank	T	Water	SM 2540D	
200-10260-4	PRR1WATCME-17	T	Water	SM 2540D	
200-10260-5	PRRWATSP101-5	T	Water	SM 2540D	
Prep Batch: 200-36478					
LCS 200-36478/1-A	Lab Control Sample	T	Water	410.4	
MB 200-36478/2-A	Method Blank	T	Water	410.4	
200-10260-1	PRR1WATGACI-06	T	Water	410.4	
200-10260-2	PRR1WATGACE-06	T	Water	410.4	
200-10260-2DU	Duplicate	T	Water	410.4	
200-10260-2MS	Matrix Spike	T	Water	410.4	
Analysis Batch:200-36488					
LCS 200-36478/1-A	Lab Control Sample	T	Water	410.4	200-36478
MB 200-36478/2-A	Method Blank	T	Water	410.4	200-36478
200-10260-1	PRR1WATGACI-06	T	Water	410.4	200-36478
200-10260-2	PRR1WATGACE-06	T	Water	410.4	200-36478
200-10260-2DU	Duplicate	T	Water	410.4	200-36478
200-10260-2MS	Matrix Spike	T	Water	410.4	200-36478

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10260-2
Sdg Number: PRR1203

Method Blank - Batch: 200-36478

Method: 410.4
Preparation: 410.4

Lab Sample ID: MB 200-36478/2-A	Analysis Batch: 200-36488	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-36478	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/10/2012 0909	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/09/2012 1450		
Leach Date: N/A		

Analyte	Result	Qual	RL	RL
Chemical Oxygen Demand	20.0	U	20.0	20.0

Lab Control Sample - Batch: 200-36478

Method: 410.4
Preparation: 410.4

Lab Sample ID: LCS 200-36478/1-A	Analysis Batch: 200-36488	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-36478	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/10/2012 0909	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/09/2012 1450		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	27.3	25.87	95	90 - 110	

Matrix Spike - Batch: 200-36478

Method: 410.4
Preparation: 410.4

Lab Sample ID: 200-10260-2	Analysis Batch: 200-36488	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-36478	Lab File ID: N/A
Dilution: 4.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/10/2012 0909	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/09/2012 1450		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	188	200	329.4	71	90 - 110	F

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10260-2
Sdg Number: PRR1203

Duplicate - Batch: 200-36478

Method: 410.4
Preparation: 410.4

Lab Sample ID: 200-10260-2
Client Matrix: Water
Dilution: 4.0
Analysis Date: 04/10/2012 0909
Prep Date: 04/09/2012 1450
Leach Date: N/A

Analysis Batch: 200-36488
Prep Batch: 200-36478
Leach Batch: N/A
Units: mg/L

Instrument ID: WCS2
Lab File ID: N/A
Initial Weight/Volume: 2.0 mL
Final Weight/Volume: 2.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chemical Oxygen Demand	188	188.2	0	20	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10260-2
Sdg Number: PRR1203

Method Blank - Batch: 200-36443

Method: SM 2540D
Preparation: N/A

Lab Sample ID: MB 200-36443/1	Analysis Batch: 200-36443	Instrument ID: No Equipment
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 04/09/2012 1301	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-36443

Method: SM 2540D
Preparation: N/A

Lab Sample ID: LCS 200-36443/2	Analysis Batch: 200-36443	Instrument ID: No Equipment
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 50 mL
Analysis Date: 04/09/2012 1301	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	480.0	96	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO. 80009964.0002.70004		PROJECT NAME Tierra Phase I Removal		SDG NUMBER/COC Number PRR1203																				
SAMPLERS:		Requested Analyses																						
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATGACI-06	4/6/2012		water	Grab	4	X	X																	
PRR1WATGACE-06	4/6/2012		water	Grab	4	X	X																	
TB04062012	4/6/2012		water		2	X																		
PRR1WATCME-17	4/6/2012		water	Grab	1			X																
PRRWATSP101-5	4/6/2012		water	Grab	1			X																
Special Instructions/Comments:																								
<input type="checkbox"/> Requested Analyses <input type="checkbox"/> 2-Butanone, Chlorobenzene <input type="checkbox"/> COD <input type="checkbox"/> Pb TSS <input type="checkbox"/> Special QA/QC Instructions																								
Laboratory Information and Receipt															Sample Receipt: Condition/Cooler Temp: 20 Received by: _____ DATE _____ Relinquished by: _____ DATE _____ Relinquished by: _____ DATE _____ Relinquished by: _____ DATE _____									
Lab Name: TestAmerica -Burlington, VT Shipping Tracking # _____ Specify Turnaround Requirements: 24 hr TAT															<input checked="" type="checkbox"/> Cooler packed with ice <input checked="" type="checkbox"/> Cooler custody seal intact									
Relinquished by: <i>Des Bourner</i> DATE: 4/6/12 TIME: 1030 Received by: <i>[Signature]</i> DATE: 4/9/12 TIME: 1235 Relinquished by: <i>[Signature]</i> DATE: 4/6/12 TIME: 1230 Received by: <i>[Signature]</i> DATE: _____ TIME: _____ Relinquished by: _____ DATE: _____ TIME: _____															Relinquished by: _____ DATE: _____ Relinquished by: _____ DATE: _____ Relinquished by: _____ DATE: _____									

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10260-2

SDG Number: PRR1203

Login Number: 10260

List Source: TestAmerica Burlington

List Number: 1

Creator: Holt, Jamie

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	NO CUSTODY SEAL NUMBERS
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0°C, IR GUN ID 154, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	No sample time on COC, logged in per container labels.
Is the Field Sampler's name present on COC?	False	SAMPLER'S NAME NOT LISTED ON COC
There are no discrepancies between the sample IDs on the containers and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

From: (315) 439-2188
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 06APR12
ActWgt: 15.0 LB
CAD: 103767025/NET3250
Dims: 15 X 12 X 15 IN

Delivery Address Bar Code



SHIP TO: (892) 650-1998
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

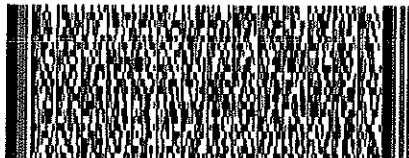
SOUTH BURLINGTON, VT 05403

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # B009968.0002.7004-11128
Dept #

MON - 09 APR A4
STANDARD OVERNIGHT

TRK# 7934 2674 9980
0201



KS BTVA

05403
VT-US
BTV



51261AC4103A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10281-1

SDG Number: PRR1208

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/12/2012 11:40 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/12/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	14
QC Results	15
Qc Association Summary	16
Surrogate Recovery Report	17
Qc Reports	19
Client Chain of Custody	20
Sample Receipt Checklist	21

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1208 (200-10281-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 04/11/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 1.8 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of each sample in the sample set did meet the technical acceptance criteria specific to DMC recoveries, although not all DMC recoveries were within the control range in each analysis. The method allowance criteria provide for the recovery of up to three DMCs to be outside the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the

50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10281-1

Sdg Number: PRR1208

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Trace Water	TAL BUR	SOM01.2	SOM01.2/VOA_Tr
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10281-1
Sdg Number: PRR1208

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10281-1
Sdg Number: PRR1208

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10281-1	PRR1WATGACI-07	Water	04/10/2012 1035	04/11/2012 1015
200-10281-2	PRR1WATGACE-07	Water	04/10/2012 1030	04/11/2012 1015
200-10281-3TB	TB04102012	Water	04/10/2012 0000	04/11/2012 1015
200-10281-8STOBL K	VHBLK01	Water	04/11/2012 1040	04/11/2012 1015

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10281-1

Sdg Number: PRR1208

Client Sample ID: PRR1WATGACI-07

Lab Sample ID: 200-10281-1

Date Sampled: 04/10/2012 1035

Client Matrix: Water

Date Received: 04/11/2012 1015

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36703	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdei06.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/11/2012 1326			Final Weight/Volume:	25 mL
Prep Date:	04/11/2012 1326				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	110		10
Chlorobenzene	150	E	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	89		65 - 131
Chloroethane-d5	91		71 - 131
1,1-Dichloroethene-d2	70		55 - 104
2-Butanone-d5	111		49 - 155
Chloroform-d	90		78 - 121
1,2-Dichloroethane-d4	100		78 - 129
Benzene-d6	92		77 - 124
1,2-Dichloropropane-d6	84		79 - 124
Toluene-d8	91		77 - 121
trans-1,3-Dichloropropene-d4	96		73 - 121
2-Hexanone-d5	129		28 - 135
1,1,2,2-Tetrachloroethane-d2	101		73 - 125
1,2-Dichlorobenzene-d4	97		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10281-1

Sdg Number: PRR1208

Client Sample ID: PRR1WATGACI-07

Lab Sample ID: 200-10281-1

Date Sampled: 04/10/2012 1035

Client Matrix: Water

Date Received: 04/11/2012 1015

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36703	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdei05.d
Dilution:	8.8			Initial Weight/Volume:	25 mL
Analysis Date:	04/11/2012 1302	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	04/11/2012 1302				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	85	D	44
Chlorobenzene	140	D	4.4

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	93		65 - 131
Chloroethane-d5	94		71 - 131
1,1-Dichloroethene-d2	73		55 - 104
2-Butanone-d5	85		49 - 155
Chloroform-d	88		78 - 121
1,2-Dichloroethane-d4	90		78 - 129
Benzene-d6	96		77 - 124
1,2-Dichloropropane-d6	85		79 - 124
Toluene-d8	96		77 - 121
trans-1,3-Dichloropropene-d4	90		73 - 121
2-Hexanone-d5	90		28 - 135
1,1,2,2-Tetrachloroethane-d2	86		73 - 125
1,2-Dichlorobenzene-d4	96		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10281-1

Sdg Number: PRR1208

Client Sample ID: PRR1WATGACE-07

Lab Sample ID: 200-10281-2

Date Sampled: 04/10/2012 1030

Client Matrix: Water

Date Received: 04/11/2012 1015

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36703	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdei09.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/11/2012 1438			Final Weight/Volume:	25 mL
Prep Date:	04/11/2012 1438				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	63		10
Chlorobenzene	32		1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	92		65 - 131
Chloroethane-d5	94		71 - 131
1,1-Dichloroethene-d2	73		55 - 104
2-Butanone-d5	124		49 - 155
Chloroform-d	96		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	99		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	105		73 - 121
2-Hexanone-d5	146	*	28 - 135
1,1,2,2-Tetrachloroethane-d2	107		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10281-1

Sdg Number: PRR1208

Client Sample ID: TB04102012

Lab Sample ID: 200-10281-3TB

Date Sampled: 04/10/2012 0000

Client Matrix: Water

Date Received: 04/11/2012 1015

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36703	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdei11.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/11/2012 1527			Final Weight/Volume:	25 mL
Prep Date:	04/11/2012 1527				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	99		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	106		49 - 155
Chloroform-d	105		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121
2-Hexanone-d5	122		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10281-1

Sdg Number: PRR1208

Client Sample ID: VHBLK01

Lab Sample ID: 200-10281-8STOBLK

Date Sampled: 04/11/2012 1040

Client Matrix: Water

Date Received: 04/11/2012 1015

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36703	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdei12.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/11/2012 1551			Final Weight/Volume:	25 mL
Prep Date:	04/11/2012 1551				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	95		65 - 131
Chloroethane-d5	96		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	110		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	98		77 - 124
1,2-Dichloropropane-d6	90		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	95		73 - 121
2-Hexanone-d5	119		28 - 135
1,1,2,2-Tetrachloroethane-d2	97		73 - 125
1,2-Dichlorobenzene-d4	99		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10281-1

Sdg Number: PRR1208

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	D	Sample was analyzed at a higher dilution factor.
	*	Surrogate exceeds the control limit

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10281-1

Sdg Number: PRR1208

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-36703					
MB 200-36703/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10281-1	PRR1WATGACI-07	T	Water	SOM01.2/VOA_T	
200-10281-1DL	PRR1WATGACI-07	T	Water	SOM01.2/VOA_T	
200-10281-2	PRR1WATGACE-07	T	Water	SOM01.2/VOA_T	
200-10281-3TB	TB04102012	T	Water	SOM01.2/VOA_T	
200-10281-8STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10281-1

Sdg Number: PRR1208

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10281-1 DL	PRR1WATGACI-07 DL	93	94	73	85	88	90	96	85
200-10281-1	PRR1WATGACI-07	89	91	70	111	90	100	92	84
200-10281-2	PRR1WATGACE-07	92	94	73	124	96	105	99	93
200-10281-3	TB04102012	97	99	77	106	105	105	100	91
200-10281-8	VHBLK01	95	96	75	110	98	104	98	90
MB 200-36703/4		93	95	73	105	95	99	97	88

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10281-1
Sdg Number: PRR1208

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10281-1 DL	PRR1WATGACI-07 DL	96	90	90	86	96
200-10281-1	PRR1WATGACI-07	91	96	129	101	97
200-10281-2	PRR1WATGACE-07	98	105	146*	107	101
200-10281-3	TB04102012	101	99	122	98	100
200-10281-8	VHBLK01	99	95	119	97	99
MB 200-36703/4		98	97	112	94	96

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10281-1
Sdg Number: PRR1208

Method Blank - Batch: 200-36703

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-36703/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/11/2012 1101
Prep Date: 04/11/2012 1101
Leach Date: N/A

Analysis Batch: 200-36703
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdei04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	93	65 - 131
Chloroethane-d5	95	71 - 131
1,1-Dichloroethene-d2	73	55 - 104
2-Butanone-d5	105	49 - 155
Chloroform-d	95	78 - 121
1,2-Dichloroethane-d4	99	78 - 129
Benzene-d6	97	77 - 124
1,2-Dichloropropane-d6	88	79 - 124
Toluene-d8	98	77 - 121
trans-1,3-Dichloropropene-d4	97	73 - 121
2-Hexanone-d5	112	28 - 135
1,1,2,2-Tetrachloroethane-d2	94	73 - 125
1,2-Dichlorobenzene-d4	96	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO.	PROJECT NAME		Requested Analyses																SDG NUMBER	COC Number						
B0009964.0002.70004	Tierra Phase I Removal																				PRR1208					
SAMPLERS:	SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks		
CHES	PRR1WATGACH-07	4/10/2012	10:35	water	Grab	4	X	X																		
	PRR1WATGACE-07	4/10/2012	10:30	water	Grab	4	X	X																		
	TB04102012	4/10/2012	--	water		3	X																			
	PRR1WATCME-20	4/10/2012	10:25	water	Grab	1			X																	
	PRRWATSP101-6	4/10/2012	10:25	water	Grab	1			X																	
	PRR1WATCME-18	4/7/2012	23:35	water	Grab	1			X																	
	PRR1WATCME-19	4/9/2012	13:55	water	Grab	1			X																	
Special Instructions/Comments: <input type="checkbox"/> Special OA/QC Instructions																										
Requested Analyses																										
2-Butanone, Chlorobenzene COD TSS																										
Laboratory Information and Receipt													Sample Receipt:													
Lab Name: TestAmerica -Burlington, VT													<input type="checkbox"/> Cooler packed with ice <input type="checkbox"/> Cooler custody seal intact													
Shipping Tracking #													Specify Turnaround Requirements: 24 hr TAT													
7	Relinquished by:	is Burns	DATE	4/10/12	TIME	1400	Received by:	J. D. [Signature]															DATE		Received by:	
8	Relinquished by:	J. D. [Signature]	DATE	4/10/12	TIME	1500	Received by:	[Signature] T. A. [Signature]															DATE		Received by:	
9	Relinquished by:		DATE		TIME		Relinquished by:																DATE		Received by:	
10	Relinquished by:		DATE		TIME		Relinquished by:																DATE		Received by:	
11	Relinquished by:		DATE		TIME		Relinquished by:																DATE		Received by:	
12	Relinquished by:		DATE		TIME		Relinquished by:																DATE		Received by:	
13	Relinquished by:		DATE		TIME		Relinquished by:																DATE		Received by:	
14	Relinquished by:		DATE		TIME		Relinquished by:																DATE		Received by:	
15	Relinquished by:		DATE		TIME		Relinquished by:																DATE		Received by:	
16	Relinquished by:		DATE		TIME		Relinquished by:																DATE		Received by:	
17	Relinquished by:		DATE		TIME		Relinquished by:																DATE		Received by:	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10281-1

SDG Number: PRR1208

Login Number: 10281

List Number: 1

Creator: Holt, Jamie

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	NO CUSTODY SEAL NUMBERS
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8°C, IR GUN ID 154, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	False	Refer to Job Narrative for details.
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
 Thomas ORourke
 8723 Towpath Rd
 Syracuse, NY 13214

Origin ID: LKPA



Ship Date: 10APR12
 Acct Wgt: 20.0 LB
 CAD: 103767025ANET3250 Dims: 18 X 14 X 16 IN

SHIP TO: (802) 650-1999
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

SOUTH BURLINGTON, VT 05403

BILL SENDER

Delivery Address Bar Code



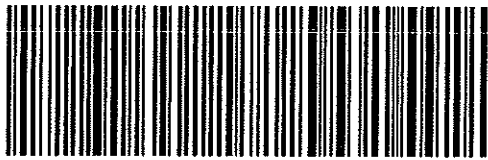
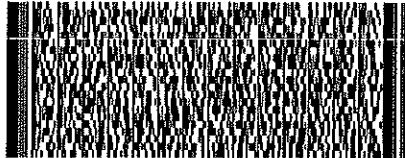
Ref # 1129-1616-4
 Invoice #
 PO # B0009968.0002.70004-11128
 Dept #

WED - 11 APR A4
PRIORITY OVERNIGHT

TRK# 7982 6759 8095
 0201

05403
 VT-US
BTV

ZF BTVA



51261A:410A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10281-2

SDG Number: PRR1208

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/12/2012 11:58 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/12/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	14
QC Results	15
Qc Association Summary	16
Qc Reports	17
Client Chain of Custody	20
Sample Receipt Checklist	21

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1208 (200- 10281-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 04/11/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 1.8 °C.

USEPA Method 410.1 Chemical Oxygen Demand

The samples in this sample set were analyzed for chemical oxygen demand by the referenced method. Matrix spike and replicate analyses were performed on sample PRR1WATGACE-07. There was a high recovery of the spiked component in the matrix spike analysis (162 percent). The replicate analyses that were performed on sample PRR1WATGACE-07 did yield results with an acceptable correlation in the interanalysis comparison. A laboratory control sample was analyzed in association with the samples, and there was an acceptable recovery of the spiked component in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the samples in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2

Sdg Number: PRR1208

Description	Lab Location	Method	Preparation Method
Matrix: Water			
COD	TAL BUR	MCAWW 410.4	
COD	TAL BUR		MCAWW 410.4
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2
Sdg Number: PRR1208

Method	Analyst	Analyst ID
MCAWW 410.4	Tam, Michelle N	MNT
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2

Sdg Number: PRR1208

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10281-1	PRR1WATGACI-07	Water	04/10/2012 1035	04/11/2012 1015
200-10281-2	PRR1WATGACE-07	Water	04/10/2012 1030	04/11/2012 1015
200-10281-2MS	PRR1WATGACE-07	Water	04/10/2012 1030	04/11/2012 1015
200-10281-2DU	PRR1WATGACE-07	Water	04/10/2012 1030	04/11/2012 1015
200-10281-4	PRR1WATCME-20	Water	04/10/2012 1025	04/11/2012 1015
200-10281-5	PRR1WATSP101-6	Water	04/10/2012 1040	04/11/2012 1015
200-10281-6	PRR1WATCME-18	Water	04/07/2012 2335	04/11/2012 1015
200-10281-7	PRR1WATCME-19	Water	04/09/2012 1355	04/11/2012 1015

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2
Sdg Number: PRR1208

General Chemistry

Client Sample ID: PRR1WATGACI-07

Lab Sample ID: 200-10281-1
Client Matrix: Water

Date Sampled: 04/10/2012 1035
Date Received: 04/11/2012 1015

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	154		mg/L	40.0	40.0	2.0	410.4
	Analysis Batch: 200-36702	Analysis Date: 04/12/2012 0753					
	Prep Batch: 200-36701	Prep Date: 04/11/2012 1210					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2
Sdg Number: PRR1208

General Chemistry

Client Sample ID: PRR1WATGACE-07

Lab Sample ID: 200-10281-2

Date Sampled: 04/10/2012 1030

Client Matrix: Water

Date Received: 04/11/2012 1015

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	108		mg/L	40.0	40.0	2.0	410.4
	Analysis Batch: 200-36702	Analysis Date: 04/12/2012 0753					
	Prep Batch: 200-36701	Prep Date: 04/11/2012 1210					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2

Sdg Number: PRR1208

General Chemistry

Client Sample ID: PRR1WATCME-20

Lab Sample ID: 200-10281-4

Client Matrix: Water

Date Sampled: 04/10/2012 1025

Date Received: 04/11/2012 1015

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	6.8		mg/L	0.83	0.83	1.0	SM 2540D
Analysis Batch: 200-36648		Analysis Date: 04/11/2012 1450					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2

Sdg Number: PRR1208

General Chemistry

Client Sample ID: PRR1WATSP101-6

Lab Sample ID: 200-10281-5

Client Matrix: Water

Date Sampled: 04/10/2012 1040

Date Received: 04/11/2012 1015

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	48.8		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-36648		Analysis Date: 04/11/2012 1450					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2
Sdg Number: PRR1208

General Chemistry

Client Sample ID: PRR1WATCME-18

Lab Sample ID: 200-10281-6

Date Sampled: 04/07/2012 2335

Client Matrix: Water

Date Received: 04/11/2012 1015

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	6.0		mg/L	1.8	1.8	1.0	SM 2540D
Analysis Batch: 200-36648		Analysis Date: 04/11/2012 1450					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2

Sdg Number: PRR1208

General Chemistry

Client Sample ID: PRR1WATCME-19

Lab Sample ID: 200-10281-7

Date Sampled: 04/09/2012 1355

Client Matrix: Water

Date Received: 04/11/2012 1015

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	7.0		mg/L	1.0	1.0	1.0	SM 2540D
Analysis Batch: 200-36648		Analysis Date: 04/11/2012 1450					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2

Sdg Number: PRR1208

Lab Section	Qualifier	Description
General Chemistry		
	U	Indicates the analyte was analyzed for but not detected.
	F	MS/MSD Recovery or RPD exceeds the control limits

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2

Sdg Number: PRR1208

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:200-36648					
LCS 200-36648/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-36648/1	Method Blank	T	Water	SM 2540D	
200-10281-4	PRR1WATCME-20	T	Water	SM 2540D	
200-10281-5	PRR1WATSP101-6	T	Water	SM 2540D	
200-10281-6	PRR1WATCME-18	T	Water	SM 2540D	
200-10281-7	PRR1WATCME-19	T	Water	SM 2540D	
Prep Batch: 200-36701					
LCS 200-36701/1-A	Lab Control Sample	T	Water	410.4	
MB 200-36701/2-A	Method Blank	T	Water	410.4	
200-10281-1	PRR1WATGACI-07	T	Water	410.4	
200-10281-2	PRR1WATGACE-07	T	Water	410.4	
200-10281-2DU	Duplicate	T	Water	410.4	
200-10281-2MS	Matrix Spike	T	Water	410.4	
Analysis Batch:200-36702					
LCS 200-36701/1-A	Lab Control Sample	T	Water	410.4	200-36701
MB 200-36701/2-A	Method Blank	T	Water	410.4	200-36701
200-10281-1	PRR1WATGACI-07	T	Water	410.4	200-36701
200-10281-2	PRR1WATGACE-07	T	Water	410.4	200-36701
200-10281-2DU	Duplicate	T	Water	410.4	200-36701
200-10281-2MS	Matrix Spike	T	Water	410.4	200-36701

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2
Sdg Number: PRR1208

Method Blank - Batch: 200-36701

Method: 410.4
Preparation: 410.4

Lab Sample ID: MB 200-36701/2-A	Analysis Batch: 200-36702	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-36701	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/12/2012 0753	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/11/2012 1210		
Leach Date: N/A		

Analyte	Result	Qual	RL	RL
Chemical Oxygen Demand	20.0	U	20.0	20.0

Lab Control Sample - Batch: 200-36701

Method: 410.4
Preparation: 410.4

Lab Sample ID: LCS 200-36701/1-A	Analysis Batch: 200-36702	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-36701	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/12/2012 0753	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/11/2012 1210		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	27.3	27.64	101	90 - 110	

Matrix Spike - Batch: 200-36701

Method: 410.4
Preparation: 410.4

Lab Sample ID: 200-10281-2	Analysis Batch: 200-36702	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-36701	Lab File ID: N/A
Dilution: 2.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/12/2012 0753	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/11/2012 1210		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	108	50.0	189.4	162	90 - 110	F

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2
Sdg Number: PRR1208

Duplicate - Batch: 200-36701

Method: 410.4
Preparation: 410.4

Lab Sample ID:	200-10281-2	Analysis Batch:	200-36702	Instrument ID:	WCS2
Client Matrix:	Water	Prep Batch:	200-36701	Lab File ID:	N/A
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	2.0 mL
Analysis Date:	04/12/2012 0753	Units:	mg/L	Final Weight/Volume:	2.0 mL
Prep Date:	04/11/2012 1210				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chemical Oxygen Demand	108	108.2	0	20	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2
Sdg Number: PRR1208

Method Blank - Batch: 200-36648

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-36648/1	Analysis Batch:	200-36648	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/11/2012 1450	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-36648

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-36648/2	Analysis Batch:	200-36648	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/11/2012 1450	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	454.0	91	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS

6723 Towpath Rd

Syracuse, NY 13214

Phone/Fax: (315) 671-9688

PROJ. NO.	PROJECT NAME		Requested Analyses																	SDG NUMBER	COC Number		
	B0009964.0002.70004	Tierra Phase I Removal	SAMPLES: CHES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			17	PRR1208
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
PRR1WATGACH-07	4/10/2012	10:35	water	Grab	4	X	X																
PRR1WATGACE-07	4/10/2012	10:30	water	Grab	4	X	X																
TB04102012	4/10/2012	--	water		3	X																	
PRR1WATCME-20	4/10/2012	10:25	water	Grab	1			X															
PRRWATSP101-6	4/10/2012	10:20	water	Grab	1			X															
PRR1WATCME-18	4/7/2012	23:35	water	Grab	1			X															
PRR1WATCME-19	4/9/2012	13:55	water	Grab	1			X															
10																							
11																							
12																							
13																							
14																							
15																							
16																							
17																							

Special OA/QC Instructions

Special Instructions/Comments:

Requested Analyses

2-Butanone, Chlorobenzene

COD

Pb TSS

Lab Name: TestAmerica -Burlington, VT

Shipping Tracking #

Specify Turnaround Requirements: 24 hr TAT

Cooler packed with ice

Cooler custody seal intact

Sample Receipt: Condition/Cooler Temp:

Relinquished by:	DATE	TIME	Received by:	DATE	TIME
is Burns	4/10/12	1400	J. Doherty		
J. Doherty	4/10/12	1500	TAISON		

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10281-2

SDG Number: PRR1208

Login Number: 10281

List Source: TestAmerica Burlington

List Number: 1

Creator: Holt, Jamie

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	NO CUSTODY SEAL NUMBERS
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8°C, IR GUN ID 154, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	False	Refer to Job Narrative for details.
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
8723 Towpath Rd
Syracuse, NY 13214

Origin ID: LKPA



Ship Date: 10APR12
Acct Wgt: 20.0 LB
CAD: 103767025ANET3250
Dims: 18 X 14 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 650-1999
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

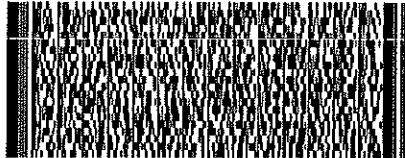
SOUTH BURLINGTON, VT 05403

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # B0009968.0002.70004-11128
Dept #

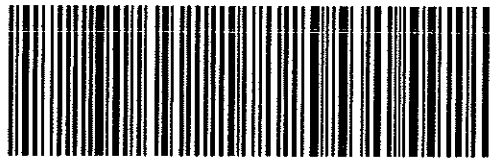
WED - 11 APR A4
PRIORITY OVERNIGHT

TRK# 7982 6759 8095
0201



ZF BTVA

05403
VT-US
BTVA



51261A:410A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10307-1

SDG Number: PRR1210

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/19/2012 5:21 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/19/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	28
QC Results	29
Qc Association Summary	30
Surrogate Recovery Report	33
Qc Reports	39
Client Chain of Custody	55
Sample Receipt Checklist	56

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1210 (200-10307-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis.

Manual integration was employed in deriving certain of the analytical results.

Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Trace Water	TAL BUR	SOM01.2	SOM01.2/VOA_Tr
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR
Semivolatiles	TAL BUR	SOM01.2	SOM01.2/SV
Extraction of Water Samples	TAL BUR		SOM01.2 CONT
Aroclors	TAL BUR	SOM01.2	SOM01.2/PCB
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Sulfuric Acid/Permanganate Cleanup	TAL BUR		SOM01.2 SOM01.2/SO4CU
Pesticides	TAL BUR	SOM01.2	SOM01.2/Pest
Extraction of Low level Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
Pesticides	TAL BUR	SOM01.2	SOM01.2/Pest
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
Pesticides	TAL BUR	SOM01.2	SOM01.2/Pest
Low Level CLP Extraction of Pesticides	TAL BUR		SOM01.2 SOM01.2LL_Pest
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
ISM01.2 Mercury	TAL BUR	ISM01.2	ISM01.2/HG
7470A	TAL BUR		SW846 7470A
ISM01.2 Metals (ICPMS)	TAL BUR	ISM01.2	ISM01.2/ICPMS
200.8	TAL BUR		EPA 200.8
ISM01.2 Cyanide	TAL BUR	ISM01.2	ISM01.2/CN
Midi-distillation	TAL BUR		ISM01.1 Midi-Distillati

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

ISM01.1 = U.S. Environmental Protection Agency

ISM01.2 = U.S. Environmental Protection Agency

SOM01.2 = U.S. Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP
SOM01.2 SOM01.2/SV	Bissonette, Donald J	DJB
SOM01.2 SOM01.2/PCB	Duncan, Stacey L	SLD
SOM01.2 SOM01.2/Pest	Downing, David P	DPD
SOM01.2 SOM01.2/Pest	Malaspina, Richard R	RRM
ISM01.2 ISM01.2/HG	Pham, Vu T	VTP
ISM01.2 ISM01.2/ICPMS	Lyons, Benjamin	BL
ISM01.2 ISM01.2/CN	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10307-1	PRR1WATCME-21	Water	04/11/2012 1045	04/12/2012 1005
200-10307-2	PRR1WATCMI-21	Water	04/11/2012 1040	04/12/2012 1005
200-10307-3	TB04112012	Water	04/11/2012 1040	04/12/2012 1005
200-10307-4STOBL K	VHBLK01	Water	04/12/2012 1130	04/12/2012 1005

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1

Date Sampled: 04/11/2012 1045

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-36896	Instrument ID: J.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: jdek05.d
Dilution: 2.0		Initial Weight/Volume: 25 mL
Analysis Date: 04/13/2012 1627		Final Weight/Volume: 25 mL
Prep Date: 04/13/2012 1627		

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	1.0	U	1.0
Vinyl chloride	1.0	U	1.0
Bromomethane	1.0	U	1.0
Chloroethane	1.0	U	1.0
Acrolein	20	U	20
1,1-Dichloroethene	1.0	U	1.0
Methylene chloride	1.0	U	1.0
Acrylonitrile	20	U	20
trans-1,2-Dichloroethene	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
2-Butanone	10	U	10
Chloroform	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
Carbon tetrachloride	1.0	U	1.0
Benzene	1.0	U	1.0
1,2-Dichloroethane	1.0	U	1.0
Trichloroethene	1.0	U	1.0
1,2-Dichloropropane	1.0	U	1.0
Bromodichloromethane	1.0	U	1.0
cis-1,3-Dichloropropene	1.0	U	1.0
Toluene	1.0	U	1.0
trans-1,3-Dichloropropene	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0
Tetrachloroethene	1.0	U	1.0
Dibromochloromethane	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Ethylbenzene	1.0	U	1.0
Bromoform	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
1,2,3-Trichlorobenzene	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	100		71 - 131
1,1-Dichloroethene-d2	81		55 - 104
2-Butanone-d5	101		49 - 155
Chloroform-d	105		78 - 121
1,2-Dichloroethane-d4	109		78 - 129
Benzene-d6	108		77 - 124
1,2-Dichloropropane-d6	97		79 - 124
Toluene-d8	107		77 - 121
trans-1,3-Dichloropropene-d4	102		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1

Date Sampled: 04/11/2012 1045

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36896	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdek05.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/13/2012 1627			Final Weight/Volume:	25 mL
Prep Date:	04/13/2012 1627				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	101		28 - 135
1,1,2,2-Tetrachloroethane-d2	102		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCMI-21

Lab Sample ID: 200-10307-2

Date Sampled: 04/11/2012 1040

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36896	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdek06.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/13/2012 1651			Final Weight/Volume:	25 mL
Prep Date:	04/13/2012 1651				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	40		10
1,2,3-Trichlorobenzene	0.32	J	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	89		65 - 131
Chloroethane-d5	94		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	120		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	108		78 - 129
Benzene-d6	99		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	105		73 - 121
2-Hexanone-d5	128		28 - 135
1,1,2,2-Tetrachloroethane-d2	109		73 - 125
1,2-Dichlorobenzene-d4	104		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: TB04112012

Lab Sample ID: 200-10307-3

Date Sampled: 04/11/2012 1040

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-36896	Instrument ID: J.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: jdek07.d
Dilution: 1.0		Initial Weight/Volume: 25 mL
Analysis Date: 04/13/2012 1715		Final Weight/Volume: 25 mL
Prep Date: 04/13/2012 1715		

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	5.7		0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	3.0		0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.067	J	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.83		0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.038	J	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	92		65 - 131
Chloroethane-d5	97		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	115		49 - 155
Chloroform-d	104		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	94		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: TB04112012

Lab Sample ID: 200-10307-3

Date Sampled: 04/11/2012 1040

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr
Prep Method: SOM01.2/VOA_PR
Dilution: 1.0
Analysis Date: 04/13/2012 1715
Prep Date: 04/13/2012 1715

Analysis Batch: 200-36896
Prep Batch: N/A

Instrument ID: J.i
Lab File ID: jdek07.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	118		28 - 135
1,1,2,2-Tetrachloroethane-d2	103		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: VHBLK01

Lab Sample ID: 200-10307-4STOBLK

Date Sampled: 04/12/2012 1130

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-36896	Instrument ID: J.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: jdek08.d
Dilution: 1.0		Initial Weight/Volume: 25 mL
Analysis Date: 04/13/2012 1739		Final Weight/Volume: 25 mL
Prep Date: 04/13/2012 1739		

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	89		65 - 131
Chloroethane-d5	92		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	106		49 - 155
Chloroform-d	96		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	96		77 - 124
1,2-Dichloropropane-d6	90		79 - 124
Toluene-d8	96		77 - 121
trans-1,3-Dichloropropene-d4	98		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: VHBLK01

Lab Sample ID: 200-10307-4STOBLK

Date Sampled: 04/12/2012 1130

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-36896	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdek08.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/13/2012 1739			Final Weight/Volume:	25 mL
Prep Date:	04/13/2012 1739				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	111		28 - 135
1,1,2,2-Tetrachloroethane-d2	95		73 - 125
1,2-Dichlorobenzene-d4	98		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1

Date Sampled: 04/11/2012 1045

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/SV Semivolatiles

Analysis Method: SOM01.2/SV	Analysis Batch: 200-36895	Instrument ID: R.i
Prep Method: CONT	Prep Batch: 200-36780	Lab File ID: rjyrd07.d
Dilution: 1.0		Initial Weight/Volume: 1030 mL
Analysis Date: 04/14/2012 1030		Final Weight/Volume: 1000 uL
Prep Date: 04/12/2012 1700		Injection Volume: 2 uL

Analyte	Result (ug/L)	Qualifier	RL
N-Nitrosodimethylamine	9.7	U	9.7
Phenol	4.9	U	4.9
Bis(2-chloroethyl)ether	4.9	U	4.9
2-Chlorophenol	4.9	U	4.9
2,2'-Oxybis(1-chloropropane)	4.9	U	4.9
Hexachloroethane	4.9	U	4.9
Nitrobenzene	4.9	U	4.9
Isophorone	4.9	U	4.9
2-Nitrophenol	4.9	U	4.9
2,4-Dimethylphenol	4.9	U	4.9
2,4-Dichlorophenol	0.41	J	4.9
Naphthalene	4.9	U	4.9
Hexachlorobutadiene	4.9	U	4.9
Hexachlorocyclopentadiene	4.9	U	4.9
2,4,6-Trichlorophenol	0.72	J	4.9
2,4,5-Trichlorophenol	0.18	J	4.9
Dimethylphthalate	4.9	U	4.9
2,6-Dinitrotoluene	4.9	U	4.9
2,4-Dinitrophenol	9.7	U	9.7
4-Nitrophenol	9.7	U	9.7
2,4-Dinitrotoluene	4.9	U	4.9
Diethylphthalate	4.9	U	4.9
Fluorene	4.9	U	4.9
4,6-Dinitro-2-methylphenol	9.7	U	9.7
N-Nitrosodiphenylamine	4.9	U	4.9
Hexachlorobenzene	4.9	U	4.9
Pentachlorophenol	9.7	U	9.7
Phenanthrene	4.9	U	4.9
Anthracene	4.9	U	4.9
Di-n-butylphthalate	0.26	J	4.9
Fluoranthene	4.9	U	4.9
Benzidine	9.7	U	9.7
Pyrene	4.9	U	4.9
Butylbenzylphthalate	0.71	J B	4.9
3,3'-Dichlorobenzidine	4.9	U	4.9
Benzo(a)anthracene	4.9	U	4.9
Chrysene	4.9	U	4.9
Bis(2-ethylhexyl)phthalate	1.1	J	4.9
Benzo(b)fluoranthene	4.9	U	4.9
Benzo(k)fluoranthene	4.9	U	4.9
Benzo(a)pyrene	4.9	U	4.9
Indeno(1,2,3-cd)pyrene	4.9	U	4.9
Dibenzo(a,h)anthracene	4.9	U	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	75		39 - 106

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1

Date Sampled: 04/11/2012 1045

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/SV Semivolatiles

Analysis Method: SOM01.2/SV	Analysis Batch: 200-36895	Instrument ID: R.i
Prep Method: CONT	Prep Batch: 200-36780	Lab File ID: rjyrd07.d
Dilution: 1.0		Initial Weight/Volume: 1030 mL
Analysis Date: 04/14/2012 1030		Final Weight/Volume: 1000 uL
Prep Date: 04/12/2012 1700		Injection Volume: 2 uL

Surrogate	%Rec	Qualifier	Acceptance Limits
Bis(2-chloroethyl)ether-d8	68		40 - 105
2-Chlorophenol-d4	71		41 - 106
4-Methylphenol-d8	88		25 - 111
Nitrobenzene-d5	84		43 - 108
2-Nitrophenol-d4	82		40 - 108
2,4-Dichlorophenol-d3	76		37 - 105
4-Chloroaniline-d4	64		1 - 145
Dimethylphthalate-d6	97		47 - 114
Acenaphthylene-d8	82		41 - 107
4-Nitrophenol-d4	80		33 - 116
Fluorene-d10	95		42 - 111
4,6-Dinitro-2-methylphenol-d2	72		22 - 104
Anthracene-d10	86		44 - 110
Pyrene-d10	116		52 - 119
Benzo(a)pyrene-d12	85		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCMI-21

Lab Sample ID: 200-10307-2

Date Sampled: 04/11/2012 1040

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-36895	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-36782	Lab File ID:	rjyrd08.d
Dilution:	8.3			Initial Weight/Volume:	1010 mL
Analysis Date:	04/14/2012 1106			Final Weight/Volume:	1000 uL
Prep Date:	04/12/2012 1700			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	RL
2,4,5-Trichlorophenol	420		41
4,6-Dinitro-2-methylphenol	82	U	82

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	100		39 - 106
Bis(2-chloroethyl)ether-d8	75		40 - 105
2-Chlorophenol-d4	87		41 - 106
4-Methylphenol-d8	117	D	25 - 111
Nitrobenzene-d5	87		43 - 108
2-Nitrophenol-d4	90		40 - 108
2,4-Dichlorophenol-d3	94		37 - 105
4-Chloroaniline-d4	0	D	1 - 145
Dimethylphthalate-d6	116	D	47 - 114
Acenaphthylene-d8	93		41 - 107
4-Nitrophenol-d4	82		33 - 116
Fluorene-d10	112	D	42 - 111
4,6-Dinitro-2-methylphenol-d2	66		22 - 104
Anthracene-d10	92		44 - 110
Pyrene-d10	110		52 - 119
Benzo(a)pyrene-d12	80		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1

Date Sampled: 04/11/2012 1045

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-37012	Instrument ID:	3283.i
Prep Method:	SEPF	Prep Batch:	200-36790	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/17/2012 1211			Injection Volume:	1 uL
Prep Date:	04/12/2012 1837			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Aroclor-1016	0.94	U	0.94
Aroclor-1221	0.94	U	0.94
Aroclor-1232	0.94	U	0.94
Aroclor-1242	0.94	U	0.94
Aroclor-1248	0.94	U	0.94
Aroclor-1254	0.94	U	0.94
Aroclor-1260	0.94	U	0.94

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	97		30 - 150
Decachlorobiphenyl	63		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1

Date Sampled: 04/11/2012 1045

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-37012	Instrument ID:	3283.i
Prep Method:	SEPF	Prep Batch:	200-36790	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/17/2012 1211			Injection Volume:	1 uL
Prep Date:	04/12/2012 1837			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	101		30 - 150
Decachlorobiphenyl	64		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1

Date Sampled: 04/11/2012 1045

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest	Analysis Batch: 200-36932	Instrument ID: 0911.i
Prep Method: SEPF	Prep Batch: 200-36787	Initial Weight/Volume: 1060 mL
Dilution: 1.0		Final Weight/Volume: 1000 uL
Analysis Date: 04/13/2012 2115		Injection Volume: 1 uL
Prep Date: 04/12/2012 1832		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.00050	J	0.0047
beta-BHC	0.0021	J P B	0.0047
delta-BHC	0.0047	U	0.0047
gamma-BHC (Lindane)	0.0047	U	0.0047
Heptachlor	0.00086	J P	0.0047
Aldrin	0.0047	U	0.0047
Heptachlor epoxide	0.0047	U	0.0047
Endosulfan I	0.0047	U	0.0047
Dieldrin	0.0094	U	0.0094
4,4'-DDE	0.0013	J P	0.0094
Endrin	0.0094	U	0.0094
Endosulfan II	0.0094	U	0.0094
4,4'-DDD	0.0085	J	0.0094
Endosulfan sulfate	0.0094	U	0.0094
4,4'-DDT	0.0023	J P	0.0094
Endrin aldehyde	0.0094	U	0.0094
alpha-Chlordane	0.0047	U	0.0047
gamma-Chlordane	0.00048	J P	0.0047
Toxaphene	0.47	U	0.47

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	77		30 - 150
Decachlorobiphenyl	63		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1

Date Sampled: 04/11/2012 1045

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest

Analysis Batch: 200-36932

Instrument ID: 0911.i

Prep Method: SEPF

Prep Batch: 200-36787

Initial Weight/Volume: 1060 mL

Dilution: 1.0

Final Weight/Volume: 1000 uL

Analysis Date: 04/13/2012 2115

Injection Volume: 1 uL

Prep Date: 04/12/2012 1832

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	81		30 - 150
Decachlorobiphenyl	64		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1

Date Sampled: 04/11/2012 1045

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36983	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-36787	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	04/16/2012 1144			Injection Volume:	1 uL
Prep Date:	04/12/2012 1832			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	0.00033	J P	0.0094
2,4'-DDT	0.00061	J P	0.0094
2,4'-DDD	0.0039	J P	0.0094

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	82		30 - 150
Decachlorobiphenyl	67		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCHMI-21

Lab Sample ID: 200-10307-2

Date Sampled: 04/11/2012 1040

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36983	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-36786	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/16/2012 1314			Injection Volume:	1 uL
Prep Date:	04/12/2012 1825			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	0.036	J P	0.094
2,4'-DDD	0.18	P	0.094
2,4'-DDT	0.023	J P	0.094

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	88		30 - 150
Decachlorobiphenyl	40		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCHMI-21

Lab Sample ID: 200-10307-2

Date Sampled: 04/11/2012 1040

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest	Analysis Batch: 200-36932	Instrument ID: 0911.i
Prep Method: SEPF	Prep Batch: 200-36786	Initial Weight/Volume: 1060 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 04/13/2012 2224		Injection Volume: 1 uL
Prep Date: 04/12/2012 1825		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
delta-BHC	0.047	U	0.047

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	78		30 - 150
Decachlorobiphenyl	37		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCHMI-21

Lab Sample ID: 200-10307-2

Date Sampled: 04/11/2012 1040

Client Matrix: Water

Date Received: 04/12/2012 1005

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-36932	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-36786	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/13/2012 2224			Injection Volume:	1 uL
Prep Date:	04/12/2012 1825			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	82		30 - 150
Decachlorobiphenyl	38		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1

Date Sampled: 04/11/2012 1045

Client Matrix: Water

Date Received: 04/12/2012 1005

ISM01.2/HG ISM01.2 Mercury

Analysis Method: ISM01.2/HG Analysis Batch: 200-36934 Instrument ID: MEPCV3 II
Prep Method: 7470A Prep Batch: 200-36875 Lab File ID: 041612GG.PRN
Dilution: 1.0 Initial Weight/Volume: 50 mL
Analysis Date: 04/16/2012 1524 Final Weight/Volume: 50 mL
Prep Date: 04/13/2012 1530

Analyte	Result (ug/L)	Qualifier	MDLE	RL
Mercury	0.20	U	0.084	0.20

ISM01.2/ICPMS ISM01.2 Metals (ICPMS)

Analysis Method: ISM01.2/ICPMS Analysis Batch: 200-37127 Instrument ID: METICPMS2
Prep Method: 200.8 Prep Batch: 200-36945 Lab File ID: 041812-03ISM.xml
Dilution: 1.0 Initial Weight/Volume: 100 mL
Analysis Date: 04/18/2012 1834 Final Weight/Volume: 100 mL
Prep Date: 04/16/2012 1445

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	6.6		0.15	2.0
Arsenic	6.1		0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	1.7	J	0.21	2.0
Copper	7.2		0.60	2.0
Lead	1.4		0.10	1.0
Nickel	11.2	E	0.14	1.0
Selenium	18.3		0.15	5.0
Silver	0.24	J	0.028	1.0
Zinc	11.0		0.57	2.0

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

General Chemistry

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1
Client Matrix: Water

Date Sampled: 04/11/2012 1045
Date Received: 04/12/2012 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide	1.8	J	ug/L	1.0	10.0	1.0	ISM01.2/CN
	Analysis Batch: 200-37016	Analysis Date: 04/17/2012 1413					
	Prep Batch: 200-36999	Prep Date: 04/17/2012 1145					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	B	The analyte was found in an associated blank, as well as in the sample.
GC Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	P	The % Difference between columns is greater than 25%.
	B	The analyte was found in an associated blank, as well as in the sample.
Metals		
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL
	E	The reported value is estimated because of the presence of interference based on serial dilution analysis.
General Chemistry		
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-36896					
MB 200-36896/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10307-1	PRR1WATCME-21	T	Water	SOM01.2/VOA_T	
200-10307-2	PRR1WATCMI-21	T	Water	SOM01.2/VOA_T	
200-10307-3	TB04112012	T	Water	SOM01.2/VOA_T	
200-10307-4STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

GC/MS Semi VOA

Prep Batch: 200-36780					
MB 200-36780/1-A	Method Blank	T	Water	CONT	
200-10307-1	PRR1WATCME-21	T	Water	CONT	
Prep Batch: 200-36782					
MB 200-36782/1-A	Method Blank	T	Water	CONT	
200-10307-2	PRR1WATCMI-21	T	Water	CONT	
Analysis Batch:200-36895					
MB 200-36780/1-A	Method Blank	T	Water	SOM01.2/SV	200-36780
MB 200-36782/1-A	Method Blank	T	Water	SOM01.2/SV	200-36782
200-10307-1	PRR1WATCME-21	T	Water	SOM01.2/SV	200-36780
200-10307-2	PRR1WATCMI-21	T	Water	SOM01.2/SV	200-36782

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-36786					
LCS 200-36786/2-C	Lab Control Sample	T	Water	SEPF	
LCS 200-36786/3-C	Lab Control Sample	T	Water	SEPF	
MB 200-36786/1-C	Method Blank	T	Water	SEPF	
200-10307-2	PRR1WATCMI-21	T	Water	SEPF	
Prep Batch: 200-36787					
LCS 200-36787/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-36787/1-C	Method Blank	T	Water	SEPF	
LCS 200-36787/3-C	Lab Control Sample	T	Water	SOM01.2LL_Pest	
MB 200-36787/1-C	Method Blank	T	Water	SOM01.2LL_Pest	
200-10307-1	PRR1WATCME-21	T	Water	SEPF	
200-10307-1	PRR1WATCME-21	T	Water	SOM01.2LL_Pest	
Prep Batch: 200-36790					
LCS 200-36790/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-36790/1-C	Method Blank	T	Water	SEPF	
200-10307-1	PRR1WATCME-21	T	Water	SEPF	
Analysis Batch:200-36932					
LCS 200-36786/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-36786
MB 200-36786/1-C	Method Blank	T	Water	SOM01.2/Pest	200-36786
LCS 200-36787/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-36787
MB 200-36787/1-C	Method Blank	T	Water	SOM01.2/Pest	200-36787
200-10307-1	PRR1WATCME-21	T	Water	SOM01.2/Pest	200-36787
200-10307-2	PRR1WATCMI-21	T	Water	SOM01.2/Pest	200-36786
Analysis Batch:200-36983					
LCS 200-36786/3-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-36786
MB 200-36786/1-C	Method Blank	T	Water	SOM01.2/Pest	200-36786
LCS 200-36787/3-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-36787
MB 200-36787/1-C	Method Blank	T	Water	SOM01.2/Pest	200-36787
200-10307-1	PRR1WATCME-21	T	Water	SOM01.2/Pest	200-36787
200-10307-2	PRR1WATCMI-21	T	Water	SOM01.2/Pest	200-36786
Analysis Batch:200-37012					
LCS 200-36790/2-C	Lab Control Sample	T	Water	SOM01.2/PCB	200-36790
MB 200-36790/1-C	Method Blank	T	Water	SOM01.2/PCB	200-36790
200-10307-1	PRR1WATCME-21	T	Water	SOM01.2/PCB	200-36790

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-36875					
MB 200-36875/11-A	Method Blank	T	Water	7470A	
200-10307-1	PRR1WATCME-21	T	Water	7470A	
Analysis Batch:200-36934					
MB 200-36875/11-A	Method Blank	T	Water	ISM01.2/HG	200-36875
200-10307-1	PRR1WATCME-21	T	Water	ISM01.2/HG	200-36875
Prep Batch: 200-36945					
LCS 200-36945/2-A	Lab Control Sample	T	Water	200.8	
MB 200-36945/1-A	Method Blank	T	Water	200.8	
200-10307-1	PRR1WATCME-21	T	Water	200.8	
Analysis Batch:200-37127					
LCS 200-36945/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-36945
MB 200-36945/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-36945
200-10307-1	PRR1WATCME-21	T	Water	ISM01.2/ICPMS	200-36945
Report Basis					
T = Total					
General Chemistry					
Prep Batch: 200-36999					
MB 200-36999/11-A	Method Blank	T	Water	Midi-Distillati	
200-10307-1	PRR1WATCME-21	T	Water	Midi-Distillati	
Analysis Batch:200-37016					
MB 200-36999/11-A	Method Blank	T	Water	ISM01.2/CN	200-36999
200-10307-1	PRR1WATCME-21	T	Water	ISM01.2/CN	200-36999
Report Basis					
T = Total					

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10307-1	PRR1WATCME-21	96	100	81	101	105	109	108	97
200-10307-2	PRR1WATCMI-21	89	94	76	120	98	108	99	93
200-10307-3	TB04112012	92	97	77	115	104	107	101	94
200-10307-4	VHBLK01	89	92	74	106	96	104	96	90
MB 200-36896/4		90	95	76	107	100	103	99	93

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10307-1	PRR1WATCME-21	107	102	101	102	106
200-10307-2	PRR1WATCMI-21	100	105	128	109	104
200-10307-3	TB04112012	102	103	118	103	102
200-10307-4	VHBLK01	96	98	111	95	98
MB 200-36896/4		101	101	107	97	102

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	PHL %Rec	BCE %Rec	2CP %Rec	4MP %Rec	NBZ %Rec	2NP %Rec	DCP %Rec	4CA %Rec
200-10307-1	PRR1WATCME-21	75	68	71	88	84	82	76	64
200-10307-2	PRR1WATCMI-21	100	75	87	117D	87	90	94	0D
MB 200-36780/1-A		82	71	75	93	89	81	78	86
MB 200-36782/1-A		87	71	81	92	86	83	77	83

Surrogate	Acceptance Limits
PHL = Phenol-d5	39-106
BCE = Bis(2-chloroethyl)ether-d8	40-105
2CP = 2-Chlorophenol-d4	41-106
4MP = 4-Methylphenol-d8	25-111
NBZ = Nitrobenzene-d5	43-108
2NP = 2-Nitrophenol-d4	40-108
DCP = 2,4-Dichlorophenol-d3	37-105
4CA = 4-Chloroaniline-d4	1-145

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	DMP %Rec	ACY %Rec	4NP %Rec	FLR %Rec	NMP %Rec	ANC %Rec	PYR %Rec	BAP %Rec
200-10307-1	PRR1WATCME-21	97	82	80	95	72	86	116	85
200-10307-2	PRR1WATCMI-21	116D	93	82	112D	66	92	110	80
MB 200-36780/1-A		97	87	72	97	47	86	106	86
MB 200-36782/1-A		92	87	87	94	61	85	92	87

Surrogate	Acceptance Limits
DMP = Dimethylphthalate-d6	47-114
ACY = Acenaphthylene-d8	41-107
4NP = 4-Nitrophenol-d4	33-116
FLR = Fluorene-d10	42-111
NMP = 4,6-Dinitro-2-methylphenol-d2	22-104
ANC = Anthracene-d10	44-110
PYR = Pyrene-d10	52-119
BAP = Benzo(a)pyrene-d12	32-121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Surrogate Recovery Report

SOM01.2/PCB Aroclors

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10307-1	PRR1WATCME-21	101	97	63	64
MB 200-36790/1-C		98	98	33	34
LCS 200-36790/2-C		91	94	97	98

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Surrogate Recovery Report

SOM01.2/Pest Pesticides

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10307-1	PRR1WATCME-21	77	81	64	63
200-10307-1	PRR1WATCME-21	82			67
200-10307-2	PRR1WATCMI-21	82	78	37	38
200-10307-2	PRR1WATCMI-21		88		40
MB 200-36786/1-C		75	80	95	98
MB 200-36786/1-C		79			102
MB 200-36787/1-C		68	73	88	89
MB 200-36787/1-C		73			95
LCS 200-36786/2-C		78	84	79	81
LCS 200-36786/3-C		77			109
LCS 200-36787/2-C		71	75	73	74
LCS 200-36787/3-C		70			68

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Method Blank - Batch: 200-36896

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-36896/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/13/2012 1541
 Prep Date: 04/13/2012 1541
 Leach Date: N/A

Analysis Batch: 200-36896
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: J.i
 Lab File ID: jdek04.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	90	65 - 131
Chloroethane-d5	95	71 - 131
1,1-Dichloroethene-d2	76	55 - 104
2-Butanone-d5	107	49 - 155
Chloroform-d	100	78 - 121
1,2-Dichloroethane-d4	103	78 - 129
Benzene-d6	99	77 - 124
1,2-Dichloropropane-d6	93	79 - 124
Toluene-d8	101	77 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Surrogate	% Rec	Acceptance Limits
trans-1,3-Dichloropropene-d4	101	73 - 121
2-Hexanone-d5	107	28 - 135
1,1,2,2-Tetrachloroethane-d2	97	73 - 125
1,2-Dichlorobenzene-d4	102	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Method Blank - Batch: 200-36780

Method: SOM01.2/SV

Preparation: CONT

Lab Sample ID: MB 200-36780/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/14/2012 0954
 Prep Date: 04/12/2012 1700
 Leach Date: N/A

Analysis Batch: 200-36895
 Prep Batch: 200-36780
 Leach Batch: N/A
 Units: ug/L

Instrument ID: R.i
 Lab File ID: rjyrd06.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1000 uL
 Injection Volume: 2 uL

Analyte	Result	Qual	RL
N-Nitrosodimethylamine	10	U	10
Phenol	5.0	U	5.0
Bis(2-chloroethyl)ether	5.0	U	5.0
2-Chlorophenol	5.0	U	5.0
2,2'-Oxybis(1-chloropropane)	5.0	U	5.0
Hexachloroethane	5.0	U	5.0
Nitrobenzene	5.0	U	5.0
Isophorone	5.0	U	5.0
2-Nitrophenol	5.0	U	5.0
2,4-Dimethylphenol	5.0	U	5.0
2,4-Dichlorophenol	5.0	U	5.0
Naphthalene	5.0	U	5.0
Hexachlorobutadiene	5.0	U	5.0
Hexachlorocyclopentadiene	5.0	U	5.0
2,4,6-Trichlorophenol	5.0	U	5.0
2,4,5-Trichlorophenol	5.0	U	5.0
Dimethylphthalate	5.0	U	5.0
2,6-Dinitrotoluene	5.0	U	5.0
2,4-Dinitrophenol	10	U	10
4-Nitrophenol	10	U	10
2,4-Dinitrotoluene	5.0	U	5.0
Diethylphthalate	5.0	U	5.0
Fluorene	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10
N-Nitrosodiphenylamine	5.0	U	5.0
Hexachlorobenzene	5.0	U	5.0
Pentachlorophenol	10	U	10
Phenanthrene	5.0	U	5.0
Anthracene	5.0	U	5.0
Di-n-butylphthalate	5.0	U	5.0
Fluoranthene	5.0	U	5.0
Benzidine	10	U	10
Pyrene	5.0	U	5.0
Butylbenzylphthalate	0.54	J	5.0
3,3'-Dichlorobenzidine	5.0	U	5.0
Benzo(a)anthracene	5.0	U	5.0
Chrysene	5.0	U	5.0
Bis(2-ethylhexyl)phthalate	5.0	U	5.0
Benzo(b)fluoranthene	5.0	U	5.0
Benzo(k)fluoranthene	5.0	U	5.0
Benzo(a)pyrene	5.0	U	5.0
Indeno(1,2,3-cd)pyrene	5.0	U	5.0
Dibenzo(a,h)anthracene	5.0	U	5.0

Surrogate

% Rec

Acceptance Limits

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

Sdg Number: PRR1210

Surrogate	% Rec	Acceptance Limits
Phenol-d5	82	39 - 106
Bis(2-chloroethyl)ether-d8	71	40 - 105
2-Chlorophenol-d4	75	41 - 106
4-Methylphenol-d8	93	25 - 111
Nitrobenzene-d5	89	43 - 108
2-Nitrophenol-d4	81	40 - 108
2,4-Dichlorophenol-d3	78	37 - 105
4-Chloroaniline-d4	86	1 - 145
Dimethylphthalate-d6	97	47 - 114
Acenaphthylene-d8	87	41 - 107
4-Nitrophenol-d4	72	33 - 116
Fluorene-d10	97	42 - 111
4,6-Dinitro-2-methylphenol-d2	47	22 - 104
Anthracene-d10	86	44 - 110
Pyrene-d10	106	52 - 119
Benzo(a)pyrene-d12	86	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Method Blank - Batch: 200-36782

**Method: SOM01.2/SV
Preparation: CONT**

Lab Sample ID: MB 200-36782/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/14/2012 0917
Prep Date: 04/12/2012 1700
Leach Date: N/A

Analysis Batch: 200-36895
Prep Batch: 200-36782
Leach Batch: N/A
Units: ug/L

Instrument ID: R.i
Lab File ID: rjyrd05.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 2 uL

Analyte	Result	Qual	RL
2,4,5-Trichlorophenol	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10

Surrogate	% Rec	Acceptance Limits
Phenol-d5	87	39 - 106
Bis(2-chloroethyl)ether-d8	71	40 - 105
2-Chlorophenol-d4	81	41 - 106
4-Methylphenol-d8	92	25 - 111
Nitrobenzene-d5	86	43 - 108
2-Nitrophenol-d4	83	40 - 108
2,4-Dichlorophenol-d3	77	37 - 105
4-Chloroaniline-d4	83	1 - 145
Dimethylphthalate-d6	92	47 - 114
Acenaphthylene-d8	87	41 - 107
4-Nitrophenol-d4	87	33 - 116
Fluorene-d10	94	42 - 111
4,6-Dinitro-2-methylphenol-d2	61	22 - 104
Anthracene-d10	85	44 - 110
Pyrene-d10	92	52 - 119
Benzo(a)pyrene-d12	87	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Method Blank - Batch: 200-36790

**Method: SOM01.2/PCB
Preparation: SEPF**

Lab Sample ID: MB 200-36790/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/17/2012 1120
Prep Date: 04/12/2012 1837
Leach Date: N/A

Analysis Batch: 200-37012
Prep Batch: 200-36790
Leach Batch: N/A
Units: ug/L

Instrument ID: 3283.i
Lab File ID: 17ap121024-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Aroclor-1016	1.0	U	1.0
Aroclor-1221	1.0	U	1.0
Aroclor-1232	1.0	U	1.0
Aroclor-1242	1.0	U	1.0
Aroclor-1248	1.0	U	1.0
Aroclor-1254	1.0	U	1.0
Aroclor-1260	1.0	U	1.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	98	30 - 150
Decachlorobiphenyl	33	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	98	30 - 150
Decachlorobiphenyl	34	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Lab Control Sample - Batch: 200-36790

Method: SOM01.2/PCB
Preparation: SEPF

Lab Sample ID:	LCS 200-36790/2-C	Analysis Batch:	200-37012	Instrument ID:	3283.i
Client Matrix:	Water	Prep Batch:	200-36790	Lab File ID:	17ap121024-r041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/17/2012 1145	Units:	ug/L	Final Weight/Volume:	10000 uL
Prep Date:	04/12/2012 1837			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	0.97	97	50 - 150	J
Aroclor-1260	1.00	0.94	94	50 - 150	J
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		91		30 - 150	
Decachlorobiphenyl		97		30 - 150	

Lab Control Sample - Batch: 200-36790

Method: SOM01.2/PCB
Preparation: SEPF

Lab Sample ID:	LCS 200-36790/2-C	Analysis Batch:	200-37012	Instrument ID:	3283.i
Client Matrix:	Water	Prep Batch:	200-36790	Lab File ID:	17ap121024-r041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/17/2012 1145	Units:	ug/L	Final Weight/Volume:	10000 uL
Prep Date:	04/12/2012 1837			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.0	104	50 - 150	
Aroclor-1260	1.00	1.0	102	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		94		30 - 150	
Decachlorobiphenyl		98		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Method Blank - Batch: 200-36786

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-36786/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/13/2012 2138
Prep Date: 04/12/2012 1825
Leach Date: N/A

Analysis Batch: 200-36932
Prep Batch: 200-36786
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 13ap121937-r061.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
alpha-BHC	0.050	U	0.050
beta-BHC	0.021	J	0.050
delta-BHC	0.050	U	0.050
gamma-BHC (Lindane)	0.050	U	0.050
Endrin	0.10	U	0.10
Methoxychlor	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	75	30 - 150
Decachlorobiphenyl	95	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	80	30 - 150
Decachlorobiphenyl	98	30 - 150

Method Blank - Batch: 200-36786

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-36786/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/16/2012 1214
Prep Date: 04/12/2012 1825
Leach Date: N/A

Analysis Batch: 200-36983
Prep Batch: 200-36786
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 16ap120935-r061.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
2,4'-DDE	0.10	U	0.10
2,4'-DDT	0.10	U	0.10
2,4'-DDD	0.10	U	0.10

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	79	30 - 150
Decachlorobiphenyl	102	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Lab Control Sample - Batch: 200-36786

Method: SOM01.2/Pest
Preparation: SEPF

Lab Sample ID: LCS 200-36786/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/13/2012 2201
Prep Date: 04/12/2012 1825
Leach Date: N/A

Analysis Batch: 200-36932
Prep Batch: 200-36786
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 13ap121937-r071.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.0500	0.040	80	50 - 120	J
Endrin	0.100	0.085	85	50 - 120	J
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		78		30 - 150	
Decachlorobiphenyl		79		30 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		84		30 - 150	
Decachlorobiphenyl		81		30 - 150	

Lab Control Sample - Batch: 200-36786

Method: SOM01.2/Pest
Preparation: SEPF

Lab Sample ID: LCS 200-36786/3-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/16/2012 1244
Prep Date: 04/12/2012 1825
Leach Date: N/A

Analysis Batch: 200-36983
Prep Batch: 200-36786
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 16ap120935-r071.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.100	0.082	82	50 - 150	J P
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		77		30 - 150	
Decachlorobiphenyl		109		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Method Blank - Batch: 200-36787

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-36787/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/13/2012 2029
Prep Date: 04/12/2012 1832
Leach Date: N/A

Analysis Batch: 200-36932
Prep Batch: 200-36787
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 13ap121937-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
alpha-BHC	0.0050	U	0.0050
beta-BHC	0.0025	J	0.0050
delta-BHC	0.0050	U	0.0050
Heptachlor	0.0050	U	0.0050
Aldrin	0.0050	U	0.0050
gamma-BHC (Lindane)	0.0050	U	0.0050
Heptachlor epoxide	0.0050	U	0.0050
Endosulfan I	0.0050	U	0.0050
Dieldrin	0.010	U	0.010
4,4'-DDE	0.010	U	0.010
Endrin	0.010	U	0.010
Endosulfan II	0.010	U	0.010
4,4'-DDD	0.010	U	0.010
Endosulfan sulfate	0.010	U	0.010
4,4'-DDT	0.010	U	0.010
Methoxychlor	0.050	U	0.050
Endrin aldehyde	0.010	U	0.010
alpha-Chlordane	0.0050	U	0.0050
gamma-Chlordane	0.0050	U	0.0050
Toxaphene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	68	30 - 150
Decachlorobiphenyl	88	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	73	30 - 150
Decachlorobiphenyl	89	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Method Blank - Batch: 200-36787

Method: SOM01.2/Pest Preparation: SOM01.2LL_Pest

Lab Sample ID: MB 200-36787/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/16/2012 1044
Prep Date: 04/12/2012 1832
Leach Date: N/A

Analysis Batch: 200-36983
Prep Batch: 200-36787
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 16ap120935-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
2,4'-DDE	0.010	U	0.010
2,4'-DDT	0.010	U	0.010
2,4'-DDD	0.010	U	0.010

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	73	30 - 150
Decachlorobiphenyl	95	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Lab Control Sample - Batch: 200-36787

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-36787/2-C	Analysis Batch: 200-36932	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-36787	Lab File ID: 13ap121937-r041.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 04/13/2012 2052	Units: ug/L	Final Weight/Volume: 1000 uL
Prep Date: 04/12/2012 1832		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0038	75	50 - 120	J
Heptachlor epoxide	0.00500	0.0038	76	50 - 150	J
Dieldrin	0.0100	0.0075	75	30 - 130	J
4,4'-DDE	0.0100	0.0074	74	50 - 150	J
Endrin	0.0100	0.0077	77	50 - 120	J
Endosulfan sulfate	0.0100	0.0074	74	50 - 120	J
gamma-Chlordane	0.00500	0.0038	75	30 - 130	J
<hr/>					
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		71		30 - 150	
Decachlorobiphenyl		73		30 - 150	

Lab Control Sample - Batch: 200-36787

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-36787/2-C	Analysis Batch: 200-36932	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-36787	Lab File ID: 13ap121937-r041.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 04/13/2012 2052	Units: ug/L	Final Weight/Volume: 1000 uL
Prep Date: 04/12/2012 1832		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0040	80	50 - 120	J
Heptachlor epoxide	0.00500	0.0043	87	50 - 150	J
Dieldrin	0.0100	0.0078	78	30 - 130	J
4,4'-DDE	0.0100	0.0077	77	50 - 150	J
Endrin	0.0100	0.0082	82	50 - 120	J
Endosulfan sulfate	0.0100	0.0080	80	50 - 120	J
gamma-Chlordane	0.00500	0.0044	87	30 - 130	J
<hr/>					
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		75		30 - 150	
Decachlorobiphenyl		74		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Lab Control Sample - Batch: 200-36787

Method: SOM01.2/Pest
Preparation: SOM01.2LL_Pest

Lab Sample ID:	LCS 200-36787/3-C	Analysis Batch:	200-36983	Instrument ID:	0911.i
Client Matrix:	Water	Prep Batch:	200-36787	Lab File ID:	16ap120935-r041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/16/2012 1114	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	04/12/2012 1832			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.0069	69	50 - 150	J P
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		70		30 - 150	
Decachlorobiphenyl		68		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Method Blank - Batch: 200-36875

Method: ISM01.2/HG Preparation: 7470A

Lab Sample ID: MB 200-36875/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/16/2012 1522
Prep Date: 04/13/2012 1530
Leach Date: N/A

Analysis Batch: 200-36934
Prep Batch: 200-36875
Leach Batch: N/A
Units: ug/L

Instrument ID: MEPCV3 II
Lab File ID: 041612GG.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDLE	RL
Mercury	0.20	U	0.084	0.20

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Method Blank - Batch: 200-36945

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: MB 200-36945/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/18/2012 1820
Prep Date: 04/16/2012 1445
Leach Date: N/A

Analysis Batch: 200-37127
Prep Batch: 200-36945
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 041812-03ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Antimony	0.26	J	0.15	2.0
Arsenic	1.0	U	0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	-0.25	J	0.21	2.0
Copper	2.0	U	0.60	2.0
Lead	0.21	J	0.10	1.0
Nickel	-0.30	J	0.14	1.0
Selenium	-0.63	J	0.15	5.0
Silver	1.0	U	0.028	1.0
Zinc	2.0	U	0.57	2.0

Lab Control Sample - Batch: 200-36945

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: LCS 200-36945/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/18/2012 1827
Prep Date: 04/16/2012 1445
Leach Date: N/A

Analysis Batch: 200-37127
Prep Batch: 200-36945
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 041812-03ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	4.00	4.5	113	70 - 130	
Arsenic	2.00	2.1	106	70 - 130	
Beryllium	2.00	2.1	106	70 - 130	
Cadmium	2.00	2.2	108	70 - 130	
Chromium	4.00	3.9	97	70 - 130	
Copper	4.00	4.1	104	70 - 130	
Lead	2.00	2.2	111	70 - 130	
Nickel	2.00	1.8	91	70 - 130	
Selenium	10.0	11.1	111	70 - 130	
Silver	2.00	2.3	117	70 - 130	
Zinc	4.00	4.8	120	70 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1
Sdg Number: PRR1210

Method Blank - Batch: 200-36999

Method: ISM01.2/CN Preparation: Midi-Distillati

Lab Sample ID: MB 200-36999/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/17/2012 1411
Prep Date: 04/17/2012 1145
Leach Date: N/A

Analysis Batch: 200-37016
Prep Batch: 200-36999
Leach Batch: N/A
Units: ug/L

Instrument ID: WCLachat
Lab File ID: OM_04-17-12_01-59-3
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Cyanide	10.0	U	1.0	10.0

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO. B0009964.0002.70004	PROJECT NAME Tierra Phase I Removal					SDG NUMBER PRR1210	COC Number																	
SAMPLERS: M. Pelenski/S. Campbell																								
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	Requested Analyses																		
PRR1WATCME-21	4/11/2012	10:45	water	Grab	17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATCMI-21	4/11/2012	10:40	water	Grab	9	X	X	X	X	X	X	X	X	X	X									
TB04112012	4/11/2012	10:40	water	---	3	X																		
Special Instructions/Comments:						<input type="checkbox"/> Special QA/QC Instructions																		
Refer to RAWP QAPP WS 15-4 for Effluent Samples and 15-5 for Influent Samples Triple volume collected for MS/MSD for PRR1WATCME-15 (except ISS and WET Testing)																								
Laboratory Information and Receipt																								
Lab Name: TestAmerica -Burlington, VT												<input type="checkbox"/> Cooler packed with ice												
Shipping Tracking #												<input type="checkbox"/> Cooler custody seal intact												
Specify Turnaround Requirements: 7 day TAT												Sample Receipt:												
Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:					Received by:					DATE								
Kavio Gaudin	04/11/12	1300	Kavio Gaudin	4/12/12	1005											DATE								
Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:					Received by:					DATE								
																DATE								
Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:					Received by:					DATE								
																DATE								

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10307-1

SDG Number: PRR1210

Login Number: 10307

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	NO SEAL NUMBERS
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6,3.0°C IR GUN ID 154/CF=0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 11APR12
ActWgt: 30.0 LB
CAD: 103767025/NET3250
Dims: 26 X 16 X 18 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

SOUTH BURLINGTON, VT 05403

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # b0009966.0002.70004-11128
Dept #

1 of 2

THU - 12 APR A4
STANDARD OVERNIGHT

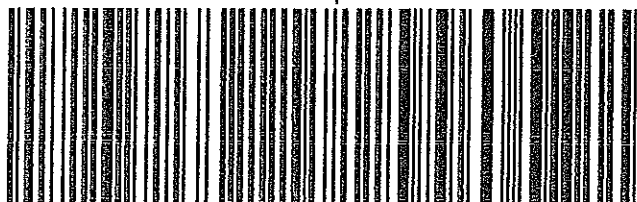
TRK# 7982 7162 9399

0201

MASTER

ZF BTVA

05403
VT-US
BTV



512G1/C44D/A278

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 11APR12
ActWgt: 30.0 LB
CAD: 103767025/NET3250
Dims: 26 X 16 X 18 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

SOUTH BURLINGTON, VT 05403

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # b0009966.0002.70004-11128
Dept #

1 of 2

THU - 12 APR A4
STANDARD OVERNIGHT

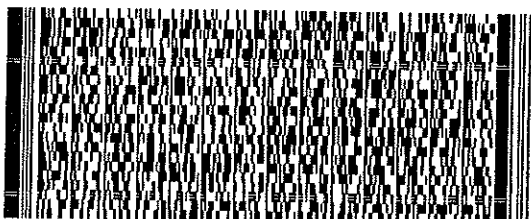
TRK# 7982 7162 9399

0201

MASTER

ZF BTVA

05403
VT-US
BTV



ANALYTICAL REPORT

Job Number: 200-10307-2

SDG Number: PRR1210

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/19/2012 5:04 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/19/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	13
QC Results	14
Qc Association Summary	15
Surrogate Recovery Report	16
Qc Reports	17
Client Chain of Custody	20
Sample Receipt Checklist	21

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1210 (200-10307-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met. Calibration and calibration verification were assessed on an analyte specific basis.

Calculations were performed before rounding to avoid round-off errors in calculated results.

Manual integration was employed in deriving certain of the analytical results.

For the Method 8151A analysis, positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

There was an acceptable recovery of 2,4-D, 2,4-DB, and 2,4,5-T in the analysis of the laboratory control sample associated with the Method 8151A analysis. The recovery of dinoseb in that analysis was 16 percent. While that recovery value is above the lower control limit of 10 percent that is established by the laboratory for this method of analysis, it is below the lower control limit of 70 percent that is referenced in the project QAPP.

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2
Sdg Number: PRR1210

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Herbicides (GC)	TAL BUR	SW846 8151A	
Extraction (Herbicides)	TAL BUR		SW846 8151A
Organic Carbon, Total (TOC)	TAL BUR	SM SM 5310B	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2

Sdg Number: PRR1210

Method	Analyst	Analyst ID
SW846 8151A	Malaspina, Richard R	RRM
SM SM 5310B	Sutton, Zachariah M	ZMS

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2
Sdg Number: PRR1210

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10307-1	PRR1WATCME-21	Water	04/11/2012 1045	04/12/2012 1005
200-10307-2	PRR1WATCMI-21	Water	04/11/2012 1040	04/12/2012 1005

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2

Sdg Number: PRR1210

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1

Date Sampled: 04/11/2012 1045

Client Matrix: Water

Date Received: 04/12/2012 1005

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-36991	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-36840	Initial Weight/Volume: 905 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 04/14/2012 0115		Injection Volume: 1 uL
Prep Date: 04/13/2012 1021		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	3.3		0.72	2.1
2,4-DB	0.54	J p	0.52	1.9
Dinoseb	1.0	U	0.21	1.0
2,4,5-T	0.60		0.14	0.52

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	81		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2

Sdg Number: PRR1210

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1

Date Sampled: 04/11/2012 1045

Client Matrix: Water

Date Received: 04/12/2012 1005

8151A Herbicides (GC)

Analysis Method: 8151A

Analysis Batch: 200-36991

Instrument ID: 5005.i

Prep Method: 8151A

Prep Batch: 200-36840

Initial Weight/Volume: 905 mL

Dilution: 1.0

Final Weight/Volume: 10000 uL

Analysis Date: 04/14/2012 0115

Injection Volume: 1 uL

Prep Date: 04/13/2012 1021

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	78		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2

Sdg Number: PRR1210

Client Sample ID: PRR1WATCHMI-21

Lab Sample ID: 200-10307-2

Date Sampled: 04/11/2012 1040

Client Matrix: Water

Date Received: 04/12/2012 1005

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-37005	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-36840	Initial Weight/Volume: 1060 mL
Dilution: 1000		Final Weight/Volume: 10000 uL
Analysis Date: 04/16/2012 1444		Injection Volume: 1 uL
Prep Date: 04/13/2012 1021		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4,5-T	1400		120	440
Surrogate	%Rec	Qualifier	Acceptance Limits	
2,4-Dichlorophenylacetic acid	0	X	60 - 130	

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2

Sdg Number: PRR1210

Client Sample ID: PRR1WATCHMI-21

Lab Sample ID: 200-10307-2

Date Sampled: 04/11/2012 1040

Client Matrix: Water

Date Received: 04/12/2012 1005

8151A Herbicides (GC)

Analysis Method: 8151A

Analysis Batch: 200-37005

Instrument ID: 5005.i

Prep Method: 8151A

Prep Batch: 200-36840

Initial Weight/Volume: 1060 mL

Dilution: 1000

Final Weight/Volume: 10000 uL

Analysis Date: 04/16/2012 1444

Injection Volume: 1 uL

Prep Date: 04/13/2012 1021

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	0	X	60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2

Sdg Number: PRR1210

General Chemistry

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1

Client Matrix: Water

Date Sampled: 04/11/2012 1045

Date Received: 04/12/2012 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	5.5		mg/L	0.14	1.0	1.0	SM 5310B
Analysis Batch: 200-36907		Analysis Date: 04/12/2012 1712					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2

Sdg Number: PRR1210

Lab Section	Qualifier	Description
GC Semi VOA	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
	p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2

Sdg Number: PRR1210

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-36840					
LCS 200-36840/2-A	Lab Control Sample	T	Water	8151A	
MB 200-36840/1-A	Method Blank	T	Water	8151A	
200-10307-1	PRR1WATCME-21	T	Water	8151A	
200-10307-2	PRR1WATCMI-21	T	Water	8151A	
Analysis Batch:200-36991					
LCS 200-36840/2-A	Lab Control Sample	T	Water	8151A	200-36840
MB 200-36840/1-A	Method Blank	T	Water	8151A	200-36840
200-10307-1	PRR1WATCME-21	T	Water	8151A	200-36840
Analysis Batch:200-37005					
200-10307-2	PRR1WATCMI-21	T	Water	8151A	200-36840

Report Basis

T = Total

General Chemistry

Analysis Batch:200-36907					
LCS 200-36907/1	Lab Control Sample	T	Water	SM 5310B	
LCS 200-36907/4	Lab Control Sample	T	Water	SM 5310B	
MB 200-36907/2	Method Blank	T	Water	SM 5310B	
MB 200-36907/5	Method Blank	T	Water	SM 5310B	
200-10307-1	PRR1WATCME-21	T	Water	SM 5310B	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2

Sdg Number: PRR1210

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
200-10307-1	PRR1WATCME-21	78	81
200-10307-2	PRR1WATCMI-21	0X	0X
MB 200-36840/1-A		75	74
LCS 200-36840/2-A		82	79

Surrogate

Acceptance Limits

DCPA = 2,4-Dichlorophenylacetic acid

60-130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2
Sdg Number: PRR1210

Method Blank - Batch: 200-36840

Lab Sample ID: MB 200-36840/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/14/2012 0004
Prep Date: 04/13/2012 1021
Leach Date: N/A

Analysis Batch: 200-36991
Prep Batch: 200-36840
Leach Batch: N/A
Units: ug/L

**Method: 8151A
Preparation: 8151A**

Instrument ID: 5005.i
Lab File ID: 13ap122237-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95
2,4,5-T	0.47	U	0.13	0.47
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	75		60 - 130	
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	74		60 - 130	

Lab Control Sample - Batch: 200-36840

Lab Sample ID: LCS 200-36840/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/14/2012 0039
Prep Date: 04/13/2012 1021
Leach Date: N/A

Analysis Batch: 200-36991
Prep Batch: 200-36840
Leach Batch: N/A
Units: ug/L

**Method: 8151A
Preparation: 8151A**

Instrument ID: 5005.i
Lab File ID: 13ap122237-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	6.37	80	75 - 135	
2,4-DB	4.02	3.38	84	40 - 165	
Dinoseb	4.00	0.624	16	10 - 115	J
2,4,5-T	2.00	1.78	89	60 - 155	
Surrogate	% Rec		Acceptance Limits		
2,4-Dichlorophenylacetic acid	82		60 - 130		
Surrogate	% Rec		Acceptance Limits		
2,4-Dichlorophenylacetic acid	79		60 - 130		

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2
Sdg Number: PRR1210

Method Blank - Batch: 200-36907

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-36907/2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/12/2012 1657
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-36907
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 041212A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.14	1.0

Method Blank - Batch: 200-36907

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-36907/5
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/12/2012 1745
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-36907
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 041212A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.14	1.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2

Sdg Number: PRR1210

Lab Control Sample - Batch: 200-36907

Method: SM 5310B

Preparation: N/A

Lab Sample ID:	LCS 200-36907/1	Analysis Batch:	200-36907	Instrument ID:	WCCH4
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	041212A.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	04/12/2012 1640	Units:	mg/L	Final Weight/Volume:	40 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.89	99	85 - 115	

Lab Control Sample - Batch: 200-36907

Method: SM 5310B

Preparation: N/A

Lab Sample ID:	LCS 200-36907/4	Analysis Batch:	200-36907	Instrument ID:	WCCH4
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	041212A.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	04/12/2012 1729	Units:	mg/L	Final Weight/Volume:	40 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.83	98	85 - 115	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10307-2

SDG Number: PRR1210

Login Number: 10307

List Number: 1

Creator: Marion, Greg T

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	NO SEAL NUMBERS
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6,3.0°C IR GUN ID 154/CF=0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 11APR12
ActWgt: 30.0 LB
CAD: 103767025/NET3250
Dims: 26 X 16 X 18 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # b0009966.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

1 of 2

THU - 12 APR A4
STANDARD OVERNIGHT

TRK# 7982 7162 9399

0201

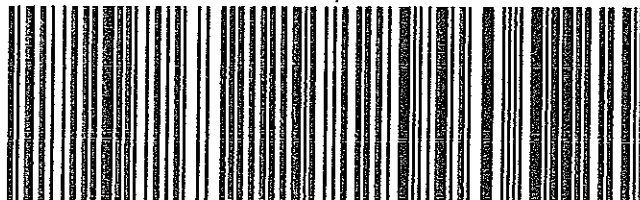
MASTER

05403

ZF BTVA

VT-US

BTV



512G1/C44D/A278

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 11APR12
ActWgt: 30.0 LB
CAD: 103767025/NET3250
Dims: 26 X 16 X 18 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # b0009966.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

1 of 2

THU - 12 APR A4
STANDARD OVERNIGHT

TRK# 7982 7162 9399

0201

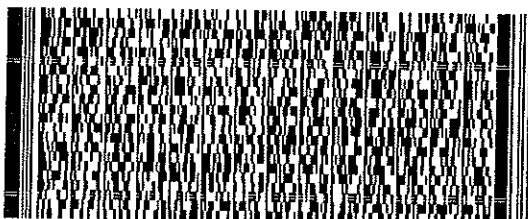
MASTER

05403

ZF BTVA

VT-US

BTV



ANALYTICAL REPORT

Job Number: 200-10307-3

SDG Number: PRR1210

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/13/2012 12:31 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/13/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	9
QC Results	10
Qc Association Summary	11
Qc Reports	12
Client Chain of Custody	13
Sample Receipt Checklist	14

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1210 (200- 10307-3)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The sample in this sample set was received on 04/12/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The sample was received as part of a larger sample set, which was received in two coolers. The temperature of the contents of the coolers was determined at the time of receipt. The temperatures were 2.6 °C and 3.0 °C.

SM 2540D Total suspended Solids

The sample in this sample set was analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the sample in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10307-3

Sdg Number: PRR1210

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10307-3

Sdg Number: PRR1210

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10307-3
Sdg Number: PRR1210

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10307-1	PRR1WATCME-21	Water	04/11/2012 1045	04/12/2012 1005

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10307-3

Sdg Number: PRR1210

General Chemistry

Client Sample ID: PRR1WATCME-21

Lab Sample ID: 200-10307-1

Date Sampled: 04/11/2012 1045

Client Matrix: Water

Date Received: 04/12/2012 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	5.2		mg/L	0.48	0.48	1.0	SM 2540D
	Analysis Batch: 200-36748	Analysis Date: 04/12/2012 1246					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10307-3

Sdg Number: PRR1210

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-3

Sdg Number: PRR1210

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-36748					
LCS 200-36748/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-36748/1	Method Blank	T	Water	SM 2540D	
200-10307-1	PRR1WATCME-21	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10307-3
Sdg Number: PRR1210

Method Blank - Batch: 200-36748

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-36748/1	Analysis Batch:	200-36748	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/12/2012 1246	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-36748

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-36748/2	Analysis Batch:	200-36748	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/12/2012 1246	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	456.0	91	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO.		PROJECT NAME		Requested Analyses																	SDG NUMBER		COC Number	
B0009964.0002.70004		Tierra Phase I Removal		Requested Analyses																	PRR1210		PRR1210	
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATCME-21	4/11/2012	10:45	water	Grab	17	X	X	X	X	X	X	X	X	X	X									
PRR1WATCMI-21	4/11/2012	10:40	water	Grab	9	X	X	X	X	X	X	X	X	X										
TB04112012	4/11/2012	10:40	water	---	3	X																		
<p>Requested Analyses</p> <p>1 TOC 2 VOCs 3 SVOCs 4 Aroclor PCBs 5 Pesticides 6 Metals + Hg 7 Cyanide 8 Herbicides 9 TSS 10 11 12 13 14 15 16</p>																								
<p>Special Instructions/Comments:</p> <p>Refer to RAWP QAPP WS 15-4 for Effluent Samples and 15-5 for Influent Samples Triple volume collected for MS/MSD for PRR1WATCME-15 (except ISS and WET Testing)</p>																								
<p>Requested Analyses <input type="checkbox"/> Special QA/QC Instructions</p>																								
<p>Shipping Tracking #</p> <p>Lab Name: TestAmerica -Burlington, VT Shipping Tracking # Specify Turnaround Requirements: 7 day TAT</p>																								
<p>Sample Receipt:</p> <p><input type="checkbox"/> Cooler packed with ice <input type="checkbox"/> Cooler custody seal intact</p>																								
<p>Relinquished by: KAVIO GARDHI Received by: [Signature] DATE: 4/11/12 TIME: 1300</p>																								
<p>Relinquished by: [Signature] Received by: [Signature] DATE: 4/12/12 TIME: 1005</p>																								
<p>Relinquished by: [Signature] Received by: [Signature] DATE: [] TIME: []</p>																								

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10307-3

SDG Number: PRR1210

Login Number: 10307

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	NO SEAL NUMBERS
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6,3.0°C IR GUN ID 154/CF=0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 11APR12
ActWgt: 30.0 LB
CAD: 103767025/NET3250
Dims: 26 X 16 X 18 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # b0009966.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

1 of 2

THU - 12 APR A4
STANDARD OVERNIGHT

TRK# 7982 7162 9399

0201

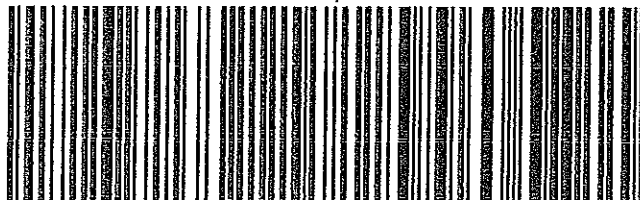
MASTER

ZF BTVA

05403

VT-US

BTV



512G1/C44D/A278

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 11APR12
ActWgt: 30.0 LB
CAD: 103767025/NET3250
Dims: 26 X 16 X 18 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # b0009966.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

1 of 2

THU - 12 APR A4
STANDARD OVERNIGHT

TRK# 7982 7162 9399

0201

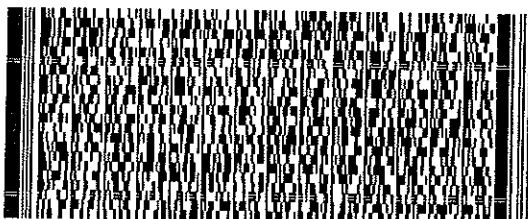
MASTER

ZF BTVA

05403

VT-US

BTV



ANALYTICAL REPORT

Job Number: 200-10376-1

SDG Number: PRR1215

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/18/2012 1:22 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/18/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	13
QC Results	14
Qc Association Summary	15
Surrogate Recovery Report	16
Qc Reports	18
Client Chain of Custody	19
Sample Receipt Checklist	21
Internal Coc (if required)	23

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1215 (200-10376-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 04/17/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 2.0 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of each sample in the sample set did meet the technical acceptance criteria specific to DMC recoveries, although not all DMC recoveries were within the control range in each analysis. The method allowance criteria provide for the recovery of up to three DMCs to be outside the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the

50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10376-1

Sdg Number: PRR1215

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10376-1

Sdg Number: PRR1215

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10376-1
Sdg Number: PRR1215

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10376-3	PRR1WATGACI-08	Water	04/13/2012 1015	04/17/2012 1005
200-10376-4	PRR1WATGACE-08	Water	04/13/2012 1010	04/17/2012 1005
200-10376-5TB	TB04132012	Water	04/13/2012 0000	04/17/2012 1005
200-10376-8STOBL K	VHBLK01	Water	04/17/2012 1105	04/17/2012 1005

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-1
Sdg Number: PRR1215

Client Sample ID: PRR1WATGACI-08

Lab Sample ID: 200-10376-3
Client Matrix: Water

Date Sampled: 04/13/2012 1015
Date Received: 04/17/2012 1005

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37049	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdell11.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/17/2012 1353			Final Weight/Volume:	25 mL
Prep Date:	04/17/2012 1353				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	18		10
Chlorobenzene	2.1		1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	87		65 - 131
Chloroethane-d5	91		71 - 131
1,1-Dichloroethene-d2	73		55 - 104
2-Butanone-d5	90		49 - 155
Chloroform-d	92		78 - 121
1,2-Dichloroethane-d4	96		78 - 129
Benzene-d6	96		77 - 124
1,2-Dichloropropane-d6	88		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	96		73 - 121
2-Hexanone-d5	97		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	99		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-1

Sdg Number: PRR1215

Client Sample ID: PRR1WATGACE-08

Lab Sample ID: 200-10376-4

Date Sampled: 04/13/2012 1010

Client Matrix: Water

Date Received: 04/17/2012 1005

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37049	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdell2.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/17/2012 1417			Final Weight/Volume:	25 mL
Prep Date:	04/17/2012 1417				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	4.4	J	10
Chlorobenzene	12		1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	91		65 - 131
Chloroethane-d5	94		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	127		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	114		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	95		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	109		73 - 121
2-Hexanone-d5	137	*	28 - 135
1,1,2,2-Tetrachloroethane-d2	112		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-1

Sdg Number: PRR1215

Client Sample ID: TB04132012

Lab Sample ID: 200-10376-5TB

Date Sampled: 04/13/2012 0000

Client Matrix: Water

Date Received: 04/17/2012 1005

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37049	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdell13.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/17/2012 1441			Final Weight/Volume:	25 mL
Prep Date:	04/17/2012 1441				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	92		65 - 131
Chloroethane-d5	96		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	118		49 - 155
Chloroform-d	107		78 - 121
1,2-Dichloroethane-d4	109		78 - 129
Benzene-d6	98		77 - 124
1,2-Dichloropropane-d6	94		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	106		73 - 121
2-Hexanone-d5	121		28 - 135
1,1,2,2-Tetrachloroethane-d2	106		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-1

Sdg Number: PRR1215

Client Sample ID: **VHBLK01**

Lab Sample ID: 200-10376-8STOBLK

Date Sampled: 04/17/2012 1105

Client Matrix: Water

Date Received: 04/17/2012 1005

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37049	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdell14.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/17/2012 1505			Final Weight/Volume:	25 mL
Prep Date:	04/17/2012 1505				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	88		65 - 131
Chloroethane-d5	93		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	109		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	106		78 - 129
Benzene-d6	97		77 - 124
1,2-Dichloropropane-d6	90		79 - 124
Toluene-d8	97		77 - 121
trans-1,3-Dichloropropene-d4	100		73 - 121
2-Hexanone-d5	110		28 - 135
1,1,2,2-Tetrachloroethane-d2	101		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10376-1

Sdg Number: PRR1215

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	*	Surrogate exceeds the control limit

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10376-1

Sdg Number: PRR1215

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-37049					
MB 200-37049/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10376-3	PRR1WATGACI-08	T	Water	SOM01.2/VOA_T	
200-10376-4	PRR1WATGACE-08	T	Water	SOM01.2/VOA_T	
200-10376-5TB	TB04132012	T	Water	SOM01.2/VOA_T	
200-10376-8STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10376-1

Sdg Number: PRR1215

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10376-3	PRR1WATGACI-08	87	91	73	90	92	96	96	88
200-10376-4	PRR1WATGACE-08	91	94	74	127	101	114	100	95
200-10376-5	TB04132012	92	96	76	118	107	109	98	94
200-10376-8	VHBLK01	88	93	74	109	99	106	97	90
MB 200-37049/4		88	93	73	114	99	108	95	90

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10376-1

Sdg Number: PRR1215

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10376-3	PRR1WATGACI-08	98	96	97	94	99
200-10376-4	PRR1WATGACE-08	101	109	137*	112	105
200-10376-5	TB04132012	99	106	121	106	102
200-10376-8	VHBLK01	97	100	110	101	102
MB 200-37049/4		96	101	120	100	102

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10376-1

Sdg Number: PRR1215

Method Blank - Batch: 200-37049

Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR

Lab Sample ID: MB 200-37049/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/17/2012 0904
Prep Date: 04/17/2012 0904
Leach Date: N/A

Analysis Batch: 200-37049
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdel04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	88	65 - 131
Chloroethane-d5	93	71 - 131
1,1-Dichloroethene-d2	73	55 - 104
2-Butanone-d5	114	49 - 155
Chloroform-d	99	78 - 121
1,2-Dichloroethane-d4	108	78 - 129
Benzene-d6	95	77 - 124
1,2-Dichloropropane-d6	90	79 - 124
Toluene-d8	96	77 - 121
trans-1,3-Dichloropropene-d4	101	73 - 121
2-Hexanone-d5	120	28 - 135
1,1,2,2-Tetrachloroethane-d2	100	73 - 125
1,2-Dichlorobenzene-d4	102	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO. B0009964.0002.70004
PROJECT NAME Terra Phase I Removal
SDG NUMBER PRR1215
COC Number

SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	Requested Analyses																	Remarks		
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			
PRR1WATCME-23	4/14/2012	6:40	water	Grab	1	X																			

Special QA/QC Instructions

Special Instructions/Comments:

X: Analyze Now

Laboratory Information and Receipt

Lab Name: TestAmerica -Burlington, VT
Shipping Tracking #
Specify Turnaround Requirements: 24 hr TAT

Received by:	DATE	TIME	Relinquished by:	DATE	TIME
[Signature]	4/16/12	0700			

Sample Receipt: Condition/Cooler Temp: 2.0°C ok!

Received by:	DATE	Relinquished by:	DATE

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10376-1

SDG Number: PRR1215

Login Number: 10376

List Source: TestAmerica Burlington

List Number: 2

Creator: Matot, Wade M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	No numbers
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0°C IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas O'Rourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



Ship Date: 16APR12
AcWgt: 15.0 LB
CAD: 103707025ANET3250
Dims: 18 X 14 X 18 IN

Newark, NJ 07105

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

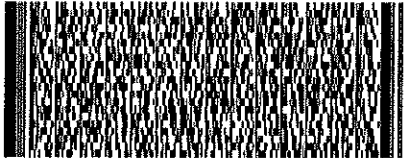
BRL SENDER

Ref # 1120-1616-4
Invoice #
PO # B009966.0002.70604-11128
Dept #

SOUTH BURLINGTON, VT 05403

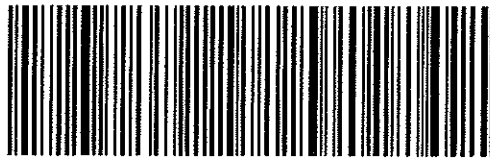
TUE - 17 APR A4
STANDARD OVERNIGHT

TRK# 7934 5628 3892
0201



ZF BTVA

05403
VT-US
BTV



512G1C44DA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

TestAmerica Burlington
INTERNAL CHAIN OF CUSTODY LOG (ICOC)

Project Information:
 Log In #: 200-10376 Method: SOM01.2_VOA:ANTRACE
 Client: TIESOL LAB IDs: 200-10376-3 thru 10376-5

Samples associated with this log-in were placed into storage on 4/17/2012 1125 by: [Signature]
 (Date) (Time²) Sample Custodian Signature

Storage Location: VOA B, Shelf 10 Specify storage location (refrigerator, freezer ID or lab location) for original sample containers

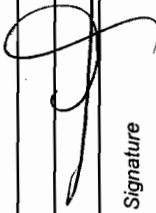
Storage Condition: Refrigeration Frozen Ambient

Internal Transfer Information		Purpose of Transfer			Relinquished	Received	Storage Location	
Sample Type	Lab ID(s)	Transfer Date	Transfer Time ²	Prep	Analysis	Storage	By:	Prepared Sample ¹
Original Prepared ¹	10376-3, 4	4/17/12	1130		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	[Signature]	[Signature]
	"	4/17/12	1130		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	[Signature]	[Signature]
	"	4/17/12	1300		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Mark Phillips	[Signature]
	"	4/17/12	1330		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Mark Phillips	[Signature]

¹ Extract, digestate, or any other prepared sample that is no longer in original sample container
² Military Time

TestAmerica Burlington
INTERNAL CHAIN OF CUSTODY LOG (ICOC)

Project Information:
 Log In #: 200-10376 Method: SOM01.2_VOA-ANTRAC
 Client: TIESOL LAB IDs: 200-10376-8 (VHBLK01)

Samples associated with this log-in were placed into storage on 4/17/2012 1125 by: 
 (Date) (Time²) Sample Custodian Signature

Storage Location: VOA B, Shelf 10 Specify storage location (refrigerator, freezer ID or lab location) for original sample containers
 Storage Condition: Refrigeration Frozen Ambient

Sample Type		Lab ID(s)	Transfer Date	Transfer Time ²	Purpose of Transfer		Relinquished By:	Received By:	Storage Location Prepared Sample ¹
Original	Prepared ¹				Prep	Analysis			
✓	✓	10376-8	4/17/12	1300		✓	Mark Phillips	Mark Phillips	AOA
✓	✓	"	4/17/12	1330		✓	Mark Phillips	Mark Phillips	Storage

ANALYTICAL REPORT

Job Number: 200-10376-2

SDG Number: PRR1215

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/18/2012 3:22 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/18/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	14
QC Results	15
Qc Association Summary	16
Qc Reports	17
Client Chain of Custody	20
Sample Receipt Checklist	22
Internal Coc (if required)	24

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1215 (200-10376-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 04/17/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 2.0 °C.

USEPA Method 410.1 Chemical Oxygen Demand

The samples in this sample set were analyzed for chemical oxygen demand by the referenced method. Matrix spike and replicate analyses were performed on sample PRR1WATGACE-08. There was a low recovery of the spiked component in the matrix spike analysis (38 percent). The replicate analyses that were performed on sample PRR1WATGACE-08 did yield results with an acceptable correlation in the interanalysis comparison. A laboratory control sample was analyzed in association with the samples, and there was an acceptable recovery of the spiked component in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the samples in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

Description	Lab Location	Method	Preparation Method
Matrix: Water			
COD	TAL BUR	MCAWW 410.4	
COD	TAL BUR		MCAWW 410.4
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2
Sdg Number: PRR1215

Method	Analyst	Analyst ID
MCAWW 410.4	Tam, Michelle N	MNT
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2
Sdg Number: PRR1215

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10376-1	PRR1WATCME-22	Water	04/13/2012 1740	04/17/2012 1005
200-10376-2	PRR1WATCME-23	Water	04/13/2012 1000	04/17/2012 1005
200-10376-3	PRR1WATGACI-08	Water	04/13/2012 1015	04/17/2012 1005
200-10376-4	PRR1WATGACE-08	Water	04/13/2012 1010	04/17/2012 1005
200-10376-4MS	PRR1WATGACE-08	Water	04/13/2012 1010	04/17/2012 1005
200-10376-4DU	PRR1WATGACE-08	Water	04/13/2012 1010	04/17/2012 1005
200-10376-6	PRR1WATSP101-07	Water	04/13/2012 1020	04/17/2012 1005
200-10376-7	PRR1WATCME-24	Water	04/13/2012 0640	04/17/2012 1005

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

General Chemistry

Client Sample ID: PRR1WATCME-22

Lab Sample ID: 200-10376-1

Client Matrix: Water

Date Sampled: 04/13/2012 1740

Date Received: 04/17/2012 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	5.5		mg/L	0.50	0.50	1.0	SM 2540D
Analysis Batch: 200-37015		Analysis Date: 04/17/2012 1415					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

General Chemistry

Client Sample ID: PRR1WATCME-23

Lab Sample ID: 200-10376-2

Date Sampled: 04/13/2012 1000

Client Matrix: Water

Date Received: 04/17/2012 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	6.7		mg/L	0.47	0.47	1.0	SM 2540D
Analysis Batch: 200-37015		Analysis Date: 04/17/2012 1415					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

General Chemistry

Client Sample ID: PRR1WATGACI-08

Lab Sample ID: 200-10376-3

Date Sampled: 04/13/2012 1015

Client Matrix: Water

Date Received: 04/17/2012 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	259		mg/L	80.0	80.0	4.0	410.4
	Analysis Batch: 200-37056	Analysis Date: 04/17/2012 2025					
	Prep Batch: 200-37054	Prep Date: 04/17/2012 1445					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

General Chemistry

Client Sample ID: PRR1WATGACE-08

Lab Sample ID: 200-10376-4

Date Sampled: 04/13/2012 1010

Client Matrix: Water

Date Received: 04/17/2012 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	322		mg/L	80.0	80.0	4.0	410.4
	Analysis Batch: 200-37056	Analysis Date: 04/17/2012 2025					
	Prep Batch: 200-37054	Prep Date: 04/17/2012 1445					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

General Chemistry

Client Sample ID: PRR1WATSP101-07

Lab Sample ID: 200-10376-6

Client Matrix: Water

Date Sampled: 04/13/2012 1020

Date Received: 04/17/2012 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	36.4		mg/L	2.3	2.3	1.0	SM 2540D
Analysis Batch: 200-37015		Analysis Date: 04/17/2012 1415					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

General Chemistry

Client Sample ID: PRR1WATCME-24

Lab Sample ID: 200-10376-7

Date Sampled: 04/13/2012 0640

Client Matrix: Water

Date Received: 04/17/2012 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	10.0		mg/L	0.83	0.83	1.0	SM 2540D
Analysis Batch: 200-37015		Analysis Date: 04/17/2012 1415					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

Lab Section	Qualifier	Description
General Chemistry		
	U	Indicates the analyte was analyzed for but not detected.
	F	MS/MSD Recovery or RPD exceeds the control limits

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:200-37015					
LCS 200-37015/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-37015/1	Method Blank	T	Water	SM 2540D	
200-10376-1	PRR1WATCME-22	T	Water	SM 2540D	
200-10376-2	PRR1WATCME-23	T	Water	SM 2540D	
200-10376-6	PRR1WATSP101-07	T	Water	SM 2540D	
200-10376-7	PRR1WATCME-24	T	Water	SM 2540D	
Prep Batch: 200-37054					
LCS 200-37054/1-A	Lab Control Sample	T	Water	410.4	
MB 200-37054/2-A	Method Blank	T	Water	410.4	
200-10376-3	PRR1WATGACI-08	T	Water	410.4	
200-10376-4	PRR1WATGACE-08	T	Water	410.4	
200-10376-4DU	Duplicate	T	Water	410.4	
200-10376-4MS	Matrix Spike	T	Water	410.4	
Analysis Batch:200-37056					
LCS 200-37054/1-A	Lab Control Sample	T	Water	410.4	200-37054
MB 200-37054/2-A	Method Blank	T	Water	410.4	200-37054
200-10376-3	PRR1WATGACI-08	T	Water	410.4	200-37054
200-10376-4	PRR1WATGACE-08	T	Water	410.4	200-37054
200-10376-4DU	Duplicate	T	Water	410.4	200-37054
200-10376-4MS	Matrix Spike	T	Water	410.4	200-37054

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2
Sdg Number: PRR1215

Method Blank - Batch: 200-37054

Method: 410.4
Preparation: 410.4

Lab Sample ID: MB 200-37054/2-A	Analysis Batch: 200-37056	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-37054	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/17/2012 2025	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/17/2012 1445		
Leach Date: N/A		

Analyte	Result	Qual	RL	RL
Chemical Oxygen Demand	20.0	U	20.0	20.0

Lab Control Sample - Batch: 200-37054

Method: 410.4
Preparation: 410.4

Lab Sample ID: LCS 200-37054/1-A	Analysis Batch: 200-37056	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-37054	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/17/2012 2025	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/17/2012 1445		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	27.3	27.64	101	90 - 110	

Matrix Spike - Batch: 200-37054

Method: 410.4
Preparation: 410.4

Lab Sample ID: 200-10376-4	Analysis Batch: 200-37056	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-37054	Lab File ID: N/A
Dilution: 8.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/17/2012 2025	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/17/2012 1445		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	322	400	475.3	38	90 - 110	F

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2
Sdg Number: PRR1215

Duplicate - Batch: 200-37054

Method: 410.4
Preparation: 410.4

Lab Sample ID:	200-10376-4	Analysis Batch:	200-37056	Instrument ID:	WCS2
Client Matrix:	Water	Prep Batch:	200-37054	Lab File ID:	N/A
Dilution:	4.0	Leach Batch:	N/A	Initial Weight/Volume:	2.0 mL
Analysis Date:	04/17/2012 2025	Units:	mg/L	Final Weight/Volume:	2.0 mL
Prep Date:	04/17/2012 1445				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chemical Oxygen Demand	322	322.3	0.000	20	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2
Sdg Number: PRR1215

Method Blank - Batch: 200-37015

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-37015/1	Analysis Batch:	200-37015	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/17/2012 1415	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-37015

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-37015/2	Analysis Batch:	200-37015	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/17/2012 1415	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	448.0	90	85 - 115	

**CHAIN OF CUSTODY & LABORATORY
 ANALYSIS REQUEST FORM**

Lab Work Order #

PROJECT NAME Tierra Phase I Removal											SDG NUMBER PRR1215	COC Number														
PROJ. NO. B0009964.0002.70004		Requested Analyses																								
SAMPLERS:	SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks		
	PRR1WATCME-21	4/12/2012	17:40	water	Grab	1				X																
	PRR1WATCME-22	4/13/2012	10:00	water	Grab	1				X																
	PRR1WATGACI-08	4/13/2012	10:15	water	Grab	4			X	X																
	PRR1WATGACE-08	4/13/2012	10:10	water	Grab	4			X	X																
	TB04132012	4/13/2012		water		3			X																	
	PRR1WATSP101-07	4/13/2012	10:20	water	Grab	1			X																	
	Special Instructions/Comments: <input type="checkbox"/> Special QA/QC Instructions																									
Requested Analyses 1, 2-Butanone, Chlorobenzene 2/COD 3/TSS																										
Triple volume submitted for PRR1WATGACE-05 for MS/MSD																										
Lab Name: TestAmerica - Burlington, VT																										
Shipping Tracking #																										
Specify Turnaround Requirements: 24 hr TAT																										
Requested Analyses											Laboratory Information and Receipt															
1												Received by:														
2												TIME	1745	Relinquished by:												
3												DATE	4/12/12	Received by:												
4												TIME	1800	Relinquished by:												
5												DATE	4/13/12	Received by:												
6												DATE		Relinquished by:												
7												TIME		Received by:												
8												DATE		Relinquished by:												
9												TIME		Received by:												
10												DATE		Relinquished by:												
11												TIME		Received by:												
12												DATE		Relinquished by:												
13												TIME		Received by:												
14												DATE		Relinquished by:												
15												TIME		Received by:												
16												DATE		Relinquished by:												
17												TIME		Received by:												

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

PROJ. NO. B0009964.0002.70004		PROJECT NAME Terra Phase I Removal		SDG NUMBER PRR1215		COC Number	
SAMPLERS:							
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	Requested Analyses	
PRR1WATCME-23	4/14/2012	6:40	water	Grab	1	1	2
						3	4
						5	6
						7	8
						9	10
						11	12
						13	14
						15	16
						17	17
Special Instructions/Comments: <input type="checkbox"/> Special QA/QC Instructions							
X: Analyze Now							
Laboratory Information and Receipt							
Lab Name: TestAmerica -Burlington, VT				Sample Receipt:			
Shipping Tracking #				Condition/Cooler Temp: 2.0°C ok!			
Specify Turnaround Requirements: 24 hr TAT				Cooler packed with ice <input checked="" type="checkbox"/>			
Cooler custody seal intact <input checked="" type="checkbox"/>				Relinquished by:			
Relinquished by: <i>[Signature]</i>		DATE: 4/16/12		TIME: 0700		Received by:	
Relinquished by:		DATE:		TIME:		Received by:	
Relinquished by:		DATE:		TIME:		Received by:	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

SDG Number: PRR1215

Login Number: 10376
List Number: 2
Creator: Matot, Wade M

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	No numbers
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0°C IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas O'Rourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



J1210111219025

Newark, NJ 07105

Ship Date: 16APR12
AcWgt: 15.0 LB
CAD: 103707025ANET3250
Dims: 18 X 14 X 18 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

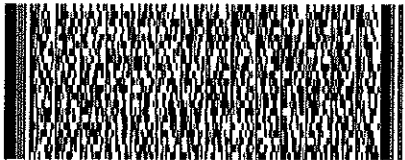
BRL SENDER

Ref # 1120-1616-4
Invoice #
PO # B009968.0002.70604-11128
Dept #

SOUTH BURLINGTON, VT 05403

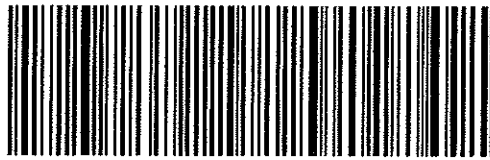
TUE - 17 APR A4
STANDARD OVERNIGHT

TRK# 7934 5628 3892
0201



ZF BTVA

05403
VT-US
BTV



512G1C44DA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

TestAmerica Burlington
INTERNAL CHAIN OF CUSTODY LOG (ICOC)

Project Information:
 Log In #: 200-10376 Method: 2540D
 Client: TIESOL LAB IDs: 200-10376-1, 2, 6, and 7

Samples associated with this log-in were placed into storage on 4/17/2012 1125 by: 
 (Date) (Time²) Sample Custodian Signature

Storage Location: Walk-in Rack AC, Shelf 4 Specify storage location (refrigerator, freezer ID or lab location) for original sample containers

Storage Condition: Refrigeration Frozen Ambient

Sample Type		Lab ID(s)	Transfer Date	Transfer Time ²	Purpose of Transfer		Relinquished By:	Received By:	Storage Location Prepared Sample ¹
Original	Prepared ¹				Prep	Analysis			
✓		200-10376-1, 2, 6, 7	4/17/12	1130		✓	AWL	AWL	
✓		..	"	1650		✓	AWL	AWL	

¹ Extract, digestate, or any other prepared sample that is no longer in original sample container
² Military Time

TestAmerica Burlington
INTERNAL CHAIN OF CUSTODY LOG (ICOC)

Project Information:
 Log In #: 200-10376 Method: 410.4
 Client: TIESOL LAB IDs: 200-10376-3 and 10376-4
 Samples associated with this log-in were placed into storage on 4/17/2012 1125 by: [Signature]
 (Date) (Time²) Sample Custodian Signature
 Storage Location: Walk-in Rack AC, Shelf 4 Specify storage location (refrigerator, freezer ID or lab location) for original sample containers
 Storage Condition: Refrigeration Frozen Ambient

Internal Transfer Information		Lab ID(s)	Transfer Date	Transfer Time ²	Purpose of Transfer		Relinquished By:	Received By:	Storage Location Prepared Sample ¹
Sample Type	Original Prepared ¹				Prep	Analysis			
✓	✓	200-10376-34	4/17/12	1130	✓		Asst	Asst	
✓		"	"	1445			Asst	Asst	

ANALYTICAL REPORT

Job Number: 200-10376-2

SDG Number: PRR1215

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/24/2012 11:51 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/24/2012
Revision: 1

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	14
QC Results	15
Qc Association Summary	16
Qc Reports	17
Client Chain of Custody	20
Sample Receipt Checklist	22
Internal Coc (if required)	24

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1215 (200-10376-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 04/17/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 2.0 °C.

USEPA Method 410.1 Chemical Oxygen Demand

The samples in this sample set were analyzed for chemical oxygen demand by the referenced method. Matrix spike and replicate analyses were performed on sample PRR1WATGACE-08. There was a low recovery of the spiked component in the matrix spike analysis (38 percent). The replicate analyses that were performed on sample PRR1WATGACE-08 did yield results with an acceptable correlation in the interanalysis comparison. A laboratory control sample was analyzed in association with the samples, and there was an acceptable recovery of the spiked component in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the samples in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2
Sdg Number: PRR1215

Description		Lab Location	Method	Preparation Method
Matrix	Water			
COD		TAL BUR	MCAWW 410.4	
	COD	TAL BUR		MCAWW 410.4
Solids, Total Suspended (TSS)		TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

Method	Analyst	Analyst ID
MCAWW 410.4	Tam, Michelle N	MNT
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2
Sdg Number: PRR1215

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10376-1	PRR1WATCME-22	Water	04/12/2012 1740	04/17/2012 1005
200-10376-2	PRR1WATCME-23	Water	04/13/2012 1000	04/17/2012 1005
200-10376-3	PRR1WATGACI-08	Water	04/13/2012 1015	04/17/2012 1005
200-10376-4	PRR1WATGACE-08	Water	04/13/2012 1010	04/17/2012 1005
200-10376-4MS	PRR1WATGACE-08	Water	04/13/2012 1010	04/17/2012 1005
200-10376-4DU	PRR1WATGACE-08	Water	04/13/2012 1010	04/17/2012 1005
200-10376-6	PRR1WATSP101-07	Water	04/13/2012 1020	04/17/2012 1005
200-10376-7	PRR1WATCME-24	Water	04/14/2012 0640	04/17/2012 1005

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

General Chemistry

Client Sample ID: PRR1WATCME-22

Lab Sample ID: 200-10376-1

Date Sampled: 04/12/2012 1740

Client Matrix: Water

Date Received: 04/17/2012 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	5.5		mg/L	0.50	0.50	1.0	SM 2540D
	Analysis Batch: 200-37015	Analysis Date: 04/17/2012 1415					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

General Chemistry

Client Sample ID: PRR1WATCME-23

Lab Sample ID: 200-10376-2

Date Sampled: 04/13/2012 1000

Client Matrix: Water

Date Received: 04/17/2012 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	6.7		mg/L	0.47	0.47	1.0	SM 2540D
Analysis Batch: 200-37015		Analysis Date: 04/17/2012 1415					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

General Chemistry

Client Sample ID: PRR1WATGACI-08

Lab Sample ID: 200-10376-3

Date Sampled: 04/13/2012 1015

Client Matrix: Water

Date Received: 04/17/2012 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	259		mg/L	80.0	80.0	4.0	410.4
	Analysis Batch: 200-37056	Analysis Date: 04/17/2012 2025					
	Prep Batch: 200-37054	Prep Date: 04/17/2012 1445					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

General Chemistry

Client Sample ID: PRR1WATGACE-08

Lab Sample ID: 200-10376-4

Date Sampled: 04/13/2012 1010

Client Matrix: Water

Date Received: 04/17/2012 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	322		mg/L	80.0	80.0	4.0	410.4
	Analysis Batch: 200-37056	Analysis Date: 04/17/2012 2025					
	Prep Batch: 200-37054	Prep Date: 04/17/2012 1445					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

General Chemistry

Client Sample ID: **PRR1WATSP101-07**

Lab Sample ID: 200-10376-6

Date Sampled: 04/13/2012 1020

Client Matrix: Water

Date Received: 04/17/2012 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	36.4		mg/L	2.3	2.3	1.0	SM 2540D
Analysis Batch: 200-37015		Analysis Date: 04/17/2012 1415					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

General Chemistry

Client Sample ID: PRR1WATCME-24

Lab Sample ID: 200-10376-7

Date Sampled: 04/14/2012 0640

Client Matrix: Water

Date Received: 04/17/2012 1005

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	10.0		mg/L	0.83	0.83	1.0	SM 2540D
Analysis Batch: 200-37015		Analysis Date: 04/17/2012 1415					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

Lab Section	Qualifier	Description
General Chemistry		
	U	Indicates the analyte was analyzed for but not detected.
	F	MS/MSD Recovery or RPD exceeds the control limits

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

Sdg Number: PRR1215

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:200-37015					
LCS 200-37015/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-37015/1	Method Blank	T	Water	SM 2540D	
200-10376-1	PRR1WATCME-22	T	Water	SM 2540D	
200-10376-2	PRR1WATCME-23	T	Water	SM 2540D	
200-10376-6	PRR1WATSP101-07	T	Water	SM 2540D	
200-10376-7	PRR1WATCME-24	T	Water	SM 2540D	
Prep Batch: 200-37054					
LCS 200-37054/1-A	Lab Control Sample	T	Water	410.4	
MB 200-37054/2-A	Method Blank	T	Water	410.4	
200-10376-3	PRR1WATGACI-08	T	Water	410.4	
200-10376-4	PRR1WATGACE-08	T	Water	410.4	
200-10376-4DU	Duplicate	T	Water	410.4	
200-10376-4MS	Matrix Spike	T	Water	410.4	
Analysis Batch:200-37056					
LCS 200-37054/1-A	Lab Control Sample	T	Water	410.4	200-37054
MB 200-37054/2-A	Method Blank	T	Water	410.4	200-37054
200-10376-3	PRR1WATGACI-08	T	Water	410.4	200-37054
200-10376-4	PRR1WATGACE-08	T	Water	410.4	200-37054
200-10376-4DU	Duplicate	T	Water	410.4	200-37054
200-10376-4MS	Matrix Spike	T	Water	410.4	200-37054

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2
Sdg Number: PRR1215

Method Blank - Batch: 200-37054

Method: 410.4
Preparation: 410.4

Lab Sample ID:	MB 200-37054/2-A	Analysis Batch:	200-37056	Instrument ID:	WCS2
Client Matrix:	Water	Prep Batch:	200-37054	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.0 mL
Analysis Date:	04/17/2012 2025	Units:	mg/L	Final Weight/Volume:	2.0 mL
Prep Date:	04/17/2012 1445				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Chemical Oxygen Demand	20.0	U	20.0	20.0

Lab Control Sample - Batch: 200-37054

Method: 410.4
Preparation: 410.4

Lab Sample ID:	LCS 200-37054/1-A	Analysis Batch:	200-37056	Instrument ID:	WCS2
Client Matrix:	Water	Prep Batch:	200-37054	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.0 mL
Analysis Date:	04/17/2012 2025	Units:	mg/L	Final Weight/Volume:	2.0 mL
Prep Date:	04/17/2012 1445				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	27.3	27.64	101	90 - 110	

Matrix Spike - Batch: 200-37054

Method: 410.4
Preparation: 410.4

Lab Sample ID:	200-10376-4	Analysis Batch:	200-37056	Instrument ID:	WCS2
Client Matrix:	Water	Prep Batch:	200-37054	Lab File ID:	N/A
Dilution:	8.0	Leach Batch:	N/A	Initial Weight/Volume:	2.0 mL
Analysis Date:	04/17/2012 2025	Units:	mg/L	Final Weight/Volume:	2.0 mL
Prep Date:	04/17/2012 1445				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	322	400	475.3	38	90 - 110	F

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2
Sdg Number: PRR1215

Duplicate - Batch: 200-37054

Method: 410.4
Preparation: 410.4

Lab Sample ID:	200-10376-4	Analysis Batch:	200-37056	Instrument ID:	WCS2
Client Matrix:	Water	Prep Batch:	200-37054	Lab File ID:	N/A
Dilution:	4.0	Leach Batch:	N/A	Initial Weight/Volume:	2.0 mL
Analysis Date:	04/17/2012 2025	Units:	mg/L	Final Weight/Volume:	2.0 mL
Prep Date:	04/17/2012 1445				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chemical Oxygen Demand	322	322.3	0.000	20	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2
Sdg Number: PRR1215

Method Blank - Batch: 200-37015

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-37015/1	Analysis Batch:	200-37015	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/17/2012 1415	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-37015

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-37015/2	Analysis Batch:	200-37015	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/17/2012 1415	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	448.0	90	85 - 115	

**CHAIN OF CUSTODY & LABORATORY
 ANALYSIS REQUEST FORM**

Lab Work Order #

6723 Towpath Rd
 Syracuse, NY 13214
 Phone/Fax: (315) 671-9688

PROJ. NO.		PROJECT NAME		Requested Analyses																	SDG NUMBER		COC Number	
B0009964.0002.70004		Tierra Phase I Removal																			PRR1215			
SAMPLERS:																	Requested Analyses			Special QA/QC Instructions				
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATCME-21	4/12/2012	17:40	water	Grab	1			X																
PRR1WATCME-22	4/13/2012	10:00	water	Grab	1			X																
PRR1WATGACI-08	4/13/2012	10:15	water	Grab	4	X	X																	
PRR1WATGACE-08	4/13/2012	10:10	water	Grab	4	X	X																	
TB04132012	4/13/2012		water		3	X																		
PRR1WATSP101-07	4/13/2012	10:20	water	Grab	1			X																
Special Instructions/Comments: <input type="checkbox"/> Special QA/QC Instructions																								
Requested Analyses																	Laboratory Information and Receipt							
Triple volume submitted for PRR1WATGACE-05 for MS/MSD																								
Lab Name: TestAmerica - Burlington, VT																	<input checked="" type="checkbox"/> Cooler packed with ice <input checked="" type="checkbox"/> Cooler custody seal intact							
Shipping Tracking #																	Sample Receipt:							
Specify Turnaround Requirements: 24 hr TAT																	Condition/Cooler Temp: 2.0C OK!							
						DATE	TIME	Received by:	DATE	TIME	Received by:	DATE	TIME	Received by:	DATE	TIME	Received by:	DATE	TIME	Received by:	DATE	TIME	Received by:	
						4/12/12	1745	<i>[Signature]</i>																
						4/13/12	1800	<i>[Signature]</i>																

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

6723 Towpath Rd
 Syracuse, NY 13214
 Phone/Fax: (315) 671-9688

PROJ. NO. B0009964.0002.70004
PROJECT NAME Terra Phase I Removal
SDG NUMBER/COC Number PRR1215

SAMPLERS:

SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	Requested Analyses																															
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17															
PRR1WATCME-23	4/14/2012	6:40	water	Grab	1		X																														

Special Instructions/Comments: Special QA/QC Instructions
 X: Analyze Now

Laboratory Information and Receipt
 Lab Name: TestAmerica - Burlington, VT
 Shipping Tracking # Cooler packed with ice
 Specify Turnaround Requirements: 24 hr TAT Cooler custody seal intact

Relinquished by:	DATE	TIME	Received by:	DATE	TIME
<i>[Signature]</i>	4/16/12	0700			

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10376-2

SDG Number: PRR1215

Login Number: 10376

List Source: TestAmerica Burlington

List Number: 2

Creator: Matot, Wade M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	No numbers
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0°C IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas O'Rourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



Ship Date: 16APR12
AcWgt: 15.0 LB
CAD: 103707025ANET3250
Dims: 18 X 14 X 18 IN

Newark, NJ 07105

Delivery Address Bar Code



SHIP TO: (892) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

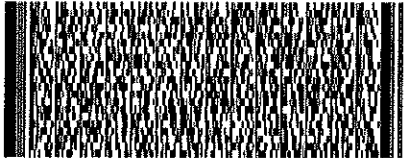
BRL SENDER

Ref # 1120-1616-4
Invoice #
PO # B009968.0002.70604-11128
Dept #

SOUTH BURLINGTON, VT 05403

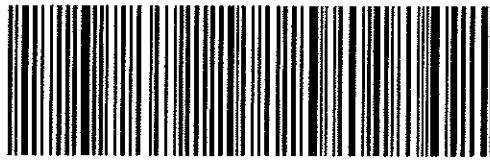
TUE - 17 APR A4
STANDARD OVERNIGHT

TRK# 7934 5628 3892
0204



ZF BTVA

05403
VT-US
BTV



512G1C44DA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

**TestAmerica Burlington
INTERNAL CHAIN OF CUSTODY LOG (ICOC)**

Project Information: **Log In #: 200-10376** **Method: 2540D**
Client: TIESOL **LAB IDs: 200-10376-1, 2, 6, and 7**

Samples associated with this log-in were placed into storage on 4/17/2012 **by:** [Signature]
 (Date) (Time²) Sample Custodian Signature

Storage Location: Walk-in Rack AC, Shelf 4 **Specify storage location (refrigerator, freezer ID or lab location) for original sample containers**
Storage Condition: Refrigeration Frozen Ambient

Sample Type		Lab ID(s)	Transfer Date	Transfer Time ²	Purpose of Transfer		Relinquished By:	Received By:	Storage Location Prepared Sample ¹
Original	Prepared ¹				Prep	Analysis			
✓		200-10376-1, 2, 6, 7	4/17/12	1130		✓	AWI	AWI	
✓		"	"	1650		✓	AWI	AWI	

¹ Extract, digestate, or any other prepared sample that is no longer in original sample container
² Military Time

TestAmerica Burlington
INTERNAL CHAIN OF CUSTODY LOG (ICOC)

Project Information:
 Log In #: 200-10376 Method: 410.4
 Client: TIESOL LAB IDs: 200-10376-3 and 10376-4

Samples associated with this log-in were placed into storage on 4/17/2012 1125 by: [Signature]
 (Date) (Time²) Sample Custodian Signature

Storage Location: Walk-in Rack AC, Shelf 4 Refrigeration Frozen Ambient

Specify storage location (refrigerator, freezer ID or lab location) for original sample containers

Sample Type		Lab ID(s)	Transfer Date	Transfer Time ²	Purpose of Transfer		Relinquished By:	Received By:	Storage Location Prepared Sample ¹
Original	Prepared ¹				Prep	Analysis			
✓		200-10376-34	4/17/12	1130	✓		AM	AM	
✓		"	"	1445		✓	AM	AM	

ANALYTICAL REPORT

Job Number: 200-10392-1

SDG Number: PRR1219

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/19/2012 4:29 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/19/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	14
QC Results	15
Qc Association Summary	16
Surrogate Recovery Report	17
Qc Reports	19
Client Chain of Custody	20
Sample Receipt Checklist	21

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1215 (200-10392-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 04/18/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 2.0 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set. A trace concentration of chlorobenzene was identified in the analysis of the instrument blank associated with the analytical work. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant instrument blank analysis

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10392-1

Sdg Number: PRR1219

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Trace Water	TAL BUR	SOM01.2	SOM01.2/VOA_Tr
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10392-1

Sdg Number: PRR1219

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10392-1
Sdg Number: PRR1219

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10392-3	PRR1WATGACI-09	Water	04/17/2012 1030	04/18/2012 1020
200-10392-4	PRR1WATGACE-09	Water	04/17/2012 1025	04/18/2012 1020
200-10392-5	TB04172012	Water	04/17/2012 0000	04/18/2012 1020
200-10392-7STOBL K	VHBLK01	Water	04/18/2012 1055	04/18/2012 1020

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10392-1

Sdg Number: PRR1219

Client Sample ID: PRR1WATGACI-09

Lab Sample ID: 200-10392-3

Date Sampled: 04/17/2012 1030

Client Matrix: Water

Date Received: 04/18/2012 1020

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37188	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdem06.d
Dilution:	11			Initial Weight/Volume:	25 mL
Analysis Date:	04/18/2012 1852			Final Weight/Volume:	25 mL
Prep Date:	04/18/2012 1852				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	13	J	55
Chlorobenzene	1400	E B	5.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	95		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121
2-Hexanone-d5	110		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10392-1

Sdg Number: PRR1219

Client Sample ID: PRR1WATGACI-09

Lab Sample ID: 200-10392-3

Date Sampled: 04/17/2012 1030

Client Matrix: Water

Date Received: 04/18/2012 1020

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37188	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdem05.d
Dilution:	88			Initial Weight/Volume:	25 mL
Analysis Date:	04/18/2012 1828	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	04/18/2012 1828				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	440	U	440
Chlorobenzene	1300	D	44

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	98		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	88		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	99		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	94		73 - 121
2-Hexanone-d5	88		28 - 135
1,1,2,2-Tetrachloroethane-d2	91		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10392-1

Sdg Number: PRR1219

Client Sample ID: PRR1WATGACE-09

Lab Sample ID: 200-10392-4

Date Sampled: 04/17/2012 1025

Client Matrix: Water

Date Received: 04/18/2012 1020

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37188	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdem08.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/18/2012 1940			Final Weight/Volume:	25 mL
Prep Date:	04/18/2012 1940				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	10	U	10
Chlorobenzene	7.6		1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	81		55 - 104
2-Butanone-d5	123		49 - 155
Chloroform-d	111		78 - 121
1,2-Dichloroethane-d4	117		78 - 129
Benzene-d6	105		77 - 124
1,2-Dichloropropane-d6	98		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	109		73 - 121
2-Hexanone-d5	128		28 - 135
1,1,2,2-Tetrachloroethane-d2	114		73 - 125
1,2-Dichlorobenzene-d4	108		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10392-1

Sdg Number: PRR1219

Client Sample ID: TB04172012

Lab Sample ID: 200-10392-5

Date Sampled: 04/17/2012 0000

Client Matrix: Water

Date Received: 04/18/2012 1020

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37188	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdem09.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/18/2012 2004			Final Weight/Volume:	25 mL
Prep Date:	04/18/2012 2004				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	81		55 - 104
2-Butanone-d5	109		49 - 155
Chloroform-d	106		78 - 121
1,2-Dichloroethane-d4	115		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	101		79 - 124
Toluene-d8	106		77 - 121
trans-1,3-Dichloropropene-d4	108		73 - 121
2-Hexanone-d5	118		28 - 135
1,1,2,2-Tetrachloroethane-d2	111		73 - 125
1,2-Dichlorobenzene-d4	108		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10392-1

Sdg Number: PRR1219

Client Sample ID: VHBLK01

Lab Sample ID: 200-10392-7STOBLK

Date Sampled: 04/18/2012 1055

Client Matrix: Water

Date Received: 04/18/2012 1020

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37188	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdem10.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/18/2012 2028			Final Weight/Volume:	25 mL
Prep Date:	04/18/2012 2028				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	104		65 - 131
Chloroethane-d5	104		71 - 131
1,1-Dichloroethene-d2	81		55 - 104
2-Butanone-d5	107		49 - 155
Chloroform-d	105		78 - 121
1,2-Dichloroethane-d4	112		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	98		79 - 124
Toluene-d8	105		77 - 121
trans-1,3-Dichloropropene-d4	107		73 - 121
2-Hexanone-d5	112		28 - 135
1,1,2,2-Tetrachloroethane-d2	104		73 - 125
1,2-Dichlorobenzene-d4	108		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10392-1

Sdg Number: PRR1219

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	B	The analyte was found in an associated blank, as well as in the sample.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10392-1

Sdg Number: PRR1219

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
GC/MS VOA					
Analysis Batch:200-37188					
MB 200-37188/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10392-3	PRR1WATGACI-09	T	Water	SOM01.2/VOA_T	
200-10392-3DL	PRR1WATGACI-09	T	Water	SOM01.2/VOA_T	
200-10392-4	PRR1WATGACE-09	T	Water	SOM01.2/VOA_T	
200-10392-5	TB04172012	T	Water	SOM01.2/VOA_T	
200-10392-7STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10392-1

Sdg Number: PRR1219

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10392-3 DL	PRR1WATGACI-09 DL	98	98	77	88	98	99	101	91
200-10392-3	PRR1WATGACI-09	97	98	78	103	99	105	103	95
200-10392-4	PRR1WATGACE-09	101	103	81	123	111	117	105	98
200-10392-5	TB04172012	101	103	81	109	106	115	106	101
200-10392-7	VHBLK01	104	104	81	107	105	112	106	98
MB 200-37188/4		104	105	82	110	104	112	105	95

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10392-1

Sdg Number: PRR1219

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10392-3 DL	PRR1WATGACI-09 DL	101	94	88	91	100
200-10392-3	PRR1WATGACI-09	102	103	110	99	105
200-10392-4	PRR1WATGACE-09	103	109	128	114	108
200-10392-5	TB04172012	106	108	118	111	108
200-10392-7	VHBLK01	105	107	112	104	108
MB 200-37188/4		104	103	112	108	105

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10392-1

Sdg Number: PRR1219

Method Blank - Batch: 200-37188

Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR

Lab Sample ID: MB 200-37188/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/18/2012 1629
Prep Date: 04/18/2012 1629
Leach Date: N/A

Analysis Batch: 200-37188
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdem04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	104	65 - 131
Chloroethane-d5	105	71 - 131
1,1-Dichloroethene-d2	82	55 - 104
2-Butanone-d5	110	49 - 155
Chloroform-d	104	78 - 121
1,2-Dichloroethane-d4	112	78 - 129
Benzene-d6	105	77 - 124
1,2-Dichloropropane-d6	95	79 - 124
Toluene-d8	104	77 - 121
trans-1,3-Dichloropropene-d4	103	73 - 121
2-Hexanone-d5	112	28 - 135
1,1,2,2-Tetrachloroethane-d2	108	73 - 125
1,2-Dichlorobenzene-d4	105	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO.		PROJECT NAME		SDG NUMBER		COC Number																	
B0009964.0002.70004		Tierra Phase I Removal		PRR1219																			
SAMPLERS: CHES		Requested Analyses																					
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
PRR1WATCME-25	4/16/2012	20:15	water	Grab	1			X															
PRR1WATCME-26	4/17/2012	10:35	water	Grab	1			X															
PRR1WATGACI-09	4/17/2012	10:30	water	Grab	4		X	X															
PRR1WATGACE-09	4/17/2012	10:25	water	Grab	4		X	X															
TB04172012	4/17/2012	-	water	-	3		X																
PRR1WATSP101-8	4/17/2012	10:40	water	Grab	1			X															
Special Instructions/Comments:																							
<input type="checkbox"/> Requested Analyses <input type="checkbox"/> Special QA/QC Instructions																							
Laboratory Information and Receipt																							
Lab Name: TestAmerica -Burlington, VT																	Sample Receipt:						
Shipping Tracking #																	Cooler packed with ice						
Specify Turnaround Requirements: 24 hr TAT																	Cooler custody seal intact						
Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME	
<i>[Signature]</i>		4/17/12		1745		<i>[Signature]</i>		4/17/12		1800		<i>[Signature]</i>		4/17/12		1800		<i>[Signature]</i>		4/17/12		1800	
Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME	
<i>[Signature]</i>		4/17/12		1800		<i>[Signature]</i>		4/17/12		1800		<i>[Signature]</i>		4/17/12		1800		<i>[Signature]</i>		4/17/12		1800	
Relinquished by:		DATE		TIME		Received by:		DATE		TIME		Relinquished by:		DATE		TIME		Received by:		DATE		TIME	
<i>[Signature]</i>		4/17/12		1800		<i>[Signature]</i>		4/17/12		1800		<i>[Signature]</i>		4/17/12		1800		<i>[Signature]</i>		4/17/12		1800	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10392-1

SDG Number: PRR1219

Login Number: 10392
List Number: 2
Creator: Matot, Wade M

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	416677, 678
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4°C IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2188
Thomas O'Rourke
ARCADIS OF NEW YORK INC
117 Blaxchard St
Newark, NJ 07105

Origin ID: VAKA



J1210111219025

Ship Date: 17APR12
ActWgt: 10.0 LB
CAD: 103787025ANET3250
Dims: 18 X 14 X 18 IN

Delivery Address Bar Code



SHIP TO: (802) 669-1999
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # B9009968.0002.70004
Dept #

SOUTH BURLINGTON, VT 05403

WED - 18 APR A4
STANDARD OVERNIGHT

TRK# 7934 6594 4064
0201



ZF BTVA

05403
VT-US
BTV



51261AC41D3A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10392-2

SDG Number: PRR1219

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/19/2012 4:40 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/19/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	13
QC Results	14
Qc Association Summary	15
Qc Reports	16
Client Chain of Custody	19
Sample Receipt Checklist	20

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1219 (200-10392-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 04/18/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 2.4 °C.

USEPA Method 410.1 Chemical Oxygen Demand

The samples in this sample set were analyzed for chemical oxygen demand by the referenced method. Matrix spike and replicate analyses were performed on sample PRR1WATGACE-09. There was a low recovery of the spiked component in the matrix spike analysis (37 percent). The replicate analyses that were performed on sample PRR1WATGACE-09 did yield results with an acceptable correlation in the interanalysis comparison. A laboratory control sample was analyzed in association with the samples, and there was an acceptable recovery of the spiked component in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the samples in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10392-2

Sdg Number: PRR1219

Description	Lab Location	Method	Preparation Method
Matrix: Water			
COD	TAL BUR	MCAWW 410.4	
COD	TAL BUR		MCAWW 410.4
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10392-2

Sdg Number: PRR1219

Method	Analyst	Analyst ID
MCAWW 410.4	Tam, Michelle N	MNT
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10392-2
Sdg Number: PRR1219

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10392-1	PRR1WATCME-25	Water	04/17/2012 2015	04/18/2012 1020
200-10392-2	PRR1WATCME-26	Water	04/17/2012 1035	04/18/2012 1020
200-10392-3	PRR1WATGACI-09	Water	04/17/2012 1030	04/18/2012 1020
200-10392-4	PRR1WATGACE-09	Water	04/17/2012 1025	04/18/2012 1020
200-10392-4MS	PRR1WATGACE-09	Water	04/17/2012 1025	04/18/2012 1020
200-10392-4DU	PRR1WATGACE-09	Water	04/17/2012 1025	04/18/2012 1020
200-10392-6	PRR1WATSP101-8	Water	04/17/2012 1040	04/18/2012 1020

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10392-2

Sdg Number: PRR1219

General Chemistry

Client Sample ID: PRR1WATCME-25

Lab Sample ID: 200-10392-1

Client Matrix: Water

Date Sampled: 04/17/2012 2015

Date Received: 04/18/2012 1020

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	7.2		mg/L	0.67	0.67	1.0	SM 2540D
Analysis Batch: 200-37086		Analysis Date: 04/18/2012 1122					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10392-2
Sdg Number: PRR1219

General Chemistry

Client Sample ID: PRR1WATCME-26

Lab Sample ID: 200-10392-2

Client Matrix: Water

Date Sampled: 04/17/2012 1035

Date Received: 04/18/2012 1020

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	8.1		mg/L	0.53	0.53	1.0	SM 2540D

Analysis Batch: 200-37086 Analysis Date: 04/18/2012 1122

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10392-2
Sdg Number: PRR1219

General Chemistry

Client Sample ID: PRR1WATGACI-09

Lab Sample ID: 200-10392-3

Date Sampled: 04/17/2012 1030

Client Matrix: Water

Date Received: 04/18/2012 1020

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	346		mg/L	80.0	80.0	4.0	410.4
	Analysis Batch: 200-37143		Analysis Date: 04/18/2012 1845				
	Prep Batch: 200-37142		Prep Date: 04/18/2012 1305				

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10392-2
Sdg Number: PRR1219

General Chemistry

Client Sample ID: PRR1WATGACE-09

Lab Sample ID: 200-10392-4

Date Sampled: 04/17/2012 1025

Client Matrix: Water

Date Received: 04/18/2012 1020

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chemical Oxygen Demand	205		mg/L	80.0	80.0	4.0	410.4
	Analysis Batch: 200-37143	Analysis Date: 04/18/2012 1845					
	Prep Batch: 200-37142	Prep Date: 04/18/2012 1305					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10392-2

Sdg Number: PRR1219

General Chemistry

Client Sample ID: PRR1WATSP101-8

Lab Sample ID: 200-10392-6

Client Matrix: Water

Date Sampled: 04/17/2012 1040

Date Received: 04/18/2012 1020

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	35.6		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-37086		Analysis Date: 04/18/2012 1122					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10392-2

Sdg Number: PRR1219

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.
	F	MS/MSD Recovery or RPD exceeds the control limits

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10392-2

Sdg Number: PRR1219

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:200-37086					
LCS 200-37086/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-37086/1	Method Blank	T	Water	SM 2540D	
200-10392-1	PRR1WATCME-25	T	Water	SM 2540D	
200-10392-2	PRR1WATCME-26	T	Water	SM 2540D	
200-10392-6	PRR1WATSP101-8	T	Water	SM 2540D	
Prep Batch: 200-37142					
LCS 200-37142/8-A	Lab Control Sample	T	Water	410.4	
MB 200-37142/9-A	Method Blank	T	Water	410.4	
200-10392-3	PRR1WATGACI-09	T	Water	410.4	
200-10392-4	PRR1WATGACE-09	T	Water	410.4	
200-10392-4DU	Duplicate	T	Water	410.4	
200-10392-4MS	Matrix Spike	T	Water	410.4	
Analysis Batch:200-37143					
LCS 200-37142/8-A	Lab Control Sample	T	Water	410.4	200-37142
MB 200-37142/9-A	Method Blank	T	Water	410.4	200-37142
200-10392-3	PRR1WATGACI-09	T	Water	410.4	200-37142
200-10392-4	PRR1WATGACE-09	T	Water	410.4	200-37142
200-10392-4DU	Duplicate	T	Water	410.4	200-37142
200-10392-4MS	Matrix Spike	T	Water	410.4	200-37142

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10392-2
Sdg Number: PRR1219

Method Blank - Batch: 200-37142

Method: 410.4
Preparation: 410.4

Lab Sample ID: MB 200-37142/9-A	Analysis Batch: 200-37143	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-37142	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/18/2012 1845	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/18/2012 1305		
Leach Date: N/A		

Analyte	Result	Qual	RL	RL
Chemical Oxygen Demand	20.0	U	20.0	20.0

Lab Control Sample - Batch: 200-37142

Method: 410.4
Preparation: 410.4

Lab Sample ID: LCS 200-37142/8-A	Analysis Batch: 200-37143	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-37142	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/18/2012 1845	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/18/2012 1305		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	27.3	27.06	99	90 - 110	

Matrix Spike - Batch: 200-37142

Method: 410.4
Preparation: 410.4

Lab Sample ID: 200-10392-4	Analysis Batch: 200-37143	Instrument ID: WCS2
Client Matrix: Water	Prep Batch: 200-37142	Lab File ID: N/A
Dilution: 4.0	Leach Batch: N/A	Initial Weight/Volume: 2.0 mL
Analysis Date: 04/18/2012 1845	Units: mg/L	Final Weight/Volume: 2.0 mL
Prep Date: 04/18/2012 1305		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chemical Oxygen Demand	205	200	279.3	37	90 - 110	F

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10392-2
Sdg Number: PRR1219

Duplicate - Batch: 200-37142

Method: 410.4
Preparation: 410.4

Lab Sample ID:	200-10392-4	Analysis Batch:	200-37143	Instrument ID:	WCS2
Client Matrix:	Water	Prep Batch:	200-37142	Lab File ID:	N/A
Dilution:	4.0	Leach Batch:	N/A	Initial Weight/Volume:	2.0 mL
Analysis Date:	04/18/2012 1845	Units:	mg/L	Final Weight/Volume:	2.0 mL
Prep Date:	04/18/2012 1305				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chemical Oxygen Demand	205	204.9	0.000	20	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10392-2
Sdg Number: PRR1219

Method Blank - Batch: 200-37086

Method: SM 2540D
Preparation: N/A

Lab Sample ID: MB 200-37086/1	Analysis Batch: 200-37086	Instrument ID: No Equipment
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 04/18/2012 1122	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-37086

Method: SM 2540D
Preparation: N/A

Lab Sample ID: LCS 200-37086/2	Analysis Batch: 200-37086	Instrument ID: No Equipment
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 50 mL
Analysis Date: 04/18/2012 1122	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	474.0	95	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO.		PROJECT NAME		SDG NUMBER		COC Number																		
B0009964.0002.70004		Tierra Phase I Removal		PRR1219																				
SAMPLERS: CHES		Requested Analyses																						
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATCME-25	4/16/2012	20:15	water	Grab	1			X																
PRR1WATCME-26	4/17/2012	10:35	water	Grab	1			X																
PRR1WATGACI-09	4/17/2012	10:30	water	Grab	4		X	X																
PRR1WATGACE-09	4/17/2012	10:25	water	Grab	4		X	X																
TB04172012	4/17/2012	-	water	-	3		X																	
PRR1WATSP101-8	4/17/2012	10:40	water	Grab	1			X																
Special Instructions/Comments:																								
<input type="checkbox"/> Requested Analyses <input type="checkbox"/> Special QA/QC Instructions																								
Laboratory Information and Receipt																								
Lab Name: TestAmerica - Burlington, VT																								
Shipping Tracking #																								
Specify Turnaround Requirements: 24 hr TAT																								
Relinquished by:		DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME
[Signature]		4/17/12	1745	[Signature]	4/17/12	1800	[Signature]	4/17/12	1800	[Signature]	4/17/12	1800	[Signature]	4/17/12	1800	[Signature]	4/17/12	1800	[Signature]	4/17/12	1800	[Signature]	4/17/12	1800
Relinquished by:		DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME
[Signature]		4/17/12	1745	[Signature]	4/17/12	1800	[Signature]	4/17/12	1800	[Signature]	4/17/12	1800	[Signature]	4/17/12	1800	[Signature]	4/17/12	1800	[Signature]	4/17/12	1800	[Signature]	4/17/12	1800

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10392-2

SDG Number: PRR1219

Login Number: 10392
List Number: 2
Creator: Matot, Wade M

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	416677, 678
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4°C IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2188
Thomas O'Rourke
ARCADIS OF NEW YORK INC
117 Blaxchard St
Newark, NJ 07105

Origin ID: VAKA



J1210111219025

Ship Date: 17APR12
ActWgt: 10.0 LB
CAD: 103787025ANET3250
Dims: 18 X 14 X 18 IN

Delivery Address Bar Code



Ref # 1129-1616-4
Invoice #
PO # B9009968.0002.70004
Dept #

SHIP TO: (802) 669-1999
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

SOUTH BURLINGTON, VT 05403

WED - 18 APR A4
STANDARD OVERNIGHT

TRK# 7934 6594 4064
0201



ZF BTVA

05403
VT-US
BTV



51201AC11D/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10406-2

SDG Number: PRR1222

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/26/2012 3:24 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/26/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	13
QC Results	14
Qc Association Summary	15
Surrogate Recovery Report	16
Qc Reports	17
Client Chain of Custody	20
Sample Receipt Checklist	21

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1222 (200-10406-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met. Calibration and calibration verification were assessed on an analyte specific basis.

Calculations were performed before rounding to avoid round-off errors in calculated results.

Manual integration was employed in deriving certain of the analytical results.

For the Method 8151A analysis, positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

There was an acceptable recovery of 2,4-D, 2,4-DB, and 2,4,5-T in the analysis of the laboratory control sample associated with the Method 8151A analysis. The recovery of dinoseb in that analysis was 16 percent. While that recovery value is above the lower control limit of 59 percent that is established by the laboratory for this method of analysis, it is below the lower control limit of 70 percent that is referenced in the project QAPP.

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2

Sdg Number: PRR1222

Description		Lab Location	Method	Preparation Method
Matrix	Water			
Herbicides (GC)		TAL BUR	SW846 8151A	
Extraction (Herbicides)		TAL BUR		SW846 8151A
Organic Carbon, Total (TOC)		TAL BUR	SM SM 5310B	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2

Sdg Number: PRR1222

Method	Analyst	Analyst ID
SW846 8151A	Malaspina, Richard R	RRM
SM SM 5310B	Sutton, Zachariah M	ZMS

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2
Sdg Number: PRR1222

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10406-1	PRR1WATCME-27	Water	04/18/2012 1130	04/19/2012 1015
200-10406-2	PRR1WATCMI-27	Water	04/18/2012 1120	04/19/2012 1015

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2
Sdg Number: PRR1222

Client Sample ID: PRR1WATCME-27

Lab Sample ID: 200-10406-1
Client Matrix: Water

Date Sampled: 04/18/2012 1130
Date Received: 04/19/2012 1015

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-37402	Instrument ID:	5005.i
Prep Method:	8151A	Prep Batch:	200-37168	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/24/2012 0115			Injection Volume:	1 uL
Prep Date:	04/19/2012 1331			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	6.5		0.62	1.8
2,4-DB	0.95	J p	0.45	1.6
Dinoseb	0.90	U	0.18	0.90
2,4,5-T	1.7	B	0.12	0.45

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	90		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2

Sdg Number: PRR1222

Client Sample ID: PRR1WATCME-27

Lab Sample ID: 200-10406-1

Date Sampled: 04/18/2012 1130

Client Matrix: Water

Date Received: 04/19/2012 1015

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-37402	Instrument ID:	5005.i
Prep Method:	8151A	Prep Batch:	200-37168	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/24/2012 0115			Injection Volume:	1 uL
Prep Date:	04/19/2012 1331			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	90		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2
Sdg Number: PRR1222

Client Sample ID: PRR1WATCMI-27

Lab Sample ID: 200-10406-2
Client Matrix: Water

Date Sampled: 04/18/2012 1120
Date Received: 04/19/2012 1015

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-37402	Instrument ID:	5005.i
Prep Method:	8151A	Prep Batch:	200-37168	Initial Weight/Volume:	1040 mL
Dilution:	600			Final Weight/Volume:	10000 uL
Analysis Date:	04/24/2012 0150			Injection Volume:	1 uL
Prep Date:	04/19/2012 1331			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4,5-T	2500	B	75	270
Surrogate	%Rec	Qualifier	Acceptance Limits	
2,4-Dichlorophenylacetic acid	0	X	60 - 130	

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2

Sdg Number: PRR1222

Client Sample ID: PRR1WATCHMI-27

Lab Sample ID: 200-10406-2

Date Sampled: 04/18/2012 1120

Client Matrix: Water

Date Received: 04/19/2012 1015

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-37402	Instrument ID:	5005.i
Prep Method:	8151A	Prep Batch:	200-37168	Initial Weight/Volume:	1040 mL
Dilution:	600			Final Weight/Volume:	10000 uL
Analysis Date:	04/24/2012 0150			Injection Volume:	1 uL
Prep Date:	04/19/2012 1331			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	0	X	60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2

Sdg Number: PRR1222

General Chemistry

Client Sample ID: PRR1WATCME-27

Lab Sample ID: 200-10406-1

Date Sampled: 04/18/2012 1130

Client Matrix: Water

Date Received: 04/19/2012 1015

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	4.2		mg/L	0.14	1.0	1.0	SM 5310B
Analysis Batch: 200-37464		Analysis Date: 04/23/2012 1037					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2

Sdg Number: PRR1222

Lab Section	Qualifier	Description
GC Semi VOA	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
	p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2

Sdg Number: PRR1222

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC Semi VOA					
Prep Batch: 200-37168					
LCS 200-37168/2-A	Lab Control Sample	T	Water	8151A	
MB 200-37168/1-A	Method Blank	T	Water	8151A	
200-10406-1	PRR1WATCME-27	T	Water	8151A	
200-10406-2	PRR1WATCMI-27	T	Water	8151A	
Analysis Batch:200-37402					
LCS 200-37168/2-A	Lab Control Sample	T	Water	8151A	200-37168
MB 200-37168/1-A	Method Blank	T	Water	8151A	200-37168
200-10406-1	PRR1WATCME-27	T	Water	8151A	200-37168
200-10406-2	PRR1WATCMI-27	T	Water	8151A	200-37168

Report Basis

T = Total

General Chemistry

Analysis Batch:200-37464					
LCS 200-37464/1	Lab Control Sample	T	Water	SM 5310B	
LCS 200-37464/4	Lab Control Sample	T	Water	SM 5310B	
MB 200-37464/2	Method Blank	T	Water	SM 5310B	
MB 200-37464/5	Method Blank	T	Water	SM 5310B	
200-10406-1	PRR1WATCME-27	T	Water	SM 5310B	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2

Sdg Number: PRR1222

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
200-10406-1	PRR1WATCME-27	90	90
200-10406-2	PRR1WATCMI-27	0X	0X
MB 200-37168/1-A		90	92
LCS 200-37168/2-A		100	102

Surrogate	Acceptance Limits
DCPA = 2,4-Dichlorophenylacetic acid	60-130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2
Sdg Number: PRR1222

Method Blank - Batch: 200-37168

**Method: 8151A
Preparation: 8151A**

Lab Sample ID: MB 200-37168/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/24/2012 0004
Prep Date: 04/19/2012 1331
Leach Date: N/A

Analysis Batch: 200-37402
Prep Batch: 200-37168
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 23ap121716-r011.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95
2,4,5-T	0.226	J	0.13	0.47
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	92		60 - 130	
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	90		60 - 130	

Lab Control Sample - Batch: 200-37168

**Method: 8151A
Preparation: 8151A**

Lab Sample ID: LCS 200-37168/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/24/2012 0040
Prep Date: 04/19/2012 1331
Leach Date: N/A

Analysis Batch: 200-37402
Prep Batch: 200-37168
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 23ap121716-r021.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	7.96	99	75 - 135	
2,4-DB	4.02	5.05	126	40 - 165	
Dinoseb	4.00	2.36	59	10 - 115	
2,4,5-T	2.00	2.42	121	60 - 155	
Surrogate	% Rec		Acceptance Limits		
2,4-Dichlorophenylacetic acid	102		60 - 130		
Surrogate	% Rec		Acceptance Limits		
2,4-Dichlorophenylacetic acid	100		60 - 130		

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2
Sdg Number: PRR1222

Method Blank - Batch: 200-37464

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-37464/2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/23/2012 1022
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-37464
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 042312A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.14	1.0

Method Blank - Batch: 200-37464

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-37464/5
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/23/2012 1110
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-37464
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 042312A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.14	1.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2
Sdg Number: PRR1222

Lab Control Sample - Batch: 200-37464

Method: SM 5310B

Preparation: N/A

Lab Sample ID: LCS 200-37464/1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/23/2012 1006
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-37464
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 042312A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.58	96	85 - 115	

Lab Control Sample - Batch: 200-37464

Method: SM 5310B

Preparation: N/A

Lab Sample ID: LCS 200-37464/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/23/2012 1054
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-37464
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 042312A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.64	96	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

PROJ. NO. B0009966.0002.70004		PROJECT NAME Tierra Phase I Removal				SDG NUMBER / COC Number PRR1222																	
SAMPLERS:																							
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
PRR1WATCME-27	4/18/2012	11:30	water	Grab	17	X	X	X	X	X	X	X	X	X	X								
PRR1WATCMI-27	4/18/2012	11:20	water	Grab	9	X	X	X	X	X													
TB04182012	4/18/2012		water		3	X																	
<p>Requested Analyses</p> <p><input type="checkbox"/> 1 TOC <input type="checkbox"/> 2 VOCs <input type="checkbox"/> 3 SVOCs <input type="checkbox"/> 4 Arochlor PCBs <input type="checkbox"/> 5 Pesticides <input type="checkbox"/> 6 Metals + Hg <input type="checkbox"/> 7 Cyanide <input type="checkbox"/> 8 Herbicides <input type="checkbox"/> 9 TSS</p> <p><input type="checkbox"/> Special QA/QC Instructions</p> <p>Special Instructions/Comments: Refer to RAWP QAPP WS 15-4 for Effluent Samples and 15-5 for Influent Samples</p> <p style="text-align: center;">Requested Analyses</p> <p>Lab Name: TestAmerica - Burlington, VT Shipping Tracking # _____ Sample Receipt: _____</p> <p>Specify Turnaround Requirements: 7 day TAT; TSS sample 24 hr TAT <input type="checkbox"/> Cooler packed with ice Condition/Cooler Temp: _____</p> <p>Relinquished by: <u>TAJ</u> DATE: <u>4/18/12</u> TIME: <u>1230</u> Relinquished by: _____ DATE: _____ TIME: _____ Received by: _____ DATE: _____</p> <p>Relinquished by: _____ DATE: _____ TIME: _____ Relinquished by: _____ DATE: _____ TIME: _____ Received by: _____ DATE: _____</p> <p>Relinquished by: _____ DATE: _____ TIME: _____ Relinquished by: _____ DATE: _____ TIME: _____ Received by: _____ DATE: _____</p>																							

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10406-2

SDG Number: PRR1222

Login Number: 10406

List Source: TestAmerica Burlington

List Number: 2

Creator: Matot, Wade M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	416673, 674, 675, 676
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6, 3.0°C IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas O'Rourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J1210111213025

Ship Date: 18APR12
ActWgt: 30.0 LB
CAD: 103787025/NET3250
Dims: 28 X 16 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1998
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1818-4
Invoice #
PO # B0009968.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

1 of 2

THU - 19 APR A4
PRIORITY OVERNIGHT

TRK# 7934 6753 1640

0291

MASTER

05403

VT.US

BTV

ZF BTVA



512G1AC410/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 18APR12
ActWgt: 30.0 LB
CAD: 103767025/MNET3250
Dims: 24 X 17 X 18 IN

SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

SOUTH BURLINGTON, VT 05403

BILL SENDER

Delivery Address Bar Code



Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

2 of 2

THU - 19 APR A4
PRIORITY OVERNIGHT

MPS# 7934 6753 1824

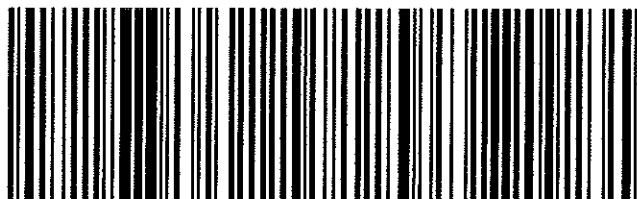
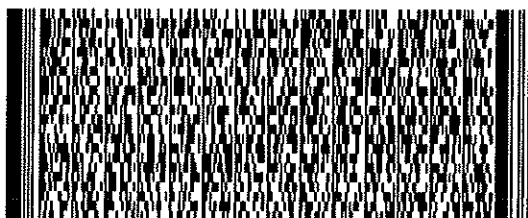
0263

Mstr# 7934 6753 1640

0201

05403
VT-US
BTV

ZF BTVA



512G1K044D/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10406-3

SDG Number: PRR1222

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/23/2012 10:49 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/23/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	9
QC Results	10
Qc Association Summary	11
Qc Reports	12
Client Chain of Custody	13
Sample Receipt Checklist	14

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1222 (200-10406-3)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The sample in this sample set was received on 03/29/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The sample was received as part of a larger sample set, which was received in two coolers. The temperature of the contents of each cooler was determined at the time of receipt. The temperatures were 3.6 °C and 3.0 °C.

SM 2540D Total suspended Solids

The sample in this sample set was analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the sample in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10406-3

Sdg Number: PRR1222

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10406-3

Sdg Number: PRR1222

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10406-3
Sdg Number: PRR1222

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10406-1	PRR1WATCME-27	Water	04/18/2012 1130	04/19/2012 1015

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10406-3

Sdg Number: PRR1222

General Chemistry

Client Sample ID: PRR1WATCME-27

Lab Sample ID: 200-10406-1

Date Sampled: 04/18/2012 1130

Client Matrix: Water

Date Received: 04/19/2012 1015

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	5.9		mg/L	0.52	0.52	1.0	SM 2540D
	Analysis Batch: 200-37160	Analysis Date: 04/19/2012 1217					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10406-3

Sdg Number: PRR1222

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10406-3

Sdg Number: PRR1222

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-37160					
LCS 200-37160/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-37160/1	Method Blank	T	Water	SM 2540D	
200-10406-1	PRR1WATCME-27	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10406-3
Sdg Number: PRR1222

Method Blank - Batch: 200-37160

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-37160/1	Analysis Batch:	200-37160	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/19/2012 1217	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-37160

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-37160/2	Analysis Batch:	200-37160	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/19/2012 1217	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	470.0	94	85 - 115	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10406-3

SDG Number: PRR1222

Login Number: 10406

List Source: TestAmerica Burlington

List Number: 2

Creator: Matot, Wade M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	416673, 674, 675, 676
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6, 3.0°C IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas O'Rourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J12101112130225

Ship Date: 18APR12
ActWgt: 30.0 LB
CAD: 103787025\ANET3250
Dims: 28 X 16 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1998
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1818-4
Invoice #
PO # B0009968.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

1 of 2

THU - 19 APR A4
PRIORITY OVERNIGHT

TRK# 7934 6753 1640

0291

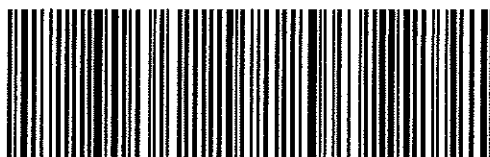
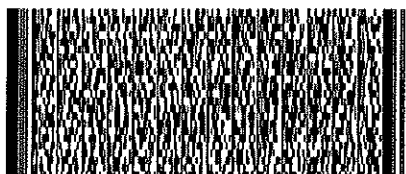
MASTER

05403

VT.US

BTV

ZF BTVA



512G1AC410/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 18APR12
ActWgt: 30.0 LB
CAD: 103767025/MNET3250
Dims: 24 X 17 X 18 IN

J12101112190225

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

2 of 2

THU - 19 APR A4
PRIORITY OVERNIGHT

MPS# 7934 6753 1824

0263

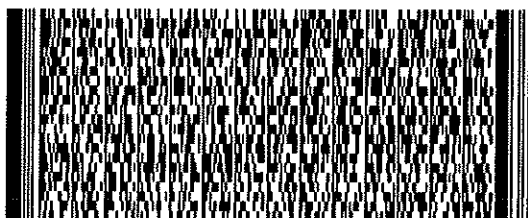
Mstr# 7934 6753 1640

0201

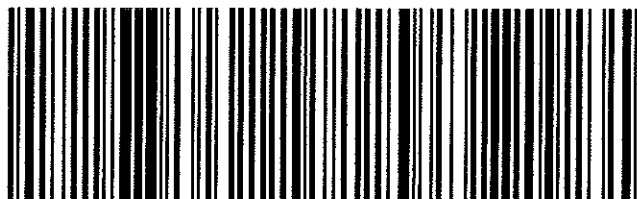
05403

VT-US

BTVA



ZF BTVA



512G1K044D/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10451-1

SDG Number: PRR1232

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/24/2012 2:06 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/24/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	16
QC Results	17
Qc Association Summary	18
Surrogate Recovery Report	19
Qc Reports	21
Client Chain of Custody	22
Sample Receipt Checklist	25

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1232 (200-10451-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 04/23/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 5.6 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set. A trace concentration of chlorobenzene was identified in the analysis of each instrument blank associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1

Sdg Number: PRR1232

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1

Sdg Number: PRR1232

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1

Sdg Number: PRR1232

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10451-1	PRR1WATGACI-10-SP-105	Water	04/21/2012 1345	04/23/2012 0955
200-10451-2	PRR1WATGACE-10-SP-108	Water	04/21/2012 1350	04/23/2012 0955
200-10451-3	PRR1WATGACE-10-SP-110	Water	04/21/2012 1355	04/23/2012 0955
200-10451-6	TB4212012	Water	04/21/2012 0000	04/23/2012 0955
200-10451-7STOBL K	VHBLK01	Water	04/23/2012 1100	04/23/2012 0955

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1
Sdg Number: PRR1232

Client Sample ID: PRR1WATGACI-10-SP-105

Lab Sample ID: 200-10451-1
Client Matrix: Water

Date Sampled: 04/21/2012 1345
Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37377	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdga17.d
Dilution:	200			Initial Weight/Volume:	25 mL
Analysis Date:	04/23/2012 1708			Final Weight/Volume:	25 mL
Prep Date:	04/23/2012 1708				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	400	J	1000
Chlorobenzene	28000	E	100

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	98		65 - 131
Chloroethane-d5	97		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	99		49 - 155
Chloroform-d	97		78 - 121
1,2-Dichloroethane-d4	99		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	89		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	97		73 - 121
2-Hexanone-d5	96		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	99		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1
Sdg Number: PRR1232

Client Sample ID: PRR1WATGACI-10-SP-105

Lab Sample ID: 200-10451-1
Client Matrix: Water

Date Sampled: 04/21/2012 1345
Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37377	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdga16.d
Dilution:	1692.3			Initial Weight/Volume:	25 mL
Analysis Date:	04/23/2012 1644	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	04/23/2012 1644				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	8500	U	8500
Chlorobenzene	24000	D	850

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	82		55 - 104
2-Butanone-d5	107		49 - 155
Chloroform-d	103		78 - 121
1,2-Dichloroethane-d4	111		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121
2-Hexanone-d5	106		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1
Sdg Number: PRR1232

Client Sample ID: PRR1WATGACE-10-SP-108

Lab Sample ID: 200-10451-2
Client Matrix: Water

Date Sampled: 04/21/2012 1350
Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37377	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdga20.d
Dilution:	33.8			Initial Weight/Volume:	25 mL
Analysis Date:	04/23/2012 1821			Final Weight/Volume:	25 mL
Prep Date:	04/23/2012 1821				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	280		170
Chlorobenzene	3900	E	17

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	96		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	98		49 - 155
Chloroform-d	97		78 - 121
1,2-Dichloroethane-d4	103		78 - 129
Benzene-d6	99		77 - 124
1,2-Dichloropropane-d6	90		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121
2-Hexanone-d5	92		28 - 135
1,1,2,2-Tetrachloroethane-d2	95		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1

Sdg Number: PRR1232

Client Sample ID: PRR1WATGACE-10-SP-108

Lab Sample ID: 200-10451-2

Date Sampled: 04/21/2012 1350

Client Matrix: Water

Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37377	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdga19.d
Dilution:	283.8			Initial Weight/Volume:	25 mL
Analysis Date:	04/23/2012 1757	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	04/23/2012 1757				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	460	J D	1400
Chlorobenzene	3800	D	140

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	108		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	102		73 - 121
2-Hexanone-d5	98		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	104		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1

Sdg Number: PRR1232

Client Sample ID: PRR1WATGACE-10-SP-110

Lab Sample ID: 200-10451-3

Date Sampled: 04/21/2012 1355

Client Matrix: Water

Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37377	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdga22.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/23/2012 1910			Final Weight/Volume:	25 mL
Prep Date:	04/23/2012 1910				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	10	U	10
Chlorobenzene	13		1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	99		65 - 131
Chloroethane-d5	100		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	111		49 - 155
Chloroform-d	104		78 - 121
1,2-Dichloroethane-d4	109		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121
2-Hexanone-d5	102		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1

Sdg Number: PRR1232

Client Sample ID: TB4212012

Lab Sample ID: 200-10451-6

Date Sampled: 04/21/2012 0000

Client Matrix: Water

Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37377	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdga23.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/23/2012 1934			Final Weight/Volume:	25 mL
Prep Date:	04/23/2012 1934				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.055	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	98		65 - 131
Chloroethane-d5	99		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	100		78 - 121
1,2-Dichloroethane-d4	108		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	90		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	97		73 - 121
2-Hexanone-d5	100		28 - 135
1,1,2,2-Tetrachloroethane-d2	96		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1
Sdg Number: PRR1232

Client Sample ID: VHBLK01

Lab Sample ID: 200-10451-7STOBLK
Client Matrix: Water

Date Sampled: 04/23/2012 1100
Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37377	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdga24.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/23/2012 1958			Final Weight/Volume:	25 mL
Prep Date:	04/23/2012 1958				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	109		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121
2-Hexanone-d5	98		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1

Sdg Number: PRR1232

Lab Section	Qualifier	Description
GC/MS VOA	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1

Sdg Number: PRR1232

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC/MS VOA					
Analysis Batch:200-37377					
MB 200-37377/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10451-1	PRR1WATGACI-10-SP-105	T	Water	SOM01.2/VOA_T	
200-10451-1DL	PRR1WATGACI-10-SP-105	T	Water	SOM01.2/VOA_T	
200-10451-2	PRR1WATGACE-10-SP-108	T	Water	SOM01.2/VOA_T	
200-10451-2DL	PRR1WATGACE-10-SP-108	T	Water	SOM01.2/VOA_T	
200-10451-3	PRR1WATGACE-10-SP-110	T	Water	SOM01.2/VOA_T	
200-10451-6	TB4212012	T	Water	SOM01.2/VOA_T	
200-10451-7STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1

Sdg Number: PRR1232

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10451-1 DL	PRR1WATGACI-10-S P-105 DL	101	103	82	107	103	111	103	92
200-10451-1	PRR1WATGACI-10-S P-105	98	97	76	99	97	99	100	89
200-10451-2 DL	PRR1WATGACE-10- SP-108 DL	100	102	80	105	102	108	103	93
200-10451-2	PRR1WATGACE-10- SP-108	94	96	75	98	97	103	99	90
200-10451-3	PRR1WATGACE-10- SP-110	99	100	80	111	104	109	102	91
200-10451-6	TB4212012	98	99	78	105	100	108	100	90
200-10451-7	VHBLK01	101	103	80	103	102	109	103	93
MB 200-37377/4		102	104	82	116	105	109	104	94

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1
Sdg Number: PRR1232

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10451-1 DL	PRR1WATGACI-10-S P-105 DL	102	104	106	100	103
200-10451-1	PRR1WATGACI-10-S P-105	99	97	96	93	99
200-10451-2 DL	PRR1WATGACE-10- SP-108 DL	103	102	98	99	104
200-10451-2	PRR1WATGACE-10- SP-108	98	99	92	95	101
200-10451-3	PRR1WATGACE-10- SP-110	100	99	102	100	100
200-10451-6	TB4212012	99	97	100	96	102
200-10451-7	VHBLK01	101	99	98	100	101
MB 200-37377/4		103	108	116	103	106

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1

Sdg Number: PRR1232

Method Blank - Batch: 200-37377

Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR

Lab Sample ID: MB 200-37377/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/23/2012 1149
Prep Date: 04/23/2012 1149
Leach Date: N/A

Analysis Batch: 200-37377
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdga04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	102	65 - 131
Chloroethane-d5	104	71 - 131
1,1-Dichloroethene-d2	82	55 - 104
2-Butanone-d5	116	49 - 155
Chloroform-d	105	78 - 121
1,2-Dichloroethane-d4	109	78 - 129
Benzene-d6	104	77 - 124
1,2-Dichloropropane-d6	94	79 - 124
Toluene-d8	103	77 - 121
trans-1,3-Dichloropropene-d4	108	73 - 121
2-Hexanone-d5	116	28 - 135
1,1,2,2-Tetrachloroethane-d2	103	73 - 125
1,2-Dichlorobenzene-d4	106	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

PROJ. NO. B0009966.0002.70004	PROJECT NAME Tierra Phase I Removal		SDG NUMBER PRR1232	COC Number																				
	SAMPLERS: CHES																							
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WAT1GACISP-105-02	4/21/2012	1745	water	Grab	4	X	X																	
PRR1WATGACESP-108-02	4/21/2012	1350	water	Grab	4	X	X																	
PRR1WATGACESP-110-02	4/21/2012	1355	water	Grab	4	X	X																	
PRR1WATCME-30	4/21/2012	1400	water	Grab	1			X																
PRR1WATSPI-101-09	4/21/2012	1405	water	Grab	1			X																
TB04212012	4/21/2012		water	Grab	3	X																		
<p>Special Instructions/Comments: <input type="checkbox"/> Special QA/QC Instructions</p> <p>Requested Analyses</p> <p>1 2-Butanone, Chlorobenzene</p> <p>2 COD</p> <p>3 TSS/TURB</p>																								
Laboratory Information and Receipt												Sample Receipt:												
Lab Name: TestAmerica -Burlington, VT												Condition/Cooler Temp: 5.6°C												
Shipping Tracking #												Cooler packed with ice												
Specify Turnaround Requirements: 24 hr TAT												Cooler custody seal intact												
Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	
<i>[Signature]</i>	4/21	1515	<i>[Signature]</i>	04/21/12	1530	<i>[Signature]</i>	04/21/12	1530	<i>[Signature]</i>	04/21/12	1530	<i>[Signature]</i>	04/21/12	1530	<i>[Signature]</i>	04/21/12	1530	<i>[Signature]</i>	04/21/12	1530	<i>[Signature]</i>	04/21/12	1530	

Hammond, Ryan

From: Shatt, Ryan [Ryan.Shatt@arcadis-us.com]

Sent: Monday, April 23, 2012 1:08 PM

To: Hammond, Ryan

Subject: FW: Message from WA01P07

Attachments: SWA01P0712042310040.pdf

Hi Ryan – Use this for PRR1232 COC revisions.

**Privileged and Confidential Work Product
Prepared at the Request of Legal Counsel
For or in Anticipation of Litigation
And in Connection with Rendering Legal Advice**

From: WA01P07@arcadis-us.com [mailto:WA01P07@arcadis-us.com]

Sent: Monday, April 23, 2012 10:04 AM

To: Shatt, Ryan

Subject: Message from WA01P07

NOTICE: This e-mail and any files transmitted with it are the property of ARCADIS U.S., Inc. and its affiliates. All rights, including without limitation copyright, are reserved. The proprietary information contained in this e-mail message, and any files transmitted with it, is intended for the use of the recipient (s) named above. If the reader of this e-mail is not the intended recipient, you are hereby notified that you have received this e-mail in error and that any review, distribution or copying of this e-mail or any files transmitted with it is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete the original message and any files transmitted. The unauthorized use of this e-mail or any files transmitted with it is prohibited and disclaimed by ARCADIS U.S., Inc. and its affiliates. Nothing herein is intended to constitute the offering or performance of services where otherwise restricted by law.



CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO.		PROJECT NAME		SDG NUMBER		COC Number																							
B000966.0002.70004		Tierra Phase I Removal		PRR1232		PRR1232																							
SAMPLERS: CHES		Requested Analyses																											
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks						
PRR1WATGACISP-105-02	4/21/2012	17:45	water	Grab	4	X	X	X																					
PRR1WATGACESP-108-02	4/21/2012	13:50	water	Grab	4	X	X	X																					
PRR1WATGACESP-110-02	4/21/2012	13:55	water	Grab	4	X	X	X																					
PRR1WATCME-30 29	4/21/2012	14:00	water	Grab	1			X																					
PRR1WATSP-101-00	4/21/2012	14:05	water	Grab	1			X																					
TB04212012	4/21/2012		water	Grab	3	X																							
<p>Special Instructions/Comments: <input type="checkbox"/> Special QA/QC Instructions</p> <p>Requested Analyses: 2-Butanone, Chlorobenzene</p> <p>Shipping Tracking #</p> <p>Lab Name: TestAmerica - Burlington, VT</p> <p>Specify Turnaround Requirements: 24 hr TAT</p> <p>Condition/Cooler Temp: 5.6°C</p>																													
Relinquished by:						Received by:						DATE						Relinquished by:						Received by:					
[Signature]						[Signature]						4/21						[Signature]						[Signature]					
Relinquished by:						TIME						DATE						Relinquished by:						TIME					
[Signature]						5:15						04/21/12						[Signature]						15:30					
Relinquished by:						DATE						DATE						Relinquished by:						DATE					
[Signature]						4/21/12						[Signature]						[Signature]						[Signature]					

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10451-1

SDG Number: PRR1232

Login Number: 10451

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	416671, 672
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.6°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J52101112190225

Ship Date: 21APR12
ActWgt: 15.0 LB
CAD: 103886297/NET3250

Dims: 14 X 11 X 11 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11
S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
Invoice #
PO #
Dept #

3 of 3

MON - 23 APR A4
STANDARD OVERNIGHT

MPS# 7934 8164 1730

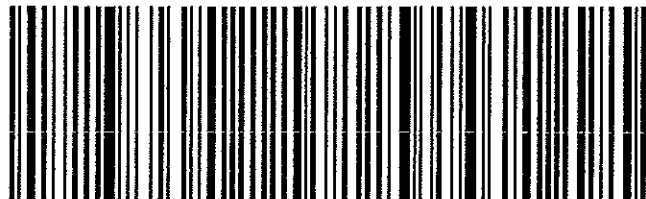
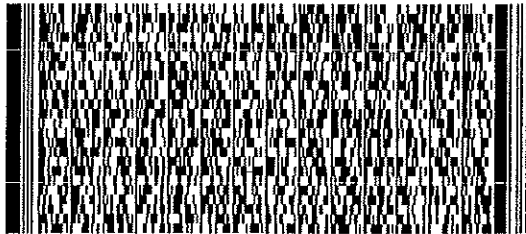
0263

Mstr# 7934 8164 1637

0201

05403
VT-US
BTV

XH BTVA



512G1/C44D/A278

ANALYTICAL REPORT

Job Number: 200-10451-2

SDG Number: PRR1232

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/30/2012 8:47 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/30/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	19

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1232 (200-10451-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 04/23/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 5.6 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the samples in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10451-2
Sdg Number: PRR1232

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10451-2

Sdg Number: PRR1232

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10451-2
Sdg Number: PRR1232

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10451-4	PRR1WATSP-10-101	Water	04/21/2012 1400	04/23/2012 0955
200-10451-5	PRR1WATCME-29	Water	04/21/2012 1405	04/23/2012 0955

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10451-2

Sdg Number: PRR1232

General Chemistry

Client Sample ID: PRR1WATSP-10-101

Lab Sample ID: 200-10451-4

Date Sampled: 04/21/2012 1400

Client Matrix: Water

Date Received: 04/23/2012 0955

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	74.0		mg/L	2.5	2.5	1.0	SM 2540D
Analysis Batch: 200-37296		Analysis Date: 04/23/2012 1154					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10451-2

Sdg Number: PRR1232

General Chemistry

Client Sample ID: PRR1WATCME-29

Lab Sample ID: 200-10451-5

Date Sampled: 04/21/2012 1405

Client Matrix: Water

Date Received: 04/23/2012 0955

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	6.4		mg/L	0.53	0.53	1.0	SM 2540D
	Analysis Batch: 200-37296	Analysis Date: 04/23/2012 1154					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10451-2

Sdg Number: PRR1232

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10451-2

Sdg Number: PRR1232

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-37296					
LCS 200-37296/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-37296/1	Method Blank	T	Water	SM 2540D	
200-10451-4	PRR1WATSP-10-101	T	Water	SM 2540D	
200-10451-5	PRR1WATCME-29	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10451-2
Sdg Number: PRR1232

Method Blank - Batch: 200-37296

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	MB 200-37296/1	Analysis Batch:	200-37296	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/23/2012 1154	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-37296

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	LCS 200-37296/2	Analysis Batch:	200-37296	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/23/2012 1154	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	468.0	94	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

PROJ. NO. B0009966.0002.70004	PROJECT NAME Tierra Phase I Removal		Requested Analyses														SDG NUMBER PRR1232	COC Number								
	SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks		
PRR1WAT1GACISP-105-02	4/21/2012	1745	water	Grab	4	X	X																			
PRR1WATGACESP-108-02	4/21/2012	1350	water	Grab	4	X	X																			
PRR1WATGACESP-110-02	4/21/2012	1355	water	Grab	4	X	X																			
PRR1WATCME-30	4/21/2012	1400	water	Grab	1			X																		
PRR1WATSPI-101-09	4/21/2012	1405	water	Grab	1			X																		
TB04212012	4/21/2012		water	Grab	3	X																				
Special Instructions/Comments:			<input type="checkbox"/> Special QA/QC Instructions																							
Requested Analyses																										
1-2-Butanone, Chlorobenzene																										
3 TSS/TURB																										
Lab Name: TestAmerica -Burlington, VT																										
Shipping Tracking #																										
Specify Turnaround Requirements: 24 hr TAT																										
Received by: <i>WJF</i>																	TIME					DATE				
Relinquished by: <i>WJF</i>																	TIME					DATE				
Received by: <i>WJF</i>																	TIME					DATE				
Relinquished by: <i>WJF</i>																	TIME					DATE				
Received by: <i>WJF</i>																	TIME					DATE				
Relinquished by: <i>WJF</i>																	TIME					DATE				

Hammond, Ryan

From: Shatt, Ryan [Ryan.Shatt@arcadis-us.com]

Sent: Monday, April 23, 2012 1:08 PM

To: Hammond, Ryan

Subject: FW: Message from WA01P07

Attachments: SWA01P0712042310040.pdf

Hi Ryan – Use this for PRR1232 COC revisions.

**Privileged and Confidential Work Product
Prepared at the Request of Legal Counsel
For or in Anticipation of Litigation
And in Connection with Rendering Legal Advice**

From: WA01P07@arcadis-us.com [mailto:WA01P07@arcadis-us.com]

Sent: Monday, April 23, 2012 10:04 AM

To: Shatt, Ryan

Subject: Message from WA01P07

NOTICE: This e-mail and any files transmitted with it are the property of ARCADIS U.S., Inc. and its affiliates. All rights, including without limitation copyright, are reserved. The proprietary information contained in this e-mail message, and any files transmitted with it, is intended for the use of the recipient (s) named above. If the reader of this e-mail is not the intended recipient, you are hereby notified that you have received this e-mail in error and that any review, distribution or copying of this e-mail or any files transmitted with it is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete the original message and any files transmitted. The unauthorized use of this e-mail or any files transmitted with it is prohibited and disclaimed by ARCADIS U.S., Inc. and its affiliates. Nothing herein is intended to constitute the offering or performance of services where otherwise restricted by law.



ARCADIS

6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

PROJ. NO. B0009966.0002.70004
PROJECT NAME Terra Phase I Removal
SDG NUMBER PRR1232
COC NUMBER PRR1232

SAMPLERS: CHES *PRS 4/23/12*

NO.	SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	Requested Analyses																	Remarks			
							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17				
1	PRR1WATGACIS1P-105-02	4/21/2012	1745	water	Grab	4	X	X																			
2	PRR1WATGACESP-108-02	4/21/2012	1350	water	Grab	4	X	X																			
3	PRR1WATGACESP-110-02	4/21/2012	1355	water	Grab	4	X	X																			
4	PRR1WATCME-29	4/21/2012	1400	water	Grab	1			X																		
5	PRR1WATSP-101-00	4/21/2012	1405	water	Grab	1			X																		
6	TB04212012	4/21/2012		water	Grab	3	X																				

Requested Analyses
 2-Butanone, Chlorobenzene
 P3 TSS/TURB *PR*

Special Instructions/Comments:
 Special QA/QC Instructions

Laboratory Information and Receipt
 Lab Name: TestAmerica - Burlington, VT
 Shipping Tracking #
 Specify Turnaround Requirements: 24 hr TAT
 Condition/Cooler Temp: 3.6°C
 Cooler packed with ice
 Cooler custody seal intact

Received by:	Relinquished by:	DATE	TIME	DATE	TIME
<i>John Zi</i>	<i>WLD</i>	4/21	515		
<i>WLD</i>	<i>WLD</i>	04/21/12	1530		

Young, Kirk

From: Shatt, Ryan [Ryan.Shatt@arcadis-us.com]
Sent: Friday, April 27, 2012 5:50 PM
To: Hammond, Ryan
Cc: Young, Kirk
Subject: RE: SDG PRR1232

Hi – After consultation with the sample collection team, these sample IDs were switched on their respective labels. The sample designated as PRR1WATCME-29 should be designated as PRR1WATSP-10-101 and the sample designated as PRR1WATSP-10-101 should be designated as PRR1WATCME-29.

Thanks,

Ryan

**Privileged and Confidential Work Product
Prepared at the Request of Legal Counsel
For or in Anticipation of Litigation
And in Connection with Rendering Legal Advice**

From: Hammond, Ryan [mailto:Ryan.Hammond@testamericainc.com]
Sent: Tuesday, April 24, 2012 11:29 AM
To: Shatt, Ryan
Cc: Young, Kirk
Subject:

Ryan,

Below is the observation from the sample login group.

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC)
The container label for sample PRR1WATCME-29 lists a collection time of 1405 while the COC lists 1400. The container label for sample PRR1WATSP-10-101 lists a collection time of 1400 while the COC lists 1405. Samples logged in per the COC.

Also Joe, is okay with reporting the SOM PCB data with the DCB outage in the LCS.

Thanks,
Ryan
Ryan Hammond
Project Manager I

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

30 Community Drive, Suite 11
South Burlington, VT 05403
Tel 802.660.1990 | Direct 802.923.1038
www.testamericainc.com

NOTICE: This e-mail and any files transmitted with it are the property of ARCADIS U.S., Inc. and its affiliates. All rights, including without limitation copyright, are reserved. The proprietary information contained in this e-mail message, and any files transmitted with it, is intended for the use of the recipient(s) named above. If the reader of this e-mail is not the intended recipient, you are hereby notified that you have received this e-mail in error and that any review, distribution or copying of this e-mail or any files transmitted with it is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete the original message and any files transmitted. The unauthorized use of this e-mail or any files transmitted with it is prohibited and disclaimed by ARCADIS U.S., Inc. and its affiliates. Nothing herein is intended to constitute the offering or performance of services where otherwise restricted by law.

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10451-2

SDG Number: PRR1232

Login Number: 10451

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	416671, 672
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.6°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J52101112190225

Ship Date: 21APR12
ActWgt: 15.0 LB
CAD: 103886297/NET3250

Dims: 14 X 11 X 11 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11
S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
Invoice #
PO #
Dept #

3 of 3

MON - 23 APR A4
STANDARD OVERNIGHT

MPS# 7934 8164 1730

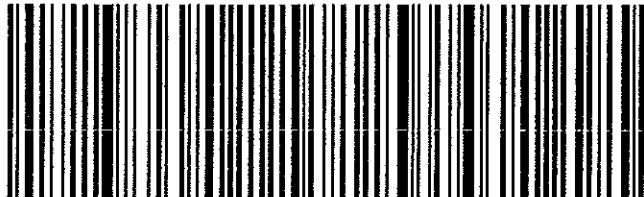
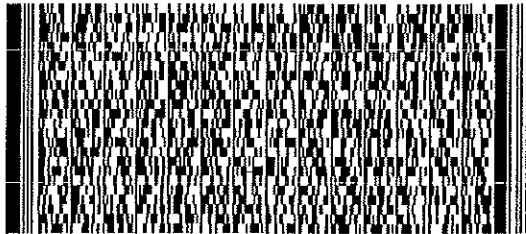
0263

Mstr# 7934 8164 1637

0201

05403
VT-US
BTVA

XH BTVA



512G1/C44D/A278

ANALYTICAL REPORT

Job Number: 200-10456-1

SDG Number: PRR1224

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/9/2012 4:41 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/09/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	29
QC Results	31
Qc Association Summary	32
Surrogate Recovery Report	35
Qc Reports	41
Client Chain of Custody	59
Sample Receipt Checklist	62

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1224 (200-10456-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis.

Manual integration was employed in deriving certain of the analytical results.

Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

In performing the ISM01.2 analysis for trace metals it was necessary to analyze the sample digestate at a 10-fold dilution in order to provide for a stable analysis. Constituents in the sample created interferences that materially affected the internal standard responses in the instrumental analysis, and precluded an analysis of the sample digestate at full concentration. An analysis at a 2-fold dilution exhibited similar instability.

In performing the SOM01.2 semivolatile organics analysis, there was an issue with the recovery performance of certain of the DMCs in the analysis of the method blank associated with the extraction set. In that analysis, there was no recovery of 4,6-dinitro-2-methylphenol-d₂ and the recovery of 4-nitrophenol-d₄ was low (14 percent). There was an acceptable recovery of each DMC in the analysis of the sample in the sample set. The sample set was re-extracted in order to provide for a second analysis with a compliant method blank analysis.

This report is submitted as a preliminary report. All reported values are in a final, reviewed state. Missing from the data set are the results for the re-extraction and secondary analysis of the sample for the semivolatile organics.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR
Semivolatiles	TAL BUR	SOM01.2 SOM01.2/SV	
Extraction of Water Samples	TAL BUR		SOM01.2 CONT
Aroclors	TAL BUR	SOM01.2 SOM01.2/PCB	
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Sulfuric Acid/Permanganate Cleanup	TAL BUR		SOM01.2 SOM01.2/SO4CU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Extraction of Low level Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Low Level CLP Extraction of Pesticides	TAL BUR		SOM01.2 SOM01.2LL_Pest
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
ISM01.2 Mercury	TAL BUR	ISM01.2 ISM01.2/HG	
7470A	TAL BUR		SW846 7470A
ISM01.2 Metals (ICPMS)	TAL BUR	ISM01.2 ISM01.2/ICPMS	
200.8	TAL BUR		EPA 200.8
ISM01.2 Cyanide	TAL BUR	ISM01.2 ISM01.2/CN	
Midi-distillation	TAL BUR		ISM01.1 Midi-Distillati

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

ISM01.1 = U.S. Environmental Protection Agency

ISM01.2 = U.S. Environmental Protection Agency

SOM01.2 = U.S. Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP
SOM01.2 SOM01.2/SV	Bissonette, Donald J	DJB
SOM01.2 SOM01.2/SV	Edwin, Joseph	JE
SOM01.2 SOM01.2/PCB	Duncan, Stacey L	SLD
SOM01.2 SOM01.2/Pest	Lambert, Kelly T	KTL
SOM01.2 SOM01.2/Pest	Toomey, Lisa M	LMT
ISM01.2 ISM01.2/HG	Pham, Vu T	VTP
ISM01.2 ISM01.2/ICPMS	Lyons, Benjamin	BL
ISM01.2 ISM01.2/CN	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10456-2	PRR1WATSME-04	Water	04/21/2012 1425	04/23/2012 0955
200-10456-3TB	TB04202012	Water	04/21/2012 0000	04/23/2012 0955
200-10456-4STOBL K	VHBLK01	Water	04/23/2012 1250	04/23/2012 0955

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2

Date Sampled: 04/21/2012 1425

Client Matrix: Water

Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdgb17.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/24/2012 1907			Final Weight/Volume:	25 mL
Prep Date:	04/24/2012 1907				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	37	E	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	14		5.0
Chloroform	3.0		0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.39	J	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	1.2		0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.068	J	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.94		0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	98		65 - 131
Chloroethane-d5	101		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	122		49 - 155
Chloroform-d	105		78 - 121
1,2-Dichloroethane-d4	113		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2
Client Matrix: Water

Date Sampled: 04/21/2012 1425
Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdgb17.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/24/2012 1907			Final Weight/Volume:	25 mL
Prep Date:	04/24/2012 1907				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	125		28 - 135
1,1,2,2-Tetrachloroethane-d2	103		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2

Date Sampled: 04/21/2012 1425

Client Matrix: Water

Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37551	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijb08.d
Dilution:	2.6			Initial Weight/Volume:	25 mL
Analysis Date:	04/25/2012 1358	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	04/25/2012 1358				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	1.3	U	1.3
Vinyl chloride	1.3	U	1.3
Bromomethane	1.3	U	1.3
Chloroethane	1.3	U	1.3
Acrolein	26	U	26
1,1-Dichloroethene	1.3	U	1.3
Methylene chloride	51	D B	1.3
Acrylonitrile	26	U	26
trans-1,2-Dichloroethene	1.3	U	1.3
1,1-Dichloroethane	1.3	U	1.3
2-Butanone	19	D	13
Chloroform	4.0	D	1.3
1,1,1-Trichloroethane	1.3	U	1.3
Carbon tetrachloride	0.058	J D B	1.3
Benzene	0.53	J D	1.3
1,2-Dichloroethane	1.3	U	1.3
Trichloroethene	1.3	U	1.3
1,2-Dichloropropane	1.7	D	1.3
Bromodichloromethane	1.3	U	1.3
cis-1,3-Dichloropropene	1.3	U	1.3
Toluene	0.10	J D	1.3
trans-1,3-Dichloropropene	1.3	U	1.3
1,1,2-Trichloroethane	1.3	U	1.3
Tetrachloroethene	1.3	U	1.3
Dibromochloromethane	1.3	U	1.3
Chlorobenzene	1.2	J D	1.3
Ethylbenzene	1.3	U	1.3
Bromoform	1.3	U	1.3
1,1,2,2-Tetrachloroethane	1.3	U	1.3
1,3-Dichlorobenzene	1.3	U	1.3
1,4-Dichlorobenzene	1.3	U	1.3
1,2-Dichlorobenzene	1.3	U	1.3
1,2,4-Trichlorobenzene	1.3	U	1.3
1,2,3-Trichlorobenzene	1.3	U	1.3

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	112		65 - 131
Chloroethane-d5	128		71 - 131
1,1-Dichloroethene-d2	92		55 - 104
2-Butanone-d5	118		49 - 155
Chloroform-d	115		78 - 121
1,2-Dichloroethane-d4	119		78 - 129
Benzene-d6	122		77 - 124
1,2-Dichloropropane-d6	119		79 - 124
Toluene-d8	119		77 - 121
trans-1,3-Dichloropropene-d4	106		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2
Client Matrix: Water

Date Sampled: 04/21/2012 1425
Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37551	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijb08.d
Dilution:	2.6			Initial Weight/Volume:	25 mL
Analysis Date:	04/25/2012 1358	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	04/25/2012 1358				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	106		28 - 135
1,1,2,2-Tetrachloroethane-d2	104		73 - 125
1,2-Dichlorobenzene-d4	121		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Client Sample ID: TB04202012

Lab Sample ID: 200-10456-3TB

Date Sampled: 04/21/2012 0000

Client Matrix: Water

Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdgb18.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/24/2012 1932			Final Weight/Volume:	25 mL
Prep Date:	04/24/2012 1932				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.088	J	0.50
Acrylonitrile	0.60	J	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	5.3		0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	2.7		0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.054	J	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.77		0.50
Chlorobenzene	0.065	J	0.50
Ethylbenzene	0.061	J	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	106		49 - 155
Chloroform-d	107		78 - 121
1,2-Dichloroethane-d4	110		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	96		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Client Sample ID: TB04202012

Lab Sample ID: 200-10456-3TB

Date Sampled: 04/21/2012 0000

Client Matrix: Water

Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdgb18.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/24/2012 1932			Final Weight/Volume:	25 mL
Prep Date:	04/24/2012 1932				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	100		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Client Sample ID: VHBLK01

Lab Sample ID: 200-10456-4STOBLK

Date Sampled: 04/23/2012 1250

Client Matrix: Water

Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37551	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijb09.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/25/2012 1422			Final Weight/Volume:	25 mL
Prep Date:	04/25/2012 1422				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.050	J B	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.018	J B	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	95		65 - 131
Chloroethane-d5	109		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	103		78 - 129
Benzene-d6	104		77 - 124
1,2-Dichloropropane-d6	103		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	94		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Client Sample ID: VHBLK01

Lab Sample ID: 200-10456-4STOBLK
Client Matrix: Water

Date Sampled: 04/23/2012 1250
Date Received: 04/23/2012 0955

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37551	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijb09.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/25/2012 1422			Final Weight/Volume:	25 mL
Prep Date:	04/25/2012 1422				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	96		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2

Date Sampled: 04/21/2012 1425

Client Matrix: Water

Date Received: 04/23/2012 0955

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-37611	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-37375	Lab File ID:	rjru05.d
Dilution:	1.0			Initial Weight/Volume:	1035 mL
Analysis Date:	04/26/2012 0921			Final Weight/Volume:	1000 uL
Prep Date:	04/24/2012 1009			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	RL
N-Nitrosodimethylamine	9.7	U	9.7
Phenol	0.39	J	4.8
Bis(2-chloroethyl)ether	4.8	U	4.8
2-Chlorophenol	2.1	J	4.8
2,2'-Oxybis(1-chloropropane)	4.8	U	4.8
Hexachloroethane	4.8	U	4.8
Nitrobenzene	4.8	U	4.8
Isophorone	4.8	U	4.8
2-Nitrophenol	4.8	U	4.8
2,4-Dimethylphenol	4.8	U	4.8
2,4-Dichlorophenol	0.44	J	4.8
Naphthalene	4.8	U	4.8
Hexachlorobutadiene	4.8	U	4.8
Hexachlorocyclopentadiene	4.8	U	4.8
2,4,6-Trichlorophenol	0.54	J	4.8
2,4,5-Trichlorophenol	0.40	J	4.8
Dimethylphthalate	4.8	U	4.8
2,6-Dinitrotoluene	4.8	U	4.8
2,4-Dinitrophenol	9.7	U	9.7
4-Nitrophenol	9.7	U	9.7
2,4-Dinitrotoluene	4.8	U	4.8
Diethylphthalate	0.34	J	4.8
Fluorene	4.8	U	4.8
4,6-Dinitro-2-methylphenol	9.7	U	9.7
N-Nitrosodiphenylamine	4.8	U	4.8
Hexachlorobenzene	4.8	U	4.8
Pentachlorophenol	9.7	U	9.7
Phenanthrene	4.8	U	4.8
Anthracene	4.8	U	4.8
Di-n-butylphthalate	0.069	J B	4.8
Fluoranthene	4.8	U	4.8
Benzidine	9.7	U	9.7
Pyrene	4.8	U	4.8
Butylbenzylphthalate	4.8	U	4.8
3,3'-Dichlorobenzidine	4.8	U	4.8
Benzo(a)anthracene	4.8	U	4.8
Chrysene	4.8	U	4.8
Bis(2-ethylhexyl)phthalate	0.22	J B	4.8
Benzo(b)fluoranthene	4.8	U	4.8
Benzo(k)fluoranthene	4.8	U	4.8
Benzo(a)pyrene	4.8	U	4.8
Indeno(1,2,3-cd)pyrene	4.8	U	4.8
Dibenzo(a,h)anthracene	4.8	U	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	80		39 - 106

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2

Date Sampled: 04/21/2012 1425

Client Matrix: Water

Date Received: 04/23/2012 0955

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-37611	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-37375	Lab File ID:	rjru05.d
Dilution:	1.0			Initial Weight/Volume:	1035 mL
Analysis Date:	04/26/2012 0921			Final Weight/Volume:	1000 uL
Prep Date:	04/24/2012 1009			Injection Volume:	2 uL

Surrogate	%Rec	Qualifier	Acceptance Limits
Bis(2-chloroethyl)ether-d8	68		40 - 105
2-Chlorophenol-d4	70		41 - 106
4-Methylphenol-d8	109		25 - 111
Nitrobenzene-d5	84		43 - 108
2-Nitrophenol-d4	87		40 - 108
2,4-Dichlorophenol-d3	88		37 - 105
4-Chloroaniline-d4	74		1 - 145
Dimethylphthalate-d6	104		47 - 114
Acenaphthylene-d8	86		41 - 107
4-Nitrophenol-d4	107		33 - 116
Fluorene-d10	102		42 - 111
4,6-Dinitro-2-methylphenol-d2	85		22 - 104
Anthracene-d10	85		44 - 110
Pyrene-d10	163	*	52 - 119
Benzo(a)pyrene-d12	85		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2

Date Sampled: 04/21/2012 1425

Client Matrix: Water

Date Received: 04/23/2012 0955

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-38096	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-37628	Lab File ID:	rjysv05.d
Dilution:	1.0			Initial Weight/Volume:	1045 mL
Analysis Date:	05/04/2012 0821	Run Type:	RE	Final Weight/Volume:	1000 uL
Prep Date:	04/26/2012 1546			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	RL
N-Nitrosodimethylamine	9.6	U	9.6
Phenol	0.39	J	4.8
Bis(2-chloroethyl)ether	4.8	U	4.8
2-Chlorophenol	2.5	J	4.8
2,2'-Oxybis(1-chloropropane)	4.8	U	4.8
Hexachloroethane	4.8	U	4.8
Nitrobenzene	4.8	U	4.8
Isophorone	4.8	U	4.8
2-Nitrophenol	4.8	U	4.8
2,4-Dimethylphenol	4.8	U	4.8
2,4-Dichlorophenol	0.43	J	4.8
Naphthalene	4.8	U	4.8
Hexachlorobutadiene	4.8	U	4.8
Hexachlorocyclopentadiene	4.8	U	4.8
2,4,6-Trichlorophenol	0.47	J	4.8
2,4,5-Trichlorophenol	0.29	J	4.8
Dimethylphthalate	4.8	U	4.8
2,6-Dinitrotoluene	4.8	U	4.8
2,4-Dinitrophenol	9.6	U	9.6
4-Nitrophenol	9.6	U	9.6
2,4-Dinitrotoluene	4.8	U	4.8
Diethylphthalate	4.8	U	4.8
Fluorene	4.8	U	4.8
4,6-Dinitro-2-methylphenol	9.6	U	9.6
N-Nitrosodiphenylamine	4.8	U	4.8
Hexachlorobenzene	4.8	U	4.8
Pentachlorophenol	9.6	U	9.6
Phenanthrene	4.8	U	4.8
Anthracene	4.8	U	4.8
Di-n-butylphthalate	4.8	U	4.8
Fluoranthene	4.8	U	4.8
Benzidine	9.6	U	9.6
Pyrene	4.8	U	4.8
Butylbenzylphthalate	0.12	J B	4.8
3,3'-Dichlorobenzidine	4.8	U	4.8
Benzo(a)anthracene	4.8	U	4.8
Chrysene	4.8	U	4.8
Bis(2-ethylhexyl)phthalate	4.8	U	4.8
Benzo(b)fluoranthene	4.8	U	4.8
Benzo(k)fluoranthene	4.8	U	4.8
Benzo(a)pyrene	4.8	U	4.8
Indeno(1,2,3-cd)pyrene	4.8	U	4.8
Dibenzo(a,h)anthracene	4.8	U	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	80		39 - 106

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2

Date Sampled: 04/21/2012 1425

Client Matrix: Water

Date Received: 04/23/2012 0955

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-38096	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-37628	Lab File ID:	rjysv05.d
Dilution:	1.0			Initial Weight/Volume:	1045 mL
Analysis Date:	05/04/2012 0821	Run Type:	RE	Final Weight/Volume:	1000 uL
Prep Date:	04/26/2012 1546			Injection Volume:	2 uL

Surrogate	%Rec	Qualifier	Acceptance Limits
Bis(2-chloroethyl)ether-d8	59		40 - 105
2-Chlorophenol-d4	74		41 - 106
4-Methylphenol-d8	88		25 - 111
Nitrobenzene-d5	79		43 - 108
2-Nitrophenol-d4	80		40 - 108
2,4-Dichlorophenol-d3	78		37 - 105
4-Chloroaniline-d4	36		1 - 145
Dimethylphthalate-d6	86		47 - 114
Acenaphthylene-d8	78		41 - 107
4-Nitrophenol-d4	100		33 - 116
Fluorene-d10	86		42 - 111
4,6-Dinitro-2-methylphenol-d2	85		22 - 104
Anthracene-d10	79		44 - 110
Pyrene-d10	85		52 - 119
Benzo(a)pyrene-d12	75		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2
Client Matrix: Water

Date Sampled: 04/21/2012 1425
Date Received: 04/23/2012 0955

SOM01.2/PCB Aroclors

Analysis Method: SOM01.2/PCB Analysis Batch: 200-37374 Instrument ID: 5253.i
Prep Method: SEPF Prep Batch: 200-37312 Initial Weight/Volume: 1050 mL
Dilution: 1.0 Final Weight/Volume: 10000 uL
Analysis Date: 04/23/2012 2330 Injection Volume: 1 uL
Prep Date: 04/23/2012 1441 Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Aroclor-1016	0.95	U	0.95
Aroclor-1221	0.95	U	0.95
Aroclor-1232	0.95	U	0.95
Aroclor-1242	0.95	U	0.95
Aroclor-1248	0.95	U	0.95
Aroclor-1254	0.95	U	0.95
Aroclor-1260	0.95	U	0.95

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	89		30 - 150
Decachlorobiphenyl	84		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2
Client Matrix: Water

Date Sampled: 04/21/2012 1425
Date Received: 04/23/2012 0955

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-37374	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-37312	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/23/2012 2330			Injection Volume:	1 uL
Prep Date:	04/23/2012 1441			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	91		30 - 150
Decachlorobiphenyl	85		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2

Date Sampled: 04/21/2012 1425

Client Matrix: Water

Date Received: 04/23/2012 0955

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest	Analysis Batch: 200-37503	Instrument ID: 0911.i
Prep Method: SEPF	Prep Batch: 200-37331	Initial Weight/Volume: 1050 mL
Dilution: 1.0		Final Weight/Volume: 1000 uL
Analysis Date: 04/24/2012 2103		Injection Volume: 1 uL
Prep Date: 04/23/2012 1835		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.00021	J P B	0.0048
beta-BHC	0.0049	P	0.0048
delta-BHC	0.0048	U	0.0048
gamma-BHC (Lindane)	0.00035	J P	0.0048
Heptachlor	0.00067	J P	0.0048
Aldrin	0.0011	J	0.0048
Heptachlor epoxide	0.0061		0.0048
Endosulfan I	0.0044	J P B	0.0048
Dieldrin	0.00029	J P	0.0095
4,4'-DDE	0.063		0.0095
Endrin	0.0036	J P	0.0095
Endosulfan II	0.016		0.0095
4,4'-DDD	0.26	E B	0.0095
Endosulfan sulfate	0.00085	J	0.0095
4,4'-DDT	0.24	E P B	0.0095
Endrin aldehyde	0.00042	J P	0.0095
alpha-Chlordane	0.0024	J P	0.0048
gamma-Chlordane	0.0029	J P B	0.0048
Toxaphene	0.48	U	0.48

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	81		30 - 150
Decachlorobiphenyl	52		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2
Client Matrix: Water

Date Sampled: 04/21/2012 1425
Date Received: 04/23/2012 0955

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-37503	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-37331	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	04/24/2012 2103			Injection Volume:	1 uL
Prep Date:	04/23/2012 1835			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	81		30 - 150
Decachlorobiphenyl	71		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2

Date Sampled: 04/21/2012 1425

Client Matrix: Water

Date Received: 04/23/2012 0955

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-37503	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-37331	Initial Weight/Volume:	1050 mL
Dilution:	5.0			Final Weight/Volume:	1000 uL
Analysis Date:	04/24/2012 2040	Run Type:	DL	Injection Volume:	1 uL
Prep Date:	04/23/2012 1835			Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.024	U	0.024
beta-BHC	0.0053	J P D	0.024
delta-BHC	0.024	U	0.024
gamma-BHC (Lindane)	0.024	U	0.024
Heptachlor	0.00048	J P D	0.024
Aldrin	0.0011	J D	0.024
Heptachlor epoxide	0.0059	J P D	0.024
Endosulfan I	0.0049	J P D B	0.024
Dieldrin	0.048	U	0.048
4,4'-DDE	0.057	D	0.048
Endrin	0.0047	J D	0.048
Endosulfan II	0.015	J P D	0.048
4,4'-DDD	0.25	D B	0.048
Endosulfan sulfate	0.048	U	0.048
4,4'-DDT	0.21	D B	0.048
Endrin aldehyde	0.048	U	0.048
alpha-Chlordane	0.0024	J P D	0.024
gamma-Chlordane	0.0030	J P D B	0.024
Toxaphene	2.4	U	2.4

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	81		30 - 150
Tetrachloro-m-xylene	81		30 - 150
Decachlorobiphenyl	62		30 - 150
Decachlorobiphenyl	53		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2
Client Matrix: Water

Date Sampled: 04/21/2012 1425
Date Received: 04/23/2012 0955

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-37473	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-37331	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	04/24/2012 1609			Injection Volume:	1 uL
Prep Date:	04/23/2012 1835			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	0.012	P	0.0095
2,4'-DDT	0.050	B	0.0095
2,4'-DDD	0.081	P	0.0095

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	83		30 - 150
Decachlorobiphenyl	53		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2
Client Matrix: Water

Date Sampled: 04/21/2012 1425
Date Received: 04/23/2012 0955

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-37473	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-37331	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	04/24/2012 1609			Injection Volume:	1 uL
Prep Date:	04/23/2012 1835			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	86		30 - 150
Decachlorobiphenyl	71		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2

Date Sampled: 04/21/2012 1425

Client Matrix: Water

Date Received: 04/23/2012 0955

ISM01.2/HG ISM01.2 Mercury

Analysis Method: ISM01.2/HG

Analysis Batch: 200-37496

Instrument ID: MEPCV3 II

Prep Method: 7470A

Prep Batch: 200-37413

Lab File ID: 042512BB.PRN

Dilution: 1.0

Initial Weight/Volume: 50 mL

Analysis Date: 04/25/2012 1132

Final Weight/Volume: 50 mL

Prep Date: 04/24/2012 1530

Analyte	Result (ug/L)	Qualifier	MDLE	RL
Mercury	0.20	U	0.084	0.20

ISM01.2/ICPMS ISM01.2 Metals (ICPMS)

Analysis Method: ISM01.2/ICPMS

Analysis Batch: 200-37717

Instrument ID: METICPMS2

Prep Method: 200.8

Prep Batch: 200-37391

Lab File ID: 042712-03ISM.xml

Dilution: 10

Initial Weight/Volume: 100 mL

Analysis Date: 04/27/2012 1335

Final Weight/Volume: 100 mL

Prep Date: 04/24/2012 0900

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	17.5	J E	1.5	20.0
Arsenic	8.6	J E	1.6	10.0
Beryllium	10.0	U	1.2	10.0
Cadmium	10.0	U	1.1	10.0
Chromium	4.6	J	2.1	20.0
Copper	8.7	J	6.0	20.0
Lead	3.3	J	1.0	10.0
Nickel	38.1	E	1.4	10.0
Selenium	12.7	J E	1.5	50.0
Silver	0.89	J	0.28	10.0
Zinc	17.9	J	5.7	20.0

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

General Chemistry

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2
Client Matrix: Water

Date Sampled: 04/21/2012 1425
Date Received: 04/23/2012 0955

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide	10.0	U	ug/L	1.0	10.0	1.0	ISM01.2/CN
	Analysis Batch: 200-37411	Analysis Date: 04/24/2012 1515					
	Prep Batch: 200-37401	Prep Date: 04/24/2012 1215					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	B	The analyte was found in an associated blank, as well as in the sample.
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	*	Surrogate exceeds the control limit
	B	The analyte was found in an associated blank, as well as in the sample.
GC Semi VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	P	The % Difference between columns is greater than 25%.
	B	The analyte was found in an associated blank, as well as in the sample.

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Lab Section	Qualifier	Description
Metals		
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL
	E	The reported value is estimated because of the presence of interference based on serial dilution analysis.
General Chemistry		
	U	Indicates analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-37494					
MB 200-37494/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10456-2	PRR1WATSME-04	T	Water	SOM01.2/VOA_T	
200-10456-3TB	TB04202012	T	Water	SOM01.2/VOA_T	
Analysis Batch:200-37551					
MB 200-37551/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10456-2DL	PRR1WATSME-04	T	Water	SOM01.2/VOA_T	
200-10456-4STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	
 Report Basis					
T = Total					
GC/MS Semi VOA					
Prep Batch: 200-37375					
MB 200-37375/1-A	Method Blank	T	Water	CONT	
200-10456-2	PRR1WATSME-04	T	Water	CONT	
Analysis Batch:200-37611					
MB 200-37375/1-A	Method Blank	T	Water	SOM01.2/SV	200-37375
200-10456-2	PRR1WATSME-04	T	Water	SOM01.2/SV	200-37375
Prep Batch: 200-37628					
MB 200-37628/1-A	Method Blank	T	Water	CONT	
200-10456-2RE	PRR1WATSME-04	T	Water	CONT	
Analysis Batch:200-38096					
MB 200-37628/1-A	Method Blank	T	Water	SOM01.2/SV	200-37628
200-10456-2RE	PRR1WATSME-04	T	Water	SOM01.2/SV	200-37628
 Report Basis					
T = Total					

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC Semi VOA					
Prep Batch: 200-37312					
LCS 200-37312/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-37312/1-C	Method Blank	T	Water	SEPF	
200-10456-2	PRR1WATSME-04	T	Water	SEPF	
Prep Batch: 200-37331					
LCS 200-37331/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-37331/1-C	Method Blank	T	Water	SEPF	
LCS 200-37331/3-C	Lab Control Sample	T	Water	SOM01.2LL_Pest	
MB 200-37331/1-C	Method Blank	T	Water	SOM01.2LL_Pest	
200-10456-2	PRR1WATSME-04	T	Water	SEPF	
200-10456-2DL	PRR1WATSME-04	T	Water	SEPF	
200-10456-2	PRR1WATSME-04	T	Water	SOM01.2LL_Pest	
Analysis Batch:200-37374					
LCS 200-37312/2-C	Lab Control Sample	T	Water	SOM01.2/PCB	200-37312
MB 200-37312/1-C	Method Blank	T	Water	SOM01.2/PCB	200-37312
200-10456-2	PRR1WATSME-04	T	Water	SOM01.2/PCB	200-37312
Analysis Batch:200-37473					
LCS 200-37331/3-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-37331
MB 200-37331/1-C	Method Blank	T	Water	SOM01.2/Pest	200-37331
200-10456-2	PRR1WATSME-04	T	Water	SOM01.2/Pest	200-37331
Analysis Batch:200-37503					
LCS 200-37331/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-37331
MB 200-37331/1-C	Method Blank	T	Water	SOM01.2/Pest	200-37331
200-10456-2	PRR1WATSME-04	T	Water	SOM01.2/Pest	200-37331
200-10456-2DL	PRR1WATSME-04	T	Water	SOM01.2/Pest	200-37331

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-37391					
LCS 200-37391/2-A	Lab Control Sample	T	Water	200.8	
MB 200-37391/1-A	Method Blank	T	Water	200.8	
200-10456-2	PRR1WATSME-04	T	Water	200.8	
200-10456-2DU	Duplicate	T	Water	200.8	
200-10456-2MS	Matrix Spike	T	Water	200.8	
Prep Batch: 200-37413					
MB 200-37413/11-A	Method Blank	T	Water	7470A	
200-10456-2	PRR1WATSME-04	T	Water	7470A	
Analysis Batch:200-37496					
MB 200-37413/11-A	Method Blank	T	Water	ISM01.2/HG	200-37413
200-10456-2	PRR1WATSME-04	T	Water	ISM01.2/HG	200-37413
Analysis Batch:200-37717					
LCS 200-37391/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-37391
MB 200-37391/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-37391
200-10456-2	PRR1WATSME-04	T	Water	ISM01.2/ICPMS	200-37391
200-10456-2DU	Duplicate	T	Water	ISM01.2/ICPMS	200-37391
200-10456-2MS	Matrix Spike	T	Water	ISM01.2/ICPMS	200-37391
Report Basis					
T = Total					
General Chemistry					
Prep Batch: 200-37401					
MB 200-37401/11-A	Method Blank	T	Water	Midi-Distillati	
200-10456-2	PRR1WATSME-04	T	Water	Midi-Distillati	
Analysis Batch:200-37411					
MB 200-37401/11-A	Method Blank	T	Water	ISM01.2/CN	200-37401
200-10456-2	PRR1WATSME-04	T	Water	ISM01.2/CN	200-37401
Report Basis					
T = Total					

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10456-2 DL	PRR1WATSME-04 DL	112	128	92	118	115	119	122	119
200-10456-2	PRR1WATSME-04	98	101	78	122	105	113	101	91
200-10456-3	TB04202012	101	102	79	106	107	110	103	93
200-10456-4	VHBLK01	95	109	79	105	98	103	104	103
MB 200-37494/4		103	106	82	111	107	111	105	94
MB 200-37551/4		95	109	77	99	95	99	100	99

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10456-2 DL	PRR1WATSME-04 DL	119	106	106	104	121
200-10456-2	PRR1WATSME-04	100	103	125	103	103
200-10456-3	TB04202012	102	96	100	98	103
200-10456-4	VHBLK01	101	94	96	94	105
MB 200-37494/4		105	103	112	103	106
MB 200-37551/4		99	92	90	89	100

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	PHL %Rec	BCE %Rec	2CP %Rec	4MP %Rec	NBZ %Rec	2NP %Rec	DCP %Rec	4CA %Rec
200-10456-2	PRR1WATSME-04	80	68	70	109	84	87	88	74
200-10456-2 RE	PRR1WATSME-04 RE	80	59	74	88	79	80	78	36
MB 200-37375/1-A		69	65	63	89	80	45	71	83
MB 200-37628/1-A		69	59	65	76	79	78	72	73

Surrogate	Acceptance Limits
PHL = Phenol-d5	39-106
BCE = Bis(2-chloroethyl)ether-d8	40-105
2CP = 2-Chlorophenol-d4	41-106
4MP = 4-Methylphenol-d8	25-111
NBZ = Nitrobenzene-d5	43-108
2NP = 2-Nitrophenol-d4	40-108
DCP = 2,4-Dichlorophenol-d3	37-105
4CA = 4-Chloroaniline-d4	1-145

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	DMP %Rec	ACY %Rec	4NP %Rec	FLR %Rec	NMP %Rec	ANC %Rec	PYR %Rec	BAP %Rec
200-10456-2	PRR1WATSME-04	104	86	107	102	85	85	163*	85
200-10456-2 RE	PRR1WATSME-04 RE	86	78	100	86	85	79	85	75
MB 200-37375/1-A		94	81	14*	92	0*	80	160*	81
MB 200-37628/1-A		88	80	105	87	72	80	72	79

Surrogate	Acceptance Limits
DMP = Dimethylphthalate-d6	47-114
ACY = Acenaphthylene-d8	41-107
4NP = 4-Nitrophenol-d4	33-116
FLR = Fluorene-d10	42-111
NMP = 4,6-Dinitro-2-methylphenol-d2	22-104
ANC = Anthracene-d10	44-110
PYR = Pyrene-d10	52-119
BAP = Benzo(a)pyrene-d12	32-121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Surrogate Recovery Report

SOM01.2/PCB Aroclors

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10456-2	PRR1WATSME-04	89	91	85	84
MB 200-37312/1-C		87	89	105	97
LCS 200-37312/2-C		86	89	107	103

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Surrogate Recovery Report

SOM01.2/Pest Pesticides

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10456-2	PRR1WATSME-04	86	83	71	53
200-10456-2 DL	PRR1WATSME-04 DL	81	81	62	53
200-10456-2	PRR1WATSME-04	81	81	71	52
MB 200-37331/1-C		71	72	96	96
MB 200-37331/1-C		66	72	90	73
LCS 200-37331/2-C		60	64	85	74
LCS 200-37331/3-C		71	73	97	73

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Method Blank - Batch: 200-37494

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-37494/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/24/2012 1319
 Prep Date: 04/24/2012 1319
 Leach Date: N/A

Analysis Batch: 200-37494
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: J.i
 Lab File ID: jdgb04.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	103	65 - 131
Chloroethane-d5	106	71 - 131
1,1-Dichloroethene-d2	82	55 - 104
2-Butanone-d5	111	49 - 155
Chloroform-d	107	78 - 121
1,2-Dichloroethane-d4	111	78 - 129
Benzene-d6	105	77 - 124
1,2-Dichloropropane-d6	94	79 - 124
Toluene-d8	105	77 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Surrogate	% Rec	Acceptance Limits
trans-1,3-Dichloropropene-d4	103	73 - 121
2-Hexanone-d5	112	28 - 135
1,1,2,2-Tetrachloroethane-d2	103	73 - 125
1,2-Dichlorobenzene-d4	106	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Method Blank - Batch: 200-37551

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-37551/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/25/2012 1202
 Prep Date: 04/25/2012 1202
 Leach Date: N/A

Analysis Batch: 200-37551
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: D.i
 Lab File ID: dijb04.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.093	J	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.016	J	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	95	65 - 131
Chloroethane-d5	109	71 - 131
1,1-Dichloroethene-d2	77	55 - 104
2-Butanone-d5	99	49 - 155
Chloroform-d	95	78 - 121
1,2-Dichloroethane-d4	99	78 - 129
Benzene-d6	100	77 - 124
1,2-Dichloropropane-d6	99	79 - 124
Toluene-d8	99	77 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Surrogate	% Rec	Acceptance Limits
trans-1,3-Dichloropropene-d4	92	73 - 121
2-Hexanone-d5	90	28 - 135
1,1,2,2-Tetrachloroethane-d2	89	73 - 125
1,2-Dichlorobenzene-d4	100	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Method Blank - Batch: 200-37375

Method: SOM01.2/SV

Preparation: CONT

Lab Sample ID: MB 200-37375/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/26/2012 0845
 Prep Date: 04/24/2012 1009
 Leach Date: N/A

Analysis Batch: 200-37611
 Prep Batch: 200-37375
 Leach Batch: N/A
 Units: ug/L

Instrument ID: R.i
 Lab File ID: rjyr04.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1000 uL
 Injection Volume: 2 uL

Analyte	Result	Qual	RL
N-Nitrosodimethylamine	10	U	10
Phenol	5.0	U	5.0
Bis(2-chloroethyl)ether	5.0	U	5.0
2-Chlorophenol	5.0	U	5.0
2,2'-Oxybis(1-chloropropane)	5.0	U	5.0
Hexachloroethane	5.0	U	5.0
Nitrobenzene	5.0	U	5.0
Isophorone	5.0	U	5.0
2-Nitrophenol	5.0	U	5.0
2,4-Dimethylphenol	5.0	U	5.0
2,4-Dichlorophenol	5.0	U	5.0
Naphthalene	5.0	U	5.0
Hexachlorobutadiene	5.0	U	5.0
Hexachlorocyclopentadiene	5.0	U	5.0
2,4,6-Trichlorophenol	5.0	U	5.0
2,4,5-Trichlorophenol	5.0	U	5.0
Dimethylphthalate	5.0	U	5.0
2,6-Dinitrotoluene	5.0	U	5.0
2,4-Dinitrophenol	10	U	10
4-Nitrophenol	10	U	10
2,4-Dinitrotoluene	5.0	U	5.0
Diethylphthalate	5.0	U	5.0
Fluorene	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10
N-Nitrosodiphenylamine	5.0	U	5.0
Hexachlorobenzene	5.0	U	5.0
Pentachlorophenol	10	U	10
Phenanthrene	5.0	U	5.0
Anthracene	5.0	U	5.0
Di-n-butylphthalate	0.059	J	5.0
Fluoranthene	5.0	U	5.0
Benzidine	10	U	10
Pyrene	5.0	U	5.0
Butylbenzylphthalate	0.22	J	5.0
3,3'-Dichlorobenzidine	5.0	U	5.0
Benzo(a)anthracene	5.0	U	5.0
Chrysene	5.0	U	5.0
Bis(2-ethylhexyl)phthalate	0.27	J	5.0
Benzo(b)fluoranthene	5.0	U	5.0
Benzo(k)fluoranthene	5.0	U	5.0
Benzo(a)pyrene	5.0	U	5.0
Indeno(1,2,3-cd)pyrene	5.0	U	5.0
Dibenzo(a,h)anthracene	5.0	U	5.0

Surrogate % Rec Acceptance Limits

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Surrogate	% Rec		Acceptance Limits
Phenol-d5	69		39 - 106
Bis(2-chloroethyl)ether-d8	65		40 - 105
2-Chlorophenol-d4	63		41 - 106
4-Methylphenol-d8	89		25 - 111
Nitrobenzene-d5	80		43 - 108
2-Nitrophenol-d4	45		40 - 108
2,4-Dichlorophenol-d3	71		37 - 105
4-Chloroaniline-d4	83		1 - 145
Dimethylphthalate-d6	94		47 - 114
Acenaphthylene-d8	81		41 - 107
4-Nitrophenol-d4	14	*	33 - 116
Fluorene-d10	92		42 - 111
4,6-Dinitro-2-methylphenol-d2	0	*	22 - 104
Anthracene-d10	80		44 - 110
Pyrene-d10	160	*	52 - 119
Benzo(a)pyrene-d12	81		32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Method Blank - Batch: 200-37628

Method: SOM01.2/SV

Preparation: CONT

Lab Sample ID: MB 200-37628/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/04/2012 0709
 Prep Date: 04/26/2012 1546
 Leach Date: N/A

Analysis Batch: 200-38096
 Prep Batch: 200-37628
 Leach Batch: N/A
 Units: ug/L

Instrument ID: R.i
 Lab File ID: rjysv03.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1000 uL
 Injection Volume: 2 uL

Analyte	Result	Qual	RL
N-Nitrosodimethylamine	10	U	10
Phenol	5.0	U	5.0
Bis(2-chloroethyl)ether	5.0	U	5.0
2-Chlorophenol	5.0	U	5.0
2,2'-Oxybis(1-chloropropane)	5.0	U	5.0
Hexachloroethane	5.0	U	5.0
Nitrobenzene	5.0	U	5.0
Isophorone	5.0	U	5.0
2-Nitrophenol	5.0	U	5.0
2,4-Dimethylphenol	5.0	U	5.0
2,4-Dichlorophenol	5.0	U	5.0
Naphthalene	5.0	U	5.0
Hexachlorobutadiene	5.0	U	5.0
Hexachlorocyclopentadiene	5.0	U	5.0
2,4,6-Trichlorophenol	5.0	U	5.0
2,4,5-Trichlorophenol	5.0	U	5.0
Dimethylphthalate	5.0	U	5.0
2,6-Dinitrotoluene	5.0	U	5.0
2,4-Dinitrophenol	10	U	10
4-Nitrophenol	10	U	10
2,4-Dinitrotoluene	5.0	U	5.0
Diethylphthalate	5.0	U	5.0
Fluorene	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10
N-Nitrosodiphenylamine	5.0	U	5.0
Hexachlorobenzene	5.0	U	5.0
Pentachlorophenol	10	U	10
Phenanthrene	5.0	U	5.0
Anthracene	5.0	U	5.0
Di-n-butylphthalate	5.0	U	5.0
Fluoranthene	5.0	U	5.0
Benzidine	10	U	10
Pyrene	5.0	U	5.0
Butylbenzylphthalate	0.10	J	5.0
3,3'-Dichlorobenzidine	5.0	U	5.0
Benzo(a)anthracene	5.0	U	5.0
Chrysene	5.0	U	5.0
Bis(2-ethylhexyl)phthalate	5.0	U	5.0
Benzo(b)fluoranthene	5.0	U	5.0
Benzo(k)fluoranthene	5.0	U	5.0
Benzo(a)pyrene	5.0	U	5.0
Indeno(1,2,3-cd)pyrene	5.0	U	5.0
Dibenzo(a,h)anthracene	5.0	U	5.0

Surrogate	% Rec	Acceptance Limits
-----------	-------	-------------------

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

Sdg Number: PRR1224

Surrogate	% Rec	Acceptance Limits
Phenol-d5	69	39 - 106
Bis(2-chloroethyl)ether-d8	59	40 - 105
2-Chlorophenol-d4	65	41 - 106
4-Methylphenol-d8	76	25 - 111
Nitrobenzene-d5	79	43 - 108
2-Nitrophenol-d4	78	40 - 108
2,4-Dichlorophenol-d3	72	37 - 105
4-Chloroaniline-d4	73	1 - 145
Dimethylphthalate-d6	88	47 - 114
Acenaphthylene-d8	80	41 - 107
4-Nitrophenol-d4	105	33 - 116
Fluorene-d10	87	42 - 111
4,6-Dinitro-2-methylphenol-d2	72	22 - 104
Anthracene-d10	80	44 - 110
Pyrene-d10	72	52 - 119
Benzo(a)pyrene-d12	79	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Method Blank - Batch: 200-37312

**Method: SOM01.2/PCB
Preparation: SEPF**

Lab Sample ID: MB 200-37312/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/23/2012 2219
Prep Date: 04/23/2012 1441
Leach Date: N/A

Analysis Batch: 200-37374
Prep Batch: 200-37312
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 23ap122013-r061.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Aroclor-1016	1.0	U	1.0
Aroclor-1221	1.0	U	1.0
Aroclor-1232	1.0	U	1.0
Aroclor-1242	1.0	U	1.0
Aroclor-1248	1.0	U	1.0
Aroclor-1254	1.0	U	1.0
Aroclor-1260	1.0	U	1.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	87	30 - 150
Decachlorobiphenyl	97	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	89	30 - 150
Decachlorobiphenyl	105	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Lab Control Sample - Batch: 200-37312

**Method: SOM01.2/PCB
Preparation: SEPF**

Lab Sample ID: LCS 200-37312/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/23/2012 2243
Prep Date: 04/23/2012 1441
Leach Date: N/A

Analysis Batch: 200-37374
Prep Batch: 200-37312
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 23ap122013-r071.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.2	123	50 - 150	
Aroclor-1260	1.00	1.2	119	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		86		30 - 150	
Decachlorobiphenyl		103		30 - 150	

Lab Control Sample - Batch: 200-37312

**Method: SOM01.2/PCB
Preparation: SEPF**

Lab Sample ID: LCS 200-37312/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/23/2012 2243
Prep Date: 04/23/2012 1441
Leach Date: N/A

Analysis Batch: 200-37374
Prep Batch: 200-37312
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 23ap122013-r071.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.3	132	50 - 150	
Aroclor-1260	1.00	1.2	122	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		89		30 - 150	
Decachlorobiphenyl		107		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Method Blank - Batch: 200-37331

**Method: SOM01.2/Pest
Preparation: SOM01.2LL_Pest**

Lab Sample ID: MB 200-37331/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/24/2012 1439
Prep Date: 04/23/2012 1835
Leach Date: N/A

Analysis Batch: 200-37473
Prep Batch: 200-37331
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 24ap121325-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
2,4'-DDE	0.010	U	0.010
2,4'-DDT	0.00024	J P	0.010
2,4'-DDD	0.010	U	0.010

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	71	30 - 150
Decachlorobiphenyl	96	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	72	30 - 150
Decachlorobiphenyl	96	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Method Blank - Batch: 200-37331

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-37331/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/24/2012 1930
Prep Date: 04/23/2012 1835
Leach Date: N/A

Analysis Batch: 200-37503
Prep Batch: 200-37331
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 24ap121839-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
alpha-BHC	0.00024	J	0.0050
beta-BHC	0.0050	U	0.0050
delta-BHC	0.0050	U	0.0050
gamma-BHC (Lindane)	0.0050	U	0.0050
Heptachlor	0.0050	U	0.0050
Aldrin	0.0050	U	0.0050
Heptachlor epoxide	0.0050	U	0.0050
Endosulfan I	0.0016	J	0.0050
Dieldrin	0.010	U	0.010
4,4'-DDE	0.010	U	0.010
Endrin	0.010	U	0.010
Endosulfan II	0.010	U	0.010
4,4'-DDD	0.00019	J P	0.010
Endosulfan sulfate	0.010	U	0.010
4,4'-DDT	0.0016	J P	0.010
Methoxychlor	0.0026	J	0.050
Endrin aldehyde	0.010	U	0.010
alpha-Chlordane	0.0050	U	0.0050
gamma-Chlordane	0.0011	J P	0.0050
Toxaphene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	66	30 - 150
Decachlorobiphenyl	73	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	72	30 - 150
Decachlorobiphenyl	90	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Lab Control Sample - Batch: 200-37331

Method: SOM01.2/Pest
Preparation: SOM01.2LL_Pest

Lab Sample ID:	LCS 200-37331/3-C	Analysis Batch:	200-37473	Instrument ID:	0911.i
Client Matrix:	Water	Prep Batch:	200-37331	Lab File ID:	24ap121325-r041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/24/2012 1509	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	04/23/2012 1835			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.010	102	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		71		30 - 150	
Decachlorobiphenyl		73		30 - 150	

Lab Control Sample - Batch: 200-37331

Method: SOM01.2/Pest
Preparation: SOM01.2LL_Pest

Lab Sample ID:	LCS 200-37331/3-C	Analysis Batch:	200-37473	Instrument ID:	0911.i
Client Matrix:	Water	Prep Batch:	200-37331	Lab File ID:	24ap121325-r041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/24/2012 1509	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	04/23/2012 1835			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.010	104	50 - 150	B
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		73		30 - 150	
Decachlorobiphenyl		97		30 - 150	

Lab Control Sample - Batch: 200-37331

Method: SOM01.2/Pest
Preparation: SEPF

Lab Sample ID:	LCS 200-37331/2-C	Analysis Batch:	200-37503	Instrument ID:	0911.i
Client Matrix:	Water	Prep Batch:	200-37331	Lab File ID:	24ap121839-r041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/24/2012 1954	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	04/23/2012 1835			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0042	84	50 - 120	J
Heptachlor epoxide	0.00500	0.0042	84	50 - 150	J
Dieldrin	0.0100	0.0082	82	30 - 130	J
4,4'-DDE	0.0100	0.0075	75	50 - 150	J
Endrin	0.0100	0.0097	97	50 - 120	J

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Lab Control Sample - Batch: 200-37331

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID:	LCS 200-37331/2-C	Analysis Batch:	200-37503	Instrument ID:	0911.i
Client Matrix:	Water	Prep Batch:	200-37331	Lab File ID:	24ap121839-r041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/24/2012 1954	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	04/23/2012 1835			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Endosulfan sulfate	0.0100	0.0091	91	50 - 120	J
gamma-Chlordane	0.00500	0.0048	97	30 - 130	J B
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		60		30 - 150	
Decachlorobiphenyl		74		30 - 150	

Lab Control Sample - Batch: 200-37331

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID:	LCS 200-37331/2-C	Analysis Batch:	200-37503	Instrument ID:	0911.i
Client Matrix:	Water	Prep Batch:	200-37331	Lab File ID:	24ap121839-r041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/24/2012 1954	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	04/23/2012 1835			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0044	89	50 - 120	J
Heptachlor epoxide	0.00500	0.0048	97	50 - 150	J
Dieldrin	0.0100	0.0097	97	30 - 130	J
4,4'-DDE	0.0100	0.0090	90	50 - 150	J
Endrin	0.0100	0.011	113	50 - 120	
Endosulfan sulfate	0.0100	0.0091	91	50 - 120	J
gamma-Chlordane	0.00500	0.0059	118	30 - 130	B
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		64		30 - 150	
Decachlorobiphenyl		85		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Method Blank - Batch: 200-37413

Method: ISM01.2/HG
Preparation: 7470A

Lab Sample ID: MB 200-37413/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/25/2012 1130
Prep Date: 04/24/2012 1530
Leach Date: N/A

Analysis Batch: 200-37496
Prep Batch: 200-37413
Leach Batch: N/A
Units: ug/L

Instrument ID: MEPCV3 II
Lab File ID: 042512BB.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDLE	RL
Mercury	0.20	U	0.084	0.20

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Method Blank - Batch: 200-37391

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: MB 200-37391/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/27/2012 1322
Prep Date: 04/24/2012 0900
Leach Date: N/A

Analysis Batch: 200-37717
Prep Batch: 200-37391
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 042712-03ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Antimony	0.21	J	0.15	2.0
Arsenic	1.0	U	0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	2.0	U	0.21	2.0
Copper	2.0	U	0.60	2.0
Lead	0.31	J	0.10	1.0
Nickel	1.0	U	0.14	1.0
Selenium	-0.39	J	0.15	5.0
Silver	0.087	J	0.028	1.0
Zinc	2.0	U	0.57	2.0

Lab Control Sample - Batch: 200-37391

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: LCS 200-37391/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/27/2012 1328
Prep Date: 04/24/2012 0900
Leach Date: N/A

Analysis Batch: 200-37717
Prep Batch: 200-37391
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 042712-03ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	4.00	4.3	107	70 - 130	
Arsenic	2.00	2.1	106	70 - 130	
Beryllium	2.00	2.0	101	70 - 130	
Cadmium	2.00	2.3	113	70 - 130	
Chromium	4.00	4.1	102	70 - 130	
Copper	4.00	4.0	101	70 - 130	
Lead	2.00	2.3	115	70 - 130	
Nickel	2.00	2.0	98	70 - 130	
Selenium	10.0	10.8	108	70 - 130	
Silver	2.00	2.4	118	70 - 130	
Zinc	4.00	4.6	115	70 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Matrix Spike - Batch: 200-37391

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID: 200-10456-2	Analysis Batch: 200-37717	Instrument ID: METICPMS2
Client Matrix: Water	Prep Batch: 200-37391	Lab File ID: 042712-03ISM.xml
Dilution: 10	Leach Batch: N/A	Initial Weight/Volume: 100 mL
Analysis Date: 04/27/2012 1355	Units: ug/L	Final Weight/Volume: 100 mL
Prep Date: 04/24/2012 0900		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	17.5 J	100	125	107	75 - 125	
Arsenic	8.6 J	40.0	49.8	103	75 - 125	
Beryllium	10.0 U	50.0	50.3	101	75 - 125	
Cadmium	10.0 U	50.0	51.3	103	75 - 125	
Chromium	4.6 J	200	203	99	75 - 125	
Copper	8.7 J	250	254	98	75 - 125	
Lead	3.3 J	20.0	22.7	97	75 - 125	
Nickel	38.1	500	519	96	75 - 125	
Selenium	12.7 J	100	110	97	75 - 125	
Silver	0.89 J	50.0	48.4	95	75 - 125	
Zinc	17.9 J	500	513	99	75 - 125	

Duplicate - Batch: 200-37391

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID: 200-10456-2	Analysis Batch: 200-37717	Instrument ID: METICPMS2
Client Matrix: Water	Prep Batch: 200-37391	Lab File ID: 042712-03ISM.xml
Dilution: 10	Leach Batch: N/A	Initial Weight/Volume: 100 mL
Analysis Date: 04/27/2012 1349	Units: ug/L	Final Weight/Volume: 100 mL
Prep Date: 04/24/2012 0900		
Leach Date: N/A		

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Antimony	17.5 J	17.3	1	20.0	J
Arsenic	8.6 J	7.6	12	10.0	J
Beryllium	10.0 U	10.0			U
Cadmium	10.0 U	10.0			U
Chromium	4.6 J	5.3	16	20.0	J
Copper	8.7 J	9.0	4	20.0	J
Lead	3.3 J	3.3	1	10.0	J
Nickel	38.1	36.6	4	10.0	
Selenium	12.7 J	9.7	27	50.0	J
Silver	0.89 J	0.88	1	10.0	J
Zinc	17.9 J	17.1	5	20.0	J

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1
Sdg Number: PRR1224

Method Blank - Batch: 200-37401

Method: ISM01.2/CN
Preparation: Midi-Distillati

Lab Sample ID: MB 200-37401/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/24/2012 1513
Prep Date: 04/24/2012 1215
Leach Date: N/A

Analysis Batch: 200-37411
Prep Batch: 200-37401
Leach Batch: N/A
Units: ug/L

Instrument ID: WCLachat
Lab File ID: OM_04-24-12_03-00-5
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Cyanide	10.0	U	1.0	10.0

Hammond, Ryan

From: Shatt, Ryan [Ryan.Shatt@arcadis-us.com]

Sent: Monday, April 23, 2012 12:49 PM

To: Hammond, Ryan

Subject: FW: Message from WA01P07

Attachments: SWA01P0712042309420.pdf

Ryan – Attached are the revisions to the COC. Let's discuss when you get a moment.

-Ryan

**Privileged and Confidential Work Product
Prepared at the Request of Legal Counsel
For or in Anticipation of Litigation
And in Connection with Rendering Legal Advice**

From: WA01P07@arcadis-us.com [mailto:WA01P07@arcadis-us.com]

Sent: Monday, April 23, 2012 9:43 AM

To: Shatt, Ryan

Subject: Message from WA01P07

NOTICE: This e-mail and any files transmitted with it are the property of ARCADIS U.S., Inc. and its affiliates. All rights, including without limitation copyright, are reserved. The proprietary information contained in this e-mail message, and any files transmitted with it, is intended for the use of the recipient (s) named above. If the reader of this e-mail is not the intended recipient, you are hereby notified that you have received this e-mail in error and that any review, distribution or copying of this e-mail or any files transmitted with it is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete the original message and any files transmitted. The unauthorized use of this e-mail or any files transmitted with it is prohibited and disclaimed by ARCADIS U.S., Inc. and its affiliates. Nothing herein is intended to constitute the offering or performance of services where otherwise restricted by law.



ARCADIS
200 North Street, Suite 200, Burlington, VT 05401

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

6723 Towpath Rd
Syracuse, NY 13214

Phone/Fax: (315) 671-9688

Page 1 of 1

PROJECT NAME		Requested Analyses													SDG NUMBER/COC Number										
Tierra Phase I Removal															PRR1224										
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks		
PRR1WATSMI-04	4/20/2012	1415	water	Grab	17	H	H	H	H	H	H	H	H	H	H										
PRR1WATSMI-04	4/20/2012	1415	water	Grab	17	X	X	X	X	X	X	X	X	X	X										
TB04202012	4/20/2012		water	grab - QC	3				X																
	21																								
Requested Analyses		Special Instructions/Comments:																							
1) TSS		7-day TAT - 3 day TAT @ 4/23/12																							
2) TOC		X: Analyze Now H: Please HOLD sample																							
3) SVOCs (See Wkst #15-2 in RAWP QAPP)		Laboratory Information and Receipt																							
4) VOCs (See Wkst #15-2 in RAWP QAPP)		Lab Name: TestAmerica - Burlington, VT																							
5) Aroclor PCBs (See Wkst #15-2 in RAWP QAPP)		Shipping Tracking #																							
6) Metals (See Wkst #15-2 in RAWP QAPP)		Specify Turnaround Requirements: 7-day TAT																							
7) Herbicides (See Wkst #15-2 in RAWP QAPP)		Cooler packed with ice																							
8) Pesticides (See Wkst #15-2 in RAWP QAPP)		Cooler custody seal intact																							
9) Cyanide (See Wkst #15-2 in RAWP QAPP)		Received by: [Signature]																							
10		DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME
		04/21/12	1530	04/21/12	1530																				
11		Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:
12																									
13																									
14																									
15																									
16																									
17																									
18																									

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10456-1

SDG Number: PRR1224

Login Number: 10456

List Source: TestAmerica Burlington

List Number: 2

Creator: Matot, Wade M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	No numbers
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6, 5.8°C IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St

Origin ID: VAKA



J12101112190225

Newark, NJ 07105

Ship Date: 21APR12
ActWgt: 45.0 LB
CAD: 103886297/NET3250

Dims: 24 X 14 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990

BILL SENDER

Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

Ref # B0009966.0002.70004
Invoice #
PO #
Dept #

1 of 3

MON - 23 APR A4
STANDARD OVERNIGHT

TRK# 7934 8164 1637

0201

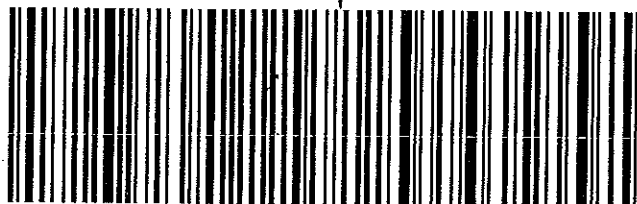
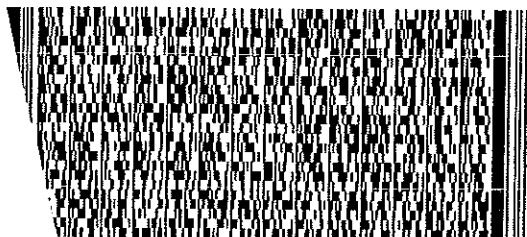
MASTER

XH BTVA

05403

VT-US

BTV



512G11C44D/A278

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St

Origin ID: VAKA



J12101112190225

Newark, NJ 07105

Ship Date: 21APR12
ActWgt: 45.0 LB
CAD: 103886297/NET3250

Dims: 30 X 16 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990

BILL SENDER

Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

Ref # B0009966.0002.70004
Invoice #
PO #
Dept #

2 of 3

MON - 23 APR A4
STANDARD OVERNIGHT

MPS# 7934 8164 1729

0263

Mstr# 7934 8164 1637

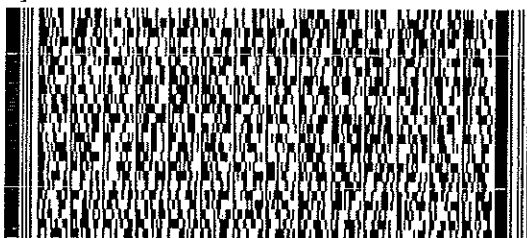
0201

XH BTVA

05403

VT-US

BTV



ANALYTICAL REPORT

Job Number: 200-10456-2

SDG Number: PRR1224

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/24/2012 2:27 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/24/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	9
QC Results	10
Qc Association Summary	11
Qc Reports	12
Client Chain of Custody	13
Sample Receipt Checklist	14

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1224 (200-10456-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The sample in this sample set was received on 04/23/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The sample was received as part of a larger sample set, which was received in two coolers. The temperature of the contents of each cooler was determined at the time of receipt. The temperatures were 2.6 °C and 5.8 °C.

SM 2540D Total suspended Solids

The sample in this sample set was analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the sample in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10456-2
Sdg Number: PRR1224

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10456-2

Sdg Number: PRR1224

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10456-2
Sdg Number: PRR1224

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10456-2	PRR1WATSME-04	Water	04/21/2012 1425	04/23/2012 0955

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-2

Sdg Number: PRR1224

General Chemistry

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2

Date Sampled: 04/21/2012 1425

Client Matrix: Water

Date Received: 04/23/2012 0955

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	6.8		mg/L	0.52	0.52	1.0	SM 2540D
Analysis Batch: 200-37296		Analysis Date: 04/23/2012 1301					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10456-2

Sdg Number: PRR1224

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-2

Sdg Number: PRR1224

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-37296					
LCS 200-37296/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-37296/1	Method Blank	T	Water	SM 2540D	
200-10456-2	PRR1WATSME-04	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-2
Sdg Number: PRR1224

Method Blank - Batch: 200-37296

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	MB 200-37296/1	Analysis Batch:	200-37296	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/23/2012 1154	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-37296

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	LCS 200-37296/2	Analysis Batch:	200-37296	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/23/2012 1154	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	468.0	94	85 - 115	



ARCADIS
Infrastructure, Environment, Buildings

ARCADIS

6723 Towpath Rd

Syracuse, NY 13214

Phone/Fax: (315) 671-9688

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJECT NAME		Requested Analyses															Requested Analyses			SDG NUMBER		COC Number		
Tierra Phase I Removal																	PRR1224		PRR1224					
PROJ. NO.	SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
B0009966.0002.70004	PRR11WATSMI-04	4/24/2012	1415	water	Grab	17	H	H	H	H	H	H	H	H	H	H	H							
	PRR11WATSMI-04	4/26/2012	1435	water	Grab	17	X	X	X	X	X	X	X	X	X	X	X							
	TB04202012	4/26/2012		water	grab - QC	3				X														
Requested Analyses																								
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions 7 day TAT X: Analyze Now H: Please HOLD sample																						
Requested Analyses																								
1	TSS																							
2	TOC																							
3	SVOs (See Wsht #15-2 in RAWP QAPP)																							
4	VOCs (See Wsht #15-2 in RAWP QAPP)																							
5	Aroclor/PCBs (See Wsht #15-2 in RAWP QAPP)																							
6	Metals (See Wsht #15-2 in RAWP QAPP)																							
7	Herbicides (See Wsht #15-2 in RAWP QAPP)																							
8	Pesticides (See Wsht #15-2 in RAWP QAPP)																							
9	Cyanide (See Wsht #15-2 in RAWP QAPP)																							
10																								
11																								
12																								
13																								
14																								
15																								
16																								
17																								
18																								
Laboratory Information and Receipt		Lab Name: TestAmerica - Burlington, VT Shipping Tracking # Specify Turnaround Requirements: 7 day TAT Cooler packed with ice Cooler custody seal intact Condition/Cooler Temp: 5.8°C, 2.6°C																						
Relinquished by:		DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME
MJD		4/21/12	1530	ASU	4/23/12	0955	ASU	4/23/12	0955	ASU	4/23/12	0955	ASU	4/23/12	0955	ASU	4/23/12	0955	ASU	4/23/12	0955	ASU	4/23/12	0955

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10456-2

SDG Number: PRR1224

Login Number: 10456

List Source: TestAmerica Burlington

List Number: 2

Creator: Matot, Wade M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	No numbers
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6, 5.8°C IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St

Origin ID: VAKA



J12101112190225

Newark, NJ 07105

Ship Date: 21APR12
ActWgt: 45.0 LB
CAD: 103886297/NET3250

Dims: 24 X 14 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
Invoice #
PO #
Dept #

1 of 3

MON - 23 APR A4
STANDARD OVERNIGHT

TRK# 7934 8164 1637

0201

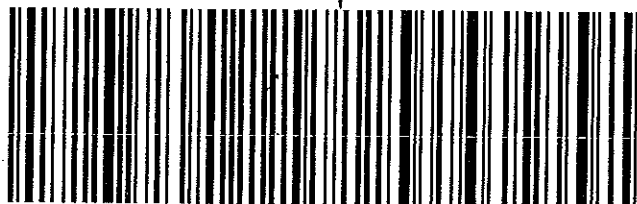
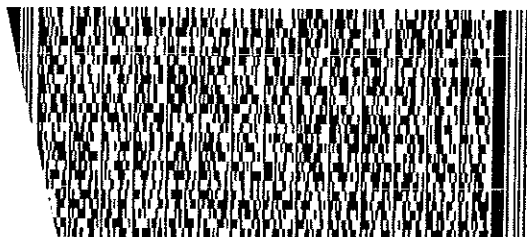
MASTER

XH BTVA

05403

VT-US

BTV



512G11C44D/A278

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St

Origin ID: VAKA



J12101112190225

Newark, NJ 07105

Ship Date: 21APR12
ActWgt: 45.0 LB
CAD: 103886297/NET3250

Dims: 30 X 16 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
Invoice #
PO #
Dept #

2 of 3

MON - 23 APR A4
STANDARD OVERNIGHT

MPS# 7934 8164 1729

0263

Mstr# 7934 8164 1637

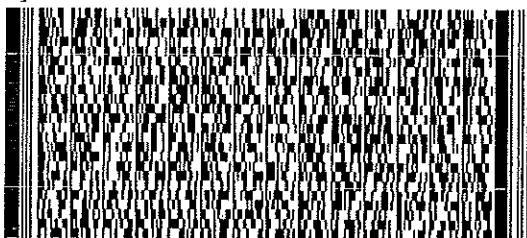
0201

XH BTVA

05403

VT-US

BTV



ANALYTICAL REPORT

Job Number: 200-10456-3

SDG Number: PRR1224

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/9/2012 4:23 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/09/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	12
QC Results	13
Qc Association Summary	14
Surrogate Recovery Report	15
Qc Reports	16
Client Chain of Custody	20
Sample Receipt Checklist	23

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1224 (200-10456-3)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met. Calibration and calibration verification were assessed on an analyte specific basis.

Calculations were performed before rounding to avoid round-off errors in calculated results.

Manual integration was employed in deriving certain of the analytical results.

For the Method 8151A analysis, positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

In performing the Method 8151A analysis, there was an issue with the recovery performance of dinoseb in the laboratory control sample analysis associated with the extraction set. In that analysis the recovery of dinoseb was 1 percent, while there was an acceptable recovery of the other target analytes. The sample set was re-extracted in order to provide for a second analysis. There was an issue with the recovery performance of dinoseb in the laboratory control sample analysis associated with the second extraction set as well. In that analysis the recovery of dinoseb was 5 percent, while there was an acceptable recovery of the other target analytes.

This report is submitted as a preliminary report. All reported values are in a final, reviewed state. Missing from the data set are the results for the re-extraction and secondary analysis of the samples for the chlorinated herbicides.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3

Sdg Number: PRR1224

Description		Lab Location	Method	Preparation Method
Matrix	Water			
Herbicides (GC)		TAL BUR	SW846 8151A	
Extraction (Herbicides)		TAL BUR		SW846 8151A
Organic Carbon, Total (TOC)		TAL BUR	SM SM 5310B	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3

Sdg Number: PRR1224

Method	Analyst	Analyst ID
SW846 8151A	Malaspina, Richard R	RRM
SM SM 5310B	Sutton, Zachariah M	ZMS

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3
Sdg Number: PRR1224

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10456-2	PRR1WATSME-04	Water	04/21/2012 1425	04/23/2012 0955

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3

Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2

Date Sampled: 04/21/2012 1425

Client Matrix: Water

Date Received: 04/23/2012 0955

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-37616	Instrument ID:	5005.i
Prep Method:	8151A	Prep Batch:	200-37330	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/25/2012 0942			Injection Volume:	1 uL
Prep Date:	04/23/2012 1726			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	15		0.62	1.8
2,4-DB	0.45	J p	0.45	1.6
Dinoseb	0.90	U *	0.18	0.90
2,4,5-T	2.2		0.12	0.45

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	84		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3
Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2
Client Matrix: Water

Date Sampled: 04/21/2012 1425
Date Received: 04/23/2012 0955

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-37616	Instrument ID:	5005.i
Prep Method:	8151A	Prep Batch:	200-37330	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/25/2012 0942			Injection Volume:	1 uL
Prep Date:	04/23/2012 1726			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	83		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3

Sdg Number: PRR1224

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2

Date Sampled: 04/21/2012 1425

Client Matrix: Water

Date Received: 04/23/2012 0955

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-37700	Instrument ID:	5005.i
Prep Method:	8151A	Prep Batch:	200-37533	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/27/2012 0308	Run Type:	RE	Injection Volume:	1 uL
Prep Date:	04/25/2012 1738			Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	15		0.62	1.8
2,4-DB	0.48	J p	0.45	1.6
Dinoseb	0.90	U *	0.18	0.90
2,4,5-T	2.2		0.12	0.45

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	85		60 - 130
2,4-Dichlorophenylacetic acid	89		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3

Sdg Number: PRR1224

General Chemistry

Client Sample ID: PRR1WATSME-04

Lab Sample ID: 200-10456-2

Date Sampled: 04/21/2012 1425

Client Matrix: Water

Date Received: 04/23/2012 0955

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	5.7	B	mg/L	0.14	1.0	1.0	SM 5310B

Analysis Batch: 200-37458 Analysis Date: 04/23/2012 1736

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3

Sdg Number: PRR1224

Lab Section	Qualifier	Description
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	*	Recovery or RPD exceeds control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
General Chemistry		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3

Sdg Number: PRR1224

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-37330					
LCS 200-37330/2-A	Lab Control Sample	T	Water	8151A	
MB 200-37330/1-A	Method Blank	T	Water	8151A	
200-10456-2	PRR1WATSME-04	T	Water	8151A	
Prep Batch: 200-37533					
LCS 200-37533/2-A	Lab Control Sample	T	Water	8151A	
MB 200-37533/1-A	Method Blank	T	Water	8151A	
200-10456-2RE	PRR1WATSME-04	T	Water	8151A	
Analysis Batch:200-37616					
LCS 200-37330/2-A	Lab Control Sample	T	Water	8151A	200-37330
MB 200-37330/1-A	Method Blank	T	Water	8151A	200-37330
200-10456-2	PRR1WATSME-04	T	Water	8151A	200-37330
Analysis Batch:200-37700					
LCS 200-37533/2-A	Lab Control Sample	T	Water	8151A	200-37533
MB 200-37533/1-A	Method Blank	T	Water	8151A	200-37533
200-10456-2RE	PRR1WATSME-04	T	Water	8151A	200-37533

Report Basis

T = Total

General Chemistry

Analysis Batch:200-37458					
LCS 200-37458/1	Lab Control Sample	T	Water	SM 5310B	
LCS 200-37458/4	Lab Control Sample	T	Water	SM 5310B	
MB 200-37458/2	Method Blank	T	Water	SM 5310B	
MB 200-37458/5	Method Blank	T	Water	SM 5310B	
200-10456-2	PRR1WATSME-04	T	Water	SM 5310B	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3

Sdg Number: PRR1224

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
200-10456-2	PRR1WATSME-04	83	84
200-10456-2 RE	PRR1WATSME-04 RE	85	89
MB 200-37330/1-A		92	90
MB 200-37533/1-A		81	81
LCS 200-37330/2-A		79	82
LCS 200-37533/2-A		86	87

Surrogate	Acceptance Limits
DCPA = 2,4-Dichlorophenylacetic acid	60-130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3
Sdg Number: PRR1224

Method Blank - Batch: 200-37330

**Method: 8151A
Preparation: 8151A**

Lab Sample ID: MB 200-37330/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/25/2012 0830
Prep Date: 04/23/2012 1726
Leach Date: N/A

Analysis Batch: 200-37616
Prep Batch: 200-37330
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 24ap121623-r171.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95
2,4,5-T	0.47	U	0.13	0.47
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	92		60 - 130	
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	90		60 - 130	

Lab Control Sample - Batch: 200-37330

**Method: 8151A
Preparation: 8151A**

Lab Sample ID: LCS 200-37330/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/25/2012 0906
Prep Date: 04/23/2012 1726
Leach Date: N/A

Analysis Batch: 200-37616
Prep Batch: 200-37330
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 24ap121623-r181.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	6.57	82	75 - 135	
2,4-DB	4.02	3.61	90	40 - 165	
Dinoseb	4.00	0.95	1	10 - 115	U *
2,4,5-T	2.00	1.97	99	60 - 155	
Surrogate	% Rec			Acceptance Limits	
2,4-Dichlorophenylacetic acid	82			60 - 130	
Surrogate	% Rec			Acceptance Limits	
2,4-Dichlorophenylacetic acid	79			60 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3
Sdg Number: PRR1224

Method Blank - Batch: 200-37533

**Method: 8151A
Preparation: 8151A**

Lab Sample ID: MB 200-37533/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/27/2012 0158
Prep Date: 04/25/2012 1738
Leach Date: N/A

Analysis Batch: 200-37700
Prep Batch: 200-37533
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 26ap121624-r011.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95
2,4,5-T	0.47	U	0.13	0.47
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	81		60 - 130	
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	81		60 - 130	

Lab Control Sample - Batch: 200-37533

**Method: 8151A
Preparation: 8151A**

Lab Sample ID: LCS 200-37533/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/27/2012 0233
Prep Date: 04/25/2012 1738
Leach Date: N/A

Analysis Batch: 200-37700
Prep Batch: 200-37533
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 26ap121624-r021.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	6.74	84	75 - 135	
2,4-DB	4.02	3.57	89	40 - 165	
Dinoseb	4.00	0.95	5	10 - 115	U *
2,4,5-T	2.00	1.94	97	60 - 155	
Surrogate	% Rec			Acceptance Limits	
2,4-Dichlorophenylacetic acid	87			60 - 130	
Surrogate	% Rec			Acceptance Limits	
2,4-Dichlorophenylacetic acid	86			60 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3
Sdg Number: PRR1224

Method Blank - Batch: 200-37458

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-37458/2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/23/2012 1721
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-37458
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 042312B.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.14	1.0

Method Blank - Batch: 200-37458

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-37458/5
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/23/2012 1809
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-37458
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 042312B.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	0.141	J	0.14	1.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3

Sdg Number: PRR1224

Lab Control Sample - Batch: 200-37458

Method: SM 5310B

Preparation: N/A

Lab Sample ID: LCS 200-37458/1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/23/2012 1705
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-37458
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 042312B.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.60	96	85 - 115	

Lab Control Sample - Batch: 200-37458

Method: SM 5310B

Preparation: N/A

Lab Sample ID: LCS 200-37458/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/23/2012 1752
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-37458
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 042312B.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.57	96	85 - 115	



ARCADIS
Infrastructure, Environment, Buildings

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJECT NAME		Requested Analyses												SDG NUMBER		COC Number								
Tierra Phase I Removal														PRR1224										
PROJ. NO.	SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
B000966.0002.70004	PRR1WATSMI-04	4/24/2012	1415	water	Grab	17	H	H	H	H	H	H	H	H	H	H								
	PRR1WATSMI-04	4/26/2012	1435	water	Grab	17	X	X	X	X	X	X	X	X	X	X								
	TB04202012	4/26/2012		water	grab - QC	3				X														
Special Instructions/Comments: X: Analyze Now H: Please HOLD sample 7 day TAT																								
Requested Analyses NO 1 TSS CO 2 TOC NH 3 SVOCs (See Wskht #15-2 in RAWP QAPP) NJ 4 VOCs (See Wskht #15-2 in RAWP QAPP) NI 5 Aroclor/PCBs (See Wskht #15-2 in RAWP QAPP) NM 6 Metals (See Wskht #15-2 in RAWP QAPP) NN 7 Herbicides (See Wskht #15-2 in RAWP QAPP) NO 8 Pesticides (See Wskht #15-2 in RAWP QAPP) NP 9 Cyanide (See Wskht #15-2 in RAWP QAPP)																								
Laboratory Information and Receipt										Requested Analyses														
Lab Name: TestAmerica - Burlington, VT Shipping Tracking # Specify Turnaround Requirements: 7 day TAT Receiving by: [Signature] DATE: 4/21/12 TIME: 1530 Relinquished by: [Signature] DATE: 04/23/12 TIME: 0955										Sample Receipt: [Signature] DATE: 5.28.12 TIME: 2.00C Condition/Cooler Temp: 5.28.12 Received by: [Signature] DATE: [] TIME: [] Relinquished by: [Signature] DATE: [] TIME: [] Received by: [Signature] DATE: [] TIME: []														

Hammond, Ryan

From: Shatt, Ryan [Ryan.Shatt@arcadis-us.com]

Sent: Monday, April 23, 2012 12:49 PM

To: Hammond, Ryan

Subject: FW: Message from WA01P07

Attachments: SWA01P0712042309420.pdf

Ryan – Attached are the revisions to the COC. Let's discuss when you get a moment.

-Ryan

**Privileged and Confidential Work Product
Prepared at the Request of Legal Counsel
For or in Anticipation of Litigation
And in Connection with Rendering Legal Advice**

From: WA01P07@arcadis-us.com [mailto:WA01P07@arcadis-us.com]

Sent: Monday, April 23, 2012 9:43 AM

To: Shatt, Ryan

Subject: Message from WA01P07

NOTICE: This e-mail and any files transmitted with it are the property of ARCADIS U.S., Inc. and its affiliates. All rights, including without limitation copyright, are reserved. The proprietary information contained in this e-mail message, and any files transmitted with it, is intended for the use of the recipient (s) named above. If the reader of this e-mail is not the intended recipient, you are hereby notified that you have received this e-mail in error and that any review, distribution or copying of this e-mail or any files transmitted with it is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete the original message and any files transmitted. The unauthorized use of this e-mail or any files transmitted with it is prohibited and disclaimed by ARCADIS U.S., Inc. and its affiliates. Nothing herein is intended to constitute the offering or performance of services where otherwise restricted by law.



ARCADIS
300 North Street, Suite 200, Building

ARCADIS

6723 Towpath Rd

Syracuse, NY 13214

Phone/Fax: (315) 671-9688

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJ. NO. B0009966.0002.70004		PROJECT NAME Tierra Phase I Removal		SDG NUMBER/COC Number PRR1224																				
SAMPLERS:		Requested Analyses		<input type="checkbox"/> Special QA/QC Instructions																				
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATSMI-04	4/20/2012	1415	water	Grab	17	H	H	H	H	H	H	H	H	H										
PRR1WATSMI-04	4/20/2012	1415	water	Grab	17	X	X	X	X	X	X	X	X	X										
TB04202012	4/20/2012		water	grab - QC	3				X															
Special Instructions/Comments: 7-day TAT - 3 day TAT @ 4/23/12 X: Analyze Now H: Please HOLD sample																								
Requested Analyses 1 TSS 2 TOC 3 SVOCs (See Wkst #15-2 in RAWP QAPP) 4 VOCs (See Wkst #15-2 in RAWP QAPP) 5 Aroclor PCBs (See Wkst #15-2 in RAWP QAPP) 6 Metals (See Wkst #15-2 in RAWP QAPP) 7 Herbicides (See Wkst #15-2 in RAWP QAPP) 8 Pesticides (See Wkst #15-2 in RAWP QAPP) 9 Cyanide (See Wkst #15-2 in RAWP QAPP)																								
Laboratory Information and Receipt Lab Name: TestAmerica - Burlington, VT Shipping Tracking # Specify Turnaround Requirements: 7-day TAT																								
Received by: <i>WJ</i> Received by: <i>WJ</i>												Relinquished by: Relinquished by:												
DATE: 04/21/12 TIME: 1530						DATE: 04/23/12 TIME: 0855						DATE: TIME:						DATE: TIME:						
Sample Receipt: Condition/Cooler Temp: 5-8°C												Relinquished by: Relinquished by: Relinquished by:												

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10456-3

SDG Number: PRR1224

Login Number: 10456

List Source: TestAmerica Burlington

List Number: 2

Creator: Matot, Wade M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	No numbers
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6, 5.8°C IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 21APR12
ActWgt: 45.0 LB
CAD: 103886297/NET3250

Dims: 24 X 14 X 16 IN

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO #
Dept #

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

1 of 3

MON - 23 APR A4
STANDARD OVERNIGHT

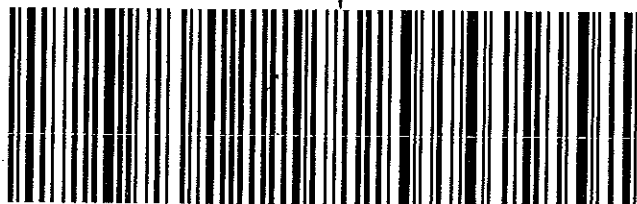
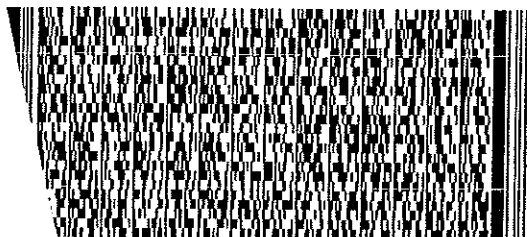
TRK# 7934 8164 1637

0201

MASTER

XH BTVA

05403
VT-US
BTV



512G11C44D/A278

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 21APR12
ActWgt: 45.0 LB
CAD: 103886297/NET3250

Dims: 30 X 16 X 16 IN

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO #
Dept #

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

2 of 3

MON - 23 APR A4
STANDARD OVERNIGHT

MPS# 7934 8164 1729

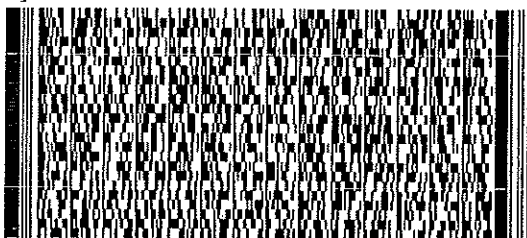
0263

Mstr# 7934 8164 1637

0201

XH BTVA

05403
VT-US
BTV



ANALYTICAL REPORT

Job Number: 200-10470-1

SDG Number: PRR1236

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/25/2012 1:33 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/25/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	16
QC Results	17
Qc Association Summary	18
Surrogate Recovery Report	19
Qc Reports	21
Client Chain of Custody	22
Sample Receipt Checklist	23

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1236 (200- 10470-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 04/24/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 6.0 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set. A trace concentration of chlorobenzene was identified in the analysis of each instrument blank associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in the closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1

Sdg Number: PRR1236

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2	SOM01.2/VOA_Tr
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1

Sdg Number: PRR1236

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1

Sdg Number: PRR1236

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10470-1	PRR1WATGACI-11-SP-105	Water	04/23/2012 1355	04/24/2012 0930
200-10470-2	PRR1WATGACE-11-SP-108	Water	04/23/2012 1340	04/24/2012 0930
200-10470-3	PRR1WATGACE-11-SP-110	Water	04/23/2012 1345	04/24/2012 0930
200-10470-8	TB04232012	Water	04/23/2012 0000	04/24/2012 0930
200-10470-9STOBL K	VHBLK01	Water	04/24/2012 0952	04/24/2012 0930

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1
Sdg Number: PRR1236

Client Sample ID: PRR1WATGACI-11-SP-105

Lab Sample ID: 200-10470-1
Client Matrix: Water

Date Sampled: 04/23/2012 1355
Date Received: 04/24/2012 0930

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdgb09.d
Dilution:	91.7			Initial Weight/Volume:	25 mL
Analysis Date:	04/24/2012 1554			Final Weight/Volume:	25 mL
Prep Date:	04/24/2012 1554				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	190	J	460
Chlorobenzene	12000	E	46

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	97		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	107		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	90		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121
2-Hexanone-d5	104		28 - 135
1,1,2,2-Tetrachloroethane-d2	96		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1
Sdg Number: PRR1236

Client Sample ID: PRR1WATGACI-11-SP-105

Lab Sample ID: 200-10470-1
Client Matrix: Water

Date Sampled: 04/23/2012 1355
Date Received: 04/24/2012 0930

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdgb08.d
Dilution:	647			Initial Weight/Volume:	25 mL
Analysis Date:	04/24/2012 1530	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	04/24/2012 1530				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	3200	U	3200
Chlorobenzene	11000	D	320

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	98		65 - 131
Chloroethane-d5	101		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	111		49 - 155
Chloroform-d	103		78 - 121
1,2-Dichloroethane-d4	110		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	100		73 - 121
2-Hexanone-d5	108		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1

Sdg Number: PRR1236

Client Sample ID: PRR1WATGACE-11-SP-108

Lab Sample ID: 200-10470-2

Date Sampled: 04/23/2012 1340

Client Matrix: Water

Date Received: 04/24/2012 0930

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdgb12.d
Dilution:	44			Initial Weight/Volume:	25 mL
Analysis Date:	04/24/2012 1706			Final Weight/Volume:	25 mL
Prep Date:	04/24/2012 1706				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	210	J	220
Chlorobenzene	5000	E	22

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	97		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	101		49 - 155
Chloroform-d	112		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121
2-Hexanone-d5	101		28 - 135
1,1,2,2-Tetrachloroethane-d2	97		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1

Sdg Number: PRR1236

Client Sample ID: PRR1WATGACE-11-SP-108

Lab Sample ID: 200-10470-2

Date Sampled: 04/23/2012 1340

Client Matrix: Water

Date Received: 04/24/2012 0930

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-37494	Instrument ID: J.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: jdgb11.d
Dilution: 314.3		Initial Weight/Volume: 25 mL
Analysis Date: 04/24/2012 1642	Run Type: DL	Final Weight/Volume: 25 mL
Prep Date: 04/24/2012 1642		

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	420	J D	1600
Chlorobenzene	4500	D	160

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	101		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	108		49 - 155
Chloroform-d	105		78 - 121
1,2-Dichloroethane-d4	108		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121
2-Hexanone-d5	105		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1

Sdg Number: PRR1236

Client Sample ID: PRR1WATGACE-11-SP-110

Lab Sample ID: 200-10470-3

Date Sampled: 04/23/2012 1345

Client Matrix: Water

Date Received: 04/24/2012 0930

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdgb14.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/24/2012 1755			Final Weight/Volume:	25 mL
Prep Date:	04/24/2012 1755				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	10	U	10
Chlorobenzene	0.29	J	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	103		65 - 131
Chloroethane-d5	106		71 - 131
1,1-Dichloroethene-d2	82		55 - 104
2-Butanone-d5	121		49 - 155
Chloroform-d	108		78 - 121
1,2-Dichloroethane-d4	117		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	100		73 - 121
2-Hexanone-d5	116		28 - 135
1,1,2,2-Tetrachloroethane-d2	102		73 - 125
1,2-Dichlorobenzene-d4	104		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1

Sdg Number: PRR1236

Client Sample ID: TB04232012

Lab Sample ID: 200-10470-8

Date Sampled: 04/23/2012 0000

Client Matrix: Water

Date Received: 04/24/2012 0930

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdgb15.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/24/2012 1819			Final Weight/Volume:	25 mL
Prep Date:	04/24/2012 1819				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	82		55 - 104
2-Butanone-d5	107		49 - 155
Chloroform-d	103		78 - 121
1,2-Dichloroethane-d4	110		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	94		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	98		73 - 121
2-Hexanone-d5	104		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1

Sdg Number: PRR1236

Client Sample ID: VHBLK01

Lab Sample ID: 200-10470-9STOBLK

Date Sampled: 04/24/2012 0952

Client Matrix: Water

Date Received: 04/24/2012 0930

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37494	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdgb16.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/24/2012 1843			Final Weight/Volume:	25 mL
Prep Date:	04/24/2012 1843				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	102		65 - 131
Chloroethane-d5	104		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	107		49 - 155
Chloroform-d	104		78 - 121
1,2-Dichloroethane-d4	113		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	101		73 - 121
2-Hexanone-d5	108		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	104		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1

Sdg Number: PRR1236

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1

Sdg Number: PRR1236

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC/MS VOA					
Analysis Batch:200-37494					
MB 200-37494/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10470-1	PRR1WATGACI-11-SP-105	T	Water	SOM01.2/VOA_T	
200-10470-1DL	PRR1WATGACI-11-SP-105	T	Water	SOM01.2/VOA_T	
200-10470-2	PRR1WATGACE-11-SP-108	T	Water	SOM01.2/VOA_T	
200-10470-2DL	PRR1WATGACE-11-SP-108	T	Water	SOM01.2/VOA_T	
200-10470-3	PRR1WATGACE-11-SP-110	T	Water	SOM01.2/VOA_T	
200-10470-8	TB04232012	T	Water	SOM01.2/VOA_T	
200-10470-9STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1

Sdg Number: PRR1236

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10470-1 DL	PRR1WATGACI-11-S P-105 DL	98	101	79	111	103	110	100	92
200-10470-1	PRR1WATGACI-11-S P-105	96	97	76	103	107	105	100	90
200-10470-2 DL	PRR1WATGACE-11- SP-108 DL	100	101	80	108	105	108	100	93
200-10470-2	PRR1WATGACE-11- SP-108	97	97	78	101	112	105	102	92
200-10470-3	PRR1WATGACE-11- SP-110	103	106	82	121	108	117	101	92
200-10470-8	TB04232012	101	103	82	107	103	110	103	94
200-10470-9	VHBLK01	102	104	80	107	104	113	103	93
MB 200-37494/4		103	106	82	111	107	111	105	94

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1

Sdg Number: PRR1236

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10470-1 DL	PRR1WATGACI-11-S P-105 DL	98	100	108	98	102
200-10470-1	PRR1WATGACI-11-S P-105	99	99	104	96	102
200-10470-2 DL	PRR1WATGACE-11- SP-108 DL	100	99	105	100	100
200-10470-2	PRR1WATGACE-11- SP-108	99	99	101	97	101
200-10470-3	PRR1WATGACE-11- SP-110	99	100	116	102	104
200-10470-8	TB04232012	101	98	104	98	103
200-10470-9	VHBLK01	102	101	108	98	104
MB 200-37494/4		105	103	112	103	106

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1

Sdg Number: PRR1236

Method Blank - Batch: 200-37494

Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR

Lab Sample ID: MB 200-37494/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/24/2012 1319
Prep Date: 04/24/2012 1319
Leach Date: N/A

Analysis Batch: 200-37494
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdgb04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	103	65 - 131
Chloroethane-d5	106	71 - 131
1,1-Dichloroethene-d2	82	55 - 104
2-Butanone-d5	111	49 - 155
Chloroform-d	107	78 - 121
1,2-Dichloroethane-d4	111	78 - 129
Benzene-d6	105	77 - 124
1,2-Dichloropropane-d6	94	79 - 124
Toluene-d8	105	77 - 121
trans-1,3-Dichloropropene-d4	103	73 - 121
2-Hexanone-d5	112	28 - 135
1,1,2,2-Tetrachloroethane-d2	103	73 - 125
1,2-Dichlorobenzene-d4	106	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJECT NAME		Requested Analyses																											
Tierra Phase I Removal																													
PROJ. NO.	B0009966.0002.70004																SDG NUMBER	COC Number											
SAMPLERS: CHES																	PRR1236												
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks						
PRR1WATGACI-11-SP-105	4/23/2012	13:55	water	Grab	3	X																							
PRR1WATGACE-11-SP-108	4/23/2012	13:40	water	Grab	3	X																							
PRR1WATGACE-11-SP-110	4/23/2012	13:45	water	Grab	3	X																							
PRR1WATCME-30	4/23/2012	13:35	water	Grab	1		X																						
PRR1WAT-11-MMF-102	4/23/2012	14:00	water	Grab	1		X																						
PRR1WAT-11-MMF-103	4/23/2012	14:05	water	Grab	1		X																						
PRR1WATCME-28	4/19/2012	9:30	water	Grab	1		X																						
TB04232012	4/23/2012		water	Grab	3	X																							
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC instructions																											
Requested Analyses		1 2-Butanone, Chlorobenzene 2 TSS																											
Laboratory Information and Receipt		Lab Name: TestAmerica -Burlington, VT Shipping Tracking # Specify Turnaround Requirements: 24 hr TAT <input checked="" type="checkbox"/> Cooler packed with ice <input type="checkbox"/> Cooler custody seal intact																											
Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:		
Leahon	4/23/12	1450	Ellon	4/23/12	1530	Leahon	4/23/12	1530	Ellon	4/23/12	1530	Leahon	4/23/12	1530	Ellon	4/23/12	1530	Leahon	4/23/12	1530	Ellon	4/23/12	1530	Leahon	4/23/12	1530	Ellon	4/23/12	1530

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10470-1

SDG Number: PRR1236

Login Number: 10470

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	No numberse
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	6.0°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 23APR12
ActWgt: 10.0 LB
CAD: 103767025/NET3250
Dims: 18 X 14 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

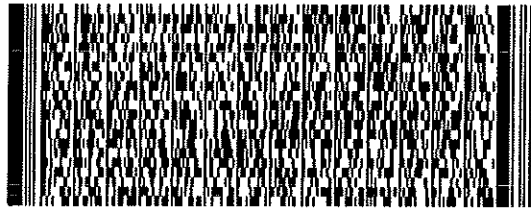
SOUTH BURLINGTON, VT 05403

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

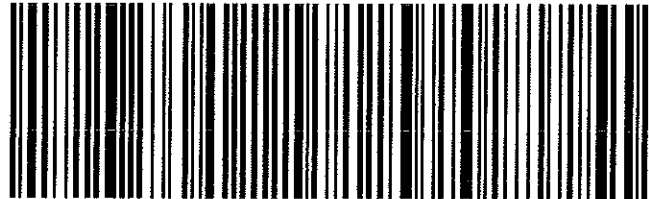
TUE - 24 APR A4
FIRST OVERNIGHT

TRK# 7934 8506 3505
0201



E9 BTVA

05403
VT-US
BTV



512G1K44D/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10470-2

SDG Number: PRR1236

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/25/2012 1:57 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/25/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	12
QC Results	13
Qc Association Summary	14
Qc Reports	15
Client Chain of Custody	16
Sample Receipt Checklist	17

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1236 (200-10470-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 04/24/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 6.0 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the samples in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10470-2
Sdg Number: PRR1236

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10470-2

Sdg Number: PRR1236

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10470-2
Sdg Number: PRR1236

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10470-4	PRR1WATCME-30	Water	04/23/2012 1335	04/24/2012 0930
200-10470-5	PRR1WAT-11-MMF-102	Water	04/23/2012 1400	04/24/2012 0930
200-10470-6	PRR1WAT-11-MMF-103	Water	04/23/2012 1405	04/24/2012 0930
200-10470-7	PRR1WATCME-28	Water	04/19/2012 0930	04/24/2012 0930

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10470-2

Sdg Number: PRR1236

General Chemistry

Client Sample ID: PRR1WATCME-30

Lab Sample ID: 200-10470-4

Date Sampled: 04/23/2012 1335

Client Matrix: Water

Date Received: 04/24/2012 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	7.4		mg/L	0.71	0.71	1.0	SM 2540D
	Analysis Batch: 200-37414	Analysis Date: 04/24/2012 1557					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10470-2

Sdg Number: PRR1236

General Chemistry

Client Sample ID: PRR1WAT-11-MMF-102

Lab Sample ID: 200-10470-5

Date Sampled: 04/23/2012 1400

Client Matrix: Water

Date Received: 04/24/2012 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	38.3		mg/L	1.7	1.7	1.0	SM 2540D
	Analysis Batch: 200-37414	Analysis Date: 04/24/2012 1557					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10470-2

Sdg Number: PRR1236

General Chemistry

Client Sample ID: PRR1WAT-11-MMF-103

Lab Sample ID: 200-10470-6

Date Sampled: 04/23/2012 1405

Client Matrix: Water

Date Received: 04/24/2012 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	10.3		mg/L	0.56	0.56	1.0	SM 2540D
Analysis Batch: 200-37414		Analysis Date: 04/24/2012 1557					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10470-2

Sdg Number: PRR1236

General Chemistry

Client Sample ID: PRR1WATCME-28

Lab Sample ID: 200-10470-7

Date Sampled: 04/19/2012 0930

Client Matrix: Water

Date Received: 04/24/2012 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	3.2		mg/L	0.54	0.54	1.0	SM 2540D
	Analysis Batch: 200-37414	Analysis Date: 04/24/2012 1557					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10470-2

Sdg Number: PRR1236

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10470-2

Sdg Number: PRR1236

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-37414					
LCS 200-37414/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-37414/1	Method Blank	T	Water	SM 2540D	
200-10470-4	PRR1WATCME-30	T	Water	SM 2540D	
200-10470-5	PRR1WAT-11-MMF-102	T	Water	SM 2540D	
200-10470-6	PRR1WAT-11-MMF-103	T	Water	SM 2540D	
200-10470-7	PRR1WATCME-28	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10470-2
Sdg Number: PRR1236

Method Blank - Batch: 200-37414

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-37414/1	Analysis Batch:	200-37414	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/24/2012 1557	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-37414

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-37414/2	Analysis Batch:	200-37414	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/24/2012 1557	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	484.0	97	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO. B0009966.0002.70004		PROJECT NAME Tierra Phase I Removal		SDG NUMBER PRR1236		COC Number																				
SAMPLERS: CHES		Requested Analyses																								
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17				
PRR1WATGACI-11-SP-105	4/23/2012	13:55	water	Grab	3	X																				
PRR1WATGACE-11-SP-108	4/23/2012	13:40	water	Grab	3	X																				
PRR1WATGACE-11-SP-110	4/23/2012	13:45	water	Grab	3	X																				
PRR1WATCME-30	4/23/2012	13:35	water	Grab	1	X																				
PRR1WAT-11-MMF-102	4/23/2012	14:00	water	Grab	1	X																				
PRR1WAT-11-MMF-103	4/23/2012	14:05	water	Grab	1	X																				
PRR1WATCME-28	4/19/2012	9:30	water	Grab	1	X																				
TB04232012	4/23/2012		water	Grab	3	X																				
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																								
Requested Analyses		1, 2-Butanone, Chlorobenzene																								
Lab Name: TestAmerica -Burlington, VT		Laboratory Information and Receipt																								
Shipping Tracking #		Cooler packed with ice Cooler custody seal intact																								
Specify Turnaround Requirements: 24 hr TAT		Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	
		Leaton	4/23/12	1450	FLORIN																					
		Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	
		FLORIN	4/23/12	1530	TA500	0924																				
		Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	
		FLORIN	4/23/12																							
		Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10470-2

SDG Number: PRR1236

Login Number: 10470

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	No numberse
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	6.0°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 23APR12
ActWgt: 10.0 LB
CAD: 103767025/NET3250
Dims: 18 X 14 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

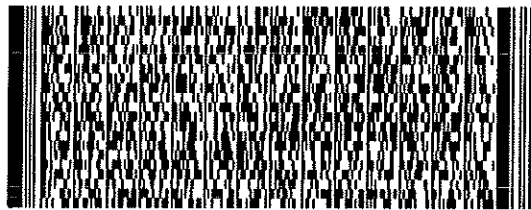
BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

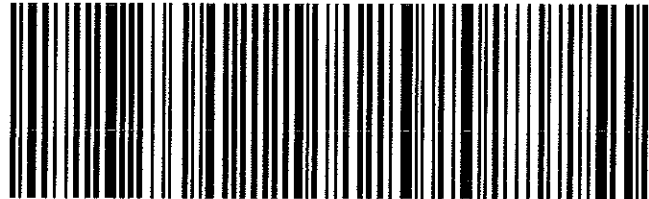
TUE - 24 APR A4
FIRST OVERNIGHT

TRK# 7934 8506 3505
0201



E9 BTVA

05403
VT-US
BTV



512G1K44D/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10492-1

SDG Number: PRR1240

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/26/2012 2:57 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/26/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	17
QC Results	18
Qc Association Summary	19
Surrogate Recovery Report	20
Qc Reports	22
Client Chain of Custody	23
Sample Receipt Checklist	24

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1240 (200- 10492-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 04/25/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 3.2 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination. A trace concentration of chlorobenzene was identified in the analysis of the storage blank associated with the sample set. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant storage blank analysis. A trace concentration of chlorobenzene was identified in the analysis of each instrument blank associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the

opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in the closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1
Sdg Number: PRR1240

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2	SOM01.2/VOA_Tr
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1

Sdg Number: PRR1240

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1

Sdg Number: PRR1240

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10492-1	PRR1WATGACI-12-SP-105	Water	04/24/2012 1000	04/25/2012 0835
200-10492-2	PRR1WATGACE-12-SP-106	Water	04/24/2012 0950	04/25/2012 0835
200-10492-3	PRR1WATGACE-12-SP-110	Water	04/24/2012 0945	04/25/2012 0835
200-10492-6	TB04242012	Water	04/24/2012 0000	04/25/2012 0835
200-10492-7STOBL K	VHBLK01	Water	04/25/2012 0930	04/25/2012 0835

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1

Sdg Number: PRR1240

Client Sample ID: PRR1WATGACI-12-SP-105

Lab Sample ID: 200-10492-1

Date Sampled: 04/24/2012 1000

Client Matrix: Water

Date Received: 04/25/2012 0835

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37551	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijb18.d
Dilution:	586.7			Initial Weight/Volume:	25 mL
Analysis Date:	04/25/2012 1756			Final Weight/Volume:	25 mL
Prep Date:	04/25/2012 1756				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	970	J	2900
Chlorobenzene	61000	E	290

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	99		65 - 131
Chloroethane-d5	114		71 - 131
1,1-Dichloroethene-d2	82		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	107		77 - 124
1,2-Dichloropropane-d6	105		79 - 124
Toluene-d8	105		77 - 121
trans-1,3-Dichloropropene-d4	91		73 - 121
2-Hexanone-d5	93		28 - 135
1,1,2,2-Tetrachloroethane-d2	95		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1

Sdg Number: PRR1240

Client Sample ID: PRR1WATGACI-12-SP-105

Lab Sample ID: 200-10492-1

Date Sampled: 04/24/2012 1000

Client Matrix: Water

Date Received: 04/25/2012 0835

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37551	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijb17.d
Dilution:	4400			Initial Weight/Volume:	25 mL
Analysis Date:	04/25/2012 1733	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	04/25/2012 1733				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	22000	U	22000
Chlorobenzene	57000	D	2200

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	114		71 - 131
1,1-Dichloroethene-d2	83		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	106		78 - 129
Benzene-d6	109		77 - 124
1,2-Dichloropropane-d6	107		79 - 124
Toluene-d8	107		77 - 121
trans-1,3-Dichloropropene-d4	96		73 - 121
2-Hexanone-d5	96		28 - 135
1,1,2,2-Tetrachloroethane-d2	96		73 - 125
1,2-Dichlorobenzene-d4	109		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1
Sdg Number: PRR1240

Client Sample ID: PRR1WATGACE-12-SP-106

Lab Sample ID: 200-10492-2
Client Matrix: Water

Date Sampled: 04/24/2012 0950
Date Received: 04/25/2012 0835

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37551	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijb11.d
Dilution:	14.7			Initial Weight/Volume:	25 mL
Analysis Date:	04/25/2012 1509			Final Weight/Volume:	25 mL
Prep Date:	04/25/2012 1509				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	160		74
Chlorobenzene	1400	E	7.4

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	92		65 - 131
Chloroethane-d5	105		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	99		49 - 155
Chloroform-d	97		78 - 121
1,2-Dichloroethane-d4	99		78 - 129
Benzene-d6	99		77 - 124
1,2-Dichloropropane-d6	97		79 - 124
Toluene-d8	97		77 - 121
trans-1,3-Dichloropropene-d4	88		73 - 121
2-Hexanone-d5	89		28 - 135
1,1,2,2-Tetrachloroethane-d2	87		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1
Sdg Number: PRR1240

Client Sample ID: PRR1WATGACE-12-SP-106

Lab Sample ID: 200-10492-2
Client Matrix: Water

Date Sampled: 04/24/2012 0950
Date Received: 04/25/2012 0835

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr Analysis Batch: 200-37551 Instrument ID: D.i
Prep Method: SOM01.2/VOA_PR Prep Batch: N/A Lab File ID: dijb10.d
Dilution: 110 Initial Weight/Volume: 25 mL
Analysis Date: 04/25/2012 1446 Run Type: DL Final Weight/Volume: 25 mL
Prep Date: 04/25/2012 1446

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	200	J D	550
Chlorobenzene	1400	D	55

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	110		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	100		78 - 121
1,2-Dichloroethane-d4	103		78 - 129
Benzene-d6	105		77 - 124
1,2-Dichloropropane-d6	104		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	93		73 - 121
2-Hexanone-d5	95		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	104		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1

Sdg Number: PRR1240

Client Sample ID: PRR1WATGACE-12-SP-110

Lab Sample ID: 200-10492-3

Date Sampled: 04/24/2012 0945

Client Matrix: Water

Date Received: 04/25/2012 0835

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37551	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijb14.d
Dilution:	6.3			Initial Weight/Volume:	25 mL
Analysis Date:	04/25/2012 1621			Final Weight/Volume:	25 mL
Prep Date:	04/25/2012 1621				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	130		32
Chlorobenzene	570	E	3.2

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	114		71 - 131
1,1-Dichloroethene-d2	83		55 - 104
2-Butanone-d5	108		49 - 155
Chloroform-d	114		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	109		77 - 124
1,2-Dichloropropane-d6	107		79 - 124
Toluene-d8	106		77 - 121
trans-1,3-Dichloropropene-d4	96		73 - 121
2-Hexanone-d5	97		28 - 135
1,1,2,2-Tetrachloroethane-d2	96		73 - 125
1,2-Dichlorobenzene-d4	108		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1

Sdg Number: PRR1240

Client Sample ID: PRR1WATGACE-12-SP-110

Lab Sample ID: 200-10492-3

Date Sampled: 04/24/2012 0945

Client Matrix: Water

Date Received: 04/25/2012 0835

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37551	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijb13.d
Dilution:	44			Initial Weight/Volume:	25 mL
Analysis Date:	04/25/2012 1557	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	04/25/2012 1557				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	140	J D	220
Chlorobenzene	560	D	22

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	104		65 - 131
Chloroethane-d5	118		71 - 131
1,1-Dichloroethene-d2	85		55 - 104
2-Butanone-d5	113		49 - 155
Chloroform-d	108		78 - 121
1,2-Dichloroethane-d4	111		78 - 129
Benzene-d6	113		77 - 124
1,2-Dichloropropane-d6	111		79 - 124
Toluene-d8	111		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121
2-Hexanone-d5	102		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	111		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1
Sdg Number: PRR1240

Client Sample ID: TB04242012

Lab Sample ID: 200-10492-6
Client Matrix: Water

Date Sampled: 04/24/2012 0000
Date Received: 04/25/2012 0835

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37551	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijb16.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/25/2012 1709			Final Weight/Volume:	25 mL
Prep Date:	04/25/2012 1709				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.063	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	104		65 - 131
Chloroethane-d5	118		71 - 131
1,1-Dichloroethene-d2	85		55 - 104
2-Butanone-d5	110		49 - 155
Chloroform-d	105		78 - 121
1,2-Dichloroethane-d4	108		78 - 129
Benzene-d6	112		77 - 124
1,2-Dichloropropane-d6	110		79 - 124
Toluene-d8	110		77 - 121
trans-1,3-Dichloropropene-d4	98		73 - 121
2-Hexanone-d5	99		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	110		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1
Sdg Number: PRR1240

Client Sample ID: VHBLK01

Lab Sample ID: 200-10492-7STOBLK
Client Matrix: Water

Date Sampled: 04/25/2012 0930
Date Received: 04/25/2012 0835

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37551	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijb20.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/25/2012 1844			Final Weight/Volume:	25 mL
Prep Date:	04/25/2012 1844				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.071	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	92		65 - 131
Chloroethane-d5	105		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	98		49 - 155
Chloroform-d	94		78 - 121
1,2-Dichloroethane-d4	100		78 - 129
Benzene-d6	99		77 - 124
1,2-Dichloropropane-d6	98		79 - 124
Toluene-d8	96		77 - 121
trans-1,3-Dichloropropene-d4	87		73 - 121
2-Hexanone-d5	86		28 - 135
1,1,2,2-Tetrachloroethane-d2	89		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1

Sdg Number: PRR1240

Lab Section	Qualifier	Description
GC/MS VOA	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1

Sdg Number: PRR1240

QC Association Summary

Lab Sample ID	Client Sample ID	Report			Prep Batch
		Basis	Client Matrix	Method	
GC/MS VOA					
Analysis Batch:200-37551					
MB 200-37551/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10492-1	PRR1WATGACI-12-SP-105	T	Water	SOM01.2/VOA_T	
200-10492-1DL	PRR1WATGACI-12-SP-105	T	Water	SOM01.2/VOA_T	
200-10492-2	PRR1WATGACE-12-SP-106	T	Water	SOM01.2/VOA_T	
200-10492-2DL	PRR1WATGACE-12-SP-106	T	Water	SOM01.2/VOA_T	
200-10492-3	PRR1WATGACE-12-SP-110	T	Water	SOM01.2/VOA_T	
200-10492-3DL	PRR1WATGACE-12-SP-110	T	Water	SOM01.2/VOA_T	
200-10492-6	TB04242012	T	Water	SOM01.2/VOA_T	
200-10492-7STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1

Sdg Number: PRR1240

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10492-1 DL	PRR1WATGACI-12-S P-105 DL	101	114	83	105	102	106	109	107
200-10492-1	PRR1WATGACI-12-S P-105	99	114	82	103	101	104	107	105
200-10492-2 DL	PRR1WATGACE-12- SP-106 DL	97	110	80	105	100	103	105	104
200-10492-2	PRR1WATGACE-12- SP-106	92	105	76	99	97	99	99	97
200-10492-3 DL	PRR1WATGACE-12- SP-110 DL	104	118	85	113	108	111	113	111
200-10492-3	PRR1WATGACE-12- SP-110	100	114	83	108	114	107	109	107
200-10492-6	TB04242012	104	118	85	110	105	108	112	110
200-10492-7	VHBLK01	92	105	76	98	94	100	99	98
MB 200-37551/4		95	109	77	99	95	99	100	99

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1

Sdg Number: PRR1240

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10492-1 DL	PRR1WATGACI-12-S P-105 DL	107	96	96	96	109
200-10492-1	PRR1WATGACI-12-S P-105	105	91	93	95	106
200-10492-2 DL	PRR1WATGACE-12- SP-106 DL	103	93	95	93	104
200-10492-2	PRR1WATGACE-12- SP-106	97	88	89	87	100
200-10492-3 DL	PRR1WATGACE-12- SP-110 DL	111	99	102	99	111
200-10492-3	PRR1WATGACE-12- SP-110	106	96	97	96	108
200-10492-6	TB04242012	110	98	99	100	110
200-10492-7	VHBLK01	96	87	86	89	101
MB 200-37551/4		99	92	90	89	100

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1

Sdg Number: PRR1240

Method Blank - Batch: 200-37551

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-37551/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/25/2012 1202
 Prep Date: 04/25/2012 1202
 Leach Date: N/A

Analysis Batch: 200-37551
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: D.i
 Lab File ID: dijb04.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	95	65 - 131
Chloroethane-d5	109	71 - 131
1,1-Dichloroethene-d2	77	55 - 104
2-Butanone-d5	99	49 - 155
Chloroform-d	95	78 - 121
1,2-Dichloroethane-d4	99	78 - 129
Benzene-d6	100	77 - 124
1,2-Dichloropropane-d6	99	79 - 124
Toluene-d8	99	77 - 121
trans-1,3-Dichloropropene-d4	92	73 - 121
2-Hexanone-d5	90	28 - 135
1,1,2,2-Tetrachloroethane-d2	89	73 - 125
1,2-Dichlorobenzene-d4	100	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJECT NAME		Requested Analyses																				
Tierra Phase I Removal		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17				
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PRR1WATGACI-12-SP-105	4/24/2012	10:00	water	Grab	3	X																
PRR1WATGACE-12-SP-106	4/24/2012	9:50	water	Grab	3	X																
PRR1WATGACE-12-SP-110	4/24/2012	9:45	water	Grab	3	X																
PRR1WATCME-31	4/24/2012	9:15	water	Grab	1		X															
PRR1WAT-12-SP-101	4/24/2012	10:05	water	Grab	1		X															
TB04242012	4/24/2012		water	Grab	3	X																
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																				
Requested Analyses		1 1,2-Butanone, Chlorobenzene 2 TSS																				
Laboratory Information and Receipt		Lab Name: TestAmerica -Burlington, VT Shipping Tracking # Specify Turnaround Requirements: 24 hr TAT <input checked="" type="checkbox"/> Cooler packed with ice <input checked="" type="checkbox"/> Cooler custody seal intact																				
Relinquished by:		DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:
Relinquished by:		4/24	1700	J. P. [Signature]	4/24/12	1730	J. P. [Signature]	4/24/12	1730	J. P. [Signature]	4/24/12	1730	J. P. [Signature]	4/24/12	1730	J. P. [Signature]	4/24/12	1730	J. P. [Signature]	4/24/12	1730	J. P. [Signature]
Sample Receipt:		Condition/Cooler Temp: 32°C																				

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10492-1

SDG Number: PRR1240

Login Number: 10492

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	NO SEAL NUMBERS
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2°C IR GUN ID 154/CF=0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



Ship Date: 24APR12
AcWgt: 15.0 LB
CAD: 103767025/NET3250

Dims: 18 X 14 X 16 IN

Newark, NJ 07105

Delivery Address Bar Code



SHIP TO: (802) 660-1990

BILL SENDER

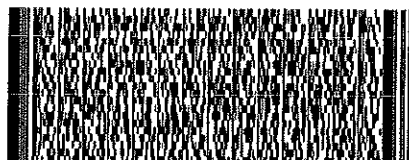
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

Ref # 1128-1616-4
Invoice #
PO # B0069988.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

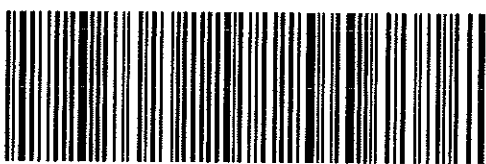
WED - 25 APR A4
FIRST OVERNIGHT

TRK# 7934 9164 7235
0201



E9 BTVA

05403
VT-US
BTV



512G1A246VA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or Inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10492-2

SDG Number: PRR1240

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/8/2012 3:06 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/08/2012
Revision: 1

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	17

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1240 (200- 10492-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 04/25/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 3.2 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the samples in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10492-2
Sdg Number: PRR1240

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10492-2
Sdg Number: PRR1240

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10492-2
Sdg Number: PRR1240

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10492-4	PRR1WAT-12-SP-101	Water	04/24/2012 0915	04/25/2012 0835
200-10492-5	PRR1WATCME-31	Water	04/24/2012 1005	04/25/2012 0835

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10492-2

Sdg Number: PRR1240

General Chemistry

Client Sample ID: PRR1WAT-12-SP-101

Lab Sample ID: 200-10492-4

Date Sampled: 04/24/2012 0915

Client Matrix: Water

Date Received: 04/25/2012 0835

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	81.0		mg/L	5.0	5.0	1.0	SM 2540D
Analysis Batch: 200-37488		Analysis Date: 04/25/2012 1107					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10492-2

Sdg Number: PRR1240

General Chemistry

Client Sample ID: PRR1WATCME-31

Lab Sample ID: 200-10492-5

Date Sampled: 04/24/2012 1005

Client Matrix: Water

Date Received: 04/25/2012 0835

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	26.3		mg/L	1.4	1.4	1.0	SM 2540D
	Analysis Batch: 200-37488	Analysis Date: 04/25/2012 1107					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10492-2

Sdg Number: PRR1240

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10492-2

Sdg Number: PRR1240

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-37488					
LCS 200-37488/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-37488/1	Method Blank	T	Water	SM 2540D	
200-10492-4	PRR1WAT-12-SP-101	T	Water	SM 2540D	
200-10492-5	PRR1WATCME-31	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10492-2
Sdg Number: PRR1240

Method Blank - Batch: 200-37488

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-37488/1	Analysis Batch:	200-37488	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/25/2012 1107	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-37488

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-37488/2	Analysis Batch:	200-37488	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/25/2012 1107	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	464.0	93	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJECT NAME		Requested Analyses																				
Tierra Phase I Removal		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17				
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PRR1WATGACI-12-SP-105	4/24/2012	10:00	water	Grab	3	X																
PRR1WATGACE-12-SP-106	4/24/2012	9:50	water	Grab	3	X																
PRR1WATGACE-12-SP-110	4/24/2012	9:45	water	Grab	3	X																
PRR1WATCME-31	4/24/2012	9:15	water	Grab	1		X															
PRR1WAT-12-SP-101	4/24/2012	10:05	water	Grab	1		X															
TB04242012	4/24/2012		water	Grab	3	X																
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																				
Requested Analyses		1 1,2-Butanone, Chlorobenzene 2 TSS																				
Laboratory Information and Receipt		Lab Name: TestAmerica -Burlington, VT Shipping Tracking # Specify Turnaround Requirements: 24 hr TAT <input checked="" type="checkbox"/> Cooler packed with ice <input checked="" type="checkbox"/> Cooler custody seal intact																				
Relinquished by:		DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:
Relinquished by:		4/24	1700	J. P. [Signature]	4/24/12	1730	J. P. [Signature]	4/24/12	1730	J. P. [Signature]	4/24/12	1730	J. P. [Signature]	4/24/12	1730	J. P. [Signature]	4/24/12	1730	J. P. [Signature]	4/24/12	1730	J. P. [Signature]
Sample Receipt:		Condition/Cooler Temp: 32°C																				

Young, Kirk

From: Shatt, Ryan [Ryan.Shatt@arcadis-us.com]
Sent: Friday, May 04, 2012 3:45 PM
To: Young, Kirk
Subject: RE: Analytical Results - 200-10492-2 - LPRSA - Phase I Removal Action - PRR1240

Hi Kirk – After discussion with our field staff, the labels for the two samples collected for TSS were switched. These samples include PRR1WATCME-31 and PRR1WAT-12-SP-101. These sample IDs should be corrected for the final lab report.

Thanks,

Ryan

**Privileged and Confidential Work Product
Prepared at the Request of Legal Counsel
For or in Anticipation of Litigation
And in Connection with Rendering Legal Advice**

From: Young, Kirk [mailto:kirk.young@testamericainc.com]
Sent: Thursday, April 26, 2012 12:11 PM
To: Reed, Don; Houser, Joe; Justin Lis; Shatt, Ryan; Dunn, Shannon
Subject: Analytical Results - 200-10492-2 - LPRSA - Phase I Removal Action - PRR1240

To Each,

The attached files contain the analytical results for the referenced project work. This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation.

Kirk

KIRK F YOUNG

TestAmerica Burlington
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 802.660.1990
www.testamericainc.com

Reference: [017298]
Attachments: 2

NOTICE: This e-mail and any files transmitted with it are the property of ARCADIS U.S., Inc. and its affiliates. All

rights, including without limitation copyright, are reserved. The proprietary information contained in this e-mail message, and any files transmitted with it, is intended for the use of the recipient(s) named above. If the reader of this e-mail is not the intended recipient, you are hereby notified that you have received this e-mail in error and that any review, distribution or copying of this e-mail or any files transmitted with it is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete the original message and any files transmitted. The unauthorized use of this e-mail or any files transmitted with it is prohibited and disclaimed by ARCADIS U.S., Inc. and its affiliates. Nothing herein is intended to constitute the offering or performance of services where otherwise restricted by law.

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10492-2

SDG Number: PRR1240

Login Number: 10492

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	NO SEAL NUMBERS
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2°C IR GUN ID 154/CF=0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
 Thomas ORourke
 ARCADIS OF NEW YORK INC
 117 Blanchard St

Origin ID: VAKA



J12101112100225

Newark, NJ 07105

Ship Date: 24APR12
 ActWgt: 15.0 LB
 CAD: 103767025/NET3250

Dims: 16 X 14 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990

BILL SENDER

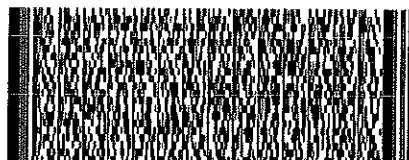
KIRK YOUNG
 TEST AMERICA
 30 COMMUNITY DR STE 11

SOUTH BURLINGTON, VT 05403

Ref # 1128-1616-4
 Invoice #
 PO # B0069988.0002.70004-11128
 Dept #

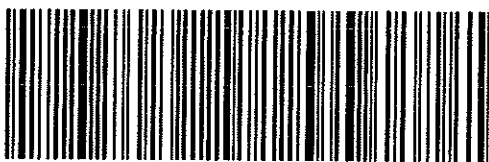
WED - 25 APR A4
 FIRST OVERNIGHT

TRK# 7934 9164 7235
 0201



E9 BTVA

05403
 VT-US
 BTV



512G1A046VA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or Inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10516-1

SDG Number: PRR1244

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/28/2012 7:25 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/28/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	16
QC Results	17
Qc Association Summary	18
Surrogate Recovery Report	19
Qc Reports	21
Client Chain of Custody	22
Sample Receipt Checklist	23

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1244 (200-10516-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 04/26/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 2.6 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of each sample in the sample set did meet the technical acceptance criteria specific to DMC recoveries, although not all DMC recoveries were within the control range in each analysis. The method allowance criteria provide for the recovery of up to three DMCs to be outside the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination. A trace concentration of chlorobenzene was identified in the analysis of the storage blank associated with the sample set. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant storage blank analysis. A trace concentration of chlorobenzene was identified in the analysis of each instrument blank associated with the analytical work. The

concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1

Sdg Number: PRR1244

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1
Sdg Number: PRR1244

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1
Sdg Number: PRR1244

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10516-1	PRR1WATGACI-13-SP-105	Water	04/25/2012 1340	04/26/2012 0916
200-10516-2	PRR1WATGACE-13-SP-107	Water	04/25/2012 1335	04/26/2012 0916
200-10516-3	PRR1WATGACE-13-SP-110	Water	04/25/2012 1330	04/26/2012 0916
200-10516-6	TB04252012	Water	04/25/2012 0000	04/26/2012 0916
200-10516-7STOBL K	VHBLK01	Water	04/26/2012 0925	04/26/2012 0916

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1

Sdg Number: PRR1244

Client Sample ID: PRR1WATGACI-13-SP-105

Lab Sample ID: 200-10516-1

Date Sampled: 04/25/2012 1340

Client Matrix: Water

Date Received: 04/26/2012 0916

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37726	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijd07.d
Dilution:	440			Initial Weight/Volume:	25 mL
Analysis Date:	04/27/2012 1042			Final Weight/Volume:	25 mL
Prep Date:	04/27/2012 1042				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	580	J	2200
Chlorobenzene	47000	E B	220

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	95		65 - 131
Chloroethane-d5	110		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	102		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	101		78 - 129
Benzene-d6	96		77 - 124
1,2-Dichloropropane-d6	96		79 - 124
Toluene-d8	94		77 - 121
trans-1,3-Dichloropropene-d4	85		73 - 121
2-Hexanone-d5	86		28 - 135
1,1,2,2-Tetrachloroethane-d2	90		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1

Sdg Number: PRR1244

Client Sample ID: PRR1WATGACI-13-SP-105

Lab Sample ID: 200-10516-1

Date Sampled: 04/25/2012 1340

Client Matrix: Water

Date Received: 04/26/2012 0916

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr Analysis Batch: 200-37726 Instrument ID: D.i
Prep Method: SOM01.2/VOA_PR Prep Batch: N/A Lab File ID: dijd06.d
Dilution: 2933.3 Initial Weight/Volume: 25 mL
Analysis Date: 04/27/2012 1019 Run Type: DL Final Weight/Volume: 25 mL
Prep Date: 04/27/2012 1019

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	830	J D	15000
Chlorobenzene	42000	D	1500

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	116		71 - 131
1,1-Dichloroethene-d2	81		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	100		78 - 121
1,2-Dichloroethane-d4	103		78 - 129
Benzene-d6	104		77 - 124
1,2-Dichloropropane-d6	102		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	91		73 - 121
2-Hexanone-d5	92		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1
Sdg Number: PRR1244

Client Sample ID: PRR1WATGACE-13-SP-107

Lab Sample ID: 200-10516-2
Client Matrix: Water

Date Sampled: 04/25/2012 1335
Date Received: 04/26/2012 0916

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37726	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijd10.d
Dilution:	58.7			Initial Weight/Volume:	25 mL
Analysis Date:	04/27/2012 1154			Final Weight/Volume:	25 mL
Prep Date:	04/27/2012 1154				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	290	J	290
Chlorobenzene	6700	E B	29

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	110		65 - 131
Chloroethane-d5	129		71 - 131
1,1-Dichloroethene-d2	86		55 - 104
2-Butanone-d5	128		49 - 155
Chloroform-d	127	*	78 - 121
1,2-Dichloroethane-d4	122		78 - 129
Benzene-d6	115		77 - 124
1,2-Dichloropropane-d6	116		79 - 124
Toluene-d8	110		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121
2-Hexanone-d5	112		28 - 135
1,1,2,2-Tetrachloroethane-d2	110		73 - 125
1,2-Dichlorobenzene-d4	116		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1
Sdg Number: PRR1244

Client Sample ID: PRR1WATGACE-13-SP-107

Lab Sample ID: 200-10516-2
Client Matrix: Water

Date Sampled: 04/25/2012 1335
Date Received: 04/26/2012 0916

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37726	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijd09.d
Dilution:	440			Initial Weight/Volume:	25 mL
Analysis Date:	04/27/2012 1130	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	04/27/2012 1130				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	300	J D	2200
Chlorobenzene	6700	D	220

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	111		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	99		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	100		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	98		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	85		73 - 121
2-Hexanone-d5	85		28 - 135
1,1,2,2-Tetrachloroethane-d2	88		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1

Sdg Number: PRR1244

Client Sample ID: PRR1WATGACE-13-SP-110

Lab Sample ID: 200-10516-3

Date Sampled: 04/25/2012 1330

Client Matrix: Water

Date Received: 04/26/2012 0916

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37726	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijd12.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/27/2012 1242			Final Weight/Volume:	25 mL
Prep Date:	04/27/2012 1242				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	0.56	J	10
Chlorobenzene	0.19	J	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	103		65 - 131
Chloroethane-d5	118		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	108		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	104		77 - 124
1,2-Dichloropropane-d6	102		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	89		73 - 121
2-Hexanone-d5	92		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1
Sdg Number: PRR1244

Client Sample ID: TB04252012

Lab Sample ID: 200-10516-6
Client Matrix: Water

Date Sampled: 04/25/2012 0000
Date Received: 04/26/2012 0916

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37726	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijd13.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/27/2012 1306			Final Weight/Volume:	25 mL
Prep Date:	04/27/2012 1306				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	0.57	J	5.0
Chlorobenzene	0.046	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	116		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	104		77 - 124
1,2-Dichloropropane-d6	101		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	88		73 - 121
2-Hexanone-d5	91		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1

Sdg Number: PRR1244

Client Sample ID: VHBLK01

Lab Sample ID: 200-10516-7STOBLK

Date Sampled: 04/26/2012 0925

Client Matrix: Water

Date Received: 04/26/2012 0916

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37726	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijd14.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/27/2012 1330			Final Weight/Volume:	25 mL
Prep Date:	04/27/2012 1330				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.032	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	98		65 - 131
Chloroethane-d5	112		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	97		49 - 155
Chloroform-d	95		78 - 121
1,2-Dichloroethane-d4	100		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	99		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	84		73 - 121
2-Hexanone-d5	83		28 - 135
1,1,2,2-Tetrachloroethane-d2	87		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1

Sdg Number: PRR1244

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	*	Surrogate exceeds the control limit
	B	The analyte was found in an associated blank, as well as in the sample.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1

Sdg Number: PRR1244

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC/MS VOA					
Analysis Batch:200-37726					
MB 200-37726/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10516-1	PRR1WATGACI-13-SP-105	T	Water	SOM01.2/VOA_T	
200-10516-1DL	PRR1WATGACI-13-SP-105	T	Water	SOM01.2/VOA_T	
200-10516-2	PRR1WATGACE-13-SP-107	T	Water	SOM01.2/VOA_T	
200-10516-2DL	PRR1WATGACE-13-SP-107	T	Water	SOM01.2/VOA_T	
200-10516-3	PRR1WATGACE-13-SP-110	T	Water	SOM01.2/VOA_T	
200-10516-6	TB04252012	T	Water	SOM01.2/VOA_T	
200-10516-7STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1

Sdg Number: PRR1244

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10516-1 DL	PRR1WATGACI-13-S P-105 DL	101	116	81	105	100	103	104	102
200-10516-1	PRR1WATGACI-13-S P-105	95	110	76	102	99	101	96	96
200-10516-2 DL	PRR1WATGACE-13- SP-107 DL	96	111	77	99	98	100	100	98
200-10516-2	PRR1WATGACE-13- SP-107	110	129	86	128	127*	122	115	116
200-10516-3	PRR1WATGACE-13- SP-110	103	118	80	108	101	105	104	102
200-10516-6	TB04252012	101	116	80	105	99	104	104	101
200-10516-7	VHBLK01	98	112	77	97	95	100	101	99
MB 200-37726/4		97	113	78	99	95	99	101	98

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1

Sdg Number: PRR1244

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10516-1 DL	PRR1WATGACI-13-S P-105 DL	102	91	92	93	106
200-10516-1	PRR1WATGACI-13-S P-105	94	85	86	90	101
200-10516-2 DL	PRR1WATGACE-13- SP-107 DL	98	85	85	88	100
200-10516-2	PRR1WATGACE-13- SP-107	110	104	112	110	116
200-10516-3	PRR1WATGACE-13- SP-110	102	89	92	94	105
200-10516-6	TB04252012	101	88	91	93	103
200-10516-7	VHBLK01	99	84	83	87	101
MB 200-37726/4		99	87	86	88	100

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1

Sdg Number: PRR1244

Method Blank - Batch: 200-37726

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-37726/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/27/2012 0910
 Prep Date: 04/27/2012 0910
 Leach Date: N/A

Analysis Batch: 200-37726
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: D.i
 Lab File ID: dijd04.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	97	65 - 131
Chloroethane-d5	113	71 - 131
1,1-Dichloroethene-d2	78	55 - 104
2-Butanone-d5	99	49 - 155
Chloroform-d	95	78 - 121
1,2-Dichloroethane-d4	99	78 - 129
Benzene-d6	101	77 - 124
1,2-Dichloropropane-d6	98	79 - 124
Toluene-d8	99	77 - 121
trans-1,3-Dichloropropene-d4	87	73 - 121
2-Hexanone-d5	86	28 - 135
1,1,2,2-Tetrachloroethane-d2	88	73 - 125
1,2-Dichlorobenzene-d4	100	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

PROJ. NO.		PROJECT NAME		Requested Analyses																	SDG NUMBER/COC Number						
B0009966.0002.70004		Tierra Phase I Removal																			PRR1244						
SAMPLERS: CHES				DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATGACI-13-SP-105	4/25/2012	13:40	water	Grab	3	X																					
PRR1WATGACE-13-SP-107	4/25/2012	13:55	water	Grab	3	X																					
PRR1WATGACE-13-SP-110	4/25/2012	13:50	water	Grab	3	X																					
PRR1WATCME-32	4/25/2012	13:25	water	Grab	1	X																					
PRR1WAT-13-SP-101	4/25/2012	13:45	water	Grab	1	X																					
TB04252012	4/25/2012		water	Grab	3	X																					
Special Instructions/Comments:				<input type="checkbox"/> Special QA/QC Instructions																							
Requested Analyses				1 2-Butanone, Chlorobenzene 2 TSS 3 4 7 5 6 7 8 9 10 11 12 13 14 15 16 17																							
Lab Name: TestAmerica - Burlington, VT				Shipping Tracking # Specify Turnaround Requirements: 24 hr TAT Laboratory Information and Receipt <input checked="" type="checkbox"/> Cooler packed with ice <input checked="" type="checkbox"/> Cooler custody seal intact Sample Receipt: Condition/Cooler Temp: 26°C Relinquished by: [Signature] DATE Received by: [Signature] DATE Relinquished by: [Signature] DATE Received by: [Signature] DATE Relinquished by: [Signature] DATE Received by: [Signature] DATE																							

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10516-1

SDG Number: PRR1244

Login Number: 10516

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	No numbers
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
 Thomas ORourke
 ARCADIS OF NEW YORK INC
 117 Blanchard St
 Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 25APR12
 ActWgt: 15.0 LB
 CAD: 103767025/INET3250

Dims: 18 X 14 X 16 IN

SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

SOUTH BURLINGTON, VT 05403

Delivery Address Bar Code



Ref # 1129-1616-4
 Invoice #
 PO # B0009966.0002.70004-11128
 Dept #

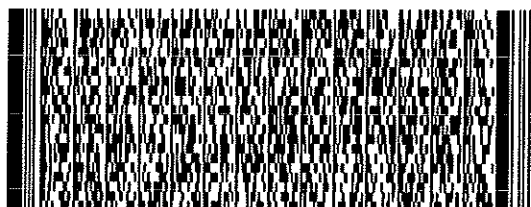
THU - 26 APR A4
FIRST OVERNIGHT

TRK# 7983 2657 4230

0201

05403
 VT-US
BTVA

E9 BTVA



512G1AC44D/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10516-2

SDG Number: PRR1244

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/27/2012 3:13 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/27/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	15

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1244 (200- 10516-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 04/26/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 2.6 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the samples in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10516-2
Sdg Number: PRR1244

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10516-2
Sdg Number: PRR1244

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10516-2
Sdg Number: PRR1244

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10516-4	PRR1WATCME-32	Water	04/25/2012 1325	04/26/2012 0916
200-10516-5	PRR1WAT-13-SP-101	Water	04/25/2012 1345	04/26/2012 0916

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10516-2

Sdg Number: PRR1244

General Chemistry

Client Sample ID: PRR1WATCME-32

Lab Sample ID: 200-10516-4

Date Sampled: 04/25/2012 1325

Client Matrix: Water

Date Received: 04/26/2012 0916

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	28.0		mg/L	2.5	2.5	1.0	SM 2540D
Analysis Batch: 200-37605		Analysis Date: 04/26/2012 1258					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10516-2

Sdg Number: PRR1244

General Chemistry

Client Sample ID: PRR1WAT-13-SP-101

Lab Sample ID: 200-10516-5

Date Sampled: 04/25/2012 1345

Client Matrix: Water

Date Received: 04/26/2012 0916

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	70.4		mg/L	4.0	4.0	1.0	SM 2540D
Analysis Batch: 200-37605		Analysis Date: 04/26/2012 1258					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10516-2

Sdg Number: PRR1244

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10516-2

Sdg Number: PRR1244

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-37605					
LCS 200-37605/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-37605/1	Method Blank	T	Water	SM 2540D	
200-10516-4	PRR1WATCME-32	T	Water	SM 2540D	
200-10516-5	PRR1WAT-13-SP-101	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10516-2
Sdg Number: PRR1244

Method Blank - Batch: 200-37605

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	MB 200-37605/1	Analysis Batch:	200-37605	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/26/2012 1258	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-37605

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	LCS 200-37605/2	Analysis Batch:	200-37605	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/26/2012 1258	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	480.0	96	85 - 115	

**CHAIN OF CUSTODY & LABORATORY
 ANALYSIS REQUEST FORM**

Lab Work Order #

Page 1 of 1

PROJ. NO.		PROJECT NAME																	SDG NUMBER					
B0009966.0002.70004		Tierra Phase I Removal																	COC Number					
SAMPLERS: CHES		Requested Analyses																	PRR1244					
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATGACI-13-SP-105	4/25/2012	13:40	water	Grab	3	X																		
PRR1WATGACE-13-SP-107	4/25/2012	13:55	water	Grab	3	X																		
PRR1WATGACE-13-SP-110	4/25/2012	13:50	water	Grab	3	X																		
PRR1WATCME-32	4/25/2012	13:25	water	Grab	1		X																	
PRR1WAT-13-SP-101	4/25/2012	13:45	water	Grab	1		X																	
TB04252012	4/25/2012		water	Grab	3	X																		
Special Instructions/Comments:		Special QA/QC Instructions																						
Requested Analyses		1 2-Butanone, Chlorobenzene 2 TSS 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17																						
Lab Name: TestAmerica - Burlington, VT		Laboratory Information and Receipt																						
Shipping Tracking #		Cooler packed with ice																						
Specify Turnaround Requirements: 24 hr TAT		Cooler custody seal intact																						
Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:
Joe Gouni	4/25/12	1530	Joe Gouni	4/25/12	1530	Joe Gouni	4/25/12	1530	Joe Gouni	4/25/12	1530	Joe Gouni	4/25/12	1530	Joe Gouni	4/25/12	1530	Joe Gouni	4/25/12	1530	Joe Gouni	4/25/12	1530	Joe Gouni
Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Relinquished by:
Joe Gouni	4/25/12	1600	Joe Gouni	4/25/12	1600	Joe Gouni	4/25/12	1600	Joe Gouni	4/25/12	1600	Joe Gouni	4/25/12	1600	Joe Gouni	4/25/12	1600	Joe Gouni	4/25/12	1600	Joe Gouni	4/25/12	1600	Joe Gouni

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10516-2

SDG Number: PRR1244

Login Number: 10516

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	No numbers
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 25APR12
ActWgt: 15.0 LB
CAD: 103767025/INET3250
Dims: 18 X 14 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

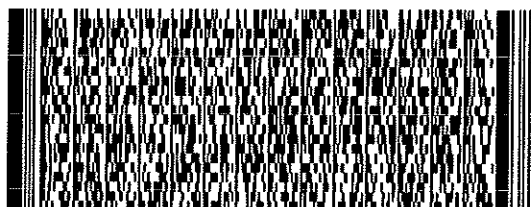
BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

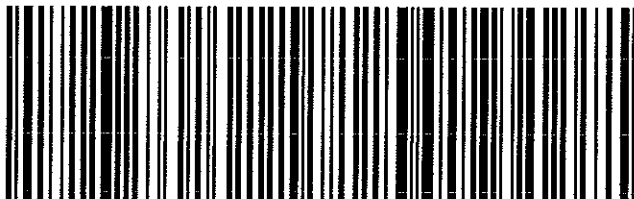
THU - 26 APR A4
FIRST OVERNIGHT

TRK# 7983 2657 4230
0201



E9 BTVA

05403
VT-US
BTV



512G1AC44D/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10546-1

SDG Number: PRR1248

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/30/2012 5:47 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/30/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	17
QC Results	18
Qc Association Summary	19
Surrogate Recovery Report	20
Qc Reports	22
Client Chain of Custody	23
Sample Receipt Checklist	24

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1248 (200-10546-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 04/27/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 4.6 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination. A trace concentration of chlorobenzene was identified in the analysis of the storage blank associated with the sample set. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant storage blank analysis. A trace concentration of chlorobenzene was identified in the analysis of each instrument blank associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the

opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1

Sdg Number: PRR1248

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1

Sdg Number: PRR1248

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1

Sdg Number: PRR1248

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10546-1	PRR1WATGACE-14-SP-105	Water	04/26/2012 1325	04/27/2012 0845
200-10546-2	PRR1WATGACE-14-SP-107	Water	04/26/2012 1315	04/27/2012 0845
200-10546-3	PRR1WATGACE-14-SP-110	Water	04/26/2012 1310	04/27/2012 0845
200-10546-5	PRR1WATGACE-14-SP-106	Water	04/26/2012 1320	04/27/2012 0845
200-10546-6	TB04262012	Water	04/26/2012 0000	04/27/2012 0845
200-10546-7STOBL K	VHBLK01	Water	04/27/2012 0900	04/27/2012 0845

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1

Sdg Number: PRR1248

Client Sample ID: PRR1WATGACE-14-SP-105

Lab Sample ID: 200-10546-1

Date Sampled: 04/26/2012 1325

Client Matrix: Water

Date Received: 04/27/2012 0845

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37755	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dije05.d
Dilution:	4400			Initial Weight/Volume:	25 mL
Analysis Date:	04/27/2012 1638			Final Weight/Volume:	25 mL
Prep Date:	04/27/2012 1638				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	22000	U	22000
Chlorobenzene	59000		2200

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	107		65 - 131
Chloroethane-d5	122		71 - 131
1,1-Dichloroethene-d2	84		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	108		77 - 124
1,2-Dichloropropane-d6	105		79 - 124
Toluene-d8	106		77 - 121
trans-1,3-Dichloropropene-d4	91		73 - 121
2-Hexanone-d5	90		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1
Sdg Number: PRR1248

Client Sample ID: PRR1WATGACE-14-SP-107

Lab Sample ID: 200-10546-2
Client Matrix: Water

Date Sampled: 04/26/2012 1315
Date Received: 04/27/2012 0845

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37755	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dije09.d
Dilution:	146.7			Initial Weight/Volume:	25 mL
Analysis Date:	04/27/2012 1814			Final Weight/Volume:	25 mL
Prep Date:	04/27/2012 1814				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	390	J	730
Chlorobenzene	17000	E	73

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	102		65 - 131
Chloroethane-d5	116		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	106		49 - 155
Chloroform-d	105		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	101		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	89		73 - 121
2-Hexanone-d5	90		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1
Sdg Number: PRR1248

Client Sample ID: PRR1WATGACE-14-SP-107

Lab Sample ID: 200-10546-2
Client Matrix: Water

Date Sampled: 04/26/2012 1315
Date Received: 04/27/2012 0845

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37755	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dije08.d
Dilution:	1100			Initial Weight/Volume:	25 mL
Analysis Date:	04/27/2012 1750	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	04/27/2012 1750				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	520	J D	5500
Chlorobenzene	15000	D	550

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	105		65 - 131
Chloroethane-d5	120		71 - 131
1,1-Dichloroethene-d2	82		55 - 104
2-Butanone-d5	104		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	103		79 - 124
Toluene-d8	105		77 - 121
trans-1,3-Dichloropropene-d4	90		73 - 121
2-Hexanone-d5	90		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1
Sdg Number: PRR1248

Client Sample ID: PRR1WATGACE-14-SP-110

Lab Sample ID: 200-10546-3
Client Matrix: Water

Date Sampled: 04/26/2012 1310
Date Received: 04/27/2012 0845

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37755	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dije12.d
Dilution:	110			Initial Weight/Volume:	25 mL
Analysis Date:	04/27/2012 1926			Final Weight/Volume:	25 mL
Prep Date:	04/27/2012 1926				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	340	J	550
Chlorobenzene	12000	E	55

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	106		65 - 131
Chloroethane-d5	123		71 - 131
1,1-Dichloroethene-d2	83		55 - 104
2-Butanone-d5	113		49 - 155
Chloroform-d	110		78 - 121
1,2-Dichloroethane-d4	110		78 - 129
Benzene-d6	107		77 - 124
1,2-Dichloropropane-d6	105		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	93		73 - 121
2-Hexanone-d5	95		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	107		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1
Sdg Number: PRR1248

Client Sample ID: PRR1WATGACE-14-SP-110

Lab Sample ID: 200-10546-3
Client Matrix: Water

Date Sampled: 04/26/2012 1310
Date Received: 04/27/2012 0845

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37755	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dije11.d
Dilution:	800			Initial Weight/Volume:	25 mL
Analysis Date:	04/27/2012 1902	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	04/27/2012 1902				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	450	J D	4000
Chlorobenzene	12000	D	400

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	113		65 - 131
Chloroethane-d5	128		71 - 131
1,1-Dichloroethene-d2	87		55 - 104
2-Butanone-d5	109		49 - 155
Chloroform-d	108		78 - 121
1,2-Dichloroethane-d4	109		78 - 129
Benzene-d6	113		77 - 124
1,2-Dichloropropane-d6	110		79 - 124
Toluene-d8	112		77 - 121
trans-1,3-Dichloropropene-d4	94		73 - 121
2-Hexanone-d5	95		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	113		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1

Sdg Number: PRR1248

Client Sample ID: PRR1WATGACE-14-SP-106

Lab Sample ID: 200-10546-5

Date Sampled: 04/26/2012 1320

Client Matrix: Water

Date Received: 04/27/2012 0845

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37755	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dije14.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/27/2012 2014			Final Weight/Volume:	25 mL
Prep Date:	04/27/2012 2014				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.2	J	10
Chlorobenzene	5.6		1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	110		65 - 131
Chloroethane-d5	125		71 - 131
1,1-Dichloroethene-d2	84		55 - 104
2-Butanone-d5	111		49 - 155
Chloroform-d	109		78 - 121
1,2-Dichloroethane-d4	112		78 - 129
Benzene-d6	110		77 - 124
1,2-Dichloropropane-d6	107		79 - 124
Toluene-d8	106		77 - 121
trans-1,3-Dichloropropene-d4	89		73 - 121
2-Hexanone-d5	92		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	112		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1

Sdg Number: PRR1248

Client Sample ID: TB04262012

Lab Sample ID: 200-10546-6

Date Sampled: 04/26/2012 0000

Client Matrix: Water

Date Received: 04/27/2012 0845

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37755	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dije15.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/27/2012 2037			Final Weight/Volume:	25 mL
Prep Date:	04/27/2012 2037				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.18	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	107		65 - 131
Chloroethane-d5	122		71 - 131
1,1-Dichloroethene-d2	82		55 - 104
2-Butanone-d5	108		49 - 155
Chloroform-d	103		78 - 121
1,2-Dichloroethane-d4	106		78 - 129
Benzene-d6	109		77 - 124
1,2-Dichloropropane-d6	105		79 - 124
Toluene-d8	106		77 - 121
trans-1,3-Dichloropropene-d4	92		73 - 121
2-Hexanone-d5	92		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	108		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1

Sdg Number: PRR1248

Client Sample ID: VHBLK01

Lab Sample ID: 200-10546-7STOBLK

Date Sampled: 04/27/2012 0900

Client Matrix: Water

Date Received: 04/27/2012 0845

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37755	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dije16.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	04/27/2012 2101			Final Weight/Volume:	25 mL
Prep Date:	04/27/2012 2101				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.038	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	110		65 - 131
Chloroethane-d5	126		71 - 131
1,1-Dichloroethene-d2	85		55 - 104
2-Butanone-d5	109		49 - 155
Chloroform-d	106		78 - 121
1,2-Dichloroethane-d4	109		78 - 129
Benzene-d6	111		77 - 124
1,2-Dichloropropane-d6	108		79 - 124
Toluene-d8	110		77 - 121
trans-1,3-Dichloropropene-d4	92		73 - 121
2-Hexanone-d5	93		28 - 135
1,1,2,2-Tetrachloroethane-d2	97		73 - 125
1,2-Dichlorobenzene-d4	112		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1

Sdg Number: PRR1248

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1

Sdg Number: PRR1248

QC Association Summary

Lab Sample ID	Client Sample ID	Report			Prep Batch
		Basis	Client Matrix	Method	
GC/MS VOA					
Analysis Batch:200-37755					
MB 200-37755/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10546-1	PRR1WATGACE-14-SP-105	T	Water	SOM01.2/VOA_T	
200-10546-2	PRR1WATGACE-14-SP-107	T	Water	SOM01.2/VOA_T	
200-10546-2DL	PRR1WATGACE-14-SP-107	T	Water	SOM01.2/VOA_T	
200-10546-3	PRR1WATGACE-14-SP-110	T	Water	SOM01.2/VOA_T	
200-10546-3DL	PRR1WATGACE-14-SP-110	T	Water	SOM01.2/VOA_T	
200-10546-5	PRR1WATGACE-14-SP-106	T	Water	SOM01.2/VOA_T	
200-10546-6	TB04262012	T	Water	SOM01.2/VOA_T	
200-10546-7STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1

Sdg Number: PRR1248

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10546-1	PRR1WATGACE-14-SP-105	107	122	84	105	102	104	108	105
200-10546-2 DL	PRR1WATGACE-14-SP-107 DL	105	120	82	104	102	105	106	103
200-10546-2	PRR1WATGACE-14-SP-107	102	116	80	106	105	105	102	101
200-10546-3 DL	PRR1WATGACE-14-SP-110 DL	113	128	87	109	108	109	113	110
200-10546-3	PRR1WATGACE-14-SP-110	106	123	83	113	110	110	107	105
200-10546-5	PRR1WATGACE-14-SP-106	110	125	84	111	109	112	110	107
200-10546-6	TB04262012	107	122	82	108	103	106	109	105
200-10546-7	VHBLK01	110	126	85	109	106	109	111	108
MB 200-37755/4		100	115	78	99	96	99	101	99

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1

Sdg Number: PRR1248

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10546-1	PRR1WATGACE-14- SP-105	106	91	90	93	106
200-10546-2 DL	PRR1WATGACE-14- SP-107 DL	105	90	90	93	106
200-10546-2	PRR1WATGACE-14- SP-107	100	89	90	93	106
200-10546-3 DL	PRR1WATGACE-14- SP-110 DL	112	94	95	98	113
200-10546-3	PRR1WATGACE-14- SP-110	103	93	95	99	107
200-10546-5	PRR1WATGACE-14- SP-106	106	89	92	94	112
200-10546-6	TB04262012	106	92	92	94	108
200-10546-7	VHBLK01	110	92	93	97	112
MB 200-37755/4		99	87	85	88	102

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1

Sdg Number: PRR1248

Method Blank - Batch: 200-37755

Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR

Lab Sample ID: MB 200-37755/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/27/2012 1615
Prep Date: 04/27/2012 1615
Leach Date: N/A

Analysis Batch: 200-37755
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: D.i
Lab File ID: dije04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	100	65 - 131
Chloroethane-d5	115	71 - 131
1,1-Dichloroethene-d2	78	55 - 104
2-Butanone-d5	99	49 - 155
Chloroform-d	96	78 - 121
1,2-Dichloroethane-d4	99	78 - 129
Benzene-d6	101	77 - 124
1,2-Dichloropropane-d6	99	79 - 124
Toluene-d8	99	77 - 121
trans-1,3-Dichloropropene-d4	87	73 - 121
2-Hexanone-d5	85	28 - 135
1,1,2,2-Tetrachloroethane-d2	88	73 - 125
1,2-Dichlorobenzene-d4	102	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

PROJECT NAME		Requested Analyses													SDG NUMBER	COC Number									
Terra Phase I Removal		DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	PRR1248	
PRR1WATGACI-14-SP-105	4/26/2012	13:25	water	Grab	3	X																			
PRR1WATGACE-14-SP-107	4/26/2012	13:15	water	Grab	3	X																			
PRR1WATGACE-14-SP-110	4/26/2012	13:10	water	Grab	3	X																			
PRR1WATCME-33	4/26/2012	13:05	water	Grab	1	X																			
PRR1WATGACE-14-SP-106	4/26/2012	13:20	water	Grab	3	X																			
TB04262012	4/26/2012		water	Grab	3	X																			
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																							
Requested Analyses		N1: 1,2-Butanone, Chlorobenzene N2: TSS N3: N4: N7: N5: 6: 7: 8: 9: 10: 11: 12: 13: 14: 15: 16: 17:																							
Lab Name: TestAmerica -Burlington, VT		Laboratory Information and Receipt <input type="checkbox"/> Cooler packed with ice <input type="checkbox"/> Cooler custody seal intact																							
Shipping Tracking #		Received by: <i>[Signature]</i> DATE: 4/26/12 TIME: 1600 Relinquished by: <i>[Signature]</i> DATE: 4/26/12 TIME: 1700																							
Specify Turnaround Requirements: 24 hr TAT		Received by: <i>[Signature]</i> DATE: 4/26/12 TIME: 1700 Relinquished by: <i>[Signature]</i> DATE: 4/26/12 TIME: 1700																							
Sample Receipt:		Condition/Cooler Temp:																							

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10546-1

SDG Number: PRR1248

Login Number: 10546

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	NO SEAL NUMBERS
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6°C IR GUN ID 154/CF=-0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 26APR12
ActWgt: 15.0 LB
CAD: 103767025/NET3250

Dims: 18 X 14 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

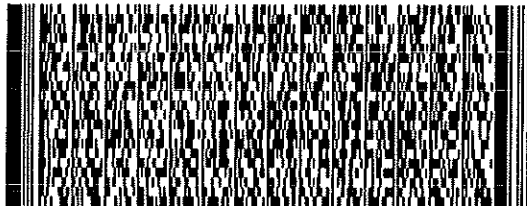
SOUTH BURLINGTON, VT 05403

BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

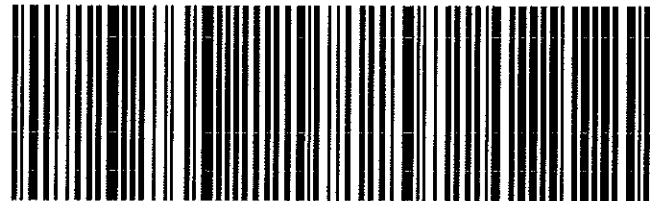
FRI - 27 APR A4
FIRST OVERNIGHT

TRK# 7935 0146 4855
0201



E9 BTVA

05403
VT-US
BTV



512G1XC44DJA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10546-2

SDG Number: PRR1248

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
4/30/2012 4:42 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
04/30/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	9
QC Results	10
Qc Association Summary	11
Qc Reports	12
Client Chain of Custody	13
Sample Receipt Checklist	14

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1248 (200- 10546-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The sample in this sample set was received on 04/27/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The sample was received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 4.6 °C.

SM 2540D Total suspended Solids

The sample in this sample set was analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the sample in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10546-2
Sdg Number: PRR1248

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10546-2

Sdg Number: PRR1248

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10546-2
Sdg Number: PRR1248

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10546-4	PRR1WATCME-33	Water	04/26/2012 1305	04/27/2012 0845

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10546-2

Sdg Number: PRR1248

General Chemistry

Client Sample ID: PRR1WATCME-33

Lab Sample ID: 200-10546-4

Date Sampled: 04/26/2012 1305

Client Matrix: Water

Date Received: 04/27/2012 0845

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	16.9		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-37686		Analysis Date: 04/27/2012 1146					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10546-2

Sdg Number: PRR1248

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10546-2

Sdg Number: PRR1248

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-37686					
LCS 200-37686/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-37686/1	Method Blank	T	Water	SM 2540D	
200-10546-4	PRR1WATCME-33	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10546-2
Sdg Number: PRR1248

Method Blank - Batch: 200-37686

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-37686/1	Analysis Batch:	200-37686	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/27/2012 1146	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-37686

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-37686/2	Analysis Batch:	200-37686	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/27/2012 1146	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	464.0	93	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJ. NO.		PROJECT NAME		SDG NUMBER		COC Number																																																													
B0009966.0002.70004		Terra Phase I Removal		PRR1248																																																															
SAMPLERS: CHES		Requested Analyses		Requested Analyses		Requested Analyses																																																													
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks																																												
PRR1WATGACI-14-SP-105	4/26/2012	13:25	water	Grab	3	X																																																													
PRR1WATGACE-14-SP-107	4/26/2012	13:15	water	Grab	3	X																																																													
PRR1WATGACE-14-SP-110	4/26/2012	13:10	water	Grab	3	X																																																													
PRR1WATCME-33	4/26/2012	13:05	water	Grab	1		X																																																												
PRR1WATGACE-14-SP-106	4/26/2012	13:20	water	Grab	3	X																																																													
TB04262012	4/26/2012		water	Grab	3	X																																																													
Special Instructions/Comments: <input type="checkbox"/> Special QA/QC Instructions																																																																			
Requested Analyses																																																																			
1) 1,2-Butanone, Chlorobenzene																																																																			
2) TSS																																																																			
3)																																																																			
4)																																																																			
5)																																																																			
6)																																																																			
7)																																																																			
8)																																																																			
9)																																																																			
10)																																																																			
11)																																																																			
12)																																																																			
13)																																																																			
14)																																																																			
15)																																																																			
16)																																																																			
17)																																																																			
Laboratory Information and Receipt																																																																			
Lab Name: TestAmerica -Burlington, VT																																																																			
Shipping Tracking #																																																																			
Specify Turnaround Requirements: 24 hr TAT																																																																			
<table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">Relinquished by: <i>[Signature]</i></td> <td style="width: 11%;">DATE</td> <td style="width: 11%;">TIME</td> <td style="width: 11%;">Received by: <i>[Signature]</i></td> <td style="width: 11%;">DATE</td> <td style="width: 11%;">TIME</td> <td style="width: 11%;">Relinquished by:</td> <td style="width: 11%;">DATE</td> <td style="width: 11%;">TIME</td> </tr> <tr> <td></td> <td>4/26/12</td> <td>1600</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Relinquished by: <i>[Signature]</i></td> <td>DATE</td> <td>TIME</td> <td>Received by: <i>[Signature]</i></td> <td>DATE</td> <td>TIME</td> <td>Relinquished by:</td> <td>DATE</td> <td>TIME</td> </tr> <tr> <td></td> <td>4/26/12</td> <td>1700</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Relinquished by: <i>[Signature]</i></td> <td>DATE</td> <td>TIME</td> <td>Received by:</td> <td>DATE</td> <td>TIME</td> <td>Relinquished by:</td> <td>DATE</td> <td>TIME</td> </tr> </table>																							Relinquished by: <i>[Signature]</i>	DATE	TIME	Received by: <i>[Signature]</i>	DATE	TIME	Relinquished by:	DATE	TIME		4/26/12	1600							Relinquished by: <i>[Signature]</i>	DATE	TIME	Received by: <i>[Signature]</i>	DATE	TIME	Relinquished by:	DATE	TIME		4/26/12	1700							Relinquished by: <i>[Signature]</i>	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME
Relinquished by: <i>[Signature]</i>	DATE	TIME	Received by: <i>[Signature]</i>	DATE	TIME	Relinquished by:	DATE	TIME																																																											
	4/26/12	1600																																																																	
Relinquished by: <i>[Signature]</i>	DATE	TIME	Received by: <i>[Signature]</i>	DATE	TIME	Relinquished by:	DATE	TIME																																																											
	4/26/12	1700																																																																	
Relinquished by: <i>[Signature]</i>	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME																																																											
<input type="checkbox"/> Cooler packed with ice <input type="checkbox"/> Cooler custody seal intact																																																																			
Sample Receipt:																																																																			
Condition/Cooler Temp:																																																																			

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10546-2

SDG Number: PRR1248

Login Number: 10546

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	NO SEAL NUMBERS
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6°C IR GUN ID 154/CF=-0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



Newark, NJ 07105

Ship Date: 26APR12
ActWgt: 15.0 LB
CAD: 103767025/NET3250

Dims: 18 X 14 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

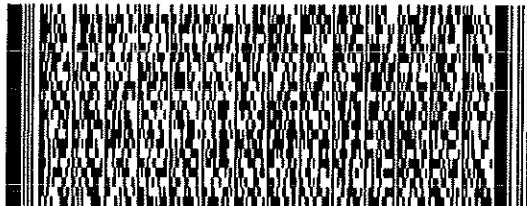
Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

FRI - 27 APR A4
FIRST OVERNIGHT

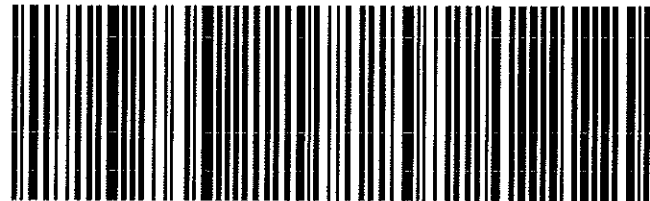
TRK# 7935 0146 4855

0201



E9 BTVA

05403
VT-US
BTV



512G1XC44D/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10581-1

SDG Number: PRR1252

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/2/2012 11:44 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/02/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	15
QC Results	16
Qc Association Summary	17
Surrogate Recovery Report	18
Qc Reports	20
Client Chain of Custody	21
Sample Receipt Checklist	23

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1252 (200-10581-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 04/28/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 1.0 °C.

The request for the analysis of sample PRR1WATGACE-15-SP-107 was withdrawn by the project team, after the samples had been logged into the laboratory.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of each sample in the sample set did meet the technical acceptance criteria specific to DMC recoveries, although not all DMC recoveries were within the control range in each analysis. The method allowance criteria provide for the recovery of up to three DMCs to be outside the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination. A trace concentration of chlorobenzene was identified in the analysis of the storage blank associated with the sample set. The concentration of chlorobenzene in that analysis

was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant storage blank analysis. A trace concentration of chlorobenzene was identified in the analysis of each instrument blank associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um
Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1
Sdg Number: PRR1252

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1

Sdg Number: PRR1252

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1
Sdg Number: PRR1252

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10581-1	PRR1WATGACI-15-SP-105	Water	04/27/2012 1350	04/28/2012 1307
200-10581-3	PRR1WATGACE-15-SP-110	Water	04/27/2012 1338	04/28/2012 1307
200-10581-6	TB04272012	Water	04/27/2012 0000	04/28/2012 1307
200-10581-7STOBL K	VHBLK01	Water	04/28/2012 1315	04/28/2012 1307

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1

Sdg Number: PRR1252

Client Sample ID: PRR1WATGACI-15-SP-105

Lab Sample ID: 200-10581-1

Date Sampled: 04/27/2012 1350

Client Matrix: Water

Date Received: 04/28/2012 1307

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37903	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijj08.d
Dilution:	314.3			Initial Weight/Volume:	25 mL
Analysis Date:	05/01/2012 1309			Final Weight/Volume:	25 mL
Prep Date:	05/01/2012 1309				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	550	J	1600
Chlorobenzene	39000	E B	160

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	111		65 - 131
Chloroethane-d5	134	*	71 - 131
1,1-Dichloroethene-d2	83		55 - 104
2-Butanone-d5	106		49 - 155
Chloroform-d	107		78 - 121
1,2-Dichloroethane-d4	108		78 - 129
Benzene-d6	108		77 - 124
1,2-Dichloropropane-d6	105		79 - 124
Toluene-d8	107		77 - 121
trans-1,3-Dichloropropene-d4	92		73 - 121
2-Hexanone-d5	88		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	113		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1

Sdg Number: PRR1252

Client Sample ID: PRR1WATGACI-15-SP-105

Lab Sample ID: 200-10581-1

Date Sampled: 04/27/2012 1350

Client Matrix: Water

Date Received: 04/28/2012 1307

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-37903	Instrument ID: D.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: diji07.d
Dilution: 2200		Initial Weight/Volume: 25 mL
Analysis Date: 05/01/2012 1245	Run Type: DL	Final Weight/Volume: 25 mL
Prep Date: 05/01/2012 1245		

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	11000	U	11000
Chlorobenzene	32000	D	1100

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	121		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	98		49 - 155
Chloroform-d	96		78 - 121
1,2-Dichloroethane-d4	98		78 - 129
Benzene-d6	99		77 - 124
1,2-Dichloropropane-d6	97		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	85		73 - 121
2-Hexanone-d5	82		28 - 135
1,1,2,2-Tetrachloroethane-d2	90		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1

Sdg Number: PRR1252

Client Sample ID: PRR1WATGACE-15-SP-110

Lab Sample ID: 200-10581-3

Date Sampled: 04/27/2012 1338

Client Matrix: Water

Date Received: 04/28/2012 1307

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37903	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diji14.d
Dilution:	77.2			Initial Weight/Volume:	25 mL
Analysis Date:	05/01/2012 1533			Final Weight/Volume:	25 mL
Prep Date:	05/01/2012 1533				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	300	J	390
Chlorobenzene	8400	E B	39

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	115		71 - 131
1,1-Dichloroethene-d2	72		55 - 104
2-Butanone-d5	94		49 - 155
Chloroform-d	97		78 - 121
1,2-Dichloroethane-d4	95		78 - 129
Benzene-d6	94		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	92		77 - 121
trans-1,3-Dichloropropene-d4	78		73 - 121
2-Hexanone-d5	77		28 - 135
1,1,2,2-Tetrachloroethane-d2	86		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1

Sdg Number: PRR1252

Client Sample ID: PRR1WATGACE-15-SP-110

Lab Sample ID: 200-10581-3

Date Sampled: 04/27/2012 1338

Client Matrix: Water

Date Received: 04/28/2012 1307

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-37903	Instrument ID: D.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: diji13.d
Dilution: 550		Initial Weight/Volume: 25 mL
Analysis Date: 05/01/2012 1509	Run Type: DL	Final Weight/Volume: 25 mL
Prep Date: 05/01/2012 1509		

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	380	J D	2800
Chlorobenzene	8500	D	280

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	99		65 - 131
Chloroethane-d5	119		71 - 131
1,1-Dichloroethene-d2	72		55 - 104
2-Butanone-d5	93		49 - 155
Chloroform-d	93		78 - 121
1,2-Dichloroethane-d4	95		78 - 129
Benzene-d6	96		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	94		77 - 121
trans-1,3-Dichloropropene-d4	78		73 - 121
2-Hexanone-d5	76		28 - 135
1,1,2,2-Tetrachloroethane-d2	84		73 - 125
1,2-Dichlorobenzene-d4	98		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1

Sdg Number: PRR1252

Client Sample ID: TB04272012

Lab Sample ID: 200-10581-6

Date Sampled: 04/27/2012 0000

Client Matrix: Water

Date Received: 04/28/2012 1307

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37903	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diji16.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/01/2012 1620			Final Weight/Volume:	25 mL
Prep Date:	05/01/2012 1620				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.24	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	99		65 - 131
Chloroethane-d5	119		71 - 131
1,1-Dichloroethene-d2	73		55 - 104
2-Butanone-d5	100		49 - 155
Chloroform-d	94		78 - 121
1,2-Dichloroethane-d4	100		78 - 129
Benzene-d6	97		77 - 124
1,2-Dichloropropane-d6	95		79 - 124
Toluene-d8	95		77 - 121
trans-1,3-Dichloropropene-d4	82		73 - 121
2-Hexanone-d5	81		28 - 135
1,1,2,2-Tetrachloroethane-d2	89		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1
Sdg Number: PRR1252

Client Sample ID: VHBLK01

Lab Sample ID: 200-10581-7STOBLK
Client Matrix: Water

Date Sampled: 04/28/2012 1315
Date Received: 04/28/2012 1307

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37903	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diji17.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/01/2012 1644			Final Weight/Volume:	25 mL
Prep Date:	05/01/2012 1644				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.043	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	122		71 - 131
1,1-Dichloroethene-d2	73		55 - 104
2-Butanone-d5	99		49 - 155
Chloroform-d	96		78 - 121
1,2-Dichloroethane-d4	100		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	97		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	84		73 - 121
2-Hexanone-d5	81		28 - 135
1,1,2,2-Tetrachloroethane-d2	90		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1

Sdg Number: PRR1252

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	*	Surrogate exceeds the control limit
	B	The analyte was found in an associated blank, as well as in the sample.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1

Sdg Number: PRR1252

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC/MS VOA					
Analysis Batch:200-37903					
MB 200-37903/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10581-1	PRR1WATGACI-15-SP-105	T	Water	SOM01.2/VOA_T	
200-10581-1DL	PRR1WATGACI-15-SP-105	T	Water	SOM01.2/VOA_T	
200-10581-3	PRR1WATGACE-15-SP-110	T	Water	SOM01.2/VOA_T	
200-10581-3DL	PRR1WATGACE-15-SP-110	T	Water	SOM01.2/VOA_T	
200-10581-6	TB04272012	T	Water	SOM01.2/VOA_T	
200-10581-7STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1

Sdg Number: PRR1252

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10581-1 DL	PRR1WATGACI-15-S P-105 DL	101	121	75	98	96	98	99	97
200-10581-1	PRR1WATGACI-15-S P-105	111	134*	83	106	107	108	108	105
200-10581-3 DL	PRR1WATGACE-15- SP-110 DL	99	119	72	93	93	95	96	93
200-10581-3	PRR1WATGACE-15- SP-110	96	115	72	94	97	95	94	92
200-10581-6	TB04272012	99	119	73	100	94	100	97	95
200-10581-7	VHBLK01	101	122	73	99	96	100	100	97
MB 200-37903/4		100	119	74	98	95	98	98	96

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1

Sdg Number: PRR1252

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10581-1 DL	PRR1WATGACI-15-S P-105 DL	98	85	82	90	102
200-10581-1	PRR1WATGACI-15-S P-105	107	92	88	98	113
200-10581-3 DL	PRR1WATGACE-15- SP-110 DL	94	78	76	84	98
200-10581-3	PRR1WATGACE-15- SP-110	92	78	77	86	100
200-10581-6	TB04272012	95	82	81	89	101
200-10581-7	VHBLK01	99	84	81	90	105
MB 200-37903/4		97	84	79	87	101

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1

Sdg Number: PRR1252

Method Blank - Batch: 200-37903

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-37903/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/01/2012 1134
Prep Date: 05/01/2012 1134
Leach Date: N/A

Analysis Batch: 200-37903
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: D.i
Lab File ID: diji04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	100	65 - 131
Chloroethane-d5	119	71 - 131
1,1-Dichloroethene-d2	74	55 - 104
2-Butanone-d5	98	49 - 155
Chloroform-d	95	78 - 121
1,2-Dichloroethane-d4	98	78 - 129
Benzene-d6	98	77 - 124
1,2-Dichloropropane-d6	96	79 - 124
Toluene-d8	97	77 - 121
trans-1,3-Dichloropropene-d4	84	73 - 121
2-Hexanone-d5	79	28 - 135
1,1,2,2-Tetrachloroethane-d2	87	73 - 125
1,2-Dichlorobenzene-d4	101	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJECT NAME		Requested Analyses																	
Terra Phase I Removal		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
SAMPLE ID	DATE	MATRIX	Composite/Grab	# Containers	TIME	DATE												Remarks	
PRR1WATGACI-15-SP-105	4/27/2012	water	Grab	3	13:50	4/27/2012	X												
PRR1WATGACE-15-SP-107	4/27/2012	water	Grab	3	13:44	4/27/2012	X												
PRR1WATGACE-15-SP-110	4/27/2012	water	Grab	3	13:38	4/27/2012	X												
PRR1WATCME-34	4/27/2012	water	Grab	1	13:33	4/27/2012	X												
PRR1WAT-15-SP-101	4/27/2012	water	Grab	1	13:57	4/27/2012	X												
TB04272012	4/27/2012	water	Grab	3		4/27/2012	X												
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																	
Requested Analyses		1,2-Etanol, Chlorobenzene																	
Lab Name: TestAmerica -Burlington, VT		Shipping Tracking #																	
Specify Turnaround Requirements: 24 hr TAT		Relinquished by: <i>[Signature]</i> Received by: <i>[Signature]</i>																	
		DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME
		4/27/12	1706	4/27/12	1730	4/28/12	0945												

Young, Kirk

From: Shatt, Ryan [Ryan.Shatt@arcadis-us.com]
Sent: Tuesday, May 01, 2012 1:26 PM
To: Hammond, Ryan; Young, Kirk
Subject: 4/27 and 4/28 Performance samples

Hi – Give me a call when you get this and are back in the office.

For the samples collected 4/27 (SDG PRR1252) and 4/28 (SDG PRR1256):

Analyze SP-105 and SP-110 samples, cancel samples SP-106 and SP-107.

Thanks

Ryan

**Privileged and Confidential Work Product
Prepared at the Request of Legal Counsel
For or in Anticipation of Litigation
And in Connection with Rendering Legal Advice**

Ryan Shatt | Project Geologist | ryan.shatt@arcadis-us.com

ARCADIS U.S., Inc. | 2300 Eastlake Avenue East, Suite 200 | Seattle, WA 98102
T: 206.726.4713 | F: 206.325.8218
www.arcadis-us.com

Registered Geologist/ WA | PA
Registered Hydrogeologist/ WA

ARCADIS, Imagine the result

NOTICE: This e-mail and any files transmitted with it are the property of ARCADIS U.S., Inc. and its affiliates. All rights, including without limitation copyright, are reserved. The proprietary information contained in this e-mail message, and any files transmitted with it, is intended for the use of the recipient (s) named above. If the reader of this e-mail is not the intended recipient, you are hereby notified that you have received this e-mail in error and that any review, distribution or copying of this e-mail or any files transmitted with it is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete the original message and any files transmitted. The unauthorized use of this e-mail or any files transmitted with it is prohibited and disclaimed by ARCADIS U.S., Inc. and its affiliates. Nothing herein is intended to constitute the offering or performance of services where otherwise restricted by law.

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10581-1

SDG Number: PRR1252

Login Number: 10581

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698963, 964
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



J42101112190225

Newark, NJ 07105

Ship Date: 27APR12
ActWgt: 15.0 LB
CAD: 103767025/ANET3250

Dims: 18 X 16 X 18 IN

Delivery Address Bar Code



Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

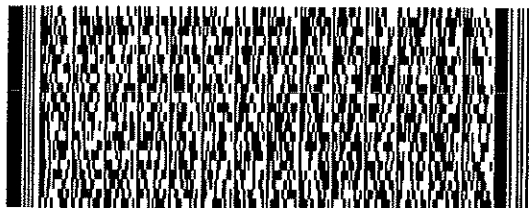
SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

SOUTH BURLINGTON, VT 05403

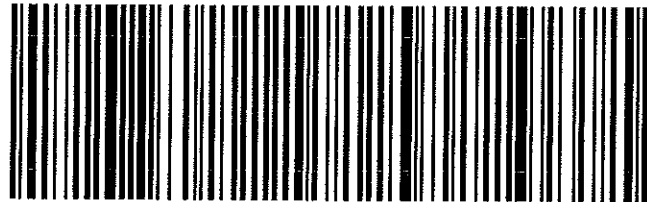
SATURDAY ### A4
FIRST OVERNIGHT

TRK# 7935 0702 9861
0201



X0 BTVA

05403
VT-US
BTV



512G1A044D/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10581-2

SDG Number: PRR1252

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/1/2012 3:16 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/01/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	15

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1252 (200-10581-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The sample in this sample set was received on 04/28/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The sample was received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 1.0 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10581-2
Sdg Number: PRR1252

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10581-2

Sdg Number: PRR1252

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10581-2
Sdg Number: PRR1252

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10581-4	PRR1WATCME-34	Water	04/27/2012 1333	04/28/2012 1307
200-10581-5	PRR1WAT-15-SP-101	Water	04/27/2012 1357	04/28/2012 1307

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10581-2

Sdg Number: PRR1252

General Chemistry

Client Sample ID: PRR1WATCME-34

Lab Sample ID: 200-10581-4

Date Sampled: 04/27/2012 1333

Client Matrix: Water

Date Received: 04/28/2012 1307

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	14.4		mg/L	1.8	1.8	1.0	SM 2540D
Analysis Batch: 200-37780		Analysis Date: 04/30/2012 1205					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10581-2

Sdg Number: PRR1252

General Chemistry

Client Sample ID: PRR1WAT-15-SP-101

Lab Sample ID: 200-10581-5

Date Sampled: 04/27/2012 1357

Client Matrix: Water

Date Received: 04/28/2012 1307

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	211		mg/L	7.1	7.1	1.0	SM 2540D
Analysis Batch: 200-37780		Analysis Date: 04/30/2012 1205					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10581-2

Sdg Number: PRR1252

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10581-2

Sdg Number: PRR1252

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-37780					
LCS 200-37780/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-37780/1	Method Blank	T	Water	SM 2540D	
200-10581-4	PRR1WATCME-34	T	Water	SM 2540D	
200-10581-5	PRR1WAT-15-SP-101	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10581-2
Sdg Number: PRR1252

Method Blank - Batch: 200-37780

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-37780/1	Analysis Batch:	200-37780	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/30/2012 1205	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-37780

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-37780/2	Analysis Batch:	200-37780	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/30/2012 1205	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	492.0	98	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJECT NAME		Requested Analyses																
B0009966.0002.70004		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
SAMPLE ID	DATE	MATRIX	Composite/Grab	# Containers	TIME	DATE												Remarks
PRR1WATGACI-15-SP-105	4/27/2012	water	Grab	3	13:50	4/27/2012	X											
PRR1WATGACE-15-SP-107	4/27/2012	water	Grab	3	13:44	4/27/2012	X											
PRR1WATGACE-15-SP-110	4/27/2012	water	Grab	3	13:38	4/27/2012	X											
PRR1WATCME-34	4/27/2012	water	Grab	1	13:33	4/27/2012	X											
PRR1WAT-15-SP-101	4/27/2012	water	Grab	1	13:57	4/27/2012	X											
TB04272012	4/27/2012	water	Grab	3		4/27/2012	X											
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																
Lab Name: TestAmerica -Burlington, VT		Laboratory Information and Receipt																
Shipping Tracking #		<input type="checkbox"/> Cooler packed with ice																
Specify Turnaround Requirements: 24 hr TAT		<input type="checkbox"/> Cooler custody seal intact																
Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Remarks
<i>[Signature]</i>	4/27/12	1706	<i>[Signature]</i>	4/27/12	1706	<i>[Signature]</i>			<i>[Signature]</i>			<i>[Signature]</i>						
<i>[Signature]</i>	4/27/12	1730	<i>[Signature]</i>	4/27/12	1730	<i>[Signature]</i>			<i>[Signature]</i>			<i>[Signature]</i>						
<i>[Signature]</i>	4/28/12	0945	<i>[Signature]</i>	4/28/12	0945	<i>[Signature]</i>			<i>[Signature]</i>			<i>[Signature]</i>						

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10581-2

SDG Number: PRR1252

Login Number: 10581

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698963, 964
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



J42101112190225

Newark, NJ 07105

Ship Date: 27APR12
ActWgt: 15.0 LB
CAD: 103767025/ANET3250

Dims: 18 X 16 X 18 IN

Delivery Address Bar Code



Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

SOUTH BURLINGTON, VT 05403

SATURDAY ### A4
FIRST OVERNIGHT

TRK# 7935 0702 9861

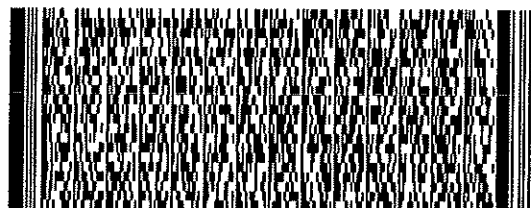
0201

05403

VT-US

BTV

X0 BTVA



512G1A044D/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10595-1

SDG Number: PRR1256

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/3/2012 4:11 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/03/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	17
QC Results	18
Qc Association Summary	19
Surrogate Recovery Report	20
Qc Reports	22
Client Chain of Custody	24
Sample Receipt Checklist	25

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1256 (200-10595-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 0430/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 2.6 °C.

The request for the analysis of samples PRR1WATCACE-16-SP-106 and PRR1WATGACE-16-SP-107 was withdrawn by the project team, after the samples had been logged into the laboratory.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of each sample in the sample set did meet the technical acceptance criteria specific to DMC recoveries, although not all DMC recoveries were within the control range in each analysis. The method allowance criteria provide for the recovery of up to three DMCs to be outside the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set. A trace

concentration of chlorobenzene was identified in the analysis of one of the instrument blanks associated with the analytical work, and trace concentrations of 2-butanone and chlorobenzene were identified in the analysis of the second instrument blank. The concentration of each analyte in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in each initial calibration. The response for each target analyte met the percent difference criterion in each opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um
Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

Sdg Number: PRR1256

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

Sdg Number: PRR1256

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

Sdg Number: PRR1256

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10595-1	PRR1WATGACI-16-SP-105	Water	04/28/2012 1425	04/30/2012 0945
200-10595-3	PRR1WATGACE-16-SP-110	Water	04/28/2012 1445	04/30/2012 0945
200-10595-6TB	TB04282012	Water	04/28/2012 0000	04/30/2012 0945
200-10595-8	PRR1WATCACE-16-SP-111	Water	04/28/2012 1450	04/30/2012 0945
200-10595-9STOBL K	VHBLK01	Water	04/30/2012 1150	04/30/2012 0945

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

Sdg Number: PRR1256

Client Sample ID: PRR1WATGACI-16-SP-105

Lab Sample ID: 200-10595-1

Date Sampled: 04/28/2012 1425

Client Matrix: Water

Date Received: 04/30/2012 0945

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr Analysis Batch: 200-37903 Instrument ID: D.i
Prep Method: SOM01.2/VOA_PR Prep Batch: N/A Lab File ID: diji19.d
Dilution: 440 Initial Weight/Volume: 25 mL
Analysis Date: 05/01/2012 1732 Final Weight/Volume: 25 mL
Prep Date: 05/01/2012 1732

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	490	J	2200
Chlorobenzene	51000	E	220

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	123		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	96		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	98		78 - 129
Benzene-d6	97		77 - 124
1,2-Dichloropropane-d6	94		79 - 124
Toluene-d8	96		77 - 121
trans-1,3-Dichloropropene-d4	79		73 - 121
2-Hexanone-d5	77		28 - 135
1,1,2,2-Tetrachloroethane-d2	89		73 - 125
1,2-Dichlorobenzene-d4	104		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1
Sdg Number: PRR1256

Client Sample ID: PRR1WATGACI-16-SP-105

Lab Sample ID: 200-10595-1
Client Matrix: Water

Date Sampled: 04/28/2012 1425
Date Received: 04/30/2012 0945

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr Analysis Batch: 200-37903 Instrument ID: D.i
Prep Method: SOM01.2/VOA_PR Prep Batch: N/A Lab File ID: diji18.d
Dilution: 2933.3 Initial Weight/Volume: 25 mL
Analysis Date: 05/01/2012 1708 Run Type: DL Final Weight/Volume: 25 mL
Prep Date: 05/01/2012 1708

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	15000	U	15000
Chlorobenzene	46000	D	1500

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	107		65 - 131
Chloroethane-d5	128		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	100		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	103		78 - 129
Benzene-d6	104		77 - 124
1,2-Dichloropropane-d6	100		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	85		73 - 121
2-Hexanone-d5	84		28 - 135
1,1,2,2-Tetrachloroethane-d2	92		73 - 125
1,2-Dichlorobenzene-d4	110		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

Sdg Number: PRR1256

Client Sample ID: PRR1WATGACE-16-SP-110

Lab Sample ID: 200-10595-3

Date Sampled: 04/28/2012 1445

Client Matrix: Water

Date Received: 04/30/2012 0945

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37903	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diji25.d
Dilution:	176			Initial Weight/Volume:	25 mL
Analysis Date:	05/01/2012 1956			Final Weight/Volume:	25 mL
Prep Date:	05/01/2012 1956				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	440	J	880
Chlorobenzene	21000	E	88

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	102		65 - 131
Chloroethane-d5	124		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	107		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	106		78 - 129
Benzene-d6	96		77 - 124
1,2-Dichloropropane-d6	96		79 - 124
Toluene-d8	94		77 - 121
trans-1,3-Dichloropropene-d4	82		73 - 121
2-Hexanone-d5	82		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	107		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

Sdg Number: PRR1256

Client Sample ID: PRR1WATGACE-16-SP-110

Lab Sample ID: 200-10595-3

Date Sampled: 04/28/2012 1445

Client Matrix: Water

Date Received: 04/30/2012 0945

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-37903	Instrument ID: D.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: diji24.d
Dilution: 1257.1		Initial Weight/Volume: 25 mL
Analysis Date: 05/01/2012 1932	Run Type: DL	Final Weight/Volume: 25 mL
Prep Date: 05/01/2012 1932		

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	530	J D	6300
Chlorobenzene	18000	D	630

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	105		65 - 131
Chloroethane-d5	131		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	111		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	105		77 - 124
1,2-Dichloropropane-d6	102		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	86		73 - 121
2-Hexanone-d5	91		28 - 135
1,1,2,2-Tetrachloroethane-d2	97		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

Sdg Number: PRR1256

Client Sample ID: TB04282012

Lab Sample ID: 200-10595-6TB

Date Sampled: 04/28/2012 0000

Client Matrix: Water

Date Received: 04/30/2012 0945

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-37903	Instrument ID: D.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: diji27.d
Dilution: 1.0		Initial Weight/Volume: 25 mL
Analysis Date: 05/01/2012 2044		Final Weight/Volume: 25 mL
Prep Date: 05/01/2012 2044		

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.35	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	106		65 - 131
Chloroethane-d5	128		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	101		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	101		78 - 129
Benzene-d6	104		77 - 124
1,2-Dichloropropane-d6	100		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	83		73 - 121
2-Hexanone-d5	80		28 - 135
1,1,2,2-Tetrachloroethane-d2	90		73 - 125
1,2-Dichlorobenzene-d4	107		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

Sdg Number: PRR1256

Client Sample ID: PRR1WATCACE-16-SP-111

Lab Sample ID: 200-10595-8

Date Sampled: 04/28/2012 1450

Client Matrix: Water

Date Received: 04/30/2012 0945

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38007	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdhb05.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/02/2012 1529			Final Weight/Volume:	25 mL
Prep Date:	05/02/2012 1529				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	86		5.0
Chlorobenzene	75	E	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	137		49 - 155
Chloroform-d	126	*	78 - 121
1,2-Dichloroethane-d4	120		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	94		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	114		73 - 121
2-Hexanone-d5	146	*	28 - 135
1,1,2,2-Tetrachloroethane-d2	111		73 - 125
1,2-Dichlorobenzene-d4	108		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1
Sdg Number: PRR1256

Client Sample ID: PRR1WATCACE-16-SP-111

Lab Sample ID: 200-10595-8
Client Matrix: Water

Date Sampled: 04/28/2012 1450
Date Received: 04/30/2012 0945

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-37903	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dijj29.d
Dilution:	7.3			Initial Weight/Volume:	25 mL
Analysis Date:	05/01/2012 2133	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/01/2012 2133				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	56	D	37
Chlorobenzene	94	D	3.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	105		65 - 131
Chloroethane-d5	128		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	104		49 - 155
Chloroform-d	104		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	103		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	85		73 - 121
2-Hexanone-d5	86		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	108		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1
Sdg Number: PRR1256

Client Sample ID: VHBLK01

Lab Sample ID: 200-10595-9STOBLK
Client Matrix: Water

Date Sampled: 04/30/2012 1150
Date Received: 04/30/2012 0945

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38007	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdhb07.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/02/2012 1617			Final Weight/Volume:	25 mL
Prep Date:	05/02/2012 1617				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	95		65 - 131
Chloroethane-d5	100		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	111		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	110		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121
2-Hexanone-d5	107		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	99		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

Sdg Number: PRR1256

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	*	Surrogate exceeds the control limit

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

Sdg Number: PRR1256

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-37903					
MB 200-37903/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10595-1	PRR1WATGACI-16-SP-105	T	Water	SOM01.2/VOA_T	
200-10595-1DL	PRR1WATGACI-16-SP-105	T	Water	SOM01.2/VOA_T	
200-10595-3	PRR1WATGACE-16-SP-110	T	Water	SOM01.2/VOA_T	
200-10595-3DL	PRR1WATGACE-16-SP-110	T	Water	SOM01.2/VOA_T	
200-10595-6TB	TB04282012	T	Water	SOM01.2/VOA_T	
200-10595-8DL	PRR1WATCACE-16-SP-111	T	Water	SOM01.2/VOA_T	
Analysis Batch:200-38007					
MB 200-38007/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10595-8	PRR1WATCACE-16-SP-111	T	Water	SOM01.2/VOA_T	
200-10595-9STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

Sdg Number: PRR1256

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10595-1 DL	PRR1WATGACI-16-S P-105 DL	107	128	78	100	101	103	104	100
200-10595-1	PRR1WATGACI-16-S P-105	100	123	75	96	98	98	97	94
200-10595-3 DL	PRR1WATGACE-16- SP-110 DL	105	131	77	111	102	107	105	102
200-10595-3	PRR1WATGACE-16- SP-110	102	124	75	107	101	106	96	96
200-10595-6	TB04282012	106	128	75	101	99	101	104	100
200-10595-8 DL	PRR1WATCACE-16- SP-111 DL	105	128	75	104	104	105	106	103
200-10595-8	PRR1WATCACE-16- SP-111	97	102	79	137	126*	120	102	94
200-10595-9	VHBLK01	95	100	78	111	99	110	100	92
MB 200-37903/4		100	119	74	98	95	98	98	96
MB 200-38007/4		98	102	80	113	104	116	106	94

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

Sdg Number: PRR1256

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10595-1 DL	PRR1WATGACI-16-S P-105 DL	102	85	84	92	110
200-10595-1	PRR1WATGACI-16-S P-105	96	79	77	89	104
200-10595-3 DL	PRR1WATGACE-16- SP-110 DL	101	86	91	97	106
200-10595-3	PRR1WATGACE-16- SP-110	94	82	82	93	107
200-10595-6	TB04282012	101	83	80	90	107
200-10595-8 DL	PRR1WATCACE-16- SP-111 DL	103	85	86	94	108
200-10595-8	PRR1WATCACE-16- SP-111	102	114	146*	111	108
200-10595-9	VHBLK01	100	104	107	99	99
MB 200-37903/4		97	84	79	87	101
MB 200-38007/4		105	108	111	103	104

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

Sdg Number: PRR1256

Method Blank - Batch: 200-37903

Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR

Lab Sample ID: MB 200-37903/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/01/2012 1134
Prep Date: 05/01/2012 1134
Leach Date: N/A

Analysis Batch: 200-37903
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: D.i
Lab File ID: diji04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	100	65 - 131
Chloroethane-d5	119	71 - 131
1,1-Dichloroethene-d2	74	55 - 104
2-Butanone-d5	98	49 - 155
Chloroform-d	95	78 - 121
1,2-Dichloroethane-d4	98	78 - 129
Benzene-d6	98	77 - 124
1,2-Dichloropropane-d6	96	79 - 124
Toluene-d8	97	77 - 121
trans-1,3-Dichloropropene-d4	84	73 - 121
2-Hexanone-d5	79	28 - 135
1,1,2,2-Tetrachloroethane-d2	87	73 - 125
1,2-Dichlorobenzene-d4	101	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

Sdg Number: PRR1256

Method Blank - Batch: 200-38007

Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR

Lab Sample ID: MB 200-38007/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/02/2012 1504
Prep Date: 05/02/2012 1504
Leach Date: N/A

Analysis Batch: 200-38007
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdhb04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	98	65 - 131
Chloroethane-d5	102	71 - 131
1,1-Dichloroethene-d2	80	55 - 104
2-Butanone-d5	113	49 - 155
Chloroform-d	104	78 - 121
1,2-Dichloroethane-d4	116	78 - 129
Benzene-d6	106	77 - 124
1,2-Dichloropropane-d6	94	79 - 124
Toluene-d8	105	77 - 121
trans-1,3-Dichloropropene-d4	108	73 - 121
2-Hexanone-d5	111	28 - 135
1,1,2,2-Tetrachloroethane-d2	103	73 - 125
1,2-Dichlorobenzene-d4	104	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJECT NAME		Requested Analyses																
Tierra Phase I Removal		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	Remarks												
PRR1WATGACI-16-SP-105	4/28/2012	14:25	water	Grab	3	X												
PRR1WATGACE-16-SP-107	4/28/2012	14:32	water	Grab	3	X												
PRR1WATGACE-16-SP-110	4/28/2012	14:45	water	Grab	3	X												
PRR1WATCME-35	4/28/2012	15:01	water	Grab	1	X												
PRR1WAT-16-SP-101	4/28/2012	14:20	water	Grab	1	X												
TB04282012	4/28/2012		water	Grab	3	X												
PRR1WATGACI-16-SP-106	4/28/2012	14:36	water	Grab	3	X												
PRR1WATGACI-16-SP-111	4/28/2012	14:50	water	Grab	3	X												
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions Lab Name: TestAmerica -Burlington, VT Shipping Tracking # Specify Turnaround Requirements: 24 hr TAT Relinquished by: <i>[Signature]</i> DATE: 4/28 TIME: 1515 Relinquished by: <i>[Signature]</i> DATE: 4/28/12 TIME: 1530 Relinquished by: <i>[Signature]</i> DATE: 4/30/12 TIME: 0945 Relinquished by: <i>[Signature]</i> DATE: <i>[Blank]</i> TIME: <i>[Blank]</i>																
Requested Analyses		1 2-Buonene, Chlorobenzene 2 TSS 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17																
Laboratory Information and Receipt		Sample Receipt: Condition/Cooler Temp: 2.6°C ok! Relinquished by: <i>[Signature]</i> DATE: <i>[Blank]</i> Relinquished by: <i>[Signature]</i> DATE: <i>[Blank]</i> Relinquished by: <i>[Signature]</i> DATE: <i>[Blank]</i>																

TH BUR

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10595-1

SDG Number: PRR1256

Login Number: 10595

List Source: TestAmerica Burlington

List Number: 2

Creator: Matot, Wade M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698965, 966
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6°C IR gun ID 154, CF= -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2108
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 28APR12
ActWgt: 10.0 LB
CAD: 103767025/NET3250
Dims: 14 X 10 X 12 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

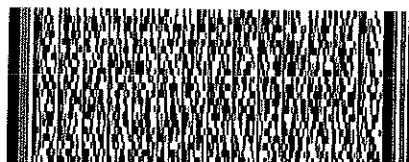
BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # B0009998.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

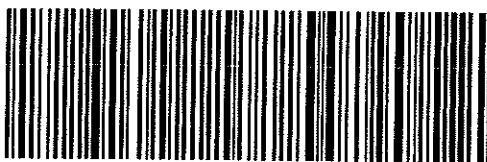
MON - 30 APR A4
PRIORITY OVERNIGHT

TRK# 7983 3851 8820
0201



XH BTVA

05403
VT-US
BTV



512G1AC44E/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or Inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10595-2

SDG Number: PRR1256

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/1/2012 3:26 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/01/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	17

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1256 (200-10595-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The sample in this sample set was received on 04/30/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The sample was received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 2.6 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10595-2
Sdg Number: PRR1256

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10595-2

Sdg Number: PRR1256

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10595-2
Sdg Number: PRR1256

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10595-4	PRR1WATCME-35	Water	04/28/2012 1501	04/30/2012 0945
200-10595-5	PRR1WAT-16-SP-101	Water	04/28/2012 1420	04/30/2012 0945

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10595-2

Sdg Number: PRR1256

General Chemistry

Client Sample ID: PRR1WATCME-35

Lab Sample ID: 200-10595-4

Date Sampled: 04/28/2012 1501

Client Matrix: Water

Date Received: 04/30/2012 0945

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	22.0		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-37780		Analysis Date: 04/30/2012 1205					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10595-2

Sdg Number: PRR1256

General Chemistry

Client Sample ID: PRR1WAT-16-SP-101

Lab Sample ID: 200-10595-5

Date Sampled: 04/28/2012 1420

Client Matrix: Water

Date Received: 04/30/2012 0945

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	92.0		mg/L	5.0	5.0	1.0	SM 2540D
Analysis Batch: 200-37780		Analysis Date: 04/30/2012 1205					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10595-2

Sdg Number: PRR1256

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10595-2

Sdg Number: PRR1256

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-37780					
LCS 200-37780/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-37780/1	Method Blank	T	Water	SM 2540D	
200-10595-4	PRR1WATCME-35	T	Water	SM 2540D	
200-10595-5	PRR1WAT-16-SP-101	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10595-2
Sdg Number: PRR1256

Method Blank - Batch: 200-37780

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-37780/1	Analysis Batch:	200-37780	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/30/2012 1205	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-37780

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-37780/2	Analysis Batch:	200-37780	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/30/2012 1205	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	492.0	98	85 - 115	

Hammond, Ryan

From: Shatt, Ryan [Ryan.Shatt@arcadis-us.com]

Sent: Monday, April 30, 2012 3:18 PM

To: Hammond, Ryan

Subject: FW: Message from WA01P07

Attachments: SWA01P0712043012130.pdf

Ryan – see attached for COC revisions for 4/28 Performance sample

Thanks

**Privileged and Confidential Work Product
Prepared at the Request of Legal Counsel
For or in Anticipation of Litigation
And in Connection with Rendering Legal Advice**

From: WA01P07@arcadis-us.com [mailto:WA01P07@arcadis-us.com]

Sent: Monday, April 30, 2012 12:13 PM

To: Shatt, Ryan

Subject: Message from WA01P07

NOTICE: This e-mail and any files transmitted with it are the property of ARCADIS U.S., Inc. and its affiliates. All rights, including without limitation copyright, are reserved. The proprietary information contained in this e-mail message, and any files transmitted with it, is intended for the use of the recipient (s) named above. If the reader of this e-mail is not the intended recipient, you are hereby notified that you have received this e-mail in error and that any review, distribution or copying of this e-mail or any files transmitted with it is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete the original message and any files transmitted. The unauthorized use of this e-mail or any files transmitted with it is prohibited and disclaimed by ARCADIS U.S., Inc. and its affiliates. Nothing herein is intended to constitute the offering or performance of services where otherwise restricted by law.

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJECT NAME		Requested Analyses																											
Tierra Phase I Removal																													
PROJ. NO.	SDG NUMBER																COC Number												
B0009966.0002.70004	PRR1256																PRR1256												
SAMPLERS:	CHES	SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks				
		PRR1WATGAG-16-SP-105	4/28/2012	14:25	water	Grab	3	X																					
		PRR1WATGACE-16-SP-107	4/28/2012	14:32	water	Grab	3	X																					
		PRR1WATGACE-16-SP-110	4/28/2012	14:45	water	Grab	3	X																					
		PRR1WATCME-35	4/28/2012	15:01	water	Grab	1		X																				
		PRR1WAT-16-SP-101	4/28/2012	14:20	water	Grab	1		X																				
		TB04282012	4/28/2012		water	Grab	3	X																					
		PRR1WATGAG-16-SP-106	4/28/2012	14:36	water	Grab	3	X																	LAG				
		PRR1WATGAG-16-SP-111	4/28/2012	14:50	water	Grab	3	X																	LAG				
		<input type="checkbox"/> Special QA/QC Instructions																											
		Special Instructions/Comments:																											
		Laboratory Information and Receipt																											
		Lab Name: TestAmerica -Burlington, VT																											
		Shipping Tracking #																											
		Specify Turnaround Requirements: 24 hr TAT																											
		Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:
		<i>[Signature]</i>	4/28	1515	<i>[Signature]</i>	4/28	1515	<i>[Signature]</i>	4/28/12	1530	<i>[Signature]</i>	4/28/12	1530	<i>[Signature]</i>	4/30/12	0945	<i>[Signature]</i>	4/30/12	0945	<i>[Signature]</i>	4/30/12	0945	<i>[Signature]</i>	4/30/12	0945	<i>[Signature]</i>	4/30/12	0945	<i>[Signature]</i>
		Sample Receipt:																											
		Condition/Cooler Temp: 2.6°C ok!																											

TA Bull

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10595-2

SDG Number: PRR1256

Login Number: 10595

List Source: TestAmerica Burlington

List Number: 2

Creator: Matot, Wade M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698965, 966
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6°C IR gun ID 154, CF= -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2108
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 28APR12
ActWgt: 10.0 LB
CAD: 103767025/NET3250
Dims: 14 X 10 X 12 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

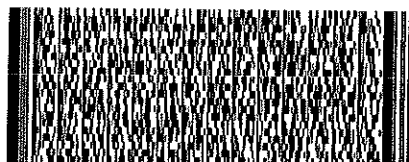
BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # B00099988.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

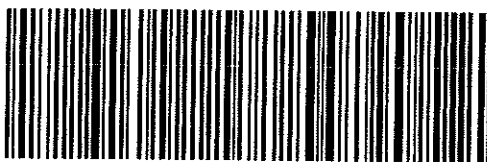
MON - 30 APR A4
PRIORITY OVERNIGHT

TRK# 7983 3851 8820
0201



XH BTVA

05403
VT-US
BTV



512G1AC44E/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or Inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10666-1

SDG Number: PRR1267

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/22/2012 3:54 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/22/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	28
QC Results	30
Qc Association Summary	31
Surrogate Recovery Report	34
Qc Reports	40
Client Chain of Custody	56
Sample Receipt Checklist	57

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1267 (200-10666-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis.

Manual integration was employed in deriving certain of the analytical results.

Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR
Semivolatiles	TAL BUR	SOM01.2 SOM01.2/SV	
Extraction of Water Samples	TAL BUR		SOM01.2 CONT
Aroclors	TAL BUR	SOM01.2 SOM01.2/PCB	
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Sulfuric Acid/Permanganate Cleanup	TAL BUR		SOM01.2 SOM01.2/SO4CU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Extraction of Low level Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Low Level CLP Extraction of Pesticides	TAL BUR		SOM01.2 SOM01.2LL_Pest
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
ISM01.2 Mercury	TAL BUR	ISM01.2 ISM01.2/HG	
7470A	TAL BUR		SW846 7470A
ISM01.2 Metals (ICPMS)	TAL BUR	ISM01.2 ISM01.2/ICPMS	
200.8	TAL BUR		EPA 200.8
ISM01.2 Cyanide	TAL BUR	ISM01.2 ISM01.2/CN	
Midi-distillation	TAL BUR		ISM01.1 Midi-Distillati

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

ISM01.1 = U.S. Environmental Protection Agency

ISM01.2 = U.S. Environmental Protection Agency

SOM01.2 = U.S. Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP
SOM01.2 SOM01.2/SV	Bissonette, Donald J	DJB
SOM01.2 SOM01.2/PCB	Duncan, Stacey L	SLD
SOM01.2 SOM01.2/Pest	Malaspina, Richard R	RRM
SOM01.2 SOM01.2/Pest	Toomey, Lisa M	LMT
ISM01.2 ISM01.2/HG	Pham, Vu T	VTP
ISM01.2 ISM01.2/ICPMS	Lyons, Benjamin	BL
ISM01.2 ISM01.2/CN	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10666-2	PRR1WATCME-37	Water	05/03/2012 0900	05/04/2012 0900
200-10666-3TB	TB05032012	Water	05/03/2012 0000	05/04/2012 0900
200-10666-4STOBL K	VHBLK01	Water	05/04/2012 0945	05/04/2012 0900

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2

Date Sampled: 05/03/2012 0900

Client Matrix: Water

Date Received: 05/04/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38304	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dild20.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/07/2012 1705			Final Weight/Volume:	25 mL
Prep Date:	05/07/2012 1705				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.39	J	1.0
Vinyl chloride	1.0	U	1.0
Bromomethane	1.0	U	1.0
Chloroethane	1.1		1.0
Acrolein	20	U	20
1,1-Dichloroethene	1.0	U	1.0
Methylene chloride	300	E	1.0
Acrylonitrile	20	U	20
trans-1,2-Dichloroethene	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
2-Butanone	100		10
Chloroform	51	E	1.0
1,1,1-Trichloroethane	1.0	U	1.0
Carbon tetrachloride	0.043	J B	1.0
Benzene	2.9		1.0
1,2-Dichloroethane	2.2		1.0
Trichloroethene	0.039	J	1.0
1,2-Dichloropropane	10		1.0
Bromodichloromethane	1.0	U	1.0
cis-1,3-Dichloropropene	1.0	U	1.0
Toluene	0.064	J	1.0
trans-1,3-Dichloropropene	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0
Tetrachloroethene	0.079	J	1.0
Dibromochloromethane	1.0	U	1.0
Chlorobenzene	7.0		1.0
Ethylbenzene	1.0	U	1.0
Bromoform	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	0.11	J	1.0
1,2-Dichlorobenzene	0.061	J	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
1,2,3-Trichlorobenzene	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	89		65 - 131
Chloroethane-d5	101		71 - 131
1,1-Dichloroethene-d2	65		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	120		78 - 121
1,2-Dichloroethane-d4	106		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	103		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	90		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2
Client Matrix: Water

Date Sampled: 05/03/2012 0900
Date Received: 05/04/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38304	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dild20.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/07/2012 1705			Final Weight/Volume:	25 mL
Prep Date:	05/07/2012 1705				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	97		28 - 135
1,1,2,2-Tetrachloroethane-d2	95		73 - 125
1,2-Dichlorobenzene-d4	109		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2

Date Sampled: 05/03/2012 0900

Client Matrix: Water

Date Received: 05/04/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdic20.d
Dilution:	20			Initial Weight/Volume:	25 mL
Analysis Date:	05/09/2012 2110	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/09/2012 2110				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	10	U	10
Vinyl chloride	10	U	10
Bromomethane	10	U	10
Chloroethane	10	U	10
Acrolein	200	U	200
1,1-Dichloroethene	10	U	10
Methylene chloride	290	D B	10
Acrylonitrile	200	U	200
trans-1,2-Dichloroethene	10	U	10
1,1-Dichloroethane	10	U	10
2-Butanone	100	D	100
Chloroform	50	D	10
1,1,1-Trichloroethane	10	U	10
Carbon tetrachloride	10	U	10
Benzene	3.1	J D	10
1,2-Dichloroethane	10	U	10
Trichloroethene	10	U	10
1,2-Dichloropropane	12	D	10
Bromodichloromethane	10	U	10
cis-1,3-Dichloropropene	10	U	10
Toluene	10	U	10
trans-1,3-Dichloropropene	10	U	10
1,1,2-Trichloroethane	10	U	10
Tetrachloroethene	10	U	10
Dibromochloromethane	10	U	10
Chlorobenzene	7.4	J D	10
Ethylbenzene	10	U	10
Bromoform	10	U	10
1,1,2,2-Tetrachloroethane	10	U	10
1,3-Dichlorobenzene	10	U	10
1,4-Dichlorobenzene	10	U	10
1,2-Dichlorobenzene	10	U	10
1,2,4-Trichlorobenzene	10	U	10
1,2,3-Trichlorobenzene	10	U	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	102		65 - 131
Chloroethane-d5	105		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	117		49 - 155
Chloroform-d	105		78 - 121
1,2-Dichloroethane-d4	115		78 - 129
Benzene-d6	104		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2
Client Matrix: Water

Date Sampled: 05/03/2012 0900
Date Received: 05/04/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdic20.d
Dilution:	20			Initial Weight/Volume:	25 mL
Analysis Date:	05/09/2012 2110	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/09/2012 2110				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	106		28 - 135
1,1,2,2-Tetrachloroethane-d2	101		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Client Sample ID: TB05032012

Lab Sample ID: 200-10666-3TB

Date Sampled: 05/03/2012 0000

Client Matrix: Water

Date Received: 05/04/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38304	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dild21.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/07/2012 1729			Final Weight/Volume:	25 mL
Prep Date:	05/07/2012 1729				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.31	J	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.017	J B	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.015	J	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.054	J	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.016	J	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	108		71 - 131
1,1-Dichloroethene-d2	71		55 - 104
2-Butanone-d5	99		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	104		77 - 124
1,2-Dichloropropane-d6	106		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	95		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Client Sample ID: TB05032012

Lab Sample ID: 200-10666-3TB
Client Matrix: Water

Date Sampled: 05/03/2012 0000
Date Received: 05/04/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38304	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dild21.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/07/2012 1729			Final Weight/Volume:	25 mL
Prep Date:	05/07/2012 1729				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	100		28 - 135
1,1,2,2-Tetrachloroethane-d2	101		73 - 125
1,2-Dichlorobenzene-d4	117		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Client Sample ID: VHBLK01

Lab Sample ID: 200-10666-4STOBLK

Date Sampled: 05/04/2012 0945

Client Matrix: Water

Date Received: 05/04/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjc21.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/09/2012 2135			Final Weight/Volume:	25 mL
Prep Date:	05/09/2012 2135				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	106		65 - 131
Chloroethane-d5	108		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	118		49 - 155
Chloroform-d	103		78 - 121
1,2-Dichloroethane-d4	116		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	94		79 - 124
Toluene-d8	105		77 - 121
trans-1,3-Dichloropropene-d4	102		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Client Sample ID: VHBLK01

Lab Sample ID: 200-10666-4STOBLK

Date Sampled: 05/04/2012 0945

Client Matrix: Water

Date Received: 05/04/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdic21.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/09/2012 2135			Final Weight/Volume:	25 mL
Prep Date:	05/09/2012 2135				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	112		28 - 135
1,1,2,2-Tetrachloroethane-d2	102		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2

Date Sampled: 05/03/2012 0900

Client Matrix: Water

Date Received: 05/04/2012 0900

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-38333	Instrument ID:	P.i
Prep Method:	CONT	Prep Batch:	200-38183	Lab File ID:	pjcha08.d
Dilution:	1.0			Initial Weight/Volume:	1040 mL
Analysis Date:	05/08/2012 1158			Final Weight/Volume:	1000 uL
Prep Date:	05/07/2012 1113			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	RL
N-Nitrosodimethylamine	9.6	U	9.6
Phenol	1.2	J B	4.8
Bis(2-chloroethyl)ether	4.8	U	4.8
2-Chlorophenol	5.6		4.8
2,2'-Oxybis(1-chloropropane)	4.8	U	4.8
Hexachloroethane	4.8	U	4.8
Nitrobenzene	4.8	U	4.8
Isophorone	4.8	U	4.8
2-Nitrophenol	4.8	U	4.8
2,4-Dimethylphenol	4.8	U	4.8
2,4-Dichlorophenol	4.8	U	4.8
Naphthalene	4.8	U	4.8
Hexachlorobutadiene	4.8	U	4.8
Hexachlorocyclopentadiene	4.8	U	4.8
2,4,6-Trichlorophenol	4.8	U	4.8
2,4,5-Trichlorophenol	4.8	U	4.8
Dimethylphthalate	4.8	U	4.8
2,6-Dinitrotoluene	4.8	U	4.8
2,4-Dinitrophenol	9.6	U	9.6
4-Nitrophenol	9.6	U	9.6
2,4-Dinitrotoluene	4.8	U	4.8
Diethylphthalate	4.8	U	4.8
Fluorene	4.8	U	4.8
4,6-Dinitro-2-methylphenol	9.6	U	9.6
N-Nitrosodiphenylamine	4.8	U	4.8
Hexachlorobenzene	4.8	U	4.8
Pentachlorophenol	9.6	U	9.6
Phenanthrene	4.8	U	4.8
Anthracene	4.8	U	4.8
Di-n-butylphthalate	4.8	U	4.8
Fluoranthene	4.8	U	4.8
Benzidine	9.6	U	9.6
Pyrene	4.8	U	4.8
Butylbenzylphthalate	0.47	J B	4.8
3,3'-Dichlorobenzidine	4.8	U	4.8
Benzo(a)anthracene	4.8	U	4.8
Chrysene	4.8	U	4.8
Bis(2-ethylhexyl)phthalate	0.66	J	4.8
Benzo(b)fluoranthene	4.8	U	4.8
Benzo(k)fluoranthene	4.8	U	4.8
Benzo(a)pyrene	4.8	U	4.8
Indeno(1,2,3-cd)pyrene	4.8	U	4.8
Dibenzo(a,h)anthracene	4.8	U	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	82		39 - 106

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2

Date Sampled: 05/03/2012 0900

Client Matrix: Water

Date Received: 05/04/2012 0900

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-38333	Instrument ID:	P.i
Prep Method:	CONT	Prep Batch:	200-38183	Lab File ID:	pjcha08.d
Dilution:	1.0			Initial Weight/Volume:	1040 mL
Analysis Date:	05/08/2012 1158			Final Weight/Volume:	1000 uL
Prep Date:	05/07/2012 1113			Injection Volume:	2 uL

Surrogate	%Rec	Qualifier	Acceptance Limits
Bis(2-chloroethyl)ether-d8	75		40 - 105
2-Chlorophenol-d4	84		41 - 106
4-Methylphenol-d8	84		25 - 111
Nitrobenzene-d5	91		43 - 108
2-Nitrophenol-d4	91		40 - 108
2,4-Dichlorophenol-d3	90		37 - 105
4-Chloroaniline-d4	4		1 - 145
Dimethylphthalate-d6	89		47 - 114
Acenaphthylene-d8	82		41 - 107
4-Nitrophenol-d4	96		33 - 116
Fluorene-d10	84		42 - 111
4,6-Dinitro-2-methylphenol-d2	99		22 - 104
Anthracene-d10	92		44 - 110
Pyrene-d10	89		52 - 119
Benzo(a)pyrene-d12	90		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2

Date Sampled: 05/03/2012 0900

Client Matrix: Water

Date Received: 05/04/2012 0900

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-38337	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-38130	Initial Weight/Volume:	1045 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/08/2012 2040			Injection Volume:	1 uL
Prep Date:	05/04/2012 1746			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Aroclor-1016	0.96	U	0.96
Aroclor-1221	0.96	U	0.96
Aroclor-1232	0.96	U	0.96
Aroclor-1242	0.96	U	0.96
Aroclor-1248	0.96	U	0.96
Aroclor-1254	0.96	U	0.96
Aroclor-1260	0.96	U	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	86		30 - 150
Decachlorobiphenyl	56		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2
Client Matrix: Water

Date Sampled: 05/03/2012 0900
Date Received: 05/04/2012 0900

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-38337	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-38130	Initial Weight/Volume:	1045 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/08/2012 2040			Injection Volume:	1 uL
Prep Date:	05/04/2012 1746			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	87		30 - 150
Decachlorobiphenyl	63		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2

Date Sampled: 05/03/2012 0900

Client Matrix: Water

Date Received: 05/04/2012 0900

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest	Analysis Batch: 200-38553	Instrument ID: 0911.i
Prep Method: SEPF	Prep Batch: 200-38128	Initial Weight/Volume: 1020 mL
Dilution: 1.0		Final Weight/Volume: 1000 uL
Analysis Date: 05/09/2012 2042		Injection Volume: 1 uL
Prep Date: 05/04/2012 1726		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.0049	U	0.0049
beta-BHC	0.0083	P B	0.0049
delta-BHC	0.0049	U	0.0049
gamma-BHC (Lindane)	0.00081	J P	0.0049
Heptachlor	0.14	E P	0.0049
Aldrin	0.00083	J P	0.0049
Heptachlor epoxide	0.024	P	0.0049
Endosulfan I	0.0026	J P	0.0049
Dieldrin	0.00080	J P	0.0098
4,4'-DDE	0.17	E	0.0098
Endrin	0.0022	J P	0.0098
Endosulfan II	0.0011	J P	0.0098
4,4'-DDD	0.42	E	0.0098
Endosulfan sulfate	0.0088	J P	0.0098
4,4'-DDT	0.49	E	0.0098
Endrin aldehyde	0.00066	J P B	0.0098
alpha-Chlordane	0.0064	P	0.0049
gamma-Chlordane	0.0060	P	0.0049
Toxaphene	0.49	U	0.49

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	78		30 - 150
Decachlorobiphenyl	74		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2
Client Matrix: Water

Date Sampled: 05/03/2012 0900
Date Received: 05/04/2012 0900

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-38553	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-38128	Initial Weight/Volume:	1020 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	05/09/2012 2042			Injection Volume:	1 uL
Prep Date:	05/04/2012 1726			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	90		30 - 150
Decachlorobiphenyl	83		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2

Date Sampled: 05/03/2012 0900

Client Matrix: Water

Date Received: 05/04/2012 0900

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest	Analysis Batch: 200-38554	Instrument ID: 0911.i
Prep Method: SEPF	Prep Batch: 200-38128	Initial Weight/Volume: 1020 mL
Dilution: 20		Final Weight/Volume: 1000 uL
Analysis Date: 05/10/2012 1051	Run Type: DL	Injection Volume: 1 uL
Prep Date: 05/04/2012 1726		Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.098	U	0.098
beta-BHC	0.012	J P D B	0.098
delta-BHC	0.098	U	0.098
gamma-BHC (Lindane)	0.098	U	0.098
Heptachlor	0.14	D	0.098
Aldrin	0.098	U	0.098
Heptachlor epoxide	0.032	J P D	0.098
Endosulfan I	0.0077	J P D	0.098
Dieldrin	0.20	U	0.20
4,4'-DDE	0.15	J D	0.20
Endrin	0.20	U	0.20
Endosulfan II	0.20	U	0.20
4,4'-DDD	0.38	D	0.20
Endosulfan sulfate	0.0087	J P D	0.20
4,4'-DDT	1.7	D	0.20
Endrin aldehyde	0.20	U	0.20
alpha-Chlordane	0.0079	J P D	0.098
gamma-Chlordane	0.0084	J P D	0.098
Toxaphene	9.8	U	9.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	98		30 - 150
Tetrachloro-m-xylene	78		30 - 150
Decachlorobiphenyl	83		30 - 150
Decachlorobiphenyl	79		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2

Date Sampled: 05/03/2012 0900

Client Matrix: Water

Date Received: 05/04/2012 0900

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-38551	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-38128	Initial Weight/Volume:	1020 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	05/10/2012 1600			Injection Volume:	1 uL
Prep Date:	05/04/2012 1726			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	0.027	P	0.0098
2,4'-DDT	0.32	E P	0.0098
2,4'-DDD	0.13	P	0.0098

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	91		30 - 150
Decachlorobiphenyl	74		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2
Client Matrix: Water

Date Sampled: 05/03/2012 0900
Date Received: 05/04/2012 0900

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-38551	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-38128	Initial Weight/Volume:	1020 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	05/10/2012 1600			Injection Volume:	1 uL
Prep Date:	05/04/2012 1726			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	94		30 - 150
Decachlorobiphenyl	77		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2

Date Sampled: 05/03/2012 0900

Client Matrix: Water

Date Received: 05/04/2012 0900

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-38551	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-38128	Initial Weight/Volume:	1020 mL
Dilution:	3.0			Final Weight/Volume:	1000 uL
Analysis Date:	05/10/2012 1700	Run Type:	DL	Injection Volume:	1 uL
Prep Date:	05/04/2012 1726			Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	0.026	J P D	0.029
2,4'-DDT	0.44	D	0.029
2,4'-DDD	0.13	P D	0.029

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	88		30 - 150
Tetrachloro-m-xylene	88		30 - 150
Decachlorobiphenyl	67		30 - 150
Decachlorobiphenyl	73		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2

Date Sampled: 05/03/2012 0900

Client Matrix: Water

Date Received: 05/04/2012 0900

ISM01.2/HG ISM01.2 Mercury

Analysis Method:	ISM01.2/HG	Analysis Batch:	200-38346	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-38222	Lab File ID:	050912AA.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	05/09/2012 1016			Final Weight/Volume:	50 mL
Prep Date:	05/07/2012 1400				

Analyte	Result (ug/L)	Qualifier	MDLE	RL
Mercury	0.20	U	0.084	0.20

ISM01.2/ICPMS ISM01.2 Metals (ICPMS)

Analysis Method:	ISM01.2/ICPMS	Analysis Batch:	200-38953	Instrument ID:	METICPMS2
Prep Method:	200.8	Prep Batch:	200-38373	Lab File ID:	051912-03ISM.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	05/19/2012 1323			Final Weight/Volume:	100 mL
Prep Date:	05/09/2012 1425				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	7.6	E	0.15	2.0
Arsenic	7.1		0.16	1.0
Beryllium	0.21	J	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	3.9		0.21	2.0
Copper	3.3		0.60	2.0
Nickel	36.5	E	0.14	1.0
Selenium	12.8		0.15	5.0
Silver	0.18	J	0.028	1.0
Zinc	109	E	0.57	2.0

Analysis Method:	ISM01.2/ICPMS	Analysis Batch:	200-39005	Instrument ID:	METICPMS2
Prep Method:	200.8	Prep Batch:	200-38373	Lab File ID:	052112-03ISM.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	05/21/2012 1317			Final Weight/Volume:	100 mL
Prep Date:	05/09/2012 1425				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Lead	2.2		0.10	1.0

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

General Chemistry

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2

Date Sampled: 05/03/2012 0900

Client Matrix: Water

Date Received: 05/04/2012 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide	2.6	J	ug/L	1.0	10.0	1.0	ISM01.2/CN
	Analysis Batch: 200-38369	Analysis Date: 05/09/2012 1335					
	Prep Batch: 200-38349	Prep Date: 05/09/2012 1115					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	B	The analyte was found in an associated blank, as well as in the sample.
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	B	The analyte was found in an associated blank, as well as in the sample.
GC Semi VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	P	The % Difference between columns is greater than 25%.
	B	The analyte was found in an associated blank, as well as in the sample.
Metals		
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL
	E	The reported value is estimated because of the presence of interference based on serial dilution analysis.

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Lab Section	Qualifier	Description
General Chemistry	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-38304					
MB 200-38304/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10666-2	PRR1WATCME-37	T	Water	SOM01.2/VOA_T	
200-10666-3TB	TB05032012	T	Water	SOM01.2/VOA_T	
Analysis Batch:200-38417					
MB 200-38417/3	Method Blank	T	Water	SOM01.2/VOA_T	
200-10666-2DL	PRR1WATCME-37	T	Water	SOM01.2/VOA_T	
200-10666-4STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

GC/MS Semi VOA

Prep Batch: 200-38183					
MB 200-38183/1-A	Method Blank	T	Water	CONT	
200-10666-2	PRR1WATCME-37	T	Water	CONT	
Analysis Batch:200-38333					
MB 200-38183/1-A	Method Blank	T	Water	SOM01.2/SV	200-38183
200-10666-2	PRR1WATCME-37	T	Water	SOM01.2/SV	200-38183

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC Semi VOA					
Prep Batch: 200-38128					
LCS 200-38128/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-38128/1-C	Method Blank	T	Water	SEPF	
LCS 200-38128/3-C	Lab Control Sample	T	Water	SOM01.2LL_Pest	
MB 200-38128/1-C	Method Blank	T	Water	SOM01.2LL_Pest	
200-10666-2	PRR1WATCME-37	T	Water	SEPF	
200-10666-2DL	PRR1WATCME-37	T	Water	SEPF	
200-10666-2	PRR1WATCME-37	T	Water	SOM01.2LL_Pest	
200-10666-2DL	PRR1WATCME-37	T	Water	SOM01.2LL_Pest	
Prep Batch: 200-38130					
LCS 200-38130/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-38130/1-C	Method Blank	T	Water	SEPF	
200-10666-2	PRR1WATCME-37	T	Water	SEPF	
Analysis Batch:200-38337					
LCS 200-38130/2-C	Lab Control Sample	T	Water	SOM01.2/PCB	200-38130
MB 200-38130/1-C	Method Blank	T	Water	SOM01.2/PCB	200-38130
200-10666-2	PRR1WATCME-37	T	Water	SOM01.2/PCB	200-38130
Analysis Batch:200-38551					
LCS 200-38128/3-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-38128
MB 200-38128/1-C	Method Blank	T	Water	SOM01.2/Pest	200-38128
200-10666-2	PRR1WATCME-37	T	Water	SOM01.2/Pest	200-38128
200-10666-2DL	PRR1WATCME-37	T	Water	SOM01.2/Pest	200-38128
Analysis Batch:200-38553					
LCS 200-38128/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-38128
MB 200-38128/1-C	Method Blank	T	Water	SOM01.2/Pest	200-38128
200-10666-2	PRR1WATCME-37	T	Water	SOM01.2/Pest	200-38128
Analysis Batch:200-38554					
200-10666-2DL	PRR1WATCME-37	T	Water	SOM01.2/Pest	200-38128

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-38222					
MB 200-38222/11-A	Method Blank	T	Water	7470A	
200-10666-2	PRR1WATCME-37	T	Water	7470A	
Analysis Batch:200-38346					
MB 200-38222/11-A	Method Blank	T	Water	ISM01.2/HG	200-38222
200-10666-2	PRR1WATCME-37	T	Water	ISM01.2/HG	200-38222
Prep Batch: 200-38373					
LCS 200-38373/2-A	Lab Control Sample	T	Water	200.8	
MB 200-38373/1-A	Method Blank	T	Water	200.8	
200-10666-2	PRR1WATCME-37	T	Water	200.8	
Analysis Batch:200-38953					
LCS 200-38373/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-38373
MB 200-38373/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-38373
200-10666-2	PRR1WATCME-37	T	Water	ISM01.2/ICPMS	200-38373
Analysis Batch:200-39005					
LCS 200-38373/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-38373
MB 200-38373/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-38373
200-10666-2	PRR1WATCME-37	T	Water	ISM01.2/ICPMS	200-38373

Report Basis

T = Total

General Chemistry

Prep Batch: 200-38349					
MB 200-38349/11-A	Method Blank	T	Water	Midi-Distillati	
200-10666-2	PRR1WATCME-37	T	Water	Midi-Distillati	
Analysis Batch:200-38369					
MB 200-38349/11-A	Method Blank	T	Water	ISM01.2/CN	200-38349
200-10666-2	PRR1WATCME-37	T	Water	ISM01.2/CN	200-38349

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10666-2	PRR1WATCME-37	89	101	65	103	120	106	102	103
200-10666-2 DL	PRR1WATCME-37 DL	102	105	78	117	105	115	104	93
200-10666-3	TB05032012	97	108	71	99	102	107	104	106
200-10666-4	VHBLK01	106	108	78	118	103	116	106	94
MB 200-38304/4		97	106	71	99	94	105	101	102
MB 200-38417/3		108	112	81	112	106	111	111	95

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10666-2	PRR1WATCME-37	98	90	97	95	109
200-10666-2 DL	PRR1WATCME-37 DL	101	103	106	101	103
200-10666-3	TB05032012	103	95	100	101	117
200-10666-4	VHBLK01	105	102	112	102	106
MB 200-38304/4		101	96	99	100	109
MB 200-38417/3		109	109	111	102	110

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	PHL %Rec	BCE %Rec	2CP %Rec	4MP %Rec	NBZ %Rec	2NP %Rec	DCP %Rec	4CA %Rec
200-10666-2	PRR1WATCME-37	82	75	84	84	91	91	90	4
MB 200-38183/1-A		67	72	68	80	89	85	81	89

Surrogate	Acceptance Limits
PHL = Phenol-d5	39-106
BCE = Bis(2-chloroethyl)ether-d8	40-105
2CP = 2-Chlorophenol-d4	41-106
4MP = 4-Methylphenol-d8	25-111
NBZ = Nitrobenzene-d5	43-108
2NP = 2-Nitrophenol-d4	40-108
DCP = 2,4-Dichlorophenol-d3	37-105
4CA = 4-Chloroaniline-d4	1-145

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	DMP %Rec	ACY %Rec	4NP %Rec	FLR %Rec	NMP %Rec	ANC %Rec	PYR %Rec	BAP %Rec
200-10666-2	PRR1WATCME-37	89	82	96	84	99	92	89	90
MB 200-38183/1-A		85	83	72	80	72	94	88	83

Surrogate	Acceptance Limits
DMP = Dimethylphthalate-d6	47-114
ACY = Acenaphthylene-d8	41-107
4NP = 4-Nitrophenol-d4	33-116
FLR = Fluorene-d10	42-111
NMP = 4,6-Dinitro-2-methylphenol-d2	22-104
ANC = Anthracene-d10	44-110
PYR = Pyrene-d10	52-119
BAP = Benzo(a)pyrene-d12	32-121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Surrogate Recovery Report

SOM01.2/PCB Aroclors

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10666-2	PRR1WATCME-37	86	87	63	56
MB 200-38130/1-C		81	80	90	82
LCS 200-38130/2-C		82	82	95	88

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Surrogate Recovery Report

SOM01.2/Pest Pesticides

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10666-2	PRR1WATCME-37	90	78	83	74
200-10666-2 DL	PRR1WATCME-37 DL	98	78	83	79
200-10666-2	PRR1WATCME-37	91	94	74	77
200-10666-2 DL	PRR1WATCME-37 DL	88	88	67	73
MB 200-38128/1-C		62	61	85	88
MB 200-38128/1-C		63	70	83	92
LCS 200-38128/2-C		69	69	90	92
LCS 200-38128/3-C		69	76	83	93

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Method Blank - Batch: 200-38304

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-38304/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/07/2012 1041
 Prep Date: 05/07/2012 1041
 Leach Date: N/A

Analysis Batch: 200-38304
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: D.i
 Lab File ID: dild04.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.018	J	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	97	65 - 131
Chloroethane-d5	106	71 - 131
1,1-Dichloroethene-d2	71	55 - 104
2-Butanone-d5	99	49 - 155
Chloroform-d	94	78 - 121
1,2-Dichloroethane-d4	105	78 - 129
Benzene-d6	101	77 - 124
1,2-Dichloropropane-d6	102	79 - 124
Toluene-d8	101	77 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Surrogate	% Rec	Acceptance Limits
trans-1,3-Dichloropropene-d4	96	73 - 121
2-Hexanone-d5	99	28 - 135
1,1,2,2-Tetrachloroethane-d2	100	73 - 125
1,2-Dichlorobenzene-d4	109	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Method Blank - Batch: 200-38417

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-38417/3
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/09/2012 1432
 Prep Date: 05/09/2012 1432
 Leach Date: N/A

Analysis Batch: 200-38417
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: J.i
 Lab File ID: jdic04.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50		0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	108	65 - 131
Chloroethane-d5	112	71 - 131
1,1-Dichloroethene-d2	81	55 - 104
2-Butanone-d5	112	49 - 155
Chloroform-d	106	78 - 121
1,2-Dichloroethane-d4	111	78 - 129
Benzene-d6	111	77 - 124
1,2-Dichloropropane-d6	95	79 - 124
Toluene-d8	109	77 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Surrogate	% Rec	Acceptance Limits
trans-1,3-Dichloropropene-d4	109	73 - 121
2-Hexanone-d5	111	28 - 135
1,1,2,2-Tetrachloroethane-d2	102	73 - 125
1,2-Dichlorobenzene-d4	110	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Method Blank - Batch: 200-38183

Method: SOM01.2/SV

Preparation: CONT

Lab Sample ID: MB 200-38183/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/08/2012 1117
 Prep Date: 05/07/2012 1113
 Leach Date: N/A

Analysis Batch: 200-38333
 Prep Batch: 200-38183
 Leach Batch: N/A
 Units: ug/L

Instrument ID: P.i
 Lab File ID: pjcha07.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1000 uL
 Injection Volume: 2 uL

Analyte	Result	Qual	RL
N-Nitrosodimethylamine	10	U	10
Phenol	4.9	J	5.0
Bis(2-chloroethyl)ether	5.0	U	5.0
2-Chlorophenol	5.0	U	5.0
2,2'-Oxybis(1-chloropropane)	5.0	U	5.0
Hexachloroethane	5.0	U	5.0
Nitrobenzene	5.0	U	5.0
Isophorone	5.0	U	5.0
2-Nitrophenol	5.0	U	5.0
2,4-Dimethylphenol	5.0	U	5.0
2,4-Dichlorophenol	5.0	U	5.0
Naphthalene	5.0	U	5.0
Hexachlorobutadiene	5.0	U	5.0
Hexachlorocyclopentadiene	5.0	U	5.0
2,4,6-Trichlorophenol	5.0	U	5.0
2,4,5-Trichlorophenol	5.0	U	5.0
Dimethylphthalate	5.0	U	5.0
2,6-Dinitrotoluene	5.0	U	5.0
2,4-Dinitrophenol	10	U	10
4-Nitrophenol	10	U	10
2,4-Dinitrotoluene	5.0	U	5.0
Diethylphthalate	5.0	U	5.0
Fluorene	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10
N-Nitrosodiphenylamine	5.0	U	5.0
Hexachlorobenzene	5.0	U	5.0
Pentachlorophenol	10	U	10
Phenanthrene	5.0	U	5.0
Anthracene	5.0	U	5.0
Di-n-butylphthalate	5.0	U	5.0
Fluoranthene	5.0	U	5.0
Benzidine	10	U	10
Pyrene	5.0	U	5.0
Butylbenzylphthalate	0.27	J	5.0
3,3'-Dichlorobenzidine	5.0	U	5.0
Benzo(a)anthracene	5.0	U	5.0
Chrysene	5.0	U	5.0
Bis(2-ethylhexyl)phthalate	5.0	U	5.0
Benzo(b)fluoranthene	5.0	U	5.0
Benzo(k)fluoranthene	5.0	U	5.0
Benzo(a)pyrene	5.0	U	5.0
Indeno(1,2,3-cd)pyrene	5.0	U	5.0
Dibenzo(a,h)anthracene	5.0	U	5.0

Surrogate	% Rec	Acceptance Limits
-----------	-------	-------------------

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Surrogate	% Rec	Acceptance Limits
Phenol-d5	67	39 - 106
Bis(2-chloroethyl)ether-d8	72	40 - 105
2-Chlorophenol-d4	68	41 - 106
4-Methylphenol-d8	80	25 - 111
Nitrobenzene-d5	89	43 - 108
2-Nitrophenol-d4	85	40 - 108
2,4-Dichlorophenol-d3	81	37 - 105
4-Chloroaniline-d4	89	1 - 145
Dimethylphthalate-d6	85	47 - 114
Acenaphthylene-d8	83	41 - 107
4-Nitrophenol-d4	72	33 - 116
Fluorene-d10	80	42 - 111
4,6-Dinitro-2-methylphenol-d2	72	22 - 104
Anthracene-d10	94	44 - 110
Pyrene-d10	88	52 - 119
Benzo(a)pyrene-d12	83	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

Sdg Number: PRR1267

Method Blank - Batch: 200-38130

Method: SOM01.2/PCB

Preparation: SEPF

Lab Sample ID: MB 200-38130/1-C
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/08/2012 1928
 Prep Date: 05/04/2012 1746
 Leach Date: N/A

Analysis Batch: 200-38337
 Prep Batch: 200-38130
 Leach Batch: N/A
 Units: ug/L

Instrument ID: 5253.i
 Lab File ID: 08may121830-r011.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 10000 uL
 Injection Volume: 1 uL
 Column ID: PRIMARY

Analyte	Result	Qual	RL
Aroclor-1016	1.0	U	1.0
Aroclor-1221	1.0	U	1.0
Aroclor-1232	1.0	U	1.0
Aroclor-1242	1.0	U	1.0
Aroclor-1248	1.0	U	1.0
Aroclor-1254	1.0	U	1.0
Aroclor-1260	1.0	U	1.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	80	30 - 150
Decachlorobiphenyl	82	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	81	30 - 150
Decachlorobiphenyl	90	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Lab Control Sample - Batch: 200-38130

**Method: SOM01.2/PCB
Preparation: SEPF**

Lab Sample ID: LCS 200-38130/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/08/2012 1952
Prep Date: 05/04/2012 1746
Leach Date: N/A

Analysis Batch: 200-38337
Prep Batch: 200-38130
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 08may121830-r021.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.2	121	50 - 150	
Aroclor-1260	1.00	1.1	115	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		82		30 - 150	
Decachlorobiphenyl		88		30 - 150	

Lab Control Sample - Batch: 200-38130

**Method: SOM01.2/PCB
Preparation: SEPF**

Lab Sample ID: LCS 200-38130/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/08/2012 1952
Prep Date: 05/04/2012 1746
Leach Date: N/A

Analysis Batch: 200-38337
Prep Batch: 200-38130
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 08may121830-r021.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.2	121	50 - 150	
Aroclor-1260	1.00	1.3	127	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		82		30 - 150	
Decachlorobiphenyl		95		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Method Blank - Batch: 200-38128

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-38128/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2012 1932
Prep Date: 05/04/2012 1726
Leach Date: N/A

Analysis Batch: 200-38553
Prep Batch: 200-38128
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 09may121841-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
alpha-BHC	0.00041	J P	0.0050
beta-BHC	0.0018	J P	0.0050
delta-BHC	0.000065	J P	0.0050
gamma-BHC (Lindane)	0.0050	U	0.0050
Heptachlor	0.0050	U	0.0050
Aldrin	0.0050	U	0.0050
Heptachlor epoxide	0.0050	U	0.0050
Endosulfan I	0.0050	U	0.0050
Dieldrin	0.010	U	0.010
4,4'-DDE	0.010	U	0.010
Endrin	0.010	U	0.010
Endosulfan II	0.010	U	0.010
4,4'-DDD	0.010	U	0.010
Endosulfan sulfate	0.010	U	0.010
4,4'-DDT	0.010	U	0.010
Methoxychlor	0.0021	J P	0.050
Endrin aldehyde	0.00016	J P	0.010
alpha-Chlordane	0.0050	U	0.0050
gamma-Chlordane	0.0050	U	0.0050
Toxaphene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	61	30 - 150
Decachlorobiphenyl	85	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	62	30 - 150
Decachlorobiphenyl	88	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Method Blank - Batch: 200-38128

**Method: SOM01.2/Pest
Preparation: SOM01.2LL_Pest**

Lab Sample ID: MB 200-38128/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/10/2012 1459
Prep Date: 05/04/2012 1726
Leach Date: N/A

Analysis Batch: 200-38551
Prep Batch: 200-38128
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 10may121355-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
2,4'-DDE	0.010	U	0.010
2,4'-DDT	0.010	U	0.010
2,4'-DDD	0.010	U	0.010

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	63	30 - 150
Decachlorobiphenyl	83	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	70	30 - 150
Decachlorobiphenyl	92	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Lab Control Sample - Batch: 200-38128

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-38128/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2012 1955
Prep Date: 05/04/2012 1726
Leach Date: N/A

Analysis Batch: 200-38553
Prep Batch: 200-38128
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 09may121841-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0040	79	50 - 120	J
Heptachlor epoxide	0.00500	0.0044	89	50 - 150	J
Dieldrin	0.0100	0.0092	92	30 - 130	J
4,4'-DDE	0.0100	0.0082	82	50 - 150	J
Endrin	0.0100	0.0095	95	50 - 120	J
Endosulfan sulfate	0.0100	0.0094	94	50 - 120	J
gamma-Chlordane	0.00500	0.0042	84	30 - 130	J
Surrogate			% Rec	Acceptance Limits	
Tetrachloro-m-xylene			69	30 - 150	
Decachlorobiphenyl			90	30 - 150	

Lab Control Sample - Batch: 200-38128

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-38128/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2012 1955
Prep Date: 05/04/2012 1726
Leach Date: N/A

Analysis Batch: 200-38553
Prep Batch: 200-38128
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 09may121841-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0048	95	50 - 120	J
Heptachlor epoxide	0.00500	0.0051	102	50 - 150	J
Dieldrin	0.0100	0.0096	96	30 - 130	J
4,4'-DDE	0.0100	0.0090	90	50 - 150	J
Endrin	0.0100	0.0098	98	50 - 120	J
Endosulfan sulfate	0.0100	0.0097	97	50 - 120	J
gamma-Chlordane	0.00500	0.0049	98	30 - 130	J
Surrogate			% Rec	Acceptance Limits	
Tetrachloro-m-xylene			69	30 - 150	
Decachlorobiphenyl			92	30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Lab Control Sample - Batch: 200-38128

Method: SOM01.2/Pest
Preparation: SOM01.2LL_Pest

Lab Sample ID:	LCS 200-38128/3-C	Analysis Batch:	200-38551	Instrument ID:	0911.i
Client Matrix:	Water	Prep Batch:	200-38128	Lab File ID:	10may121355-r041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/10/2012 1529	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	05/04/2012 1726			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.0070	70	50 - 150	J P
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		69		30 - 150	
Decachlorobiphenyl		83		30 - 150	

Lab Control Sample - Batch: 200-38128

Method: SOM01.2/Pest
Preparation: SOM01.2LL_Pest

Lab Sample ID:	LCS 200-38128/3-C	Analysis Batch:	200-38551	Instrument ID:	0911.i
Client Matrix:	Water	Prep Batch:	200-38128	Lab File ID:	10may121355-r041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/10/2012 1529	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	05/04/2012 1726			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.0094	94	50 - 150	J P
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		76		30 - 150	
Decachlorobiphenyl		93		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Method Blank - Batch: 200-38222

**Method: ISM01.2/HG
Preparation: 7470A**

Lab Sample ID: MB 200-38222/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2012 1013
Prep Date: 05/07/2012 1400
Leach Date: N/A

Analysis Batch: 200-38346
Prep Batch: 200-38222
Leach Batch: N/A
Units: ug/L

Instrument ID: MEPCV3 II
Lab File ID: 050912AA.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDLE	RL
Mercury	0.20	U	0.084	0.20

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Method Blank - Batch: 200-38373

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: MB 200-38373/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/19/2012 1310
Prep Date: 05/09/2012 1425
Leach Date: N/A

Analysis Batch: 200-38953
Prep Batch: 200-38373
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 051912-03ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Antimony	0.62	J	0.15	2.0
Arsenic	-0.18	J	0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	0.23	J	0.21	2.0
Copper	2.0	U	0.60	2.0
Nickel	1.0	U	0.14	1.0
Selenium	5.0	U	0.15	5.0
Silver	0.095	J	0.028	1.0
Zinc	2.0	U	0.57	2.0

Method Blank - Batch: 200-38373

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: MB 200-38373/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/21/2012 1304
Prep Date: 05/09/2012 1425
Leach Date: N/A

Analysis Batch: 200-39005
Prep Batch: 200-38373
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 052112-03ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Lead	0.39	J	0.10	1.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Lab Control Sample - Batch: 200-38373

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: LCS 200-38373/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/19/2012 1316
Prep Date: 05/09/2012 1425
Leach Date: N/A

Analysis Batch: 200-38953
Prep Batch: 200-38373
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 051912-03ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	4.00	4.9	124	70 - 130	
Arsenic	2.00	2.2	110	70 - 130	
Beryllium	2.00	2.3	115	70 - 130	
Cadmium	2.00	2.4	122	70 - 130	
Chromium	4.00	4.4	110	70 - 130	
Copper	4.00	4.3	107	70 - 130	
Nickel	2.00	2.3	115	70 - 130	
Selenium	10.0	12.2	122	70 - 130	
Silver	2.00	2.3	116	70 - 130	
Zinc	4.00	5.0	125	70 - 130	

Lab Control Sample - Batch: 200-38373

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: LCS 200-38373/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/21/2012 1311
Prep Date: 05/09/2012 1425
Leach Date: N/A

Analysis Batch: 200-39005
Prep Batch: 200-38373
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 052112-03ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Lead	2.00	2.4	120	70 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1
Sdg Number: PRR1267

Method Blank - Batch: 200-38349

Method: ISM01.2/CN Preparation: Midi-Distillati

Lab Sample ID: MB 200-38349/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2012 1334
Prep Date: 05/09/2012 1115
Leach Date: N/A

Analysis Batch: 200-38369
Prep Batch: 200-38349
Leach Batch: N/A
Units: ug/L

Instrument ID: WCLachat
Lab File ID: OM_05-09-12_01-22-1
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Cyanide	10.0	U	1.0	10.0

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

6723 Towpath Rd
 Syracuse, NY 13214
 Phone/Fax: (315) 671-9688

PROJ. NO. 8000966.0002.70004		PROJECT NAME Tierra Phase I Removal		SDG NUMBER/COC Number PRR1267																				
SAMPLERS:																								
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATCHME-36	4/30/2012	20:45	water	Grab	1									X										
PRR1WATCHME-37	5/3/2012	9:00	water	Grab	18	X	X	X	X	X	X	X	X	X	X									
TB05032012	5/3/2012		water		3	X																		
Requested Analyses: <input type="checkbox"/> TOC <input type="checkbox"/> SVOCs <input type="checkbox"/> Aroclor PCBs <input type="checkbox"/> Pesticides <input type="checkbox"/> Metals + Hg <input type="checkbox"/> Cyanide <input type="checkbox"/> Herbicides <input type="checkbox"/> TSS <input type="checkbox"/> WET Testing																								
Special Instructions/Comments: Refer to RAWP QAPP WS 15-4 for Effluent Samples <input type="checkbox"/> Special QA/QC Instructions																								
Laboratory Information and Receipt																								
Lab Name: TestAmerica - Burlington, VT												<input type="checkbox"/> Cooler packed with ice <input type="checkbox"/> Cooler custody seal intact												
Shipping Tracking #												Specify Turnaround Requirements: 7 day TAT; TSS samples 24 hr TAT												
Relinquished by: <i>DJG</i>						DATE: 5/03/12						TIME: 1100						Received by: <i>John TABO</i>						
Relinquished by:						DATE:						TIME:						Received by:						
Relinquished by:						DATE:						TIME:						Received by:						
Relinquished by:						DATE:						TIME:						Received by:						

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10666-1

SDG Number: PRR1267

Login Number: 10666

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699003,001,002,004
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2,5.2°C IR GUN ID 154/CF=-0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 03MAY12
ActWgt: 30.0 LB
CAD: 103767025/NET3250
Dms: 28 X 18 X 18 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
BILL SENDER
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11
SOUTH BURLINGTON, VT 05403

Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

1 of 2

FRI - 04 MAY A4
FIRST OVERNIGHT

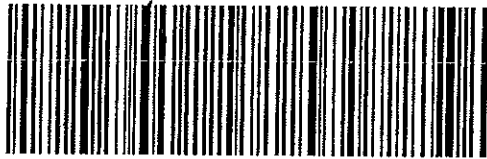
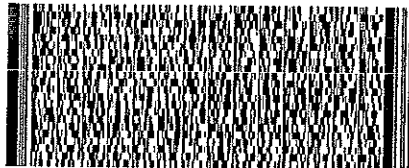
TRK# 7935 2505 0650

0201

MASTER

05403
VT-US
BTV

E9 BTVA



5120361A/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 03MAY12
ActWgt: 30.0 LB
CAD: 103767025/NET3250
Dms: 27 X 18 X 18 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
BILL SENDER
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11
SOUTH BURLINGTON, VT 05403

Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

2 of 2

FRI - 04 MAY A4
FIRST OVERNIGHT

MPS# 7935 2505 0763

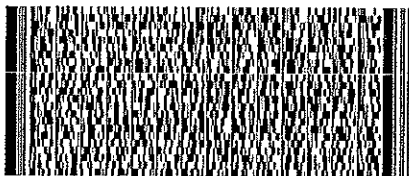
0263

Mstr# 7935 2505 0650

0201

05403
VT-US
BTV

E9 BTVA



5120361A/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

ANALYTICAL REPORT

Job Number: 200-10666-2

SDG Number: PRR1267

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/11/2012 5:28 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/11/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	12
QC Results	13
Qc Association Summary	14
Surrogate Recovery Report	15
Qc Reports	16
Client Chain of Custody	19
Sample Receipt Checklist	20

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1267 (200-10666-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met. Calibration and calibration verification were assessed on an analyte specific basis.

Calculations were performed before rounding to avoid round-off errors in calculated results.

Manual integration was employed in deriving certain of the analytical results.

For the Method 8151A analysis, positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

There was an acceptable recovery of 2,4-D, 2,4-DB, and 2,4,5-T in the analysis of the laboratory control sample associated with the Method 8151A analysis. The recovery of dinoseb in that analysis was 62 percent. While that recovery value is above the lower control limit of 10 percent that is established by the laboratory for this method of analysis, it is below the lower control limit of 70 percent that is referenced in the project QAPP.

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10666-2

Sdg Number: PRR1267

Description	Lab Location	Method	Preparation Method
Matrix Water			
Herbicides (GC)	TAL BUR	SW846 8151A	
Extraction (Herbicides)	TAL BUR		SW846 8151A
Organic Carbon, Total (TOC)	TAL BUR	SM SM 5310B	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10666-2

Sdg Number: PRR1267

Method	Analyst	Analyst ID
SW846 8151A	Malaspina, Richard R	RRM
SM SM 5310B	Sutton, Zachariah M	ZMS

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10666-2
Sdg Number: PRR1267

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10666-2	PRR1WATCME-37	Water	05/03/2012 0900	05/04/2012 0900

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-2

Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2

Date Sampled: 05/03/2012 0900

Client Matrix: Water

Date Received: 05/04/2012 0900

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-38556	Instrument ID:	5005.i
Prep Method:	8151A	Prep Batch:	200-38149	Initial Weight/Volume:	1040 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/11/2012 0418			Injection Volume:	1 uL
Prep Date:	05/05/2012 0729			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	29	E	0.63	1.8
2,4-DB	4.3		0.45	1.6
Dinoseb	0.91	U	0.18	0.91
2,4,5-T	1.9		0.13	0.45

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	102		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-2
Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2
Client Matrix: Water

Date Sampled: 05/03/2012 0900
Date Received: 05/04/2012 0900

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-38556	Instrument ID:	5005.i
Prep Method:	8151A	Prep Batch:	200-38149	Initial Weight/Volume:	1040 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/11/2012 0418			Injection Volume:	1 uL
Prep Date:	05/05/2012 0729			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	99		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-2
Sdg Number: PRR1267

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2
Client Matrix: Water

Date Sampled: 05/03/2012 0900
Date Received: 05/04/2012 0900

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-38556	Instrument ID:	5005.i
Prep Method:	8151A	Prep Batch:	200-38149	Initial Weight/Volume:	1040 mL
Dilution:	2.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/11/2012 0341	Run Type:	DL	Injection Volume:	1 uL
Prep Date:	05/05/2012 0729			Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	29	D	1.3	3.7
2,4-DB	4.1	D	0.90	3.3
Dinoseb	1.8	U	0.37	1.8
2,4,5-T	1.8	D	0.25	0.90

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	100	D	60 - 130
2,4-Dichlorophenylacetic acid	102	D	60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-2

Sdg Number: PRR1267

General Chemistry

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2

Date Sampled: 05/03/2012 0900

Client Matrix: Water

Date Received: 05/04/2012 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	18.0	B	mg/L	0.28	2.0	2.0	SM 5310B

Analysis Batch: 200-38368 Analysis Date: 05/07/2012 1306

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10666-2

Sdg Number: PRR1267

Lab Section	Qualifier	Description
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	E	Result exceeded calibration range.
	D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
General Chemistry		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-2

Sdg Number: PRR1267

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC Semi VOA					
Prep Batch: 200-38149					
LCS 200-38149/2-A	Lab Control Sample	T	Water	8151A	
MB 200-38149/1-A	Method Blank	T	Water	8151A	
200-10666-2	PRR1WATCME-37	T	Water	8151A	
200-10666-2DL	PRR1WATCME-37	T	Water	8151A	
Analysis Batch:200-38556					
LCS 200-38149/2-A	Lab Control Sample	T	Water	8151A	200-38149
MB 200-38149/1-A	Method Blank	T	Water	8151A	200-38149
200-10666-2	PRR1WATCME-37	T	Water	8151A	200-38149
200-10666-2DL	PRR1WATCME-37	T	Water	8151A	200-38149

Report Basis

T = Total

General Chemistry

Analysis Batch:200-38368					
LCS 200-38368/1	Lab Control Sample	T	Water	SM 5310B	
LCS 200-38368/4	Lab Control Sample	T	Water	SM 5310B	
MB 200-38368/2	Method Blank	T	Water	SM 5310B	
MB 200-38368/5	Method Blank	T	Water	SM 5310B	
200-10666-2	PRR1WATCME-37	T	Water	SM 5310B	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-2

Sdg Number: PRR1267

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
200-10666-2 DL	PRR1WATCME-37 DL	100D	102D
200-10666-2	PRR1WATCME-37	102	99
MB 200-38149/1-A		82	84
LCS 200-38149/2-A		92	95

Surrogate	Acceptance Limits
DCPA = 2,4-Dichlorophenylacetic acid	60-130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-2
Sdg Number: PRR1267

Method Blank - Batch: 200-38149

Lab Sample ID: MB 200-38149/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/11/2012 0228
Prep Date: 05/05/2012 0729
Leach Date: N/A

Analysis Batch: 200-38556
Prep Batch: 200-38149
Leach Batch: N/A
Units: ug/L

**Method: 8151A
Preparation: 8151A**

Instrument ID: 5005.i
Lab File ID: 10may121623-r011.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95
2,4,5-T	0.47	U	0.13	0.47
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	84		60 - 130	
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	82		60 - 130	

Lab Control Sample - Batch: 200-38149

Lab Sample ID: LCS 200-38149/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/11/2012 0305
Prep Date: 05/05/2012 0729
Leach Date: N/A

Analysis Batch: 200-38556
Prep Batch: 200-38149
Leach Batch: N/A
Units: ug/L

**Method: 8151A
Preparation: 8151A**

Instrument ID: 5005.i
Lab File ID: 10may121623-r021.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	7.24	90	75 - 135	
2,4-DB	4.02	4.48	111	40 - 165	
Dinoseb	4.00	2.47	62	10 - 115	
2,4,5-T	2.00	2.16	108	60 - 155	
Surrogate	% Rec			Acceptance Limits	
2,4-Dichlorophenylacetic acid	95			60 - 130	
Surrogate	% Rec			Acceptance Limits	
2,4-Dichlorophenylacetic acid	92			60 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-2
Sdg Number: PRR1267

Method Blank - Batch: 200-38368

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-38368/2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/07/2012 1251
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-38368
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 050712b.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	0.211	J	0.14	1.0

Method Blank - Batch: 200-38368

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-38368/5
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/07/2012 1340
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-38368
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 050712b.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	0.169	J	0.14	1.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-2
Sdg Number: PRR1267

Lab Control Sample - Batch: 200-38368

Method: SM 5310B
Preparation: N/A

Lab Sample ID: LCS 200-38368/1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/07/2012 1234
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-38368
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 050712b.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.90	99	85 - 115	

Lab Control Sample - Batch: 200-38368

Method: SM 5310B
Preparation: N/A

Lab Sample ID: LCS 200-38368/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/07/2012 1323
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-38368
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 050712b.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.95	99	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJ. NO. 8000966.0002.70004		PROJECT NAME Tierra Phase I Removal		SDG NUMBER/COC Number PRR1267																									
SAMPLERS:																													
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks						
PRR1WATCHME-36	4/30/2012	20:45	water	Grab	1									X															
PRR1WATCHME-37	5/3/2012	9:00	water	Grab	18	X	X	X	X	X	X	X	X	X	X														
TB05032012	5/3/2012		water		3	X																							
<div style="display: flex; justify-content: space-between;"> <div> <p>Requested Analyses</p> <p><input type="checkbox"/> TOC</p> <p><input type="checkbox"/> VOCs</p> <p><input type="checkbox"/> SVOCs</p> <p><input type="checkbox"/> Aroclor PCBs</p> <p><input type="checkbox"/> Pesticides</p> <p><input type="checkbox"/> Metals + Hg</p> <p><input type="checkbox"/> Cyanide</p> <p><input type="checkbox"/> Herbicides</p> <p><input type="checkbox"/> TSS</p> <p><input type="checkbox"/> WET Testing</p> </div> <div> <p>Requested Analyses</p> <p><input type="checkbox"/> Special QA/QC Instructions</p> </div> </div>																													
Special Instructions/Comments: Refer to RAWP QAPP WS 15-4 for Effluent Samples																													
Laboratory Information and Receipt																													
Lab Name: TestAmerica - Burlington, VT																													
Shipping Tracking #																													
Specify Turnaround Requirements: 7 day TAT; TSS samples 24 hr TAT																													
Relinquished by: <i>DJG</i>						DATE: 5/03/12						TIME: 1100						Received by: <i>John TABLO</i>						DATE: 5/11/12					
Relinquished by:						DATE:						TIME:						Received by:						DATE:					
Relinquished by:						DATE:						TIME:						Received by:						DATE:					
Relinquished by:						DATE:						TIME:						Received by:						DATE:					

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10666-2

SDG Number: PRR1267

Login Number: 10666

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699003,001,002,004
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2,5.2°C IR GUN ID 154/CF=-0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



Ship Date: 03MAY12
ActWgt: 30.0 LB
CAD: 103767025/NET3250

Dims: 28 X 18 X 18 IN

Newark, NJ 07105



J12101112190225

SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

SOUTH BURLINGTON, VT 05403

Delivery Address Bar Code



Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

1 of 2

FRI - 04 MAY A4
FIRST OVERNIGHT

TRK# 7935 2505 0650

0201

MASTER

05403

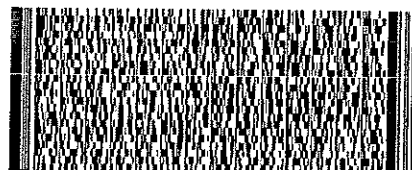
VT-US

BTV

E9 BTVA



5120361A1A278



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



Ship Date: 03MAY12
ActWgt: 30.0 LB
CAD: 103767025/NET3250

Dims: 27 X 18 X 18 IN

Newark, NJ 07105



J12101112190225

SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

SOUTH BURLINGTON, VT 05403

Delivery Address Bar Code



Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

2 of 2

FRI - 04 MAY A4
FIRST OVERNIGHT

MPS# 7935 2505 0763

0263

Mstr# 7935 2505 0650

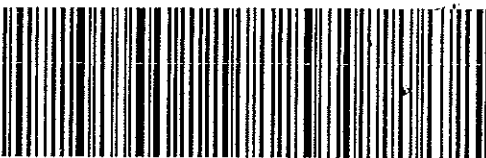
0201

05403

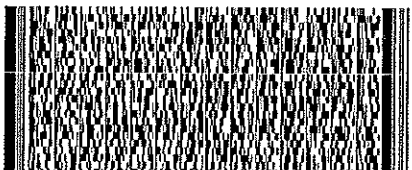
VT-US

BTV

E9 BTVA



5120361A1A278



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

ANALYTICAL REPORT

Job Number: 200-10666-3

SDG Number: PRR1267

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/11/2012 4:55 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/11/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Sample Summary	4
Subcontracted Data	5
Client Chain of Custody	34
Sample Receipt Checklist	35

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR12067 (200-10666-3)

Enclosed is the report for the whole effluent toxicity test (*Americamysis bahia* 96-hour static renewal acute toxicity test) for the referenced project work. The analytical work was performed by Aquatec Biological Sciences (Williston, Vermont). The report from that laboratory is reproduced in its entirety.

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10666-3
Sdg Number: PRR1267

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10666-2	PRR1WATCME-37	Water	05/03/2012 0900	05/04/2012 0900



Aquatec Biological Sciences, Inc.

273 Commerce Street
Williston, VT 05495
Tel: (802) 860 - 1638 Fax: (802) 658 - 3189

SDG: 13156
Project: 12023

Toxicity Summary Report

TestAmerica Burlington
30 Community Drive

Tel: (802) 923-1017
Fax:

South Burlington, VT 05403

E-Mail: kirk.young@testamericainc.com

Project: Mysid acute test

Permit No. N/A

Sample Name: PRR1WATCME-37

Sample ID 42582

Method	Species	ACUTE		CHRONIC	
		A-NOEC	A-LC50	C-NOEC	C-LOEC
2007.0-96r	<i>Americamysis bahia</i>	50	>100		

Samples Received

Number	Sample Name	Date Time and Collected	Type
42582	PRR1WATCME-37	5/3/2012 9:00:00 AM	Effluent
42583	Forty Fathoms 050212	5/4/2012	Lab Water



Aquatec Biological Sciences, Inc.

273 Commerce Street
Williston, VT 05495
Tel: (802) 860 - 1638 Fax: (802) 658 - 3189

SDG: 13156
Project: 12023

Toxicity Detail Report

TestAmerica Burlington
30 Community Drive

Tel: (802) 923-1017

Fax:

South Burlington, VT 05403

E-Mail: kirk.young@testamericainc.com

Project: **Mysid acute test**

Permit No. **N/A**

Sample ID **42582** **PRR1WATCME-37**

Method: **2007.0-96r** **Americamysis bahia**

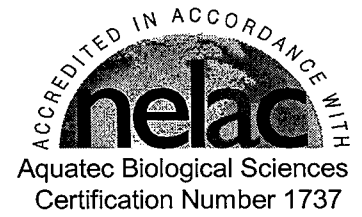
Response: Survival (%)

Day	Additional Control	%					
		0	6.25	12.5	25	50	100
2		100	100	95	100	92.5	90
4		97.5	100	95	100	90	75



Aquatec Biological Sciences, Inc.

273 Commerce Street
Williston, VT 05495
Tel: (802) 860 - 1638 Fax: (802) 658 - 3189



Toxicity Quality Assurance Report

SDG: 13156

Project: 12023

TestAmerica Burlington
30 Community Drive

Tel: (802) 923-1017

Fax:

South Burlington, VT 05403

E-Mail: kirk.young@testamericainc.com

Project: Mysid acute test

Permit No. N/A

Method: 2007.0-96r

Americamysis bahia

Response: Survival (%)

Day	Sample ID	Dilution Control
4	42582	97.5
2	42582	100

Special Conditions and Qualifiers

To the best our knowledge, there are no other special conditions or qualifiers that relate to the samples in this report with the following exceptions: On Day 2 of the test, the dissolved oxygen concentration in the 100% effluent post-renewal solutions ("Final Chemistry") was measured at 3.9 mg/L. Aeration was initiated to all test replicates at that time.

TestAmerica Burlington
30 Community Drive

Tel: (802) 923-1017
Fax:

South Burlington, VT 05403

E-Mail: kirk.young@testamericainc.com

Project: **Mysid acute test**

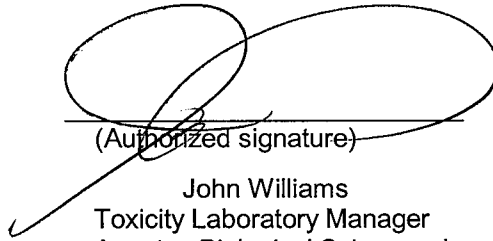
Permit No. **N/A**

WHOLE EFFLUENT TOXICITY TEST REPORT CERTIFICATION

The results reported relate only to the the samples submitted as received.

I certify under penalty of law that this document and all ATTACHMENTs were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: 5/10/12
(Date)


(Authorized signature)
John Williams
Toxicity Laboratory Manager
Aquatec Biological Sciences, Inc.

Supportive Documentation

Chain-Of-Custody

Toxicity Test Methods

2007.0-96r - Mysid, A. bahia, 96-H Renewal Acute Survival

Standard Reference Toxicant Control Charts


TestAmerica Burlington

Chain-Of-Custody

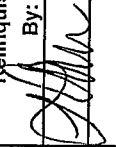
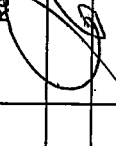
INTERNAL CHAIN OF CUSTODY LOG (ICOC)

Project Information:

Log In #: 200-10666 Method: WET TESTING
 Client: ARCADIS LAB IDs: 200-10666-2

Samples associated with this log-in were placed into storage on 5/4/2012 1006
 (Date) (Time²) by: 
 Sample Custodian Signature

Storage Location: AQUATEC BIOLOGICAL Specify storage location (refrigerator, freezer ID or lab location) for original sample containers
 Storage Condition: Refrigeration Frozen Ambient
 Internal Transfer Information:

Sample Type	Original Prepared ¹	Lab ID(s)	Transfer Date	Transfer Time ²	Purpose of Transfer		Relinquished By:	Received By:	Storage Location Prepared Sample ¹
					Prep	Analysis Storage			
		200-10666-2	5/4/12	1225					

¹ Extract, digestate, or any other prepared sample that is no longer in original sample container

² Military Time

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

PROJECT NAME		Requested Analyses													SDG NUMBER		COC Number								
Tierra Phase I Removal															PRR1267										
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks		
PRR1WATCME-36	4/30/2012	20:45	water	Grab	1									X											
PRR1WATCME-37	5/3/2012	9:00	water	Grab	18	X	X	X	X	X	X	X	X	X	X	X									
TB05032012	5/3/2012		water		3	X																			
Special Instructions/Comments: Refer to RAWP QAPP WS 15-4 for Effluent Samples																									
Requested Analyses																									
1	TOC																								
2	HVOCs																								
3	SVOCs																								
4	Arochlor PCBs																								
5	Pesticides																								
6	Metals + Hg																								
7	Cyanide																								
8	Herbicides																								
9	TSS																								
10	WET Testing																								
11		Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME
12			5/03/12	1100																					
13																									
14																									
15																									
16																									

Toxicity Test Methods

Mysid acute test Permit: N/A Pipe 1 Project: 12023

1	Test type:	Static renewal
2	Test duration:	96h
3	Temperature:	25C +/- 1C; Test temperatures must not deviate (i.e., maximum minus minimum temperature) by more than 3 C during the test
4	Light quality:	Ambient laboratory illumination
5	Light intensity:	10-20uE/m ² /s (50-100ft-c) (ambient laboratory illumination)
6	Photoperiod:	16h light, 8h darkness
7	Test chamber size:	250mL
8	Test solution volume:	200mL
9	Renewal of test solutions:	Daily
10	Age of test organisms:	1-5 days; less than or equal to 24h range in age
11	No. organisms per test chamber:	10
12	No. replicate chambers per concentration:	4
13	No. organisms per concentration:	40
14	Feeding regime:	Artemia nauplii are made available while holding prior to the test; add 0.1mL Artemia nauplii concentrate twice daily (once in the AM and once in the PM)
15	Test chamber cleaning:	Cleaning not required
16	Test solution aeration:	None, unless DO concentration falls below 4.0mg/L; rate should not exceed 100 bubbles/min
17	Dilution water:	Forty Fathoms
18	Test concentrations (%):	0, 6.25, 12.5, 25, 50, 100
19	Additional control:	
20	Endpoint:	Survival
21	Sampling and sample holding requirements:	Effluents: Grab or composite sample first used within 36h of completion of the sampling period
22	Sample volume required:	Approximately 2L per day
23	Test acceptability criterion:	90% or greater survival in controls

2007.0-96r - Mysid, A. bahia, 96-H Renewal Acute Survival

CETIS Summary Report

Report Date: 10 May-12 11:17 (p 1 of 2)
Test Code: 64062 | 21-2952-1366

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Batch ID: 07-7222-9994	Test Type: Survival (96h)	Analyst:
Start Date: 04 May-12 14:45	Protocol: EPA/821/R-02-012 (2002)	Diluent: Laboratory Seawater
Ending Date: 08 May-12 14:40	Species: Mysidopsis bahia	Brine: Forty Fathoms
Duration: 96h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 02-0029-0971	Code: 13156	Client: Test America
Sample Date: 03 May-12 09:00	Material: Unknown	Project:
Receive Date: 04 May-12 12:25	Source: Test America	
Sample Age: 30h	Station:	

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
15-9687-4522	48h Survival Rate	100	>100	NA	10.6%	1	Steel Many-One Rank Sum Test
18-8839-6644	96h Survival Rate	50	100	70.71	10.4%	2	Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
04-3151-5681	48h Survival Rate	EC5	37.5	17.5	N/A	2.667	Linear Interpolation (ICPIN)
		EC10	100	10	N/A	1	
		EC15	>100	N/A	N/A	<1	
		EC20	>100	N/A	N/A	<1	
		EC25	>100	N/A	N/A	<1	
		EC40	>100	N/A	N/A	<1	
		EC50	>100	N/A	N/A	<1	
10-4658-2849	96h Survival Rate	EC5	37.3	21.3	67.1	2.682	Linear Interpolation (ICPIN)
		EC10	53.8	27.8	86.9	1.86	
		EC15	70.2	31.7	118	1.424	
		EC20	86.7	50.4	N/A	1.154	
		EC25	>100	N/A	N/A	<1	
		EC40	>100	N/A	N/A	<1	
		EC50	>100	N/A	N/A	<1	

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
10-4658-2849	96h Survival Rate	Control Resp	0.975	0.9 - NL	Yes	Passes Acceptability Criteria
18-8839-6644	96h Survival Rate	Control Resp	0.975	0.9 - NL	Yes	Passes Acceptability Criteria

48h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	4	1	1	1	1	1	0	0	0.0%	0.0%
6.25		4	1	1	1	1	1	0	0	0.0%	0.0%
12.5		4	0.95	0.928	0.972	0.9	1	0.0289	0.0577	6.08%	5.0%
25		4	1	1	1	1	1	0	0	0.0%	0.0%
50		4	0.925	0.889	0.961	0.8	1	0.0479	0.0957	10.4%	7.5%
100		4	0.9	0.857	0.943	0.8	1	0.0577	0.115	12.8%	10.0%

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	4	0.975	0.956	0.994	0.9	1	0.025	0.05	5.13%	0.0%
6.25		4	1	1	1	1	1	0	0	0.0%	-2.56%
12.5		4	0.95	0.928	0.972	0.9	1	0.0289	0.0577	6.08%	2.56%
25		4	1	1	1	1	1	0	0	0.0%	-2.56%
50		4	0.9	0.87	0.93	0.8	1	0.0408	0.0816	9.07%	7.69%
100		4	0.75	0.702	0.798	0.6	0.9	0.0645	0.129	17.2%	23.1%

CETIS Summary Report

Report Date: 10 May-12 11:17 (p 2 of 2)
Test Code: 64062 | 21-2952-1366

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

48h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	1	1
6.25		1	1	1	1
12.5		1	0.9	1	0.9
25		1	1	1	1
50		0.9	0.8	1	1
100		1	1	0.8	0.8

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	0.9	1	1	1
6.25		1	1	1	1
12.5		1	0.9	1	0.9
25		1	1	1	1
50		0.9	0.8	0.9	1
100		0.8	0.9	0.7	0.6

48h Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	10/10	10/10	10/10	10/10
6.25		10/10	10/10	10/10	10/10
12.5		10/10	9/10	10/10	9/10
25		10/10	10/10	10/10	10/10
50		9/10	8/10	10/10	10/10
100		10/10	10/10	8/10	8/10

96h Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	9/10	10/10	10/10	10/10
6.25		10/10	10/10	10/10	10/10
12.5		10/10	9/10	10/10	9/10
25		10/10	10/10	10/10	10/10
50		9/10	8/10	9/10	10/10
100		8/10	9/10	7/10	6/10

CETIS Analytical Report

Report Date: 10 May-12 11:17 (p 1 of 4)
 Test Code: 64062 | 21-2952-1366

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Analysis ID: 15-9687-4522	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.8.4
Analyzed: 10 May-12 11:17	Analysis: Nonparametric-Control vs Treatments	Official Results: Yes
Batch ID: 07-7222-9994	Test Type: Survival (96h)	Analyst:
Start Date: 04 May-12 14:45	Protocol: EPA/821/R-02-012 (2002)	Diluent: Laboratory Seawater
Ending Date: 08 May-12 14:40	Species: Mysidopsis bahia	Brine: Forty Fathoms
Duration: 96h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 02-0029-0971	Code: 13156	Client: Test America
Sample Date: 03 May-12 09:00	Material: Unknown	Project:
Receive Date: 04 May-12 12:25	Source: Test America	
Sample Age: 30h	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	10.6%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Dilution Water		6.25	18	10	1	6	0.8333	Asymp	Non-Significant Effect
		12.5	14	10	1	6	0.3451	Asymp	Non-Significant Effect
		25	18	10	1	6	0.8333	Asymp	Non-Significant Effect
		50	14	10	1	6	0.3451	Asymp	Non-Significant Effect
		100	14	10	1	6	0.3451	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.09214444	0.01842889	5	1.8	0.1637	Non-Significant Effect
Error	0.1842889	0.01023827	18			
Total	0.2764333		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	22	4.25	<0.0001	Unequal Variances
Variances	Levene Equality of Variance	32.9	4.25	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.902	0.884	0.0235	Normal Distribution

48h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	1	1	1	1	1	1	0	0.0%	0.0%
6.25		4	1	1	1	1	1	1	0	0.0%	0.0%
12.5		4	0.95	0.858	1	0.95	0.9	1	0.0289	6.08%	5.0%
25		4	1	1	1	1	1	1	0	0.0%	0.0%
50		4	0.925	0.773	1	0.95	0.8	1	0.0479	10.4%	7.5%
100		4	0.9	0.716	1	0.9	0.8	1	0.0577	12.8%	10.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	1.41	1.41	1.41	1.41	1.41	1.41	0	0.0%	0.0%
6.25		4	1.41	1.41	1.41	1.41	1.41	1.41	0	0.0%	0.0%
12.5		4	1.33	1.18	1.48	1.33	1.25	1.41	0.047	7.07%	5.77%
25		4	1.41	1.41	1.41	1.41	1.41	1.41	0	0.0%	0.0%
50		4	1.3	1.06	1.53	1.33	1.11	1.41	0.0735	11.3%	8.28%
100		4	1.26	0.98	1.54	1.26	1.11	1.41	0.088	14.0%	10.8%

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Analysis ID: 15-9687-4522 Endpoint: 48h Survival Rate CETIS Version: CETISv1.8.4
 Analyzed: 10 May-12 11:17 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

48h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	1	1
6.25		1	1	1	1
12.5		1	0.9	1	0.9
25		1	1	1	1
50		0.9	0.8	1	1
100		1	1	0.8	0.8

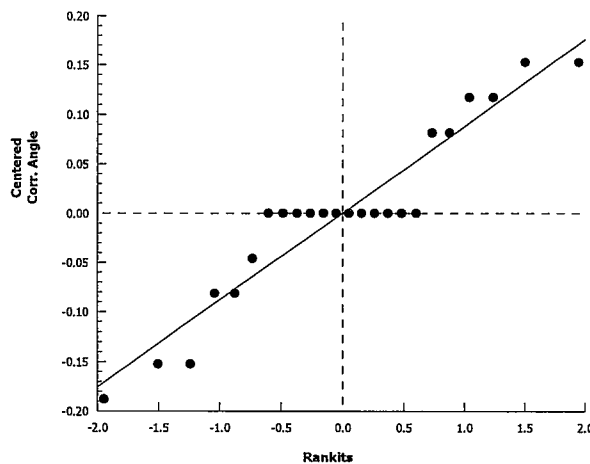
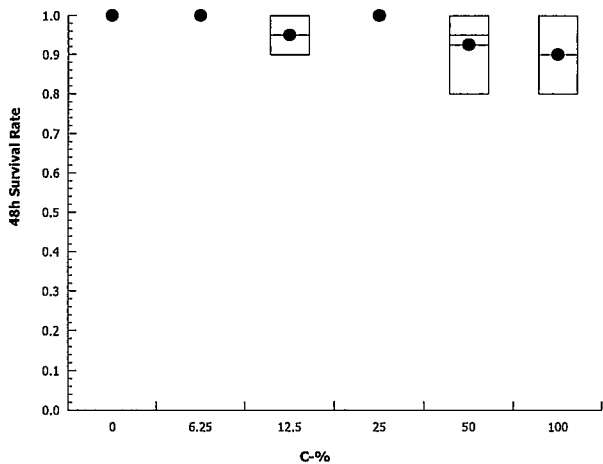
Angular (Corrected) Transformed Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1.41	1.41	1.41	1.41
6.25		1.41	1.41	1.41	1.41
12.5		1.41	1.25	1.41	1.25
25		1.41	1.41	1.41	1.41
50		1.25	1.11	1.41	1.41
100		1.41	1.41	1.11	1.11

48h Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	10/10	10/10	10/10	10/10
6.25		10/10	10/10	10/10	10/10
12.5		10/10	9/10	10/10	9/10
25		10/10	10/10	10/10	10/10
50		9/10	8/10	10/10	10/10
100		10/10	10/10	8/10	8/10

Graphics



CETIS Analytical Report

Report Date: 10 May-12 11:17 (p 3 of 4)
 Test Code: 64062 | 21-2952-1366

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Analysis ID: 18-8839-6644	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.4
Analyzed: 10 May-12 11:17	Analysis: Parametric-Control vs Treatments	Official Results: Yes
Batch ID: 07-7222-9994	Test Type: Survival (96h)	Analyst:
Start Date: 04 May-12 14:45	Protocol: EPA/821/R-02-012 (2002)	Diluent: Laboratory Seawater
Ending Date: 08 May-12 14:40	Species: Mysidopsis bahia	Brine: Forty Fathoms
Duration: 96h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 02-0029-0971	Code: 13156	Client: Test America
Sample Date: 03 May-12 09:00	Material: Unknown	Project:
Receive Date: 04 May-12 12:25	Source: Test America	
Sample Age: 30h	Station:	

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	10.4%	50	100	70.71	2

Dunnett Multiple Comparison Test

Control	vs C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Dilution Water	6.25	-0.6	2.41	0.163	6	0.9522	CDF	Non-Significant Effect
	12.5	0.6	2.41	0.163	6	0.6033	CDF	Non-Significant Effect
	25	-0.6	2.41	0.163	6	0.9522	CDF	Non-Significant Effect
	50	1.72	2.41	0.163	6	0.1640	CDF	Non-Significant Effect
	100*	4.61	2.41	0.163	6	0.0005	CDF	Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	0.975	0.9 - NL	Yes	Passes Acceptability Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3653546	0.07307092	5	7.92	0.0004	Significant Effect
Error	0.166001	0.009222278	18			
Total	0.5313556		23			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	2.81	4.25	0.0479	Equal Variances
Variances	Levene Equality of Variance	3.93	4.25	0.0139	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.939	0.884	0.1584	Normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	0.975	0.895	1	1	0.9	1	0.025	5.13%	0.0%
6.25		4	1	1	1	1	1	1	0	0.0%	-2.56%
12.5		4	0.95	0.858	1	0.95	0.9	1	0.0289	6.08%	2.56%
25		4	1	1	1	1	1	1	0	0.0%	-2.56%
50		4	0.9	0.77	1	0.9	0.8	1	0.0408	9.07%	7.69%
100		4	0.75	0.545	0.955	0.75	0.6	0.9	0.0645	17.2%	23.1%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	4	1.37	1.24	1.5	1.41	1.25	1.41	0.0407	5.94%	0.0%
6.25		4	1.41	1.41	1.41	1.41	1.41	1.41	0	0.0%	-2.97%
12.5		4	1.33	1.18	1.48	1.33	1.25	1.41	0.047	7.07%	2.97%
25		4	1.41	1.41	1.41	1.41	1.41	1.41	0	0.0%	-2.97%
50		4	1.25	1.06	1.45	1.25	1.11	1.41	0.0623	9.93%	8.53%
100		4	1.06	0.81	1.31	1.05	0.886	1.25	0.078	14.7%	22.8%

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Analysis ID: 18-8839-6644 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.4
 Analyzed: 10 May-12 11:17 Analysis: Parametric-Control vs Treatments Official Results: Yes

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	0.9	1	1	1
6.25		1	1	1	1
12.5		1	0.9	1	0.9
25		1	1	1	1
50		0.9	0.8	0.9	1
100		0.8	0.9	0.7	0.6

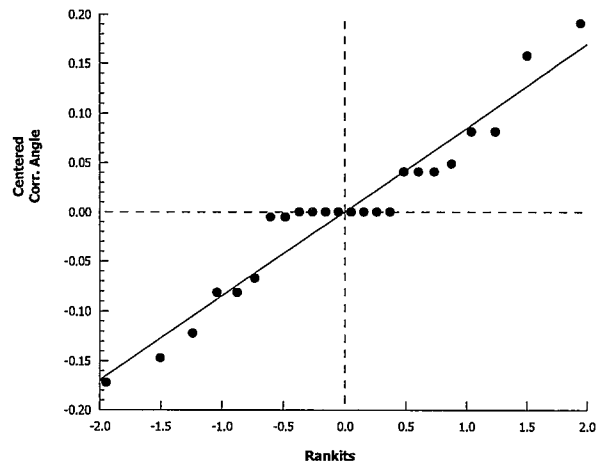
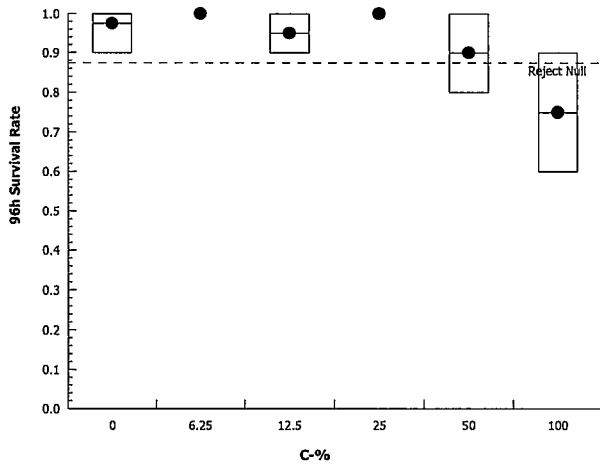
Angular (Corrected) Transformed Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1.25	1.41	1.41	1.41
6.25		1.41	1.41	1.41	1.41
12.5		1.41	1.25	1.41	1.25
25		1.41	1.41	1.41	1.41
50		1.25	1.11	1.25	1.41
100		1.11	1.25	0.991	0.886

96h Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	9/10	10/10	10/10	10/10
6.25		10/10	10/10	10/10	10/10
12.5		10/10	9/10	10/10	9/10
25		10/10	10/10	10/10	10/10
50		9/10	8/10	9/10	10/10
100		8/10	9/10	7/10	6/10

Graphics



CETIS Analytical Report

Report Date: 10 May-12 11:17 (p 1 of 4)
 Test Code: 64062 | 21-2952-1366

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Analysis ID: 04-3151-5681	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.8.4
Analyzed: 10 May-12 11:17	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes
Batch ID: 07-7222-9994	Test Type: Survival (96h)	Analyst:
Start Date: 04 May-12 14:45	Protocol: EPA/821/R-02-012 (2002)	Diluent: Laboratory Seawater
Ending Date: 08 May-12 14:40	Species: Mysidopsis bahia	Brine: Forty Fathoms
Duration: 96h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 02-0029-0971	Code: 13156	Client: Test America
Sample Date: 03 May-12 09:00	Material: Unknown	Project:
Receive Date: 04 May-12 12:25	Source: Test America	
Sample Age: 30h	Station:	

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1128973	200	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC5	37.5	17.5	N/A	2.667	NA	5.714
EC10	100	10	N/A	1	NA	10
EC15	>100	N/A	N/A	<1	NA	NA
EC20	>100	N/A	N/A	<1	NA	NA
EC25	>100	N/A	N/A	<1	NA	NA
EC40	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

48h Survival Rate Summary

Calculated Variate(A/B)

C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Dilution Water	4	1	1	1	0	0	0.0%	0.0%	40	40
6.25		4	1	1	1	0	0	0.0%	0.0%	40	40
12.5		4	0.95	0.9	1	0.0289	0.0577	6.08%	5.0%	38	40
25		4	1	1	1	0	0	0.0%	0.0%	40	40
50		4	0.925	0.8	1	0.0479	0.0957	10.4%	7.5%	37	40
100		4	0.9	0.8	1	0.0577	0.115	12.8%	10.0%	36	40

48h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	1	1	1
6.25		1	1	1	1
12.5		1	0.9	1	0.9
25		1	1	1	1
50		0.9	0.8	1	1
100		1	1	0.8	0.8

48h Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	10/10	10/10	10/10	10/10
6.25		10/10	10/10	10/10	10/10
12.5		10/10	9/10	10/10	9/10
25		10/10	10/10	10/10	10/10
50		9/10	8/10	10/10	10/10
100		10/10	10/10	8/10	8/10

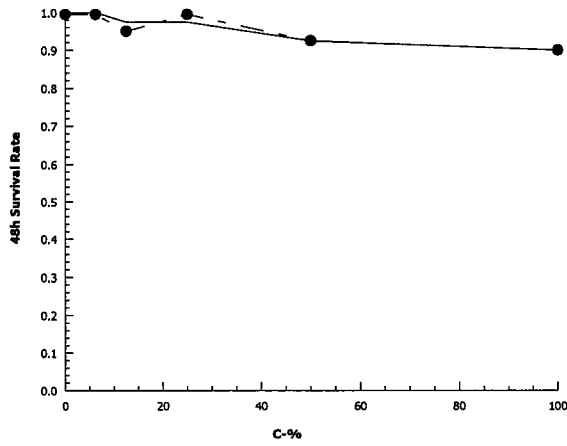
Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Analysis ID: 04-3151-5681 Endpoint: 48h Survival Rate
Analyzed: 10 May-12 11:17 Analysis: Linear Interpolation (ICPIN)

CETIS Version: CETISv1.8.4
Official Results: Yes

Graphics



CETIS Analytical Report

Report Date: 10 May-12 11:17 (p 3 of 4)
 Test Code: 64062 | 21-2952-1366

Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Analysis ID: 10-4658-2849	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.4
Analyzed: 10 May-12 11:17	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes
Batch ID: 07-7222-9994	Test Type: Survival (96h)	Analyst:
Start Date: 04 May-12 14:45	Protocol: EPA/821/R-02-012 (2002)	Diluent: Laboratory Seawater
Ending Date: 08 May-12 14:40	Species: Mysidopsis bahia	Brine: Forty Fathoms
Duration: 96h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 02-0029-0971	Code: 13156	Client: Test America
Sample Date: 03 May-12 09:00	Material: Unknown	Project:
Receive Date: 04 May-12 12:25	Source: Test America	
Sample Age: 30h	Station:	

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	957286	200	Yes	Two-Point Interpolation

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	0.975	0.9 - NL	Yes	Passes Acceptability Criteria

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC5	37.3	21.3	67.1	2.682	1.49	4.703
EC10	53.8	27.8	86.9	1.86	1.15	3.604
EC15	70.2	31.7	118	1.424	0.8484	3.152
EC20	86.7	50.4	N/A	1.154	NA	1.984
EC25	>100	N/A	N/A	<1	NA	NA
EC40	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary

Calculated Variate(A/B)

C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Dilution Water	4	0.975	0.9	1	0.025	0.05	5.13%	0.0%	39	40
6.25		4	1	1	1	0	0	0.0%	-2.56%	40	40
12.5		4	0.95	0.9	1	0.0289	0.0577	6.08%	2.56%	38	40
25		4	1	1	1	0	0	0.0%	-2.56%	40	40
50		4	0.9	0.8	1	0.0408	0.0816	9.07%	7.69%	36	40
100		4	0.75	0.6	0.9	0.0645	0.129	17.2%	23.1%	30	40

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	0.9	1	1	1
6.25		1	1	1	1
12.5		1	0.9	1	0.9
25		1	1	1	1
50		0.9	0.8	0.9	1
100		0.8	0.9	0.7	0.6

96h Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	9/10	10/10	10/10	10/10
6.25		10/10	10/10	10/10	10/10
12.5		10/10	9/10	10/10	9/10
25		10/10	10/10	10/10	10/10
50		9/10	8/10	9/10	10/10
100		8/10	9/10	7/10	6/10

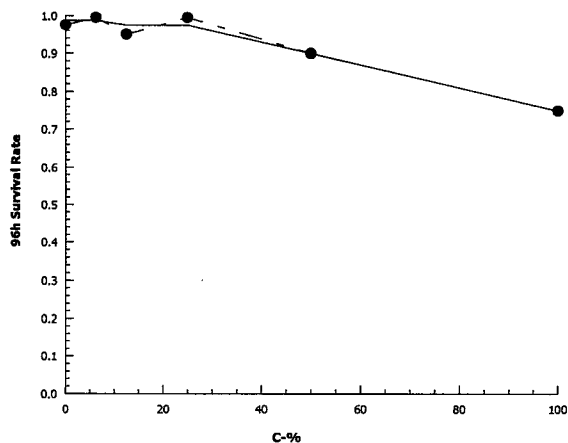
Mysidopsis 96-h Acute Survival Test

Aquatec Biological Sciences, Inc

Analysis ID: 10-4658-2849 Endpoint: 96h Survival Rate
Analyzed: 10 May-12 11:17 Analysis: Linear Interpolation (ICPIN)

CETIS Version: CETISv1.8.4
Official Results: Yes

Graphics



CETIS Test Data Worksheet

Report Date: 10 May-12 09:47 (p 1 of 1)
 Test Code: 21-2952-1366/64062

Mysidopsis 96-h Acute Survival Test				Aquatec Biological Sciences, Inc			
Start Date: 04 May-12 14:45	Species: Mysidopsis bahia	Sample Code: 13156					
End Date: 08 May-12 14:40	Protocol: EPA/821/R-02-012 (2002)	Sample Source: Test America					
Sample Date: 03 May-12 09:00	Material: Unknown	Sample Station:					

C-%	Code	Rep	Pos	# Exposed	24h Survival	48h Survival	72h Survival	96h Survival	1hSurvival	2hSurvival
0	D	1	12	10	10	10	9	9		
0	D	2	20	10	10	10	10	10		
0	D	3	6	10	10	10	10	10		
0	D	4	22	10	10	10	10	10		
6.25		1	13	10	10	10	10	10		
6.25		2	5	10	10	10	10	10		
6.25		3	2	10	10	10	10	10		
6.25		4	24	10	10	10	10	10		
12.5		1	21	10	10	10	10	10		
12.5		2	10	10	10	9	9	9		
12.5		3	14	10	10	10	10	10		
12.5		4	16	10	10	9	9	9		
25		1	4	10	10	10	10	10		
25		2	7	10	10	10	10	10		
25		3	1	10	10	10	10	10		
25		4	9	10	10	10	10	10		
50		1	3	10	9	9	9	9		
50		2	23	10	9	8	8	8		
50		3	19	10	10	10	10	9		
50		4	11	10	10	10	10	10		
100		1	18	10	10	10	9	8		
100		2	8	10	10	10	10	9		
100		3	17	10	10	8	8	7		
100		4	15	10	9	8	6	6		

2007.0-96r Mysid, A. bahia, 96-H Renewal Acute Survival

Species: *Americamysis bahia*

Reference: EPA-821-R-02-012

SOP: TOX2-004

TOXICITY TEST DATA:

Test ID: 64062

% Effluent		Day 0	Day 1	Day 2	Day 3	Day 4
0 %	A	10	10	10	9	9
	B	10	10	10	10	10
	C	10	10	10	10	10
	D	10	10	10	10	10
6.25 %	A	10	10	10	10	10
	B	10	10	10	10	10
	C	10	10	10	10	10
	D	10	10	10	10	10
12.5 %	A	10	10	10	10	10
	B	10	10	9	9	9
	C	10	10	10	10	10
	D	10	10	9	9	9
25 %	A	10	10	10	10	10
	B	10	10	10	10	10
	C	10	10	10	10	10
	D	10	10	10	10	10
50 %	A	10	9	9	9	9
	B	10	9	8	8	8
	C	10	10	10	10	9
	D	10	10	10	10	10
100 %	A	10	10	10	9	8
	B	10	10	10	10	9
	C	10	10	8	8	7
	D	10	9	8	6	6

Sample #	42582	42582	42582	42582	42582
Fed AM	—	0820 JG	0835 KK	0850 KK	0810 KK
Fed PM	1650 JG	1550 JG	1650 KK	1630 KK	—
Renewal (D/T/I)	5-4-12 1445 JG	5-5-12 1435 JG	5/6/12 1450 KK	5/7/12 1505 KK	5-8-12 1440 JG

NOTES: Feeding Lot Number(s): 082611

2007.0-96r Mysid, A. bahia, 96-H Renewal Acute Survival

Species: *Americamysis bahia*

Reference: EPA-821-R-02-012

SOP: TOX2-004

CHEMISTRY DATA:

% Effluent	Analysis	Initial Chemistry				Final Chemistry				
		Day 0	Day 1	Day 2	Day 3	Analysis	Day 1	Day 2	Day 3	Day 4
0 % CTRL	pH	8.0	8.0	8.0	8.0	pH	7.8	7.7	7.9	7.8
	DO	7.0	7.5	7.2	7.3	DO	6.3	6.1	7.1	7.2
	Temp.	25.4	25.5	25.4	25.9	Temp.	24.9	24.8	24.1	24.7
	Sal.	25	25	25	25	Sal.	25	25	25	25
6.25 % Effluent	pH	8.0	8.0	8.0	8.0	pH	7.8	7.7	7.9	7.8
	DO	7.0	7.5	7.3	7.3	DO	6.1	5.8	7.1	7.0
	Temp.	25.4	25.4	25.3	25.7	Temp.	24.9	24.9	24.1	24.5
	Sal.	25	25	25	25	Sal.	25	25	25	25
12.5 % Effluent	pH	8.0	8.0	7.9	8.0	pH	7.7	7.7	7.9	7.7
	DO	7.0	7.5	7.2	7.2	DO	5.9	5.8	7.0	7.0
	Temp.	25.5	25.4	25.2	25.7	Temp.	24.9	25.0	24.3	24.7
	Sal.	25	25	25	25	Sal.	25	25	25	25
25 % Effluent	pH	8.0	8.0	7.9	7.9	pH	7.7	7.6	7.9	7.9
	DO	7.0	7.5	7.2	7.2	DO	5.9	5.4	7.1	7.1
	Temp.	25.5	25.4	25.3	25.6	Temp.	25.0	25.0	24.2	24.6
	Sal.	25	25	25	25	Sal.	25	25	25	25
50 % Effluent	pH	7.9	8.0	7.7	7.8	pH	7.6	7.0	7.8	7.8
	DO	7.0	7.4	7.0	7.0	DO	5.5	5.1	6.8	7.0
	Temp.	25.5	25.5	25.3	25.5	Temp.	25.0	25.0	24.4	24.5
	Sal.	25	25	25	25	Sal.	25	25	25	25
100 % Effluent	pH	7.8	7.9	7.4	7.7	pH	7.6	7.5	7.9	7.8
	DO	6.9	7.3	6.5	6.8	DO	5.0	3.90	6.9	6.9
	Temp.	25.5	25.6	25.5	25.2	Temp.	24.8	25.1	24.4	24.5
	Sal.	25	25	25	25	Sal.	25	25	25	25
	Sample #	42582	42582	42582	42582	Sample #	42582	42582	42582	42582
	Date	5/4/12	5/5	5/6/12	5/7/12	Date	5/5	5/6/12	5/7/12	5/8
	Initials	JG	JG	KK	KK	Initials	JG	KK	KK	JG

NOTES: ① Aeration Initiated 5/6/12 KK



Aquatec Biological Sciences, Inc.

273 Commerce Street
 Williston, VT 05495
 Tel: (802) 860 - 1638 Fax: (802) 658 - 3189

TestAmerica Burlington
 30 Community Drive

Tel: (802) 923-1017
 Fax:

South Burlington, VT 05403

E-Mail: kirk.young@testam

Project: Mysid acute test

Permit No. N/A

Pipe No. 1

SAMPLE PREPARATION:

Initial Sample

	EFFLUENT	RECEIVING					LAB CONTROL
Sample No.	42582	/					42583
Filtration	60 Micron	60 Micron					N/A
Chlorine (1)	ND	/					N/A
Chlorine (2)	—	/					N/A
NaThio Lot No	—	/					N/A
Original Salinity:	12‰ N/A	N/A					N/A
Date / Initials:	5/4/12 JG	/					

Effluent salted to 25‰ before use. FF Lot # 030409

- (1) Record vol. 0.025 N sodium thiosulfate to dechlorinate 100mL sample or record "ND" (Not Detected)
- (2) Dechlorination required if detected. Record vol. 0.25 N sodium thiosulfate added per gallon effluent.

Chlorine microcheck strip - 0.0 to 0.05 range, okay. J 5/4/12

Organism Holding and Acclimation

Species: <i>Americamysis bahia</i>	Date received: 5-3-12
Source: ABS	Hatch date: 5-1-12
No. ordered	Culture ID: 050312Ab

Acclimation / Holding Procedures: Transfer juvenile mysids to a large beaker or bowl. Add Forty Fathoms Artificial Salt Water. Acclimate to 25°C and 25‰ salinity with Forty Fathoms. Exchange 50% of holding water daily.

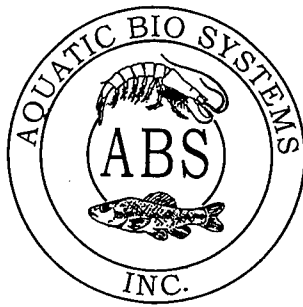
Feeding: *Artemia nauplii* twice daily (am/pm). Do not allow excess to accumulate.
Artemia lot#:

Monitoring: Daily, record apparent condition of mysids. Temperature daily; pH, D.O., salinity every other day.

2012 Date	Fed	Temp °C	pH	D.O.	Sal.	Water Change	Condition *	Init.
5/3	1100 / 1700	21.9	7.9	8.5	25‰	Added FF	Normal	JG
5/4	0905 /	23.7	7.8	6.2	25	50% w/FF	N	JG
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							
	/							

* N = normal, appear healthy. Record # dead if any observed.

1300 Blue Spruce Drive, Suite C
Fort Collins, Colorado 80524



Toll Free: 800/331-5916
Tel: 970/484-5091 Fax: 970/484-2514

ORGANISM HISTORY

DATE: 5/2/2012

SPECIES: Americamysis bahia (formerly Mysidopsis)

AGE: 1 day

LIFE STAGE: Juvenile

HATCH DATE: 5/1/2012

BEGAN FEEDING: Immediately

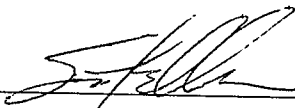
FOOD: Artemia sp.

Received:
5-3-12
Temp = 21.9°C
PH = 7.9
DO = 8.5
Salinity = 25‰
Condition = NORMAL
Added FF
Fed @ 1100
JG

Water Chemistry Record:

	Mean	Range
TEMPERATURE:	<u>25°C</u>	<u>23-26°C</u>
SALINITY/CONDUCTIVITY:	<u>25 ppt</u>	<u>21-30 ppt</u>
TOTAL HARDNESS (as CaCO ₃):	<u>--</u>	<u>--</u>
TOTAL ALKALINITY (as CaCO ₃):	<u>120 mg/l</u>	<u>100-185 mg/l</u>
pH:	<u>7.96</u>	<u>7.20-8.32</u>

Comments:



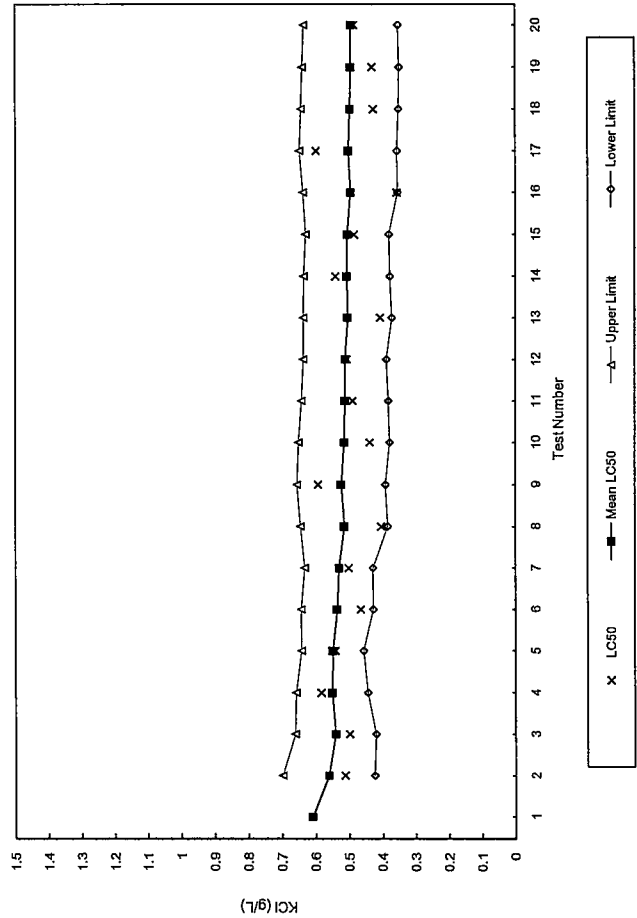
Facility Supervisor

Standard Reference Toxicant Control Charts

Americamysis bahia
Reference Toxicant Control Chart for KCl Acute Toxicity

Test Number	Test Date	LC50 (g/L)	Mean LC50	Calculated limits Upper	Calculated limits Lower	Organism Source	Age (Days)
1	10/7/08-10/9/08	0.61	0.61			Aquatic BioSystems	1
2	11/6/08-11/8/08	0.513	0.56	0.70	0.42	Aquatic BioSystems	3
3	12/10/08-12/12/08	0.5	0.54	0.66	0.42	Aquatic BioSystems	2
4	1/21/09-1/23/09	0.583	0.55	0.66	0.44	Aquatic BioSystems	2
5	2/3/09-2/5/09	0.542	0.55	0.64	0.46	Aquatic BioSystems	1
6	6/24/09-6/26/09	0.466	0.54	0.64	0.43	Aquatic BioSystems	2
7	11/11/09-11/13/09	0.501	0.53	0.63	0.43	Aquatic BioSystems	3
8	3/9/10-3/11/10	0.404	0.51	0.64	0.38	Aquatic BioSystems	2
9	6/29/10-7/1/10	0.593	0.52	0.66	0.39	Aquatic BioSystems	1
10	9/9/10-9/11/10	0.439	0.52	0.65	0.38	Aquatic BioSystems	5
11	9/24/10-9/26/10	0.49	0.51	0.64	0.38	Aquatic Indicators	5
12	12/14/10-12/21/10	0.507	0.51	0.64	0.39	Aquatic BioSystems	7
13	3/22/11-3/24/11	0.407	0.50	0.64	0.37	Aquatic BioSystems	2
14	5/17/11-5/24/11	0.541	0.51	0.64	0.38	Aquatic BioSystems	7
15	6/14/11-6/16/11	0.485	0.51	0.63	0.38	Aquatic BioSystems	3
16	9/1/11-9/3/11	0.357	0.50	0.64	0.36	Aquatic BioSystems	3
17	10/25/11-11/1/11	0.599	0.50	0.65	0.36	Aquatic BioSystems	7
18	12/10/11-12/12/11	0.427	0.50	0.64	0.35	Aquatic BioSystems	2
19	3/14/12-3/16/12	0.431	0.49	0.64	0.35	Aquatic BioSystems	7
20	04/05/12-04/12/12	0.485	0.49	0.63	0.35	Aquatic BioSystems	7

Reference Control Chart
Americamysis bahia Acute LC50

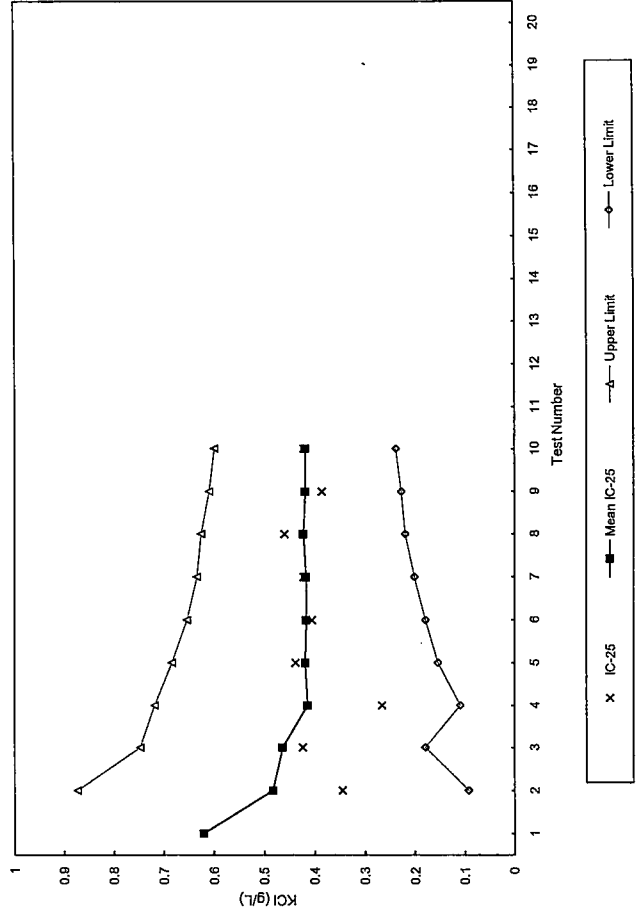


Americamysis bahia
Reference Toxicant Control Chart for KCl Chronic Toxicity

Test Number	Test Date	IC-25 (g/L)	Mean IC-25	Calculated limits Upper	Calculated limits Lower	Organism Source	Age (Days)
1	04/18/07	0.621	0.62			Aquatic Biological Scie	7
2	05/02/06	0.345	0.48	0.87	0.09	Aquatic BioSystems	7
3	08/23/06	0.424	0.46	0.75	0.18	Aquatic BioSystems	7
4	11/14/06	0.266	0.41	0.72	0.11	Aquatic BioSystems	7
5	9/27/07-10/4/07	0.438	0.41	0.68	0.15	Aquatic BioSystems	7
6	12/14/10-12/21/10	0.405	0.42	0.65	0.18	Aquatic BioSystems	7
7	5/17/11-5/24/11	0.421	0.42	0.63	0.20	Aquatic BioSystems	7
8	10/25/11-11/1/11	0.46	0.42	0.63	0.22	Aquatic BioSystems	7
9	3/14/12-3/21/12	0.385	0.42	0.61	0.23	Aquatic BioSystems	7
10	4/5/12-4/12/12	0.422	0.42	0.60	0.24	Aquatic BioSystems	7

**3/14/12-3/21/12 control survival <80%

Reference Control Chart
Americamysis bahia Chronic IC25



CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJ. NO.		PROJECT NAME		SDG NUMBER/COC Number																					
B0009966.0002.70004		Tierra Phase I Removal		PRR1267																					
SAMPLERS:				Requested Analyses																					
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks		
PRR1WATCHME-36	4/30/2012	20:45	water	Grab	1									X											
PRR1WATCHME-37	5/3/2012	9:00	water	Grab	18	X	X	X	X	X	X	X	X	X	X										
TB05032012	5/3/2012		water		3	X																			
Special Instructions/Comments: Refer to RAWP QAPP WS 15-4 for Effluent Samples																									
<input type="checkbox"/> Requested Analyses <input type="checkbox"/> Special QA/QC Instructions																									
Laboratory Information and Receipt																									
Lab Name: TestAmerica - Burlington, VT																									
Shipping Tracking #																									
Specify Turnaround Requirements: 7 day TAT; TSS samples 24 hr TAT																									
Relinquished by:		DATE		TIME		Relinquished by:		DATE		TIME		Relinquished by:		DATE		TIME		Relinquished by:		DATE		TIME		Relinquished by:	
<i>DJG</i>		5/03/12		1100		<i>DAVE</i>		5/03/12		1100		<i>DAVE</i>		5/03/12		1100		<i>DAVE</i>		5/03/12		1100		<i>DAVE</i>	
Received by:		DATE		TIME		Received by:		DATE		TIME		Received by:		DATE		TIME		Received by:		DATE		TIME		Received by:	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10666-3

SDG Number: PRR1267

Login Number: 10666

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699003,001,002,004
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2,5.2°C IR GUN ID 154/CF=-0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 03MAY12
ActWgt: 30.0 LB
CAD: 103767025/NET3250
Dms: 28 X 18 X 18 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
BILL SENDER
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11
SOUTH BURLINGTON, VT 05403

Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

1 of 2

FRI - 04 MAY A4
FIRST OVERNIGHT

TRK# 7935 2505 0650

0201

MASTER

05403

VT-US

BTV

E9 BTVA



5120361A/A278



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 03MAY12
ActWgt: 30.0 LB
CAD: 103767025/NET3250
Dms: 27 X 18 X 18 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
BILL SENDER
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11
SOUTH BURLINGTON, VT 05403

Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

2 of 2

FRI - 04 MAY A4
FIRST OVERNIGHT

MPS# 7935 2505 0763

0263

Mstr# 7935 2505 0650

0201

05403

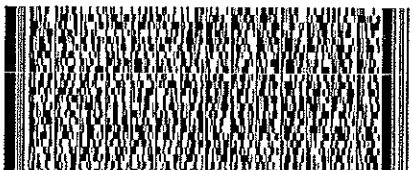
VT-US

BTV

E9 BTVA



5120361A/A278



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

ANALYTICAL REPORT

Job Number: 200-10666-4

SDG Number: PRR1267

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/7/2012 10:24 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/07/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	15

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1267 (200-10666-4)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 05/04/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received as part of a larger sample set, which was received in two coolers. The temperature of the contents of the coolers was determined at the time of receipt. The temperatures were 2.2 °C and 5.2 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10666-4
Sdg Number: PRR1267

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10666-4

Sdg Number: PRR1267

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10666-4
Sdg Number: PRR1267

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10666-1	PRR1WATCME-36	Water	04/30/2012 2045	05/04/2012 0900
200-10666-2	PRR1WATCME-37	Water	05/03/2012 0900	05/04/2012 0900

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-4

Sdg Number: PRR1267

General Chemistry

Client Sample ID: PRR1WATCME-36

Lab Sample ID: 200-10666-1

Date Sampled: 04/30/2012 2045

Client Matrix: Water

Date Received: 05/04/2012 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	13.7		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-38112		Analysis Date: 05/04/2012 1502					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10666-4

Sdg Number: PRR1267

General Chemistry

Client Sample ID: PRR1WATCME-37

Lab Sample ID: 200-10666-2

Date Sampled: 05/03/2012 0900

Client Matrix: Water

Date Received: 05/04/2012 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	11.0		mg/L	1.0	1.0	1.0	SM 2540D
Analysis Batch: 200-38112		Analysis Date: 05/04/2012 1502					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10666-4

Sdg Number: PRR1267

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-4

Sdg Number: PRR1267

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-38112					
LCS 200-38112/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-38112/1	Method Blank	T	Water	SM 2540D	
200-10666-1	PRR1WATCME-36	T	Water	SM 2540D	
200-10666-2	PRR1WATCME-37	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10666-4
Sdg Number: PRR1267

Method Blank - Batch: 200-38112

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	MB 200-38112/1	Analysis Batch:	200-38112	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/04/2012 1502	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-38112

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	LCS 200-38112/2	Analysis Batch:	200-38112	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/04/2012 1502	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	460.0	92	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

ARCADIS
 6723 Towpath Rd
 Syracuse, NY 13214
 Phone/Fax: (315) 671-9688

PROJ. NO. 8000966.0002.70004		PROJECT NAME Tierra Phase I Removal											SDG NUMBER/COC Number PRR1267											
SAMPLERS:		Requested Analyses																						
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATCHME-36	4/30/2012	20:45	water	Grab	1									X										
PRR1WATCHME-37	5/3/2012	9:00	water	Grab	18	X	X	X	X	X	X	X	X	X	X	X								
TB05032012	5/3/2012		water		3	X																		
Requested Analyses																								
<input type="checkbox"/> 1 TOC <input type="checkbox"/> 2 VOCs <input type="checkbox"/> 3 SVOCs <input type="checkbox"/> 4 Aroclor PCBs <input type="checkbox"/> 5 Pesticides <input type="checkbox"/> 6 Metals + Hg <input type="checkbox"/> 7 Cyanide <input type="checkbox"/> 8 Herbicides <input type="checkbox"/> 9 TSS <input type="checkbox"/> 10 WET Testing <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14 <input type="checkbox"/> 15 <input type="checkbox"/> 16																								
Special Instructions/Comments: Refer to RAWP QAPP WS 15-4 for Effluent Samples																								
Laboratory Information and Receipt																								
Lab Name: TestAmerica - Burlington, VT												<input type="checkbox"/> Cooler packed with ice <input type="checkbox"/> Cooler custody seal intact												
Shipping Tracking #												Specify Turnaround Requirements: 7 day TAT; TSS samples 24 hr TAT												
Relinquished by:						DATE						TIME						Received by:						
<i>DJG</i>						5/03/12						1100						<i>John TABO</i>						
Relinquished by:						DATE						TIME						Received by:						
Relinquished by:						DATE						TIME						Received by:						
Relinquished by:						DATE						TIME						Received by:						

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10666-4

SDG Number: PRR1267

Login Number: 10666

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699003,001,002,004
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2,5.2°C IR GUN ID 154/CF=-0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



Ship Date: 03MAY12
ActWgt: 30.0 LB
CAD: 103767025/NET3250

Dims: 28 X 18 X 18 IN

Newark, NJ 07105



J12101112190225

SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

SOUTH BURLINGTON, VT 05403

Delivery Address Bar Code



Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

1 of 2

FRI - 04 MAY A4
FIRST OVERNIGHT

TRK# 7935 2505 0650

0201

MASTER

05403

VT-US

BTV

E9 BTVA



5120361A/A278



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per

From: (315) 439-2198
Thomas ORourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



Ship Date: 03MAY12
ActWgt: 30.0 LB
CAD: 103767025/NET3250

Dims: 27 X 18 X 18 IN

Newark, NJ 07105



J12101112190225

SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

SOUTH BURLINGTON, VT 05403

Delivery Address Bar Code



Ref # 1129-1616-4
Invoice #
PO # B0009966.0002.70004-11128
Dept #

2 of 2

FRI - 04 MAY A4
FIRST OVERNIGHT

MPS# 7935 2505 0763

0263

Mstr# 7935 2505 0650

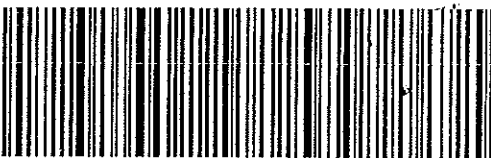
0201

05403

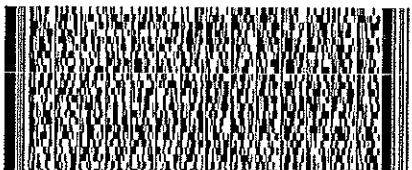
VT-US

BTV

E9 BTVA



5120361A/A278



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

ANALYTICAL REPORT

Job Number: 200-10697-1

SDG Number: PRR1273

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/8/2012 1:58 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/08/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	16
QC Results	17
Qc Association Summary	18
Surrogate Recovery Report	19
Qc Reports	21
Client Chain of Custody	23
Sample Receipt Checklist	24

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1273 (200-10697-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 05/07/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 2.0 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of each method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of each sample in the sample set did meet the technical acceptance criteria specific to DMC recoveries, although not all DMC recoveries were within the control range in each analysis. The method allowance criteria provide for the recovery of up to three DMCs to be outside the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of each method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set. A trace concentration of chlorobenzene was identified in the analysis of the instrument blank associated with the analytical work. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1

Sdg Number: PRR1273

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2	SOM01.2/VOA_Tr
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1

Sdg Number: PRR1273

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1
Sdg Number: PRR1273

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10697-1	PRR1WATGACI-18-SP-105	Water	05/04/2012 0910	05/07/2012 0749
200-10697-2	PRR1WATGACE-18-SP-106	Water	05/04/2012 0905	05/07/2012 0749
200-10697-3	PRR1WATGACE-18-SP-109	Water	05/04/2012 0900	05/07/2012 0749
200-10697-6TB	TB05042012	Water	05/04/2012 0000	05/07/2012 0749
200-10697-8STOBL K	VHBLK01	Water	05/07/2012 0934	05/07/2012 0749

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1
Sdg Number: PRR1273

Client Sample ID: PRR1WATGACI-18-SP-105

Lab Sample ID: 200-10697-1
Client Matrix: Water

Date Sampled: 05/04/2012 0910
Date Received: 05/07/2012 0749

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38239	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdi12.d
Dilution:	275			Initial Weight/Volume:	25 mL
Analysis Date:	05/07/2012 1527			Final Weight/Volume:	25 mL
Prep Date:	05/07/2012 1527				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	300	J	1400
Chlorobenzene	34000	E	140

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	92		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	100		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	88		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	101		73 - 121
2-Hexanone-d5	98		28 - 135
1,1,2,2-Tetrachloroethane-d2	96		73 - 125
1,2-Dichlorobenzene-d4	104		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1

Sdg Number: PRR1273

Client Sample ID: PRR1WATGACI-18-SP-105

Lab Sample ID: 200-10697-1

Date Sampled: 05/04/2012 0910

Client Matrix: Water

Date Received: 05/07/2012 0749

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38239	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdi11.d
Dilution:	2000			Initial Weight/Volume:	25 mL
Analysis Date:	05/07/2012 1503	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/07/2012 1503				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	10000	U	10000
Chlorobenzene	32000	D	1000

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	98		65 - 131
Chloroethane-d5	104		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	90		49 - 155
Chloroform-d	100		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	108		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	110		77 - 121
trans-1,3-Dichloropropene-d4	100		73 - 121
2-Hexanone-d5	95		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1
Sdg Number: PRR1273

Client Sample ID: PRR1WATGACE-18-SP-106

Lab Sample ID: 200-10697-2
Client Matrix: Water

Date Sampled: 05/04/2012 0905
Date Received: 05/07/2012 0749

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38239	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdi14.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/07/2012 1616			Final Weight/Volume:	25 mL
Prep Date:	05/07/2012 1616				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	280		10
Chlorobenzene	52	E	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	89		65 - 131
Chloroethane-d5	95		71 - 131
1,1-Dichloroethene-d2	72		55 - 104
2-Butanone-d5	112		49 - 155
Chloroform-d	160	*	78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	89		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	102		73 - 121
2-Hexanone-d5	111		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1

Sdg Number: PRR1273

Client Sample ID: PRR1WATGACE-18-SP-106

Lab Sample ID: 200-10697-2

Date Sampled: 05/04/2012 0905

Client Matrix: Water

Date Received: 05/07/2012 0749

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-38277	Instrument ID: J.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: jdia06.d
Dilution: 3.7		Initial Weight/Volume: 25 mL
Analysis Date: 05/08/2012 0946	Run Type: DL	Final Weight/Volume: 25 mL
Prep Date: 05/08/2012 0946		

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	310	D	19
Chlorobenzene	60	D	1.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	104		65 - 131
Chloroethane-d5	110		71 - 131
1,1-Dichloroethene-d2	85		55 - 104
2-Butanone-d5	126		49 - 155
Chloroform-d	153	*	78 - 121
1,2-Dichloroethane-d4	121		78 - 129
Benzene-d6	116		77 - 124
1,2-Dichloropropane-d6	101		79 - 124
Toluene-d8	112		77 - 121
trans-1,3-Dichloropropene-d4	119		73 - 121
2-Hexanone-d5	120		28 - 135
1,1,2,2-Tetrachloroethane-d2	113		73 - 125
1,2-Dichlorobenzene-d4	115		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1

Sdg Number: PRR1273

Client Sample ID: PRR1WATGACE-18-SP-109

Lab Sample ID: 200-10697-3

Date Sampled: 05/04/2012 0900

Client Matrix: Water

Date Received: 05/07/2012 0749

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38277	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdia07.d
Dilution:	24.4			Initial Weight/Volume:	25 mL
Analysis Date:	05/08/2012 1010			Final Weight/Volume:	25 mL
Prep Date:	05/08/2012 1010				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	280		120
Chlorobenzene	290		12

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	95		65 - 131
Chloroethane-d5	100		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	108		49 - 155
Chloroform-d	105		78 - 121
1,2-Dichloroethane-d4	113		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	105		77 - 121
trans-1,3-Dichloropropene-d4	110		73 - 121
2-Hexanone-d5	112		28 - 135
1,1,2,2-Tetrachloroethane-d2	104		73 - 125
1,2-Dichlorobenzene-d4	108		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1

Sdg Number: PRR1273

Client Sample ID: TB05042012

Lab Sample ID: 200-10697-6TB

Date Sampled: 05/04/2012 0000

Client Matrix: Water

Date Received: 05/07/2012 0749

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38277	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdia08.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/08/2012 1034			Final Weight/Volume:	25 mL
Prep Date:	05/08/2012 1034				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.33	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	101		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	115		49 - 155
Chloroform-d	103		78 - 121
1,2-Dichloroethane-d4	112		78 - 129
Benzene-d6	105		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	104		77 - 121
trans-1,3-Dichloropropene-d4	105		73 - 121
2-Hexanone-d5	108		28 - 135
1,1,2,2-Tetrachloroethane-d2	106		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1

Sdg Number: PRR1273

Client Sample ID: VHBLK01

Lab Sample ID: 200-10697-8STOBLK

Date Sampled: 05/07/2012 0934

Client Matrix: Water

Date Received: 05/07/2012 0749

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38277	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdia09.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/08/2012 1059			Final Weight/Volume:	25 mL
Prep Date:	05/08/2012 1059				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	104		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	110		49 - 155
Chloroform-d	104		78 - 121
1,2-Dichloroethane-d4	112		78 - 129
Benzene-d6	109		77 - 124
1,2-Dichloropropane-d6	95		79 - 124
Toluene-d8	108		77 - 121
trans-1,3-Dichloropropene-d4	108		73 - 121
2-Hexanone-d5	105		28 - 135
1,1,2,2-Tetrachloroethane-d2	107		73 - 125
1,2-Dichlorobenzene-d4	107		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1

Sdg Number: PRR1273

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	*	Surrogate exceeds the control limit

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1

Sdg Number: PRR1273

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-38239					
MB 200-38239/10	Method Blank	T	Water	SOM01.2/VOA_T	
200-10697-1	PRR1WATGACI-18-SP-105	T	Water	SOM01.2/VOA_T	
200-10697-1DL	PRR1WATGACI-18-SP-105	T	Water	SOM01.2/VOA_T	
200-10697-2	PRR1WATGACE-18-SP-106	T	Water	SOM01.2/VOA_T	
Analysis Batch:200-38277					
MB 200-38277/5	Method Blank	T	Water	SOM01.2/VOA_T	
200-10697-2DL	PRR1WATGACE-18-SP-106	T	Water	SOM01.2/VOA_T	
200-10697-3	PRR1WATGACE-18-SP-109	T	Water	SOM01.2/VOA_T	
200-10697-6TB	TB05042012	T	Water	SOM01.2/VOA_T	
200-10697-8STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1

Sdg Number: PRR1273

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10697-1 DL	PRR1WATGACI-18-S P-105 DL	98	104	79	90	100	104	108	92
200-10697-1	PRR1WATGACI-18-S P-105	92	98	75	100	98	104	102	88
200-10697-2	PRR1WATGACE-18- SP-106	89	95	72	112	160*	104	101	89
200-10697-2 DL	PRR1WATGACE-18- SP-106 DL	104	110	85	126	153*	121	116	101
200-10697-3	PRR1WATGACE-18- SP-109	95	100	77	108	105	113	106	92
200-10697-6	TB05042012	96	101	79	115	103	112	105	93
200-10697-8	VHBLK01	97	104	79	110	104	112	109	95
MB 200-38239/10		97	101	78	112	103	113	108	94
MB 200-38277/5		93	96	75	105	99	108	103	91

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1

Sdg Number: PRR1273

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10697-1 DL	PRR1WATGACI-18-S P-105 DL	110	100	95	94	106
200-10697-1	PRR1WATGACI-18-S P-105	102	101	98	96	104
200-10697-2	PRR1WATGACE-18- SP-106	99	102	111	99	106
200-10697-2 DL	PRR1WATGACE-18- SP-106 DL	112	119	120	113	115
200-10697-3	PRR1WATGACE-18- SP-109	105	110	112	104	108
200-10697-6	TB05042012	104	105	108	106	106
200-10697-8	VHBLK01	108	108	105	107	107
MB 200-38239/10		106	105	104	101	104
MB 200-38277/5		101	103	104	100	103

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1

Sdg Number: PRR1273

Method Blank - Batch: 200-38239

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-38239/10
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/07/2012 1336
 Prep Date: 05/07/2012 1336
 Leach Date: N/A

Analysis Batch: 200-38239
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: J.i
 Lab File ID: jdi10.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	97	65 - 131
Chloroethane-d5	101	71 - 131
1,1-Dichloroethene-d2	78	55 - 104
2-Butanone-d5	112	49 - 155
Chloroform-d	103	78 - 121
1,2-Dichloroethane-d4	113	78 - 129
Benzene-d6	108	77 - 124
1,2-Dichloropropane-d6	94	79 - 124
Toluene-d8	106	77 - 121
trans-1,3-Dichloropropene-d4	105	73 - 121
2-Hexanone-d5	104	28 - 135
1,1,2,2-Tetrachloroethane-d2	101	73 - 125
1,2-Dichlorobenzene-d4	104	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1

Sdg Number: PRR1273

Method Blank - Batch: 200-38277

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-38277/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/08/2012 0921
 Prep Date: 05/08/2012 0921
 Leach Date: N/A

Analysis Batch: 200-38277
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: J.i
 Lab File ID: jdia05.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	93	65 - 131
Chloroethane-d5	96	71 - 131
1,1-Dichloroethene-d2	75	55 - 104
2-Butanone-d5	105	49 - 155
Chloroform-d	99	78 - 121
1,2-Dichloroethane-d4	108	78 - 129
Benzene-d6	103	77 - 124
1,2-Dichloropropane-d6	91	79 - 124
Toluene-d8	101	77 - 121
trans-1,3-Dichloropropene-d4	103	73 - 121
2-Hexanone-d5	104	28 - 135
1,1,2,2-Tetrachloroethane-d2	100	73 - 125
1,2-Dichlorobenzene-d4	103	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJECT NAME		Requested Analyses																					
Tierra Phase I Removal																							
PROJ. NO.	B000966.0002.70004																SDG NUMBER	COC Number					
SAMPLERS:	CHES																PRR1273						
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
PRR1WATGACI-18-SP-105	5/4/2012	9:10	water	Grab	3	X																	
PRR1WATGACE-18-SP-106	5/4/2012	9:05	water	Grab	3	X																	
PRR1WATGACE-18-SP-109	5/4/2012	9:00	water	Grab	3	X																	
PRR1WATCME-38	5/4/2012	8:55	water	Grab	1	X																	
PRR1WAT-18-SP-100	5/4/2012	9:15	water	Grab	1	X																	
TB05042012	5/4/2012		water	Grab	3	X																	
PRR1WATCME-39	5/5/2012	6:35	water	Grab	1	X																	
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																					
Requested Analyses																							
1,2-Butanone, Chlorobenzene																							
2,3-TSS																							
3																							
4																							
7																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							
15																							
16																							
17																							

Laboratory Information and Receipt			
Lab Name:	TestAmerica -Burlington, VT	Received by:	<i>[Signature]</i>
Shipping Tracking #		Received by:	<i>[Signature]</i>
Specify Turnaround Requirements: 24 hr TAT		Received by:	<i>[Signature]</i>
Received by:	<i>[Signature]</i>	DATE	5/4/12 09:30
Relinquished by:	<i>[Signature]</i>	DATE	5/5/12 07:30
Received by:	<i>[Signature]</i>	DATE	5/4/12 07:45
Relinquished by:	<i>[Signature]</i>	DATE	

Sample Receipt:			
Condition/Cooler Temp:	2.0°C	Received by:	
Relinquished by:		DATE	
Relinquished by:		DATE	
Relinquished by:		DATE	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10697-1

SDG Number: PRR1273

Login Number: 10697

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699005, 006
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
 Thomas O'Rourke
 ARGADIS OF NEW YORK INC
 117 Blanchard St

Origin ID: VAKA



J12101112190225

Newark, NJ 07105

Ship Date: 05MAY12
 ActWgt: 10.0 LB
 CAD: 103767025/NET3250

Dims: 18 X 14 X 16 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990

BILL SENDER

KIRK YOUNG
 TEST AMERICA
 30 COMMUNITY DR STE 11

SOUTH BURLINGTON, VT 05403

Ref # 1129-1616-4
 Invoice #
 PO # B0009968.0002.70004-11128
 Dept #

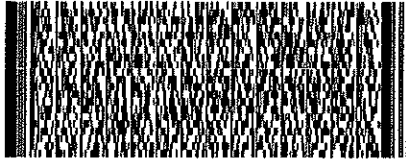
MON - 07 MAY A4
 FIRST OVERNIGHT

TRK# 7983 6416 0289

0201

05403
 VT-US
 BTV

X1 BTVA



5120361AAZ78

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10697-2

SDG Number: PRR1273

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/8/2012 5:21 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/08/2012
Revision: 1

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	11
QC Results	12
Qc Association Summary	13
Qc Reports	14
Client Chain of Custody	15
Sample Receipt Checklist	16

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1273 (200-10697-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 05/07/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 2.0 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10697-2
Sdg Number: PRR1273

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10697-2

Sdg Number: PRR1273

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10697-2
Sdg Number: PRR1273

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10697-4	PRR1WATCME-38	Water	05/04/2012 0855	05/07/2012 0749
200-10697-5	PRR1WAT-18-SP-100	Water	05/04/2012 0915	05/07/2012 0749
200-10697-7	PRR1WATCME-39	Water	05/05/2012 0635	05/07/2012 0749

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10697-2

Sdg Number: PRR1273

General Chemistry

Client Sample ID: PRR1WATCME-38

Lab Sample ID: 200-10697-4

Date Sampled: 05/04/2012 0855

Client Matrix: Water

Date Received: 05/07/2012 0749

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	10.2		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-38180		Analysis Date: 05/07/2012 1048					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10697-2

Sdg Number: PRR1273

General Chemistry

Client Sample ID: PRR1WAT-18-SP-100

Lab Sample ID: 200-10697-5

Date Sampled: 05/04/2012 0915

Client Matrix: Water

Date Received: 05/07/2012 0749

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	34.7		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-38180		Analysis Date: 05/07/2012 1048					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10697-2

Sdg Number: PRR1273

General Chemistry

Client Sample ID: PRR1WATCME-39

Lab Sample ID: 200-10697-7

Date Sampled: 05/05/2012 0635

Client Matrix: Water

Date Received: 05/07/2012 0749

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	15.2		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-38180		Analysis Date: 05/07/2012 1048					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10697-2

Sdg Number: PRR1273

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10697-2

Sdg Number: PRR1273

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-38180					
LCS 200-38180/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-38180/1	Method Blank	T	Water	SM 2540D	
200-10697-4	PRR1WATCME-38	T	Water	SM 2540D	
200-10697-5	PRR1WAT-18-SP-100	T	Water	SM 2540D	
200-10697-7	PRR1WATCME-39	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10697-2
Sdg Number: PRR1273

Method Blank - Batch: 200-38180

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-38180/1	Analysis Batch:	200-38180	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/07/2012 1048	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-38180

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-38180/2	Analysis Batch:	200-38180	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/07/2012 1048	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	464.0	93	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJ. NO.		PROJECT NAME		Requested Analyses																	SDG NUMBER	COC Number			
B000966.0002.70004		Tierra Phase I Removal																			PRR1273				
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks		
PRR1WATGACI-18-SP-105	5/4/2012	9:10	water	Grab	3	X																			
PRR1WATGACE-18-SP-106	5/4/2012	9:05	water	Grab	3	X																			
PRR1WATGACE-18-SP-109	5/4/2012	9:00	water	Grab	3	X																			
PRR1WATCME-38	5/4/2012	8:55	water	Grab	1	X																			
PRR1WAT-18-SP-100	5/4/2012	9:15	water	Grab	1	X																			
TB05042012	5/4/2012		water	Grab	3	X																			
PRR1WATCME-39	5/5/2012	6:35	water	Grab	1	X																			
Special Instructions/Comments:																									
<input type="checkbox"/> Special QA/QC Instructions																									
Requested Analyses 1 2-Butanone, Chlorobenzene																									
Laboratory Information and Receipt Lab Name: TestAmerica -Burlington, VT Shipping Tracking # Specify Turnaround Requirements: 24 hr TAT <input checked="" type="checkbox"/> Cooler packed with ice <input checked="" type="checkbox"/> Cooler custody seal intact Sample Receipt: Condition/Cooler Temp: 2.0°C																									
Relinquished by:		Mach Nettles		DATE		5/4/12		TIME		09:30		Received by:		DJH		DATE		DATE		DATE		DATE		DATE	
Relinquished by:		DJH		DATE		5/5/12		TIME		0730		Received by:		DAISY		DATE		DATE		DATE		DATE		DATE	
Relinquished by:		DJH		DATE		5/4/12		TIME		0745		Received by:		DAISY		DATE		DATE		DATE		DATE		DATE	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10697-2

SDG Number: PRR1273

Login Number: 10697

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699005, 006
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
Thomas ORourke
ARGADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



J12101112190225

Ship Date: 05MAY12
ActWgt: 10.0 LB
CAD: 103767025/MET3250

Dims: 18 X 14 X 16 IN

Newark, NJ 07105

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

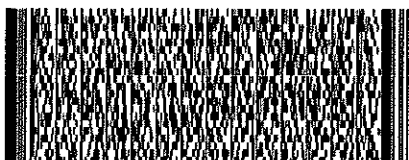
BILL SENDER

Ref # 1129-1616-4
Invoice #
PO # B0009968.0002.70004-11128
Dept #

SOUTH BURLINGTON, VT 05403

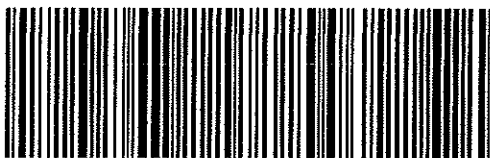
MON - 07 MAY A4
FIRST OVERNIGHT

TRK# 7983 6416 0289
0201



X1 BTVA

05403
VT-US
BTVA



5120361AAZ78

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10728-1

SDG Number: PRR1276

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/10/2012 12:40 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/10/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	17
QC Results	18
Qc Association Summary	19
Surrogate Recovery Report	20
Qc Reports	22
Client Chain of Custody	24
Sample Receipt Checklist	25

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1276 (200-10728-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 05/09/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 4.2 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of each sample in the sample set did meet the technical acceptance criteria specific to DMC recoveries, although not all DMC recoveries were within the control range in each analysis. The method allowance criteria provide for the recovery of up to three DMCs to be outside the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were performed on sample PRR1WATGACE-19-SP-109. Those analyses were performed at a 2-fold dilution, consistent with the more concentrated analysis of the parent sample. There was an acceptable recovery of the spiked analyte, chlorobenzene, in both the matrix spike and the matrix spike duplicate analysis. The interanalysis comparison of the results of the matrix spike and matrix spike duplicate analyses did yield a high relative percent difference for chlorobenzene. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was

the analysis of the storage blank associated with the sample set. A trace concentration of chlorobenzene was identified in the analysis of four of the instrument blanks associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in the closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um
Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1

Sdg Number: PRR1276

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1

Sdg Number: PRR1276

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1
Sdg Number: PRR1276

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10728-1	PRR1WATGACI-19-SP-105	Water	05/08/2012 0940	05/09/2012 0830
200-10728-2	PRR1WATGACE-19-SP-106	Water	05/08/2012 0935	05/09/2012 0830
200-10728-3	PRR1WATGACE-19-SP-109	Water	05/08/2012 0928	05/09/2012 0830
200-10728-3MS	PRR1WATGACE-19-SP-109	Water	05/08/2012 0928	05/09/2012 0830
200-10728-3MSD	PRR1WATGACE-19-SP-109	Water	05/08/2012 0928	05/09/2012 0830
200-10728-6	TB05082012	Water	05/08/2012 0000	05/09/2012 0830
200-10728-8STOBL K	VHBLK01	Water	05/09/2012 0845	05/09/2012 0830

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1
Sdg Number: PRR1276

Client Sample ID: PRR1WATGACI-19-SP-105

Lab Sample ID: 200-10728-1
Client Matrix: Water

Date Sampled: 05/08/2012 0940
Date Received: 05/09/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdic06.d
Dilution:	40			Initial Weight/Volume:	25 mL
Analysis Date:	05/09/2012 1528			Final Weight/Volume:	25 mL
Prep Date:	05/09/2012 1528				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	180	J	200
Chlorobenzene	5000	E	20

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	109		49 - 155
Chloroform-d	100		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	89		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	100		73 - 121
2-Hexanone-d5	107		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1
Sdg Number: PRR1276

Client Sample ID: PRR1WATGACI-19-SP-105

Lab Sample ID: 200-10728-1
Client Matrix: Water

Date Sampled: 05/08/2012 0940
Date Received: 05/09/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdico5.d
Dilution:	275			Initial Weight/Volume:	25 mL
Analysis Date:	05/09/2012 1504	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/09/2012 1504				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	210	J D	1400
Chlorobenzene	4500	D	140

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	106		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	110		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	109		78 - 129
Benzene-d6	105		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	104		77 - 121
trans-1,3-Dichloropropene-d4	105		73 - 121
2-Hexanone-d5	106		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1
Sdg Number: PRR1276

Client Sample ID: PRR1WATGACE-19-SP-106

Lab Sample ID: 200-10728-2
Client Matrix: Water

Date Sampled: 05/08/2012 0935
Date Received: 05/09/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdico9.d
Dilution:	5.4			Initial Weight/Volume:	25 mL
Analysis Date:	05/09/2012 1641			Final Weight/Volume:	25 mL
Prep Date:	05/09/2012 1641				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	210		27
Chlorobenzene	730	E	2.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	113		65 - 131
Chloroethane-d5	117		71 - 131
1,1-Dichloroethene-d2	85		55 - 104
2-Butanone-d5	127		49 - 155
Chloroform-d	135	*	78 - 121
1,2-Dichloroethane-d4	126		78 - 129
Benzene-d6	116		77 - 124
1,2-Dichloropropane-d6	102		79 - 124
Toluene-d8	114		77 - 121
trans-1,3-Dichloropropene-d4	116		73 - 121
2-Hexanone-d5	124		28 - 135
1,1,2,2-Tetrachloroethane-d2	111		73 - 125
1,2-Dichlorobenzene-d4	119		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1

Sdg Number: PRR1276

Client Sample ID: PRR1WATGACE-19-SP-106

Lab Sample ID: 200-10728-2

Date Sampled: 05/08/2012 0935

Client Matrix: Water

Date Received: 05/09/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-38417	Instrument ID: J.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: jdic08.d
Dilution: 40		Initial Weight/Volume: 25 mL
Analysis Date: 05/09/2012 1617	Run Type: DL	Final Weight/Volume: 25 mL
Prep Date: 05/09/2012 1617		

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	170	J D	200
Chlorobenzene	510	D	20

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	72		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	96		78 - 121
1,2-Dichloroethane-d4	103		78 - 129
Benzene-d6	98		77 - 124
1,2-Dichloropropane-d6	87		79 - 124
Toluene-d8	97		77 - 121
trans-1,3-Dichloropropene-d4	98		73 - 121
2-Hexanone-d5	102		28 - 135
1,1,2,2-Tetrachloroethane-d2	92		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1

Sdg Number: PRR1276

Client Sample ID: PRR1WATGACE-19-SP-109

Lab Sample ID: 200-10728-3

Date Sampled: 05/08/2012 0928

Client Matrix: Water

Date Received: 05/09/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdic12.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/09/2012 1754			Final Weight/Volume:	25 mL
Prep Date:	05/09/2012 1754				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	160		10
Chlorobenzene	45	E	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	102		65 - 131
Chloroethane-d5	104		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	125		49 - 155
Chloroform-d	113		78 - 121
1,2-Dichloroethane-d4	116		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121
2-Hexanone-d5	116		28 - 135
1,1,2,2-Tetrachloroethane-d2	108		73 - 125
1,2-Dichlorobenzene-d4	107		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1

Sdg Number: PRR1276

Client Sample ID: PRR1WATGACE-19-SP-109

Lab Sample ID: 200-10728-3

Date Sampled: 05/08/2012 0928

Client Matrix: Water

Date Received: 05/09/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdic11.d
Dilution:	3.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/09/2012 1730	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/09/2012 1730				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	140	D	15
Chlorobenzene	44	D	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	105		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	122		49 - 155
Chloroform-d	109		78 - 121
1,2-Dichloroethane-d4	115		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121
2-Hexanone-d5	112		28 - 135
1,1,2,2-Tetrachloroethane-d2	104		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1

Sdg Number: PRR1276

Client Sample ID: TB05082012

Lab Sample ID: 200-10728-6

Date Sampled: 05/08/2012 0000

Client Matrix: Water

Date Received: 05/09/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdic18.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/09/2012 2021			Final Weight/Volume:	25 mL
Prep Date:	05/09/2012 2021				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	104		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	116		49 - 155
Chloroform-d	100		78 - 121
1,2-Dichloroethane-d4	111		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121
2-Hexanone-d5	108		28 - 135
1,1,2,2-Tetrachloroethane-d2	103		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1

Sdg Number: PRR1276

Client Sample ID: VHBLK01

Lab Sample ID: 200-10728-8STOBLK

Date Sampled: 05/09/2012 0845

Client Matrix: Water

Date Received: 05/09/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jd19.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/09/2012 2046			Final Weight/Volume:	25 mL
Prep Date:	05/09/2012 2046				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	101		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	109		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	90		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	100		73 - 121
2-Hexanone-d5	100		28 - 135
1,1,2,2-Tetrachloroethane-d2	95		73 - 125
1,2-Dichlorobenzene-d4	99		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1

Sdg Number: PRR1276

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	*	Surrogate exceeds the control limit

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1

Sdg Number: PRR1276

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC/MS VOA					
Analysis Batch:200-38417					
MB 200-38417/3	Method Blank	T	Water	SOM01.2/VOA_T	
200-10728-1	PRR1WATGACI-19-SP-105	T	Water	SOM01.2/VOA_T	
200-10728-1DL	PRR1WATGACI-19-SP-105	T	Water	SOM01.2/VOA_T	
200-10728-2	PRR1WATGACE-19-SP-106	T	Water	SOM01.2/VOA_T	
200-10728-2DL	PRR1WATGACE-19-SP-106	T	Water	SOM01.2/VOA_T	
200-10728-3	PRR1WATGACE-19-SP-109	T	Water	SOM01.2/VOA_T	
200-10728-3DL	PRR1WATGACE-19-SP-109	T	Water	SOM01.2/VOA_T	
200-10728-3MS	Matrix Spike	T	Water	SOM01.2/VOA_T	
200-10728-3MSD	Matrix Spike Duplicate	T	Water	SOM01.2/VOA_T	
200-10728-6	TB05082012	T	Water	SOM01.2/VOA_T	
200-10728-8STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1
Sdg Number: PRR1276

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10728-1 DL	PRR1WATGACI-19-S P-105 DL	100	106	76	110	102	109	105	91
200-10728-1	PRR1WATGACI-19-S P-105	100	102	74	109	100	107	100	89
200-10728-2 DL	PRR1WATGACE-19- SP-106 DL	94	98	72	105	96	103	98	87
200-10728-2	PRR1WATGACE-19- SP-106	113	117	85	127	135*	126	116	102
200-10728-3 DL	PRR1WATGACE-19- SP-109 DL	101	105	77	122	109	115	102	91
200-10728-3	PRR1WATGACE-19- SP-109	102	104	77	125	113	116	102	93
200-10728-6	TB05082012	100	104	76	116	100	111	103	91
200-10728-8	VHBLK01	101	101	76	109	99	107	102	90
MB 200-38417/3		108	112	81	112	106	111	111	95
200-10728-3 MS	PRR1WATGACE-19- SP-109 MS	99	104	101	120	108	116	103	93
200-10728-3 MSD	PRR1WATGACE-19- SP-109 MSD	102	106	103	128	113	118	107	95

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1

Sdg Number: PRR1276

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10728-1 DL	PRR1WATGACI-19-S P-105 DL	104	105	106	100	103
200-10728-1	PRR1WATGACI-19-S P-105	99	100	107	98	101
200-10728-2 DL	PRR1WATGACE-19- SP-106 DL	97	98	102	92	100
200-10728-2	PRR1WATGACE-19- SP-106	114	116	124	111	119
200-10728-3 DL	PRR1WATGACE-19- SP-109 DL	101	104	112	104	103
200-10728-3	PRR1WATGACE-19- SP-109	101	104	116	108	107
200-10728-6	TB05082012	102	103	108	103	105
200-10728-8	VHBLK01	100	100	100	95	99
MB 200-38417/3		109	109	111	102	110
200-10728-3 MS	PRR1WATGACE-19- SP-109 MS	102	106	117	100	108
200-10728-3 MSD	PRR1WATGACE-19- SP-109 MSD	105	111	123	106	109

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1
Sdg Number: PRR1276

Method Blank - Batch: 200-38417

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-38417/3
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2012 1432
Prep Date: 05/09/2012 1432
Leach Date: N/A

Analysis Batch: 200-38417
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdic04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	108	65 - 131
Chloroethane-d5	112	71 - 131
1,1-Dichloroethene-d2	81	55 - 104
2-Butanone-d5	112	49 - 155
Chloroform-d	106	78 - 121
1,2-Dichloroethane-d4	111	78 - 129
Benzene-d6	111	77 - 124
1,2-Dichloropropane-d6	95	79 - 124
Toluene-d8	109	77 - 121
trans-1,3-Dichloropropene-d4	109	73 - 121
2-Hexanone-d5	111	28 - 135
1,1,2,2-Tetrachloroethane-d2	102	73 - 125
1,2-Dichlorobenzene-d4	110	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1
Sdg Number: PRR1276

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-38417**

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

MS Lab Sample ID: 200-10728-3	Analysis Batch: 200-38417	Instrument ID: J.i
Client Matrix: Water	Prep Batch: N/A	Lab File ID: jdic14.d
Dilution: 2.0	Leach Batch: N/A	Initial Weight/Volume: 25 mL
Analysis Date: 05/09/2012 1844		Final Weight/Volume: 25 mL
Prep Date: 05/09/2012 1844		25 mL
Leach Date: N/A		

MSD Lab Sample ID: 200-10728-3	Analysis Batch: 200-38417	Instrument ID: J.i
Client Matrix: Water	Prep Batch: N/A	Lab File ID: jdic16.d
Dilution: 2.0	Leach Batch: N/A	Initial Weight/Volume: 25 mL
Analysis Date: 05/09/2012 1933		Final Weight/Volume: 25 mL
Prep Date: 05/09/2012 1933		25 mL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Chlorobenzene	118	99	75 - 130	17	13	E	E

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Vinyl chloride-d3	99	102	65 - 131
Chloroethane-d5	104	106	71 - 131
1,1-Dichloroethene-d2	101	103	55 - 104
2-Butanone-d5	120	128	49 - 155
Chloroform-d	108	113	78 - 121
1,2-Dichloroethane-d4	116	118	78 - 129
Benzene-d6	103	107	77 - 124
1,2-Dichloropropane-d6	93	95	79 - 124
Toluene-d8	102	105	77 - 121
trans-1,3-Dichloropropene-d4	106	111	73 - 121
2-Hexanone-d5	117	123	28 - 135
1,1,2,2-Tetrachloroethane-d2	100	106	73 - 125
1,2-Dichlorobenzene-d4	108	109	80 - 131

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10728-1

SDG Number: PRR1276

Login Number: 10728

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699007,008
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C IR GUN ID 154/CF=-0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
Thomas O'Rourke
ARCADIS OF NEW YORK INC
117 Blanchard St

Origin ID: VAKA



Ship Date: 08MAY12
Acct Wgt: 15.0 LB
CAD: 103767025/NET3250
Dims: 20 X 14 X 16 IN

Newark, NJ 07105

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1818-4
Invoice #
PO # B0009986.0002.70004-11128
Dept #

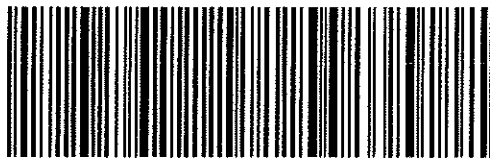
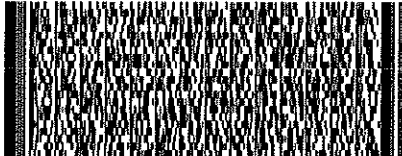
SOUTH BURLINGTON, VT 05403

WED - 09 MAY A4
FIRST OVERNIGHT

TRK# 7983 7267 7908
0201

05403
VT-US
BTV

E9 BTVA



512G361A4A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10728-2

SDG Number: PRR1276

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/10/2012 12:52 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/10/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	11
QC Results	12
Qc Association Summary	13
Qc Reports	14
Client Chain of Custody	15
Sample Receipt Checklist	16

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1276 (200-10728-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 05/09/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 4.2 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were performed on sample PRR1WATCME-41, and there was an acceptable correlation in the results of those analyses. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10728-2
Sdg Number: PRR1276

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10728-2
Sdg Number: PRR1276

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10728-2
Sdg Number: PRR1276

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10728-4	PRR1WATCME-41	Water	05/08/2012 0925	05/09/2012 0830
200-10728-4DU	PRR1WATCME-41	Water	05/08/2012 0925	05/09/2012 0830
200-10728-5	PRR1WAT-19-SP-101	Water	05/08/2012 0948	05/09/2012 0830
200-10728-7	PRR1WATCME-40	Water	05/07/2012 1335	05/09/2012 0830

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10728-2

Sdg Number: PRR1276

General Chemistry

Client Sample ID: PRR1WATCME-41

Lab Sample ID: 200-10728-4

Date Sampled: 05/08/2012 0925

Client Matrix: Water

Date Received: 05/09/2012 0830

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	7.1		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-38367		Analysis Date: 05/09/2012 1336					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10728-2

Sdg Number: PRR1276

General Chemistry

Client Sample ID: PRR1WAT-19-SP-101

Lab Sample ID: 200-10728-5

Date Sampled: 05/08/2012 0948

Client Matrix: Water

Date Received: 05/09/2012 0830

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	25.7		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-38367		Analysis Date: 05/09/2012 1336					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10728-2

Sdg Number: PRR1276

General Chemistry

Client Sample ID: PRR1WATCME-40

Lab Sample ID: 200-10728-7

Date Sampled: 05/07/2012 1335

Client Matrix: Water

Date Received: 05/09/2012 0830

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	5.5		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-38367		Analysis Date: 05/09/2012 1336					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10728-2

Sdg Number: PRR1276

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10728-2

Sdg Number: PRR1276

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-38367					
LCS 200-38367/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-38367/1	Method Blank	T	Water	SM 2540D	
200-10728-4	PRR1WATCME-41	T	Water	SM 2540D	
200-10728-4DU	Duplicate	T	Water	SM 2540D	
200-10728-5	PRR1WAT-19-SP-101	T	Water	SM 2540D	
200-10728-7	PRR1WATCME-40	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10728-2
Sdg Number: PRR1276

Method Blank - Batch: 200-38367

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-38367/1	Analysis Batch:	200-38367	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/09/2012 1336	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-38367

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-38367/2	Analysis Batch:	200-38367	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/09/2012 1336	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	460.0	92	85 - 115	

Duplicate - Batch: 200-38367

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	200-10728-4	Analysis Batch:	200-38367	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	260 mL
Analysis Date:	05/09/2012 1336	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	7.1	6.92	2	5	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO.		PROJECT NAME		Requested Analyses																	SDG NUMBER	COC Number	
B0009966.0002.70004		Tierra Phase I Removal																			PRR1276		
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
PRR1WATGACI-19-SP-105	5/8/2012	9:40	water	Grab	3	X																	
PRR1WATGACE-19-SP-106	5/8/2012	9:35	water	Grab	3	X																	
PRR1WATGACE-19-SP-109	5/8/2012	9:28	water	Grab	9	X																	
PRR1WATGME-41	5/8/2012	9:25	water	Grab	2		X																
PRR1WAT-19-SP-101	5/8/2012	9:48	water	Grab	1		X																
TB05082012	5/8/2012		water	Grab	3	X																	
PRR1WATGME-40	5/7/2012	13:35	water	Grab	1		X																
Special Instructions/Comments:				<input type="checkbox"/> Special QA/QC Instructions																			
Triple volume collected for MS/MSD at PRR1WATGACE-19-SP-109																							
Double volume collected for TSS lab replicate at PRR1WATGME-41																							
Lab Name: TestAmerica -Burlington, VT				Laboratory Information and Receipt																			
Shipping Tracking #				<input type="checkbox"/> Cooler packed with ice																			
Specify Turnaround Requirements: 24 hr TAT				<input type="checkbox"/> Cooler custody seal intact																			
Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME
DeBourney	5/8/12	1345	J. DeLoe	5/8/12	1430	DeBourney	5/8/12	1430	J. DeLoe	5/8/12	1430	DeBourney	5/8/12	1430	J. DeLoe	5/8/12	1430	DeBourney	5/8/12	1430	J. DeLoe	5/8/12	1430

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10728-2

SDG Number: PRR1276

Login Number: 10728

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699007,008
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C IR GUN ID 154/CF=-0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (315) 439-2198
 Thomas O'Rourke
 ARCADIS OF NEW YORK INC
 117 Blanchard St

Origin ID: VAKA



Ship Date: 08MAY12
 Acct Wgt: 15.0 LB
 CAD: 103767025/NET3250
 Dims: 20 X 14 X 16 IN

Newark, NJ 07105

Delivery Address Bar Code



SHIP TO: (802) 660-1990
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DR STE 11

BILL SENDER

Ref # 1129-1818-4
 Invoice #
 PO # B0009986.0002.70004-11128
 Dept #

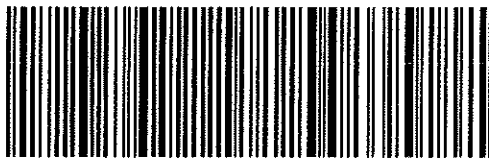
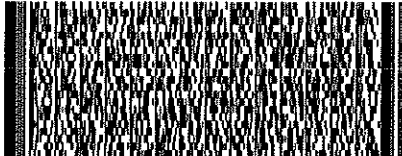
SOUTH BURLINGTON, VT 05403

WED - 09 MAY A4
 FIRST OVERNIGHT

TRK# 7983 7267 7908
 0201

05403
 VT-US
 BTV

E9 BTVA



512G361A44278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10748-1

SDG Number: PRR1278

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/23/2012 10:45 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/23/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	25
QC Results	26
Qc Association Summary	27
Surrogate Recovery Report	30
Qc Reports	36
Client Chain of Custody	51
Sample Receipt Checklist	52

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1278 (200-10748-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis.

Manual integration was employed in deriving certain of the analytical results.

Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR
Semivolatiles	TAL BUR	SOM01.2 SOM01.2/SV	
Extraction of Water Samples	TAL BUR		SOM01.2 CONT
Aroclors	TAL BUR	SOM01.2 SOM01.2/PCB	
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Sulfuric Acid/Permanganate Cleanup	TAL BUR		SOM01.2 SOM01.2/SO4CU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Extraction of Low level Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Low Level CLP Extraction of Pesticides	TAL BUR		SOM01.2 SOM01.2LL_Pest
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
ISM01.2 Mercury	TAL BUR	ISM01.2 ISM01.2/HG	
7470A	TAL BUR		SW846 7470A
ISM01.2 Metals (ICPMS)	TAL BUR	ISM01.2 ISM01.2/ICPMS	
200.8	TAL BUR		EPA 200.8
ISM01.2 Cyanide	TAL BUR	ISM01.2 ISM01.2/CN	
Midi-distillation	TAL BUR		ISM01.1 Midi-Distillati

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

ISM01.1 = U.S. Environmental Protection Agency

ISM01.2 = U.S. Environmental Protection Agency

SOM01.2 = U.S. Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP
SOM01.2 SOM01.2/SV	Bissonette, Donald J	DJB
SOM01.2 SOM01.2/PCB	Duncan, Stacey L	SLD
SOM01.2 SOM01.2/Pest	Lambert, Kelly T	KTL
SOM01.2 SOM01.2/Pest	Malaspina, Richard R	RRM
ISM01.2 ISM01.2/HG	Pham, Vu T	VTP
ISM01.2 ISM01.2/ICPMS	Lyons, Benjamin	BL
ISM01.2 ISM01.2/CN	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10748-1	PRR1WATCME-42	Water	05/09/2012 1200	05/10/2012 0855
200-10748-2TB	TB05092012	Water	05/09/2012 0000	05/10/2012 0855
200-10748-3STOBL K	VHBLK01	Water	05/10/2012 0937	05/10/2012 0855

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1

Date Sampled: 05/09/2012 1200

Client Matrix: Water

Date Received: 05/10/2012 0855

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38596	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjb16.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/11/2012 1945			Final Weight/Volume:	25 mL
Prep Date:	05/11/2012 1945				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.39	J	1.0
Vinyl chloride	1.0	U	1.0
Bromomethane	1.0	U	1.0
Chloroethane	1.0	U	1.0
Acrolein	20	U	20
1,1-Dichloroethene	1.0	U	1.0
Methylene chloride	0.45	J	1.0
Acrylonitrile	20	U	20
trans-1,2-Dichloroethene	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
2-Butanone	10	U	10
Chloroform	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
Carbon tetrachloride	1.0	U	1.0
Benzene	1.0	U	1.0
1,2-Dichloroethane	1.0	U	1.0
Trichloroethene	1.0	U	1.0
1,2-Dichloropropane	1.0	U	1.0
Bromodichloromethane	1.0	U	1.0
cis-1,3-Dichloropropene	1.0	U	1.0
Toluene	1.0	U	1.0
trans-1,3-Dichloropropene	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0
Tetrachloroethene	1.0	U	1.0
Dibromochloromethane	1.0	U	1.0
Chlorobenzene	0.15	J	1.0
Ethylbenzene	1.0	U	1.0
Bromoform	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
1,2,3-Trichlorobenzene	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	73		55 - 104
2-Butanone-d5	107		49 - 155
Chloroform-d	97		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	98		77 - 124
1,2-Dichloropropane-d6	88		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1
Client Matrix: Water

Date Sampled: 05/09/2012 1200
Date Received: 05/10/2012 0855

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38596	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjb16.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/11/2012 1945			Final Weight/Volume:	25 mL
Prep Date:	05/11/2012 1945				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	105		28 - 135
1,1,2,2-Tetrachloroethane-d2	97		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Client Sample ID: TB05092012

Lab Sample ID: 200-10748-2TB

Date Sampled: 05/09/2012 0000

Client Matrix: Water

Date Received: 05/10/2012 0855

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38596	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjb17.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/11/2012 2009			Final Weight/Volume:	25 mL
Prep Date:	05/11/2012 2009				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	99		71 - 131
1,1-Dichloroethene-d2	71		55 - 104
2-Butanone-d5	104		49 - 155
Chloroform-d	95		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	97		77 - 124
1,2-Dichloropropane-d6	84		79 - 124
Toluene-d8	95		77 - 121
trans-1,3-Dichloropropene-d4	97		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Client Sample ID: TB05092012

Lab Sample ID: 200-10748-2TB
Client Matrix: Water

Date Sampled: 05/09/2012 0000
Date Received: 05/10/2012 0855

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38596	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjb17.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/11/2012 2009			Final Weight/Volume:	25 mL
Prep Date:	05/11/2012 2009				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	99		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Client Sample ID: VHBLK01

Lab Sample ID: 200-10748-3STOBLK

Date Sampled: 05/10/2012 0937

Client Matrix: Water

Date Received: 05/10/2012 0855

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38596	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjb18.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/11/2012 2033			Final Weight/Volume:	25 mL
Prep Date:	05/11/2012 2033				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	72		55 - 104
2-Butanone-d5	94		49 - 155
Chloroform-d	94		78 - 121
1,2-Dichloroethane-d4	101		78 - 129
Benzene-d6	99		77 - 124
1,2-Dichloropropane-d6	84		79 - 124
Toluene-d8	96		77 - 121
trans-1,3-Dichloropropene-d4	94		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Client Sample ID: VHBLK01

Lab Sample ID: 200-10748-3STOBLK
Client Matrix: Water

Date Sampled: 05/10/2012 0937
Date Received: 05/10/2012 0855

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38596	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjb18.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/11/2012 2033			Final Weight/Volume:	25 mL
Prep Date:	05/11/2012 2033				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	93		28 - 135
1,1,2,2-Tetrachloroethane-d2	89		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1

Date Sampled: 05/09/2012 1200

Client Matrix: Water

Date Received: 05/10/2012 0855

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-38752	Instrument ID:	P.i
Prep Method:	CONT	Prep Batch:	200-38464	Lab File ID:	pjcia11.d
Dilution:	1.0			Initial Weight/Volume:	1035 mL
Analysis Date:	05/16/2012 1054			Final Weight/Volume:	1000 uL
Prep Date:	05/10/2012 1431			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	RL
N-Nitrosodimethylamine	9.7	U	9.7
Phenol	4.8	U	4.8
Bis(2-chloroethyl)ether	4.8	U	4.8
2-Chlorophenol	4.8	U	4.8
2,2'-Oxybis(1-chloropropane)	4.8	U	4.8
Hexachloroethane	4.8	U	4.8
Nitrobenzene	4.8	U	4.8
Isophorone	4.8	U	4.8
2-Nitrophenol	4.8	U	4.8
2,4-Dimethylphenol	4.8	U	4.8
2,4-Dichlorophenol	4.8	U	4.8
Naphthalene	4.8	U	4.8
Hexachlorobutadiene	4.8	U	4.8
Hexachlorocyclopentadiene	4.8	U	4.8
2,4,6-Trichlorophenol	4.8	U	4.8
2,4,5-Trichlorophenol	4.8	U	4.8
Dimethylphthalate	4.8	U	4.8
2,6-Dinitrotoluene	4.8	U	4.8
2,4-Dinitrophenol	9.7	U	9.7
4-Nitrophenol	9.7	U	9.7
2,4-Dinitrotoluene	4.8	U	4.8
Diethylphthalate	4.8	U	4.8
Fluorene	4.8	U	4.8
4,6-Dinitro-2-methylphenol	9.7	U	9.7
N-Nitrosodiphenylamine	4.8	U	4.8
Hexachlorobenzene	4.8	U	4.8
Pentachlorophenol	9.7	U	9.7
Phenanthrene	4.8	U	4.8
Anthracene	4.8	U	4.8
Di-n-butylphthalate	4.8	U	4.8
Fluoranthene	4.8	U	4.8
Benzidine	9.7	U	9.7
Pyrene	4.8	U	4.8
Butylbenzylphthalate	4.8	U	4.8
3,3'-Dichlorobenzidine	4.8	U	4.8
Benzo(a)anthracene	4.8	U	4.8
Chrysene	4.8	U	4.8
Bis(2-ethylhexyl)phthalate	4.8	U	4.8
Benzo(b)fluoranthene	4.8	U	4.8
Benzo(k)fluoranthene	4.8	U	4.8
Benzo(a)pyrene	0.090	J	4.8
Indeno(1,2,3-cd)pyrene	4.8	U	4.8
Dibenzo(a,h)anthracene	4.8	U	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	103		39 - 106

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1

Date Sampled: 05/09/2012 1200

Client Matrix: Water

Date Received: 05/10/2012 0855

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-38752	Instrument ID:	P.i
Prep Method:	CONT	Prep Batch:	200-38464	Lab File ID:	pjcia11.d
Dilution:	1.0			Initial Weight/Volume:	1035 mL
Analysis Date:	05/16/2012 1054			Final Weight/Volume:	1000 uL
Prep Date:	05/10/2012 1431			Injection Volume:	2 uL

Surrogate	%Rec	Qualifier	Acceptance Limits
Bis(2-chloroethyl)ether-d8	94		40 - 105
2-Chlorophenol-d4	90		41 - 106
4-Methylphenol-d8	91		25 - 111
Nitrobenzene-d5	97		43 - 108
2-Nitrophenol-d4	96		40 - 108
2,4-Dichlorophenol-d3	93		37 - 105
4-Chloroaniline-d4	9		1 - 145
Dimethylphthalate-d6	102		47 - 114
Acenaphthylene-d8	94		41 - 107
4-Nitrophenol-d4	82		33 - 116
Fluorene-d10	88		42 - 111
4,6-Dinitro-2-methylphenol-d2	86		22 - 104
Anthracene-d10	101		44 - 110
Pyrene-d10	87		52 - 119
Benzo(a)pyrene-d12	88		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1
Client Matrix: Water

Date Sampled: 05/09/2012 1200
Date Received: 05/10/2012 0855

SOM01.2/PCB Aroclors

Analysis Method: SOM01.2/PCB Analysis Batch: 200-38645 Instrument ID: 5253.i
Prep Method: SEPF Prep Batch: 200-38489 Initial Weight/Volume: 1030 mL
Dilution: 1.0 Final Weight/Volume: 10000 uL
Analysis Date: 05/12/2012 0602 Injection Volume: 1 uL
Prep Date: 05/10/2012 2014 Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Aroclor-1016	0.97	U	0.97
Aroclor-1221	0.97	U	0.97
Aroclor-1232	0.97	U	0.97
Aroclor-1242	0.97	U	0.97
Aroclor-1248	0.97	U	0.97
Aroclor-1254	0.97	U	0.97
Aroclor-1260	0.97	U	0.97

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	84		30 - 150
Decachlorobiphenyl	79		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1
Client Matrix: Water

Date Sampled: 05/09/2012 1200
Date Received: 05/10/2012 0855

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-38645	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-38489	Initial Weight/Volume:	1030 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/12/2012 0602			Injection Volume:	1 uL
Prep Date:	05/10/2012 2014			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	87		30 - 150
Decachlorobiphenyl	80		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1

Date Sampled: 05/09/2012 1200

Client Matrix: Water

Date Received: 05/10/2012 0855

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest	Analysis Batch: 200-38688	Instrument ID: 0911.i
Prep Method: SEPF	Prep Batch: 200-38490	Initial Weight/Volume: 1020 mL
Dilution: 1.0		Final Weight/Volume: 1000 uL
Analysis Date: 05/12/2012 0725		Injection Volume: 1 uL
Prep Date: 05/10/2012 2154		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.00040	J P B	0.0049
beta-BHC	0.0033	J P B	0.0049
delta-BHC	0.018	P B	0.0049
gamma-BHC (Lindane)	0.00013	J P	0.0049
Heptachlor	0.00022	J P B	0.0049
Aldrin	0.0049	U	0.0049
Heptachlor epoxide	0.0045	J P	0.0049
Endosulfan I	0.0014	J P	0.0049
Dieldrin	0.00031	J P	0.0098
4,4'-DDE	0.023		0.0098
Endrin	0.00012	J P	0.0098
Endosulfan II	0.00019	J P	0.0098
4,4'-DDD	0.056	B	0.0098
Endosulfan sulfate	0.0014	J P	0.0098
4,4'-DDT	0.27	E B	0.0098
Endrin aldehyde	0.00046	J P	0.0098
alpha-Chlordane	0.0014	J P	0.0049
gamma-Chlordane	0.0018	J P	0.0049
Toxaphene	0.49	U	0.49

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	80		30 - 150
Decachlorobiphenyl	72		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1
Client Matrix: Water

Date Sampled: 05/09/2012 1200
Date Received: 05/10/2012 0855

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-38688	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-38490	Initial Weight/Volume:	1020 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	05/12/2012 0725			Injection Volume:	1 uL
Prep Date:	05/10/2012 2154			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	82		30 - 150
Decachlorobiphenyl	75		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1

Date Sampled: 05/09/2012 1200

Client Matrix: Water

Date Received: 05/10/2012 0855

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest	Analysis Batch: 200-38688	Instrument ID: 0911.i
Prep Method: SEPF	Prep Batch: 200-38490	Initial Weight/Volume: 1020 mL
Dilution: 3.0		Final Weight/Volume: 1000 uL
Analysis Date: 05/12/2012 0702	Run Type: DL	Injection Volume: 1 uL
Prep Date: 05/10/2012 2154		Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.00038	J D B	0.015
beta-BHC	0.0023	J P D B	0.015
delta-BHC	0.018	P D B	0.015
gamma-BHC (Lindane)	0.00016	J P D	0.015
Heptachlor	0.00012	J P D B	0.015
Aldrin	0.015	U	0.015
Heptachlor epoxide	0.0046	J P D	0.015
Endosulfan I	0.0011	J P D	0.015
Dieldrin	0.029	U	0.029
4,4'-DDE	0.023	J D	0.029
Endrin	0.00014	J P D	0.029
Endosulfan II	0.00018	J P D	0.029
4,4'-DDD	0.052	D B	0.029
Endosulfan sulfate	0.0013	J P D	0.029
4,4'-DDT	0.26	D B	0.029
Endrin aldehyde	0.00021	J P D	0.029
alpha-Chlordane	0.0014	J P D	0.015
gamma-Chlordane	0.0017	J P D	0.015
Toxaphene	1.5	U	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	77		30 - 150
Tetrachloro-m-xylene	81		30 - 150
Decachlorobiphenyl	73		30 - 150
Decachlorobiphenyl	74		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1
Client Matrix: Water

Date Sampled: 05/09/2012 1200
Date Received: 05/10/2012 0855

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-38760	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-38490	Initial Weight/Volume:	1020 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	05/15/2012 2322			Injection Volume:	1 uL
Prep Date:	05/10/2012 2154			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	0.0024	J P	0.0098
2,4'-DDT	0.061		0.0098
2,4'-DDD	0.024	P	0.0098

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	74		30 - 150
Decachlorobiphenyl	74		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1

Date Sampled: 05/09/2012 1200

Client Matrix: Water

Date Received: 05/10/2012 0855

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-38760	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-38490	Initial Weight/Volume:	1020 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	05/15/2012 2322			Injection Volume:	1 uL
Prep Date:	05/10/2012 2154			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	79		30 - 150
Decachlorobiphenyl	77		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1

Date Sampled: 05/09/2012 1200

Client Matrix: Water

Date Received: 05/10/2012 0855

ISM01.2/HG ISM01.2 Mercury

Analysis Method:	ISM01.2/HG	Analysis Batch:	200-38759	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-38703	Lab File ID:	051612CC.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	05/16/2012 1250			Final Weight/Volume:	50 mL
Prep Date:	05/15/2012 0915				

Analyte	Result (ug/L)	Qualifier	MDLE	RL
Mercury	0.20	U	0.084	0.20

ISM01.2/ICPMS ISM01.2 Metals (ICPMS)

Analysis Method:	ISM01.2/ICPMS	Analysis Batch:	200-39088	Instrument ID:	METICPMS2
Prep Method:	200.8	Prep Batch:	200-38900	Lab File ID:	052212-04ISM.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	05/22/2012 1415			Final Weight/Volume:	100 mL
Prep Date:	05/18/2012 1202				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	13.0	E	0.15	2.0
Arsenic	5.8		0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	1.2	J	0.21	2.0
Copper	5.9		0.60	2.0
Lead	1.1		0.10	1.0
Nickel	13.7		0.14	1.0
Selenium	10.7	E *	0.15	5.0
Silver	0.074	J	0.028	1.0
Zinc	17.5		0.57	2.0

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

General Chemistry

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1

Date Sampled: 05/09/2012 1200

Client Matrix: Water

Date Received: 05/10/2012 0855

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide	1.7	J	ug/L	1.0	10.0	1.0	ISM01.2/CN
	Analysis Batch: 200-38689	Analysis Date: 05/15/2012 1343					
	Prep Batch: 200-38656	Prep Date: 05/15/2012 1000					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
GC Semi VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	P	The % Difference between columns is greater than 25%.
	B	The analyte was found in an associated blank, as well as in the sample.
Metals		
	*	Duplicate analysis not within control limits.
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL
	E	The reported value is estimated because of the presence of interference based on serial dilution analysis.
General Chemistry		
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-38596					
MB 200-38596/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10748-1	PRR1WATCME-42	T	Water	SOM01.2/VOA_T	
200-10748-2TB	TB05092012	T	Water	SOM01.2/VOA_T	
200-10748-3STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

GC/MS Semi VOA

Prep Batch: 200-38464					
MB 200-38464/1-A	Method Blank	T	Water	CONT	
200-10748-1	PRR1WATCME-42	T	Water	CONT	
Analysis Batch:200-38752					
MB 200-38464/1-A	Method Blank	T	Water	SOM01.2/SV	200-38464
200-10748-1	PRR1WATCME-42	T	Water	SOM01.2/SV	200-38464

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC Semi VOA					
Prep Batch: 200-38489					
LCS 200-38489/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-38489/1-C	Method Blank	T	Water	SEPF	
200-10748-1	PRR1WATCME-42	T	Water	SEPF	
Prep Batch: 200-38490					
LCS 200-38490/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-38490/1-C	Method Blank	T	Water	SEPF	
LCS 200-38490/3-C	Lab Control Sample	T	Water	SOM01.2LL_Pest	
MB 200-38490/1-C	Method Blank	T	Water	SOM01.2LL_Pest	
200-10748-1	PRR1WATCME-42	T	Water	SEPF	
200-10748-1DL	PRR1WATCME-42	T	Water	SEPF	
200-10748-1	PRR1WATCME-42	T	Water	SOM01.2LL_Pest	
Analysis Batch:200-38645					
LCS 200-38489/2-C	Lab Control Sample	T	Water	SOM01.2/PCB	200-38489
MB 200-38489/1-C	Method Blank	T	Water	SOM01.2/PCB	200-38489
200-10748-1	PRR1WATCME-42	T	Water	SOM01.2/PCB	200-38489
Analysis Batch:200-38688					
LCS 200-38490/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-38490
MB 200-38490/1-C	Method Blank	T	Water	SOM01.2/Pest	200-38490
200-10748-1	PRR1WATCME-42	T	Water	SOM01.2/Pest	200-38490
200-10748-1DL	PRR1WATCME-42	T	Water	SOM01.2/Pest	200-38490
Analysis Batch:200-38760					
LCS 200-38490/3-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-38490
MB 200-38490/1-C	Method Blank	T	Water	SOM01.2/Pest	200-38490
200-10748-1	PRR1WATCME-42	T	Water	SOM01.2/Pest	200-38490

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-38703					
MB 200-38703/11-A	Method Blank	T	Water	7470A	
200-10748-1	PRR1WATCME-42	T	Water	7470A	
Analysis Batch:200-38759					
MB 200-38703/11-A	Method Blank	T	Water	ISM01.2/HG	200-38703
200-10748-1	PRR1WATCME-42	T	Water	ISM01.2/HG	200-38703
Prep Batch: 200-38900					
LCS 200-38900/2-A	Lab Control Sample	T	Water	200.8	
MB 200-38900/1-A	Method Blank	T	Water	200.8	
200-10748-1	PRR1WATCME-42	T	Water	200.8	
200-10748-1DU	Duplicate	T	Water	200.8	
200-10748-1MS	Matrix Spike	T	Water	200.8	
Analysis Batch:200-39088					
LCS 200-38900/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-38900
MB 200-38900/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-38900
200-10748-1	PRR1WATCME-42	T	Water	ISM01.2/ICPMS	200-38900
200-10748-1DU	Duplicate	T	Water	ISM01.2/ICPMS	200-38900
200-10748-1MS	Matrix Spike	T	Water	ISM01.2/ICPMS	200-38900
Report Basis					
T = Total					
General Chemistry					
Prep Batch: 200-38656					
MB 200-38656/11-A	Method Blank	T	Water	Midi-Distillati	
200-10748-1	PRR1WATCME-42	T	Water	Midi-Distillati	
Analysis Batch:200-38689					
MB 200-38656/11-A	Method Blank	T	Water	ISM01.2/CN	200-38656
200-10748-1	PRR1WATCME-42	T	Water	ISM01.2/CN	200-38656
Report Basis					
T = Total					

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10748-1	PRR1WATCME-42	94	98	73	107	97	107	98	88
200-10748-2	TB05092012	94	99	71	104	95	104	97	84
200-10748-3	VHBLK01	94	98	72	94	94	101	99	84
MB 200-38596/4		97	100	75	98	97	104	101	87

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10748-1	PRR1WATCME-42	98	99	105	97	105
200-10748-2	TB05092012	95	97	99	94	103
200-10748-3	VHBLK01	96	94	93	89	101
MB 200-38596/4		100	101	100	93	103

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	PHL %Rec	BCE %Rec	2CP %Rec	4MP %Rec	NBZ %Rec	2NP %Rec	DCP %Rec	4CA %Rec
200-10748-1	PRR1WATCME-42	103	94	90	91	97	96	93	9
MB 200-38464/1-A		98	91	77	87	92	86	85	86

Surrogate	Acceptance Limits
PHL = Phenol-d5	39-106
BCE = Bis(2-chloroethyl)ether-d8	40-105
2CP = 2-Chlorophenol-d4	41-106
4MP = 4-Methylphenol-d8	25-111
NBZ = Nitrobenzene-d5	43-108
2NP = 2-Nitrophenol-d4	40-108
DCP = 2,4-Dichlorophenol-d3	37-105
4CA = 4-Chloroaniline-d4	1-145

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	DMP %Rec	ACY %Rec	4NP %Rec	FLR %Rec	NMP %Rec	ANC %Rec	PYR %Rec	BAP %Rec
200-10748-1	PRR1WATCME-42	102	94	82	88	86	101	87	88
MB 200-38464/1-A		93	89	65	80	70	101	85	85

Surrogate	Acceptance Limits
DMP = Dimethylphthalate-d6	47-114
ACY = Acenaphthylene-d8	41-107
4NP = 4-Nitrophenol-d4	33-116
FLR = Fluorene-d10	42-111
NMP = 4,6-Dinitro-2-methylphenol-d2	22-104
ANC = Anthracene-d10	44-110
PYR = Pyrene-d10	52-119
BAP = Benzo(a)pyrene-d12	32-121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Surrogate Recovery Report

SOM01.2/PCB Aroclors

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10748-1	PRR1WATCME-42	84	87	80	79
MB 200-38489/1-C		79	83	103	99
LCS 200-38489/2-C		81	83	99	96

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Surrogate Recovery Report

SOM01.2/Pest Pesticides

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10748-1 DL	PRR1WATCME-42 DL	77	81	73	74
200-10748-1	PRR1WATCME-42	80	82	75	72
200-10748-1	PRR1WATCME-42	74	79	77	74
MB 200-38490/1-C		80	82	97	94
MB 200-38490/1-C		74	78	100	96
LCS 200-38490/2-C		74	77	92	90
LCS 200-38490/3-C		74	76	100	96

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Method Blank - Batch: 200-38596

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-38596/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/11/2012 1452
Prep Date: 05/11/2012 1452
Leach Date: N/A

Analysis Batch: 200-38596
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdjb04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	97	65 - 131
Chloroethane-d5	100	71 - 131
1,1-Dichloroethene-d2	75	55 - 104
2-Butanone-d5	98	49 - 155
Chloroform-d	97	78 - 121
1,2-Dichloroethane-d4	104	78 - 129
Benzene-d6	101	77 - 124
1,2-Dichloropropane-d6	87	79 - 124
Toluene-d8	100	77 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Surrogate	% Rec	Acceptance Limits
trans-1,3-Dichloropropene-d4	101	73 - 121
2-Hexanone-d5	100	28 - 135
1,1,2,2-Tetrachloroethane-d2	93	73 - 125
1,2-Dichlorobenzene-d4	103	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Method Blank - Batch: 200-38464

Method: SOM01.2/SV

Preparation: CONT

Lab Sample ID: MB 200-38464/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/16/2012 0642
 Prep Date: 05/10/2012 1431
 Leach Date: N/A

Analysis Batch: 200-38752
 Prep Batch: 200-38464
 Leach Batch: N/A
 Units: ug/L

Instrument ID: P.i
 Lab File ID: pjcia05.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1000 uL
 Injection Volume: 2 uL

Analyte	Result	Qual	RL
N-Nitrosodimethylamine	10	U	10
Phenol	5.0	U	5.0
Bis(2-chloroethyl)ether	5.0	U	5.0
2-Chlorophenol	5.0	U	5.0
2,2'-Oxybis(1-chloropropane)	5.0	U	5.0
Hexachloroethane	5.0	U	5.0
Nitrobenzene	5.0	U	5.0
Isophorone	5.0	U	5.0
2-Nitrophenol	5.0	U	5.0
2,4-Dimethylphenol	5.0	U	5.0
2,4-Dichlorophenol	5.0	U	5.0
Naphthalene	5.0	U	5.0
Hexachlorobutadiene	5.0	U	5.0
Hexachlorocyclopentadiene	5.0	U	5.0
2,4,6-Trichlorophenol	5.0	U	5.0
2,4,5-Trichlorophenol	5.0	U	5.0
Dimethylphthalate	5.0	U	5.0
2,6-Dinitrotoluene	5.0	U	5.0
2,4-Dinitrophenol	10	U	10
4-Nitrophenol	10	U	10
2,4-Dinitrotoluene	5.0	U	5.0
Diethylphthalate	5.0	U	5.0
Fluorene	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10
N-Nitrosodiphenylamine	5.0	U	5.0
Hexachlorobenzene	5.0	U	5.0
Pentachlorophenol	10	U	10
Phenanthrene	5.0	U	5.0
Anthracene	5.0	U	5.0
Di-n-butylphthalate	5.0	U	5.0
Fluoranthene	5.0	U	5.0
Benzidine	10	U	10
Pyrene	5.0	U	5.0
Butylbenzylphthalate	5.0	U	5.0
3,3'-Dichlorobenzidine	5.0	U	5.0
Benzo(a)anthracene	5.0	U	5.0
Chrysene	5.0	U	5.0
Bis(2-ethylhexyl)phthalate	5.0	U	5.0
Benzo(b)fluoranthene	5.0	U	5.0
Benzo(k)fluoranthene	5.0	U	5.0
Benzo(a)pyrene	5.0	U	5.0
Indeno(1,2,3-cd)pyrene	5.0	U	5.0
Dibenzo(a,h)anthracene	5.0	U	5.0

Surrogate	% Rec	Acceptance Limits
-----------	-------	-------------------

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Surrogate	% Rec	Acceptance Limits
Phenol-d5	98	39 - 106
Bis(2-chloroethyl)ether-d8	91	40 - 105
2-Chlorophenol-d4	77	41 - 106
4-Methylphenol-d8	87	25 - 111
Nitrobenzene-d5	92	43 - 108
2-Nitrophenol-d4	86	40 - 108
2,4-Dichlorophenol-d3	85	37 - 105
4-Chloroaniline-d4	86	1 - 145
Dimethylphthalate-d6	93	47 - 114
Acenaphthylene-d8	89	41 - 107
4-Nitrophenol-d4	65	33 - 116
Fluorene-d10	80	42 - 111
4,6-Dinitro-2-methylphenol-d2	70	22 - 104
Anthracene-d10	101	44 - 110
Pyrene-d10	85	52 - 119
Benzo(a)pyrene-d12	85	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Method Blank - Batch: 200-38489

**Method: SOM01.2/PCB
Preparation: SEPF**

Lab Sample ID: MB 200-38489/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/12/2012 0514
Prep Date: 05/10/2012 2014
Leach Date: N/A

Analysis Batch: 200-38645
Prep Batch: 200-38489
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 11may122204-r011.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Aroclor-1016	1.0	U	1.0
Aroclor-1221	1.0	U	1.0
Aroclor-1232	1.0	U	1.0
Aroclor-1242	1.0	U	1.0
Aroclor-1248	1.0	U	1.0
Aroclor-1254	1.0	U	1.0
Aroclor-1260	1.0	U	1.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	79	30 - 150
Decachlorobiphenyl	99	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	83	30 - 150
Decachlorobiphenyl	103	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Lab Control Sample - Batch: 200-38489

**Method: SOM01.2/PCB
Preparation: SEPF**

Lab Sample ID:	LCS 200-38489/2-C	Analysis Batch:	200-38645	Instrument ID:	5253.i
Client Matrix:	Water	Prep Batch:	200-38489	Lab File ID:	11may122204-r021.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/12/2012 0538	Units:	ug/L	Final Weight/Volume:	10000 uL
Prep Date:	05/10/2012 2014			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.1	113	50 - 150	
Aroclor-1260	1.00	1.2	118	50 - 150	
Surrogate			% Rec	Acceptance Limits	
Tetrachloro-m-xylene			81	30 - 150	
Decachlorobiphenyl			96	30 - 150	

Lab Control Sample - Batch: 200-38489

**Method: SOM01.2/PCB
Preparation: SEPF**

Lab Sample ID:	LCS 200-38489/2-C	Analysis Batch:	200-38645	Instrument ID:	5253.i
Client Matrix:	Water	Prep Batch:	200-38489	Lab File ID:	11may122204-r021.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/12/2012 0538	Units:	ug/L	Final Weight/Volume:	10000 uL
Prep Date:	05/10/2012 2014			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.2	117	50 - 150	
Aroclor-1260	1.00	1.2	119	50 - 150	
Surrogate			% Rec	Acceptance Limits	
Tetrachloro-m-xylene			83	30 - 150	
Decachlorobiphenyl			99	30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Method Blank - Batch: 200-38490

Method: SOM01.2/Pest

Preparation: SEPF

Lab Sample ID: MB 200-38490/1-C
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/12/2012 0616
 Prep Date: 05/10/2012 2154
 Leach Date: N/A

Analysis Batch: 200-38688
 Prep Batch: 200-38490
 Leach Batch: N/A
 Units: ug/L

Instrument ID: 0911.i
 Lab File ID: 11may122104-r081.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1000 uL
 Injection Volume: 1 uL
 Column ID: PRIMARY

Analyte	Result	Qual	RL
alpha-BHC	0.00045	J P	0.0050
beta-BHC	0.0014	J P	0.0050
delta-BHC	0.00013	J P	0.0050
gamma-BHC (Lindane)	0.0050	U	0.0050
Heptachlor	0.000035	J P	0.0050
Aldrin	0.0050	U	0.0050
Heptachlor epoxide	0.0050	U	0.0050
Endosulfan I	0.0050	U	0.0050
Dieldrin	0.010	U	0.010
4,4'-DDE	0.010	U	0.010
Endrin	0.010	U	0.010
Endosulfan II	0.010	U	0.010
4,4'-DDD	0.00021	J P	0.010
Endosulfan sulfate	0.010	U	0.010
4,4'-DDT	0.00043	J P	0.010
Methoxychlor	0.050	U	0.050
Endrin aldehyde	0.010	U	0.010
alpha-Chlordane	0.0050	U	0.0050
gamma-Chlordane	0.0050	U	0.0050
Toxaphene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	80	30 - 150
Decachlorobiphenyl	94	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	82	30 - 150
Decachlorobiphenyl	97	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Method Blank - Batch: 200-38490

**Method: SOM01.2/Pest
Preparation: SOM01.2LL_Pest**

Lab Sample ID: MB 200-38490/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/15/2012 2215
Prep Date: 05/10/2012 2154
Leach Date: N/A

Analysis Batch: 200-38760
Prep Batch: 200-38490
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 15may121554-r011.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
2,4'-DDE	0.010	U	0.010
2,4'-DDT	0.010	U	0.010
2,4'-DDD	0.010	U	0.010

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	74	30 - 150
Decachlorobiphenyl	96	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	78	30 - 150
Decachlorobiphenyl	100	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Lab Control Sample - Batch: 200-38490

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-38490/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/12/2012 0639
Prep Date: 05/10/2012 2154
Leach Date: N/A

Analysis Batch: 200-38688
Prep Batch: 200-38490
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 11may122104-r091.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0043	86	50 - 120	J
Heptachlor epoxide	0.00500	0.0045	91	50 - 150	J
Dieldrin	0.0100	0.0087	87	30 - 130	J
4,4'-DDE	0.0100	0.0084	84	50 - 150	J
Endrin	0.0100	0.0089	89	50 - 120	J
Endosulfan sulfate	0.0100	0.0084	84	50 - 120	J
gamma-Chlordane	0.00500	0.0043	87	30 - 130	J

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	74	30 - 150
Decachlorobiphenyl	90	30 - 150

Lab Control Sample - Batch: 200-38490

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-38490/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/12/2012 0639
Prep Date: 05/10/2012 2154
Leach Date: N/A

Analysis Batch: 200-38688
Prep Batch: 200-38490
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 11may122104-r091.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0043	87	50 - 120	J
Heptachlor epoxide	0.00500	0.0047	95	50 - 150	J
Dieldrin	0.0100	0.0089	89	30 - 130	J
4,4'-DDE	0.0100	0.0084	84	50 - 150	J
Endrin	0.0100	0.0089	89	50 - 120	J
Endosulfan sulfate	0.0100	0.0085	85	50 - 120	J
gamma-Chlordane	0.00500	0.0049	97	30 - 130	J

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	77	30 - 150
Decachlorobiphenyl	92	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Lab Control Sample - Batch: 200-38490

Method: SOM01.2/Pest
Preparation: SOM01.2LL_Pest

Lab Sample ID:	LCS 200-38490/3-C	Analysis Batch:	200-38760	Instrument ID:	0911.i
Client Matrix:	Water	Prep Batch:	200-38490	Lab File ID:	15may121554-r021.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/15/2012 2249	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	05/10/2012 2154			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.0055	55	50 - 150	J
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		74		30 - 150	
Decachlorobiphenyl		96		30 - 150	

Lab Control Sample - Batch: 200-38490

Method: SOM01.2/Pest
Preparation: SOM01.2LL_Pest

Lab Sample ID:	LCS 200-38490/3-C	Analysis Batch:	200-38760	Instrument ID:	0911.i
Client Matrix:	Water	Prep Batch:	200-38490	Lab File ID:	15may121554-r021.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/15/2012 2249	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	05/10/2012 2154			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.010	100	50 - 150	J
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		76		30 - 150	
Decachlorobiphenyl		100		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Method Blank - Batch: 200-38703

Method: ISM01.2/HG

Preparation: 7470A

Lab Sample ID: MB 200-38703/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/16/2012 1247
Prep Date: 05/15/2012 0915
Leach Date: N/A

Analysis Batch: 200-38759
Prep Batch: 200-38703
Leach Batch: N/A
Units: ug/L

Instrument ID: MEPCV3 II
Lab File ID: 051612CC.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDLE	RL
Mercury	0.20	U	0.084	0.20

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

Sdg Number: PRR1278

Method Blank - Batch: 200-38900

Method: ISM01.2/ICPMS

Preparation: 200.8

Lab Sample ID: MB 200-38900/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/22/2012 1401
 Prep Date: 05/18/2012 1202
 Leach Date: N/A

Analysis Batch: 200-39088
 Prep Batch: 200-38900
 Leach Batch: N/A
 Units: ug/L

Instrument ID: METICPMS2
 Lab File ID: 052212-04ISM.xml
 Initial Weight/Volume: 100 mL
 Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Antimony	0.57	J	0.15	2.0
Arsenic	-0.46	J	0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	0.29	J	0.21	2.0
Copper	2.0	U	0.60	2.0
Lead	0.39	J	0.10	1.0
Nickel	1.0	U	0.14	1.0
Selenium	-1.7	J	0.15	5.0
Silver	-0.049	J	0.028	1.0
Zinc	2.0	U	0.57	2.0

Lab Control Sample - Batch: 200-38900

Method: ISM01.2/ICPMS

Preparation: 200.8

Lab Sample ID: LCS 200-38900/2-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/22/2012 1408
 Prep Date: 05/18/2012 1202
 Leach Date: N/A

Analysis Batch: 200-39088
 Prep Batch: 200-38900
 Leach Batch: N/A
 Units: ug/L

Instrument ID: METICPMS2
 Lab File ID: 052212-04ISM.xml
 Initial Weight/Volume: 100 mL
 Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	4.00	5.0	125	70 - 130	
Arsenic	2.00	2.0	98	70 - 130	
Beryllium	2.00	2.3	115	70 - 130	
Cadmium	2.00	2.4	121	70 - 130	
Chromium	4.00	4.6	116	70 - 130	
Copper	4.00	4.5	113	70 - 130	
Lead	2.00	2.5	127	70 - 130	
Nickel	2.00	2.3	113	70 - 130	
Selenium	10.0	11.4	114	70 - 130	
Silver	2.00	2.5	126	70 - 130	
Zinc	4.00	5.7	142	70 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Matrix Spike - Batch: 200-38900

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID: 200-10748-1	Analysis Batch: 200-39088	Instrument ID: METICPMS2
Client Matrix: Water	Prep Batch: 200-38900	Lab File ID: 052212-04ISM.xml
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 100 mL
Analysis Date: 05/22/2012 1441	Units: ug/L	Final Weight/Volume: 100 mL
Prep Date: 05/18/2012 1202		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	13.0	100	118	105	75 - 125	
Arsenic	5.8	40.0	44.2	96	75 - 125	
Beryllium	1.0 U	50.0	50.8	102	75 - 125	
Cadmium	1.0 U	50.0	48.2	96	75 - 125	
Lead	1.1	20.0	23.3	111	75 - 125	
Selenium	10.7	100	98.4	88	75 - 125	
Silver	0.074 J	50.0	43.3	86	75 - 125	

Matrix Spike - Batch: 200-38900

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID: 200-10748-1	Analysis Batch: 200-39088	Instrument ID: METICPMS2
Client Matrix: Water	Prep Batch: 200-38900	Lab File ID: 052212-04ISM.xml
Dilution: 10	Leach Batch: N/A	Initial Weight/Volume: 100 mL
Analysis Date: 05/22/2012 1448	Units: ug/L	Final Weight/Volume: 100 mL
Prep Date: 05/18/2012 1202		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chromium	1.2 J	200	208	103	75 - 125	
Copper	5.9	250	264	103	75 - 125	
Nickel	13.7	500	531	103	75 - 125	
Silver	0.074 J	50.0	48.2	96	75 - 125	
Zinc	17.5	500	548	106	75 - 125	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Duplicate - Batch: 200-38900

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID: 200-10748-1	Analysis Batch: 200-39088	Instrument ID: METICPMS2
Client Matrix: Water	Prep Batch: 200-38900	Lab File ID: 052212-04ISM.xml
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 100 mL
Analysis Date: 05/22/2012 1435	Units: ug/L	Final Weight/Volume: 100 mL
Prep Date: 05/18/2012 1202		
Leach Date: N/A		

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Antimony	13.0	12.7	2		
Arsenic	5.8	4.9	17	1.0	
Beryllium	1.0 U	1.0			U
Cadmium	1.0 U	1.0			U
Chromium	1.2 J	1.2	3	2.0	J
Copper	5.9	4.1	37	2.0	
Lead	1.1	1.1	3	1.0	
Nickel	13.7	13.0	5		
Selenium	10.7	5.6	62	5.0	*
Silver	0.074 J	0.040	60	1.0	J
Zinc	17.5	16.5	6		

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1
Sdg Number: PRR1278

Method Blank - Batch: 200-38656

**Method: ISM01.2/CN
Preparation: Midi-Distillati**

Lab Sample ID: MB 200-38656/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/15/2012 1342
Prep Date: 05/15/2012 1000
Leach Date: N/A

Analysis Batch: 200-38689
Prep Batch: 200-38656
Leach Batch: N/A
Units: ug/L

Instrument ID: WCLachat
Lab File ID: OM_05-15-12_01-30-1
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Cyanide	10.0	U	1.0	10.0

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO. B0009966.0002.70004		PROJECT NAME Tierra Phase I Removal		SDG NUMBER/COC Number PRR1278																				
SAMPLERS:																								
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATCME-42	5/9/2012	12:00	water	Grab	17	X	X	X	X	X	X	X	X	X	X									
TB05092012	5/9/2012		water		3	X																		
<p>Requested Analyses</p> <p><input type="checkbox"/> Special QA/QC Instructions</p> <p>Special Instructions/Comments: Refer to RAWP QAPP WS 15-4 for Effluent Samples</p>																								
<p>Requested Analyses</p> <p>1 TOC</p> <p>2 VOCs</p> <p>3 SVOCs</p> <p>4 Aroclor PCBs</p> <p>5 Pesticides</p> <p>6 Metals + Hg</p> <p>7 Cyanide</p> <p>8 Herbicides</p> <p>9 TSS</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p>																								
<p>Laboratory Information and Receipt</p> <p>Lab Name: TestAmerica -Burlington, VT</p> <p>Shipping Tracking #</p> <p>Specify Turnaround Requirements: 7 day TAT; TSS samples 24 hr TAT</p> <p><input checked="" type="checkbox"/> Cooler packed with ice</p> <p><input checked="" type="checkbox"/> Cooler custody seal intact</p>																								
<p>Relinquished by: <i>WAS</i></p> <p>Received by: <i>JUN-TABER</i></p>												<p>DATE</p> <p>05/09/12</p>		<p>TIME</p> <p>1300</p>		<p>Relinquished by:</p>		<p>DATE</p>		<p>Received by:</p>		<p>DATE</p>		
<p>Relinquished by:</p>												<p>DATE</p>		<p>TIME</p>		<p>Relinquished by:</p>		<p>DATE</p>		<p>Received by:</p>		<p>DATE</p>		
<p>Relinquished by:</p>												<p>DATE</p>		<p>TIME</p>		<p>Relinquished by:</p>		<p>DATE</p>		<p>Received by:</p>		<p>DATE</p>		
<p>Sample Receipt:</p> <p>Condition/Cooler Temp: 52.15.8 °C</p> <p>Received by:</p>																								

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10748-1

SDG Number: PRR1278

Login Number: 10748

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698990, 989, 988, 987
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.2°C, 5.8°C; IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St.

Newark, NJ 07105

Origin ID: VAKA



Ship Date: 09MAY12
ActWgt: 40.0 LB
CAD: 103886297/NET3250
Dims: 28 X 14 X 16 IN

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

1 of 2

THU - 10 MAY A4
FIRST OVERNIGHT

TRK# 7935 4677 4220

0261

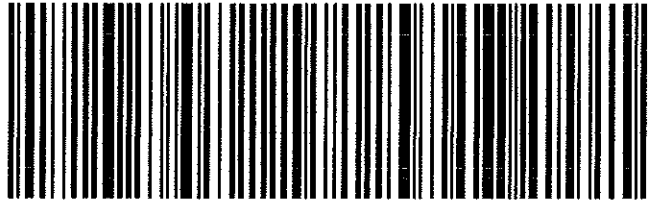
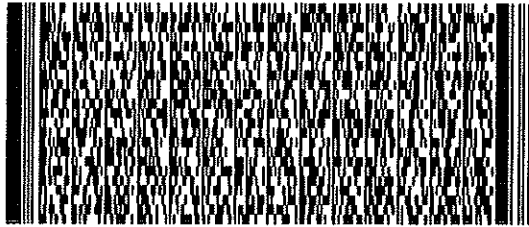
MASTER

05403

VT-US

BTV

E9 BTVA



512G3.61A1/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 09MAY12
ActWgt: 20.0 LB
CAD: 103886297/NET3250
Dims: 18 X 12 X 14 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11
S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

2 of 2

THU - 10 MAY A4
FIRST OVERNIGHT

MPS# 7935 4677 4426

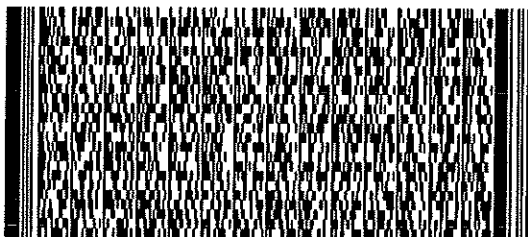
0263

Mstr# 7935 4677 4220

0201

05403
VT-US
BTVA

E9 BTVA



512G3K1A1/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10748-2

SDG Number: PRR1278

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Ryan J Hammond
Project Manager I
5/17/2012 5:01 PM

Designee for
Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/17/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	11
QC Results	12
Qc Association Summary	13
Surrogate Recovery Report	14
Qc Reports	15
Client Chain of Custody	18
Sample Receipt Checklist	19

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1278 (200-10748-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met. Calibration and calibration verification were assessed on an analyte specific basis.

Calculations were performed before rounding to avoid round-off errors in calculated results.

Manual integration was employed in deriving certain of the analytical results.

For the Method 8151A analysis, positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

There was an acceptable recovery of 2,4-D, 2,4-DB, and 2,4,5-T in the analysis of the laboratory control sample associated with the Method 8151A analysis. The recovery of dinoseb in that analysis was 55 percent. While that recovery value is above the lower control limit that is established by the laboratory for this method of analysis, it is below the lower control limit of 70 percent that is referenced in the project QAPP.

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10748-2
Sdg Number: PRR1278

Description		Lab Location	Method	Preparation Method
Matrix	Water			
Herbicides (GC)		TAL BUR	SW846 8151A	
Extraction (Herbicides)		TAL BUR		SW846 8151A
Organic Carbon, Total (TOC)		TAL BUR	SM SM 5310B	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10748-2

Sdg Number: PRR1278

Method	Analyst	Analyst ID
SW846 8151A	Robinson, Wallace B	WBR
SM SM 5310B	Sutton, Zachariah M	ZMS

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10748-2

Sdg Number: PRR1278

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10748-1	PRR1WATCME-42	Water	05/09/2012 1200	05/10/2012 0855

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-2

Sdg Number: PRR1278

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1

Date Sampled: 05/09/2012 1200

Client Matrix: Water

Date Received: 05/10/2012 0855

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-38834	Instrument ID:	0911.i
Prep Method:	8151A	Prep Batch:	200-38452	Initial Weight/Volume:	1025 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/16/2012 1951			Injection Volume:	1 uL
Prep Date:	05/10/2012 1341			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	1.9	U	0.63	1.9
2,4-DB	1.7	U	0.46	1.7
Dinoseb	0.93	U	0.19	0.93
2,4,5-T	0.46	U	0.13	0.46

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	87		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-2

Sdg Number: PRR1278

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1

Date Sampled: 05/09/2012 1200

Client Matrix: Water

Date Received: 05/10/2012 0855

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-38834	Instrument ID:	0911.i
Prep Method:	8151A	Prep Batch:	200-38452	Initial Weight/Volume:	1025 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/16/2012 1951			Injection Volume:	1 uL
Prep Date:	05/10/2012 1341			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	76		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-2

Sdg Number: PRR1278

General Chemistry

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1

Date Sampled: 05/09/2012 1200

Client Matrix: Water

Date Received: 05/10/2012 0855

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	5.7	B	mg/L	0.14	1.0	1.0	SM 5310B

Analysis Batch: 200-38697 Analysis Date: 05/14/2012 1653

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10748-2

Sdg Number: PRR1278

Lab Section	Qualifier	Description
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-2

Sdg Number: PRR1278

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-38452					
LCS 200-38452/2-A	Lab Control Sample	T	Water	8151A	
MB 200-38452/1-A	Method Blank	T	Water	8151A	
200-10748-1	PRR1WATCME-42	T	Water	8151A	
Analysis Batch:200-38834					
LCS 200-38452/2-A	Lab Control Sample	T	Water	8151A	200-38452
MB 200-38452/1-A	Method Blank	T	Water	8151A	200-38452
200-10748-1	PRR1WATCME-42	T	Water	8151A	200-38452

Report Basis

T = Total

General Chemistry

Analysis Batch:200-38697					
LCS 200-38697/1	Lab Control Sample	T	Water	SM 5310B	
LCS 200-38697/4	Lab Control Sample	T	Water	SM 5310B	
MB 200-38697/2	Method Blank	T	Water	SM 5310B	
MB 200-38697/5	Method Blank	T	Water	SM 5310B	
200-10748-1	PRR1WATCME-42	T	Water	SM 5310B	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-2

Sdg Number: PRR1278

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
200-10748-1	PRR1WATCME-42	87	76
MB 200-38452/1-A		82	77
LCS 200-38452/2-A		89	86

Surrogate	Acceptance Limits
DCPA = 2,4-Dichlorophenylacetic acid	60-130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-2
Sdg Number: PRR1278

Method Blank - Batch: 200-38452

**Method: 8151A
Preparation: 8151A**

Lab Sample ID: MB 200-38452/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/16/2012 1734
Prep Date: 05/10/2012 1341
Leach Date: N/A

Analysis Batch: 200-38834
Prep Batch: 200-38452
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 16may121620-r011.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95
2,4,5-T	0.254	J	0.13	0.47
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	82		60 - 130	
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	77		60 - 130	

Lab Control Sample - Batch: 200-38452

**Method: 8151A
Preparation: 8151A**

Lab Sample ID: LCS 200-38452/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/16/2012 1801
Prep Date: 05/10/2012 1341
Leach Date: N/A

Analysis Batch: 200-38834
Prep Batch: 200-38452
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 16may121620-r021.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	7.10	89	75 - 135	
2,4-DB	4.02	3.78	94	40 - 165	
Dinoseb	4.00	2.21	55	10 - 115	
2,4,5-T	2.00	2.00	100	60 - 155	
Surrogate	% Rec		Acceptance Limits		
2,4-Dichlorophenylacetic acid	89		60 - 130		
Surrogate	% Rec		Acceptance Limits		
2,4-Dichlorophenylacetic acid	86		60 - 130		

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-2
Sdg Number: PRR1278

Method Blank - Batch: 200-38697

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-38697/2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/14/2012 1638
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-38697
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 051412A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	0.140	J	0.14	1.0

Method Blank - Batch: 200-38697

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-38697/5
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/14/2012 1726
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-38697
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 051412A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	0.172	J	0.14	1.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-2
Sdg Number: PRR1278

Lab Control Sample - Batch: 200-38697

Method: SM 5310B

Preparation: N/A

Lab Sample ID: LCS 200-38697/1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/14/2012 1621
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-38697
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 051412A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	10.18	102	85 - 115	

Lab Control Sample - Batch: 200-38697

Method: SM 5310B

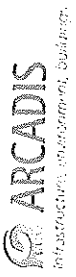
Preparation: N/A

Lab Sample ID: LCS 200-38697/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/14/2012 1709
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-38697
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 051412A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	10.16	102	85 - 115	



CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJECT NAME		SDG NUMBER/COC Number																						
Tierra Phase I Removal		PRR1278																						
PROJ. NO.	Requested Analyses																							
B0009966.0002.70004																								
SAMPLERS:	SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
	PRR1WATCHME-42	5/9/2012	12:00	water	Grab	17	X	X	X	X	X	X	X	X	X	X								
	TB05092012	5/9/2012		water		3	X																	
Special Instructions/Comments:																								
Refer to RAWP QAPP WS 15-4 for Effluent Samples																								
Requested Analyses												<input type="checkbox"/> Special QA/QC Instructions												
00 1 TOC																								
01 2 VOCs																								
02 3 SVOCs																								
03 4 Aroclor PCBs																								
04 5 Pesticides																								
05 6 Metals + Hg																								
06 7 Cyanide																								
07 8 Herbicides																								
08 9 TSS																								
09 10																								
10 11																								
11 12																								
12 13																								
13 14																								
14 15																								
15 16																								
16 17																								
Laboratory Information and Receipt																								
Lab Name: TestAmerica -Burlington, VT												Shipping Tracking #												
Specify Turnaround Requirements: 7 day TAT; ISS samples 24 hr TAT												<input checked="" type="checkbox"/> Cooler packed with ice												
												<input checked="" type="checkbox"/> Cooler custody seal intact												
Relinquished by: <i>WAS</i>			DATE	05/09/12	TIME	1300	Received by: <i>JUN TADOR</i>			DATE			Relinquished by:			DATE			Received by:					
Relinquished by:			DATE		TIME		Received by:			DATE			Relinquished by:			DATE			Received by:					
Relinquished by:			DATE		TIME		Received by:			DATE			Relinquished by:			DATE			Received by:					
Sample Receipt:												Condition/Cooler Temp: 52.15.8 °C												
												Received by:												

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10748-2

SDG Number: PRR1278

Login Number: 10748

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698990, 989, 988, 987
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.2°C, 5.8°C; IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St.

Newark, NJ 07105

Origin ID: VAKA



Ship Date: 09MAY12
ActWgt: 40.0 LB
CAD: 103886297/NET3250

Dims: 28 X 14 X 16 IN

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

1 of 2

THU - 10 MAY A4
FIRST OVERNIGHT

TRK# 7935 4677 4220

0261

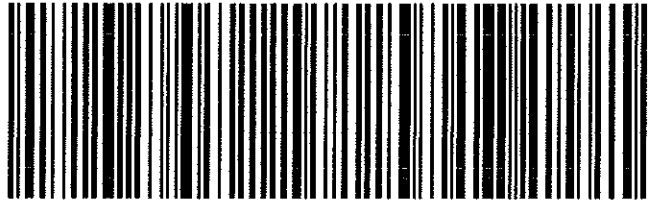
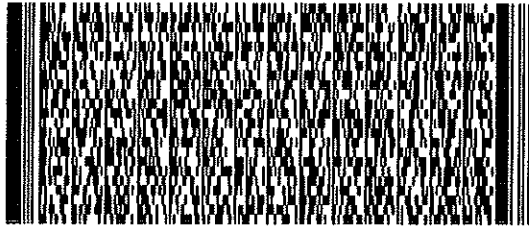
MASTER

05403

VT-US

BTV

E9 BTVA



512G3.61A1/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 09MAY12
ActWgt: 20.0 LB
CAD: 103886297/NET3250
Dims: 18 X 12 X 14 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11
S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

2 of 2

THU - 10 MAY A4
FIRST OVERNIGHT

MPS# 7935 4677 4426

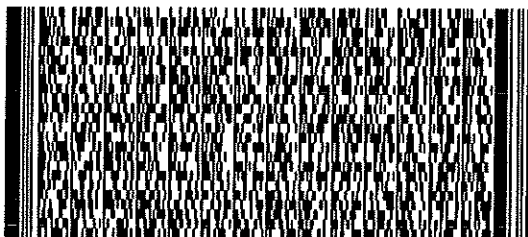
0263

Mstr# 7935 4677 4220

0201

05403
VT-US
BTV

E9 BTVA



512G3K1AA/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10748-3

SDG Number: PRR1278

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/11/2012 2:11 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/11/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	9
QC Results	10
Qc Association Summary	11
Qc Reports	12
Client Chain of Custody	13
Sample Receipt Checklist	14
Internal Coc (if required)	17

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1278 (200-10748-3)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The sample in this sample set was received on 05/10/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The sample was received as part of a larger sample set, which was received in two coolers. The temperature of the contents of the coolers was determined at the time of receipt. The temperatures were 5.2 °C and 5.8 °C.

SM 2540D Total suspended Solids

The sample in this sample set was analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the sample in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10748-3

Sdg Number: PRR1278

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10748-3

Sdg Number: PRR1278

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10748-3
Sdg Number: PRR1278

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10748-1	PRR1WATCME-42	Water	05/09/2012 1200	05/10/2012 0855

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10748-3

Sdg Number: PRR1278

General Chemistry

Client Sample ID: PRR1WATCME-42

Lab Sample ID: 200-10748-1

Date Sampled: 05/09/2012 1200

Client Matrix: Water

Date Received: 05/10/2012 0855

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	5.1		mg/L	2.0	2.0	1.0	SM 2540D
	Analysis Batch: 200-38445	Analysis Date: 05/10/2012 1302					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10748-3

Sdg Number: PRR1278

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-3

Sdg Number: PRR1278

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-38445					
LCS 200-38445/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-38445/1	Method Blank	T	Water	SM 2540D	
200-10748-1	PRR1WATCME-42	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10748-3
Sdg Number: PRR1278

Method Blank - Batch: 200-38445

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-38445/1	Analysis Batch:	200-38445	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/10/2012 1302	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-38445

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-38445/2	Analysis Batch:	200-38445	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/10/2012 1302	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	468.0	94	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO. B0009966.0002.70004		PROJECT NAME Tierra Phase I Removal		SDG NUMBER/COC Number PRR1278																				
SAMPLERS:																								
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATCME-42	5/9/2012	12:00	water	Grab	17	X	X	X	X	X	X	X	X	X	X									
TB05092012	5/9/2012		water		3	X																		
Requested Analyses																								
<input type="checkbox"/> 1 TOC <input type="checkbox"/> 2 VOCs <input type="checkbox"/> 3 SVOCs <input checked="" type="checkbox"/> 4 Aroclor PCBs <input type="checkbox"/> 5 Pesticides <input type="checkbox"/> 6 Metals + Hg <input type="checkbox"/> 7 Cyanide <input type="checkbox"/> 8 Herbicides <input type="checkbox"/> 9 TSS <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14 <input type="checkbox"/> 15 <input type="checkbox"/> 16																								
Special Instructions/Comments: Refer to RAWP QAPP WS 15-4 for Effluent Samples <input type="checkbox"/> Special QA/QC Instructions																								
Laboratory Information and Receipt																								
Lab Name: TestAmerica -Burlington, VT Shipping Tracking # Specify Turnaround Requirements: 7 day TAT; ISS samples 24 hr TAT <input checked="" type="checkbox"/> Cooler packed with ice <input checked="" type="checkbox"/> Cooler custody seal intact																								
Relinquished by: <i>WAS</i>		DATE: 05/09/12		TIME: 1300		Received by: <i>JUN-TABER</i>		DATE: 5/10/12		TIME: 0855		Relinquished by:		DATE:		TIME:		Received by:		DATE:		TIME:		Sample Receipt:
Relinquished by:		DATE:		TIME:		Relinquished by:		DATE:		TIME:		Relinquished by:		DATE:		TIME:		Received by:		DATE:		TIME:		Condition/Cooler Temp: 52.15.8 °C
Relinquished by:		DATE:		TIME:		Relinquished by:		DATE:		TIME:		Relinquished by:		DATE:		TIME:		Received by:		DATE:		TIME:		Received by:

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10748-3

SDG Number: PRR1278

Login Number: 10748

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698990, 989, 988, 987
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.2°C, 5.8°C; IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St.

Newark, NJ 07105

Origin ID: VAKA



Ship Date: 09MAY12
ActWgt: 40.0 LB
CAD: 103886297/NET3250

Dims: 28 X 14 X 18 IN

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

1 of 2

THU - 10 MAY A4
FIRST OVERNIGHT

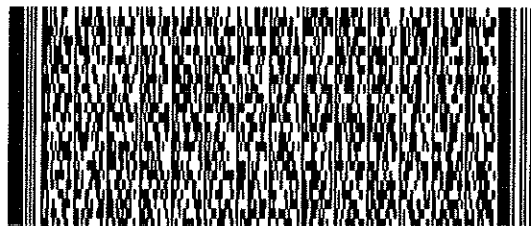
TRK# 7935 4677 4220

0261

MASTER

05403
VT-US
BTV

E9 BTVA



512G3.61A1/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 09MAY12
ActWgt: 20.0 LB
CAD: 103886297/NET3250

Dims: 18 X 12 X 14 IN

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

2 of 2

THU - 10 MAY A4
FIRST OVERNIGHT

MPS# 7935 4677 4426

0263

Mstr# 7935 4677 4220

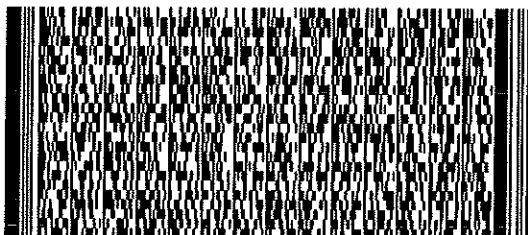
0201

05403

VT-US

BTV

E9 BTVA



512G3K1AA/A278

After printing this label:


1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

TestAmerica Burlington
INTERNAL CHAIN OF CUSTODY LOG (ICOC)

Project Information:
 Log In #: 200-10748 Method: TSS
 Client: ARCADIS - TIESOL LAB IDs: 200-10748-1

Samples associated with this log-in were placed into storage on 5/10/2012 955 by: 
 (Date) (Time²) Sample Custodian Signature
 Storage Location: WAZ2 Specify storage location (refrigerator, freezer ID or lab location) for original sample containers
 Storage Condition: Refrigeration Frozen Ambient

Internal Transfer Information

Sample Type Original	Prepared ¹	Lab ID(s)	Transfer Date	Transfer Time ²	Purpose of Transfer		Relinquished By:	Received By:	Storage Location Prepared Sample ¹
					Prep	Analysis Storage			
✓		200-10748-1	5/10/12	1600		✓	Anli	Anli	
✓		"	"	1335		/	Anli	Anli	

ANALYTICAL REPORT

Job Number: 200-10771-1

SDG Number: PRR1282

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/14/2012 12:39 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/14/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	17
QC Results	18
Qc Association Summary	19
Surrogate Recovery Report	20
Qc Reports	22
Client Chain of Custody	23
Sample Receipt Checklist	24

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1282 (200-10771-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 05/11/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 5.0 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set. A trace concentration of chlorobenzene was identified in the analysis of each of the instrument blanks associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in the closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

Sdg Number: PRR1282

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

Sdg Number: PRR1282

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

Sdg Number: PRR1282

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10771-1	PRR1WATGACI-20-SP-105	Water	05/10/2012 1115	05/11/2012 0920
200-10771-2	PRR1WATGACE-20-SP-106	Water	05/10/2012 1110	05/11/2012 0920
200-10771-3	PRR1WATGACE-20-SP-109	Water	05/10/2012 1105	05/11/2012 0920
200-10771-6TB	TB05102012	Water	05/10/2012 0000	05/11/2012 0920
200-10771-7STOBL K	VHBLK01	Water	05/11/2012 0934	05/11/2012 0920

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

Sdg Number: PRR1282

Client Sample ID: PRR1WATGACI-20-SP-105

Lab Sample ID: 200-10771-1

Date Sampled: 05/10/2012 1115

Client Matrix: Water

Date Received: 05/11/2012 0920

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38596	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjb06.d
Dilution:	9.8			Initial Weight/Volume:	25 mL
Analysis Date:	05/11/2012 1540			Final Weight/Volume:	25 mL
Prep Date:	05/11/2012 1540				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	17	J	49
Chlorobenzene	1100	E	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	97		71 - 131
1,1-Dichloroethene-d2	73		55 - 104
2-Butanone-d5	97		49 - 155
Chloroform-d	96		78 - 121
1,2-Dichloroethane-d4	101		78 - 129
Benzene-d6	98		77 - 124
1,2-Dichloropropane-d6	85		79 - 124
Toluene-d8	97		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121
2-Hexanone-d5	99		28 - 135
1,1,2,2-Tetrachloroethane-d2	92		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

Sdg Number: PRR1282

Client Sample ID: PRR1WATGACI-20-SP-105

Lab Sample ID: 200-10771-1

Date Sampled: 05/10/2012 1115

Client Matrix: Water

Date Received: 05/11/2012 0920

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38596	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjb05.d
Dilution:	68.8			Initial Weight/Volume:	25 mL
Analysis Date:	05/11/2012 1516	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/11/2012 1516				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	340	U	340
Chlorobenzene	1000	D	34

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	100		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	86		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	100		73 - 121
2-Hexanone-d5	101		28 - 135
1,1,2,2-Tetrachloroethane-d2	96		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

Sdg Number: PRR1282

Client Sample ID: PRR1WATGACE-20-SP-106

Lab Sample ID: 200-10771-2

Date Sampled: 05/10/2012 1110

Client Matrix: Water

Date Received: 05/11/2012 0920

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38596	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjb09.d
Dilution:	8.6			Initial Weight/Volume:	25 mL
Analysis Date:	05/11/2012 1654			Final Weight/Volume:	25 mL
Prep Date:	05/11/2012 1654				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	110		43
Chlorobenzene	990	E	4.3

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	72		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	106		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	86		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	102		73 - 121
2-Hexanone-d5	107		28 - 135
1,1,2,2-Tetrachloroethane-d2	96		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1
Sdg Number: PRR1282

Client Sample ID: PRR1WATGACE-20-SP-106

Lab Sample ID: 200-10771-2
Client Matrix: Water

Date Sampled: 05/10/2012 1110
Date Received: 05/11/2012 0920

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38596	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjb08.d
Dilution:	61.1			Initial Weight/Volume:	25 mL
Analysis Date:	05/11/2012 1629	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/11/2012 1629				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	82	J D	310
Chlorobenzene	930	D	31

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	95		65 - 131
Chloroethane-d5	101		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	104		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	87		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	102		73 - 121
2-Hexanone-d5	104		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

Sdg Number: PRR1282

Client Sample ID: PRR1WATGACE-20-SP-109

Lab Sample ID: 200-10771-3

Date Sampled: 05/10/2012 1105

Client Matrix: Water

Date Received: 05/11/2012 0920

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38596	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjb12.d
Dilution:	1.6			Initial Weight/Volume:	25 mL
Analysis Date:	05/11/2012 1807			Final Weight/Volume:	25 mL
Prep Date:	05/11/2012 1807				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	35		8.0
Chlorobenzene	180	E	0.80

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	99		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	122		49 - 155
Chloroform-d	118		78 - 121
1,2-Dichloroethane-d4	115		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	110		73 - 121
2-Hexanone-d5	123		28 - 135
1,1,2,2-Tetrachloroethane-d2	107		73 - 125
1,2-Dichlorobenzene-d4	113		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

Sdg Number: PRR1282

Client Sample ID: PRR1WATGACE-20-SP-109

Lab Sample ID: 200-10771-3

Date Sampled: 05/10/2012 1105

Client Matrix: Water

Date Received: 05/11/2012 0920

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-38596	Instrument ID: J.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: jdjb11.d
Dilution: 11.3		Initial Weight/Volume: 25 mL
Analysis Date: 05/11/2012 1743	Run Type: DL	Final Weight/Volume: 25 mL
Prep Date: 05/11/2012 1743		

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	35	J D	57
Chlorobenzene	160	D	5.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	96		71 - 131
1,1-Dichloroethene-d2	73		55 - 104
2-Butanone-d5	97		49 - 155
Chloroform-d	96		78 - 121
1,2-Dichloroethane-d4	103		78 - 129
Benzene-d6	96		77 - 124
1,2-Dichloropropane-d6	82		79 - 124
Toluene-d8	94		77 - 121
trans-1,3-Dichloropropene-d4	94		73 - 121
2-Hexanone-d5	97		28 - 135
1,1,2,2-Tetrachloroethane-d2	91		73 - 125
1,2-Dichlorobenzene-d4	99		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

Sdg Number: PRR1282

Client Sample ID: TB05102012

Lab Sample ID: 200-10771-6TB

Date Sampled: 05/10/2012 0000

Client Matrix: Water

Date Received: 05/11/2012 0920

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38596	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjb14.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/11/2012 1856			Final Weight/Volume:	25 mL
Prep Date:	05/11/2012 1856				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	98		65 - 131
Chloroethane-d5	101		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	101		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	88		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	97		73 - 121
2-Hexanone-d5	100		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1
Sdg Number: PRR1282

Client Sample ID: VHBLK01

Lab Sample ID: 200-10771-7STOBLK
Client Matrix: Water

Date Sampled: 05/11/2012 0934
Date Received: 05/11/2012 0920

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38596	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjb15.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/11/2012 1920			Final Weight/Volume:	25 mL
Prep Date:	05/11/2012 1920				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	104		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	109		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	89		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	101		73 - 121
2-Hexanone-d5	99		28 - 135
1,1,2,2-Tetrachloroethane-d2	96		73 - 125
1,2-Dichlorobenzene-d4	108		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

Sdg Number: PRR1282

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

Sdg Number: PRR1282

QC Association Summary

Lab Sample ID	Client Sample ID	Report			Prep Batch
		Basis	Client Matrix	Method	
GC/MS VOA					
Analysis Batch:200-38596					
MB 200-38596/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10771-1	PRR1WATGACI-20-SP-105	T	Water	SOM01.2/VOA_T	
200-10771-1DL	PRR1WATGACI-20-SP-105	T	Water	SOM01.2/VOA_T	
200-10771-2	PRR1WATGACE-20-SP-106	T	Water	SOM01.2/VOA_T	
200-10771-2DL	PRR1WATGACE-20-SP-106	T	Water	SOM01.2/VOA_T	
200-10771-3	PRR1WATGACE-20-SP-109	T	Water	SOM01.2/VOA_T	
200-10771-3DL	PRR1WATGACE-20-SP-109	T	Water	SOM01.2/VOA_T	
200-10771-6TB	TB05102012	T	Water	SOM01.2/VOA_T	
200-10771-7STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

Sdg Number: PRR1282

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10771-1 DL	PRR1WATGACI-20-S P-105 DL	96	100	74	103	98	105	100	86
200-10771-1	PRR1WATGACI-20-S P-105	96	97	73	97	96	101	98	85
200-10771-2 DL	PRR1WATGACE-20- SP-106 DL	95	101	74	104	98	104	101	87
200-10771-2	PRR1WATGACE-20- SP-106	94	98	72	105	106	104	101	86
200-10771-3 DL	PRR1WATGACE-20- SP-109 DL	94	96	73	97	96	103	96	82
200-10771-3	PRR1WATGACE-20- SP-109	99	102	76	122	118	115	101	92
200-10771-6	TB05102012	98	101	75	101	99	105	102	88
200-10771-7	VHBLK01	100	103	77	104	99	109	103	89
MB 200-38596/4		97	100	75	98	97	104	101	87

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

Sdg Number: PRR1282

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10771-1 DL	PRR1WATGACI-20-S P-105 DL	99	100	101	96	102
200-10771-1	PRR1WATGACI-20-S P-105	97	99	99	92	101
200-10771-2 DL	PRR1WATGACE-20- SP-106 DL	100	102	104	93	103
200-10771-2	PRR1WATGACE-20- SP-106	98	102	107	96	103
200-10771-3 DL	PRR1WATGACE-20- SP-109 DL	94	94	97	91	99
200-10771-3	PRR1WATGACE-20- SP-109	101	110	123	107	113
200-10771-6	TB05102012	99	97	100	94	102
200-10771-7	VHBLK01	102	101	99	96	108
MB 200-38596/4		100	101	100	93	103

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

Sdg Number: PRR1282

Method Blank - Batch: 200-38596

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-38596/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/11/2012 1452
 Prep Date: 05/11/2012 1452
 Leach Date: N/A

Analysis Batch: 200-38596
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: J.i
 Lab File ID: jdjb04.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	97	65 - 131
Chloroethane-d5	100	71 - 131
1,1-Dichloroethene-d2	75	55 - 104
2-Butanone-d5	98	49 - 155
Chloroform-d	97	78 - 121
1,2-Dichloroethane-d4	104	78 - 129
Benzene-d6	101	77 - 124
1,2-Dichloropropane-d6	87	79 - 124
Toluene-d8	100	77 - 121
trans-1,3-Dichloropropene-d4	101	73 - 121
2-Hexanone-d5	100	28 - 135
1,1,2,2-Tetrachloroethane-d2	93	73 - 125
1,2-Dichlorobenzene-d4	103	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJECT NAME		Requested Analyses																					
Tierra Phase I Removal		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17					
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	Remarks																	
PRR1WATGACI-20-SP-105	5/10/2012	11:15	water	Grab	3																		
PRR1WATGACE-20-SP-106	5/10/2012	11:10	water	Grab	3																		
PRR1WATGACE-20-SP-109	5/10/2012	11:05	water	Grab	3																		
PRR1WATCME-43	5/10/2012	11:00	water	Grab	1																		
PRR1WAT-20-SP-101	5/10/2012	11:20	water	Grab	1																		
TB05102012	5/10/2012		water	Grab	3																		
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																					
Lab Name: TestAmerica -Burlington, VT		Laboratory Information and Receipt																					
Shipping Tracking #		Cooler packed with ice																					
Specify Turnaround Requirements: 24 hr TAT		Cooler custody seal intact																					
Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME
Joe Bruny	5/10/12	1230	MAR	5/10/12	1500																		
MAR	05/10/12	1500	MAR	05/10/12	1500																		

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10771-1

SDG Number: PRR1282

Login Number: 10771

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699011, 012
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.0°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
 Michael Pelenski
 ARCADIS
 117 Blanchard St
 Newark, NJ 07105

Origin ID: VAKA

FedEx
 Express



J12101112190225

Ship Date: 10MAY12
 ActWgt: 20.0 LB
 CAD: 103886297/NET3250

Dims: 18 X 14 X 16 IN

SHIP TO: (802) 660-1990

BILL SENDER

Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

Delivery Address Bar Code

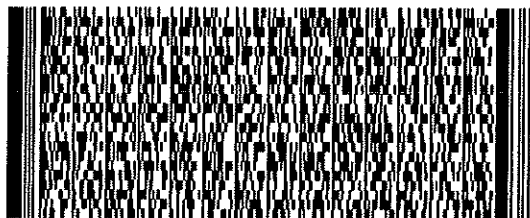


Ref # 80009966.0002.70004
 Invoice #
 PO # 80009966.0002.70004
 Dept #

FRI - 11 MAY A4
FIRST OVERNIGHT

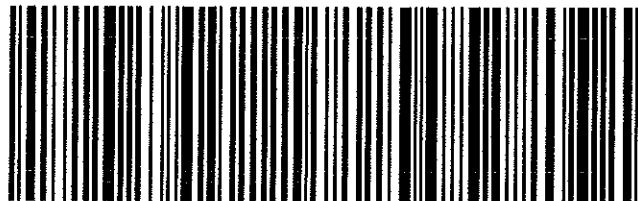
TRK# 7983 8221 0356

0201



E9 BTVA

05403
 VT-US
 BTV



512G361AA/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10771-2

SDG Number: PRR1282

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/14/2012 12:47 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/14/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	15

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1282 (200-10771-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 05/11/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 5.0 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10771-2
Sdg Number: PRR1282

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10771-2

Sdg Number: PRR1282

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10771-2
Sdg Number: PRR1282

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10771-4	PRR1WATCME-43	Water	05/10/2012 1100	05/11/2012 0920
200-10771-5	PRR1WAT-20-SP-101	Water	05/10/2012 1120	05/11/2012 0920

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10771-2

Sdg Number: PRR1282

General Chemistry

Client Sample ID: PRR1WATCME-43

Lab Sample ID: 200-10771-4

Date Sampled: 05/10/2012 1100

Client Matrix: Water

Date Received: 05/11/2012 0920

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	3.1		mg/L	1.9	1.9	1.0	SM 2540D
	Analysis Batch: 200-38518	Analysis Date: 05/11/2012 1111					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10771-2

Sdg Number: PRR1282

General Chemistry

Client Sample ID: PRR1WAT-20-SP-101

Lab Sample ID: 200-10771-5

Date Sampled: 05/10/2012 1120

Client Matrix: Water

Date Received: 05/11/2012 0920

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	25.1		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-38518		Analysis Date: 05/11/2012 1111					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10771-2

Sdg Number: PRR1282

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10771-2

Sdg Number: PRR1282

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-38518					
LCS 200-38518/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-38518/1	Method Blank	T	Water	SM 2540D	
200-10771-4	PRR1WATCME-43	T	Water	SM 2540D	
200-10771-5	PRR1WAT-20-SP-101	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10771-2
Sdg Number: PRR1282

Method Blank - Batch: 200-38518

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-38518/1	Analysis Batch:	200-38518	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/11/2012 1111	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-38518

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-38518/2	Analysis Batch:	200-38518	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/11/2012 1111	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	462.0	92	85 - 115	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10771-2

SDG Number: PRR1282

Login Number: 10771

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699011, 012
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.0°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
 Michael Pelenski
 ARCADIS
 117 Blanchard St
 Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 10MAY12
 ActWgt: 20.0 LB
 CAD: 103886297/NET3250

Dims: 18 X 14 X 16 IN

SHIP TO: (802) 660-1990

BILL SENDER

Kirk Young
 Test America
 30 Community Dr. Suite 11

S. Burlington, VT 05403

Delivery Address Bar Code

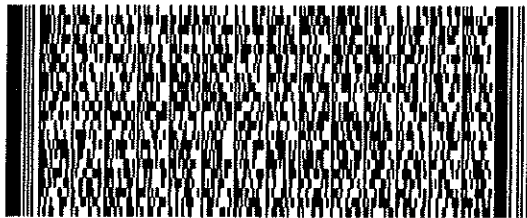


Ref # 80009966.0002.70004
 Invoice #
 PO # 80009966.0002.70004
 Dept #

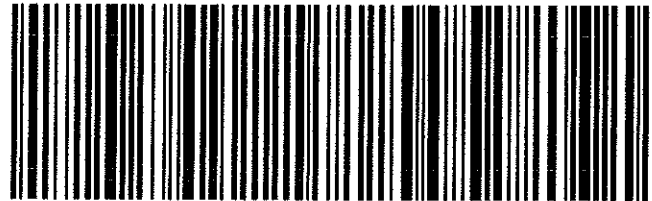
FRI - 11 MAY A4
 FIRST OVERNIGHT

TRK# 7983 8221 0356

0201

**E9 BTVA**

05403
 VT-US
 BTV



512G361AA/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10798-1

SDG Number: PRR1285

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/15/2012 12:26 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/15/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	15

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1285 (200-10798-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 05/14/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 4.6 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10798-1
Sdg Number: PRR1285

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10798-1
Sdg Number: PRR1285

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10798-1
Sdg Number: PRR1285

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10798-1	PRR1WATCME-44	Water	05/11/2012 0900	05/14/2012 0945
200-10798-2	PRR1WATCME-45	Water	05/12/2012 0900	05/14/2012 0945

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10798-1

Sdg Number: PRR1285

General Chemistry

Client Sample ID: PRR1WATCME-44

Lab Sample ID: 200-10798-1

Date Sampled: 05/11/2012 0900

Client Matrix: Water

Date Received: 05/14/2012 0945

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	5.2		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-38605		Analysis Date: 05/14/2012 1228					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10798-1

Sdg Number: PRR1285

General Chemistry

Client Sample ID: PRR1WATCME-45

Lab Sample ID: 200-10798-2

Date Sampled: 05/12/2012 0900

Client Matrix: Water

Date Received: 05/14/2012 0945

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	6.0		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-38605		Analysis Date: 05/14/2012 1228					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10798-1

Sdg Number: PRR1285

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10798-1

Sdg Number: PRR1285

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-38605					
LCS 200-38605/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-38605/1	Method Blank	T	Water	SM 2540D	
200-10798-1	PRR1WATCME-44	T	Water	SM 2540D	
200-10798-2	PRR1WATCME-45	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10798-1
Sdg Number: PRR1285

Method Blank - Batch: 200-38605

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-38605/1	Analysis Batch:	200-38605	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/14/2012 1228	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-38605

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-38605/2	Analysis Batch:	200-38605	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/14/2012 1228	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	468.0	94	85 - 115	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10798-1

SDG Number: PRR1285

Login Number: 10798

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699013,014
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6° C, IR GUN 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

FedEx USA Airbill
Express

839352136230

0200

FedEx Retrieval Copy

1 From Date 5/12/2012 Sender's FedEx Account Number 1129-13010-4

Sender's Name THOMAS O ROURKE Phone 315 439-2198

Company ARCADIS

Address 117 BLANCHARD ST

City NEWARK State NJ ZIP 07105

2 Your Internal Billing Reference BOB09966.0002.70004-1128

3 To Recipient's Name KIRK YOUNG Phone 802 660-1990

Company TEST AMERICA

Address 30 COMMUNITY DR. SUITE 11

City S. BURLINGTON State VT ZIP 05403



1a Express Package Service
 FedEx Priority Overnight FedEx Standard Overnight FedEx First Overnight

3 FedEx 2Day FedEx Express Saver

7 FedEx Home Freight FedEx 1Day Freight FedEx 1Day Freight

6 FedEx Envelope FedEx Pak Other

5 Special Handling
 SATURDAY DELIVERY HOLD Weekday at FedEx Location HOLD Saturday at FedEx Location

8 No Yes Fragile Dry Ice Cargo Aircraft Only

7 Payment Method Sender Recipient Third Party Credit Card Cash-On-Del

Total Packages 1 Total Weight 10

3 Reference Signature

446

Rev Date 12/01 Part #157812 WCSL 02

ANALYTICAL REPORT

Job Number: 200-10822-1

SDG Number: PRR1288

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Ryan J Hammond
Project Manager I
5/17/2012 2:39 PM

Designee for
Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/17/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	16
QC Results	17
Qc Association Summary	18
Surrogate Recovery Report	19
Qc Reports	21
Client Chain of Custody	22
Sample Receipt Checklist	23

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1288 (200-10822-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis.

Manual integration was employed in deriving certain of the analytical results.

Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1

Sdg Number: PRR1288

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1

Sdg Number: PRR1288

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1
Sdg Number: PRR1288

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10822-1	PRR1WATGACI-21-SP-105	Water	05/15/2012 1120	05/16/2012 0820
200-10822-2	PRR1WATGACE-21-SP-106	Water	05/15/2012 1115	05/16/2012 0820
200-10822-3	PRR1WATGACE-21-SP-109	Water	05/15/2012 1110	05/16/2012 0820
200-10822-6TB	TB05152012	Water	05/15/2012 0000	05/16/2012 0820
200-10822-8STOBL K	VHBLK01	Water	05/16/2012 0900	05/16/2012 0820

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1
Sdg Number: PRR1288

Client Sample ID: PRR1WATGACI-21-SP-105

Lab Sample ID: 200-10822-1
Client Matrix: Water

Date Sampled: 05/15/2012 1120
Date Received: 05/16/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38798	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdje15.d
Dilution:	115.8			Initial Weight/Volume:	25 mL
Analysis Date:	05/16/2012 1551			Final Weight/Volume:	25 mL
Prep Date:	05/16/2012 1551				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	580	U	580
Chlorobenzene	14000	E	58

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	91		65 - 131
Chloroethane-d5	97		71 - 131
1,1-Dichloroethene-d2	68		55 - 104
2-Butanone-d5	98		49 - 155
Chloroform-d	94		78 - 121
1,2-Dichloroethane-d4	102		78 - 129
Benzene-d6	97		77 - 124
1,2-Dichloropropane-d6	85		79 - 124
Toluene-d8	91		77 - 121
trans-1,3-Dichloropropene-d4	92		73 - 121
2-Hexanone-d5	103		28 - 135
1,1,2,2-Tetrachloroethane-d2	92		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1
Sdg Number: PRR1288

Client Sample ID: PRR1WATGACI-21-SP-105

Lab Sample ID: 200-10822-1
Client Matrix: Water

Date Sampled: 05/15/2012 1120
Date Received: 05/16/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38798	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdje14.d
Dilution:	814.8			Initial Weight/Volume:	25 mL
Analysis Date:	05/16/2012 1527	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/16/2012 1527				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	4100	U	4100
Chlorobenzene	12000	D	410

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	70		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	96		78 - 121
1,2-Dichloroethane-d4	106		78 - 129
Benzene-d6	98		77 - 124
1,2-Dichloropropane-d6	88		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	102		73 - 121
2-Hexanone-d5	107		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1
Sdg Number: PRR1288

Client Sample ID: PRR1WATGACE-21-SP-106

Lab Sample ID: 200-10822-2
Client Matrix: Water

Date Sampled: 05/15/2012 1115
Date Received: 05/16/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38798	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdje18.d
Dilution:	22			Initial Weight/Volume:	25 mL
Analysis Date:	05/16/2012 1704			Final Weight/Volume:	25 mL
Prep Date:	05/16/2012 1704				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	150		110
Chlorobenzene	2300	E	11

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	91		65 - 131
Chloroethane-d5	97		71 - 131
1,1-Dichloroethene-d2	67		55 - 104
2-Butanone-d5	111		49 - 155
Chloroform-d	104		78 - 121
1,2-Dichloroethane-d4	110		78 - 129
Benzene-d6	99		77 - 124
1,2-Dichloropropane-d6	87		79 - 124
Toluene-d8	97		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121
2-Hexanone-d5	110		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	104		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1

Sdg Number: PRR1288

Client Sample ID: PRR1WATGACE-21-SP-106

Lab Sample ID: 200-10822-2

Date Sampled: 05/15/2012 1115

Client Matrix: Water

Date Received: 05/16/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38798	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdje17.d
Dilution:	151.7			Initial Weight/Volume:	25 mL
Analysis Date:	05/16/2012 1640	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/16/2012 1640				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	130	J D	760
Chlorobenzene	2300	D	76

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	86		65 - 131
Chloroethane-d5	95		71 - 131
1,1-Dichloroethene-d2	69		55 - 104
2-Butanone-d5	101		49 - 155
Chloroform-d	93		78 - 121
1,2-Dichloroethane-d4	99		78 - 129
Benzene-d6	96		77 - 124
1,2-Dichloropropane-d6	85		79 - 124
Toluene-d8	94		77 - 121
trans-1,3-Dichloropropene-d4	95		73 - 121
2-Hexanone-d5	100		28 - 135
1,1,2,2-Tetrachloroethane-d2	88		73 - 125
1,2-Dichlorobenzene-d4	102		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1

Sdg Number: PRR1288

Client Sample ID: PRR1WATGACE-21-SP-109

Lab Sample ID: 200-10822-3

Date Sampled: 05/15/2012 1110

Client Matrix: Water

Date Received: 05/16/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-38798	Instrument ID: J.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: jdje21.d
Dilution: 19.1		Initial Weight/Volume: 25 mL
Analysis Date: 05/16/2012 1817		Final Weight/Volume: 25 mL
Prep Date: 05/16/2012 1817		

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	51	J	96
Chlorobenzene	2100	E	9.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	95		65 - 131
Chloroethane-d5	101		71 - 131
1,1-Dichloroethene-d2	73		55 - 104
2-Butanone-d5	113		49 - 155
Chloroform-d	108		78 - 121
1,2-Dichloroethane-d4	112		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	89		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121
2-Hexanone-d5	117		28 - 135
1,1,2,2-Tetrachloroethane-d2	101		73 - 125
1,2-Dichlorobenzene-d4	108		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1

Sdg Number: PRR1288

Client Sample ID: PRR1WATGACE-21-SP-109

Lab Sample ID: 200-10822-3

Date Sampled: 05/15/2012 1110

Client Matrix: Water

Date Received: 05/16/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38798	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdje20.d
Dilution:	137.5			Initial Weight/Volume:	25 mL
Analysis Date:	05/16/2012 1753	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/16/2012 1753				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	690	U	690
Chlorobenzene	1900	D	69

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	93		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	72		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	104		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121
2-Hexanone-d5	108		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1
Sdg Number: PRR1288

Client Sample ID: TB05152012

Lab Sample ID: 200-10822-6TB
Client Matrix: Water

Date Sampled: 05/15/2012 0000
Date Received: 05/16/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38798	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdje23.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/16/2012 1906			Final Weight/Volume:	25 mL
Prep Date:	05/16/2012 1906				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	90		65 - 131
Chloroethane-d5	97		71 - 131
1,1-Dichloroethene-d2	70		55 - 104
2-Butanone-d5	108		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	94		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	107		73 - 121
2-Hexanone-d5	112		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1
Sdg Number: PRR1288

Client Sample ID: VHBLK01

Lab Sample ID: 200-10822-8STOBLK
Client Matrix: Water

Date Sampled: 05/16/2012 0900
Date Received: 05/16/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38798	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdje24.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/16/2012 1930			Final Weight/Volume:	25 mL
Prep Date:	05/16/2012 1930				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	92		65 - 131
Chloroethane-d5	100		71 - 131
1,1-Dichloroethene-d2	73		55 - 104
2-Butanone-d5	107		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	110		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	89		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121
2-Hexanone-d5	109		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1

Sdg Number: PRR1288

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1

Sdg Number: PRR1288

QC Association Summary

Lab Sample ID	Client Sample ID	Report			Prep Batch
		Basis	Client Matrix	Method	
GC/MS VOA					
Analysis Batch:200-38798					
MB 200-38798/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10822-1	PRR1WATGACI-21-SP-105	T	Water	SOM01.2/VOA_T	
200-10822-1DL	PRR1WATGACI-21-SP-105	T	Water	SOM01.2/VOA_T	
200-10822-2	PRR1WATGACE-21-SP-106	T	Water	SOM01.2/VOA_T	
200-10822-2DL	PRR1WATGACE-21-SP-106	T	Water	SOM01.2/VOA_T	
200-10822-3	PRR1WATGACE-21-SP-109	T	Water	SOM01.2/VOA_T	
200-10822-3DL	PRR1WATGACE-21-SP-109	T	Water	SOM01.2/VOA_T	
200-10822-6TB	TB05152012	T	Water	SOM01.2/VOA_T	
200-10822-8STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1

Sdg Number: PRR1288

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10822-1 DL	PRR1WATGACI-21-S P-105 DL	94	98	70	103	96	106	98	88
200-10822-1	PRR1WATGACI-21-S P-105	91	97	68	98	94	102	97	85
200-10822-2 DL	PRR1WATGACE-21- SP-106 DL	86	95	69	101	93	99	96	85
200-10822-2	PRR1WATGACE-21- SP-106	91	97	67	111	104	110	99	87
200-10822-3 DL	PRR1WATGACE-21- SP-109 DL	93	98	72	105	98	105	104	91
200-10822-3	PRR1WATGACE-21- SP-109	95	101	73	113	108	112	102	89
200-10822-6	TB05152012	90	97	70	108	98	104	106	94
200-10822-8	VHBLK01	92	100	73	107	98	110	102	89
MB 200-38798/4		88	92	70	95	93	100	106	86

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1

Sdg Number: PRR1288

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10822-1 DL	PRR1WATGACI-21-S P-105 DL	98	102	107	94	101
200-10822-1	PRR1WATGACI-21-S P-105	91	92	103	92	101
200-10822-2 DL	PRR1WATGACE-21- SP-106 DL	94	95	100	88	102
200-10822-2	PRR1WATGACE-21- SP-106	97	103	110	98	104
200-10822-3 DL	PRR1WATGACE-21- SP-109 DL	102	103	108	99	101
200-10822-3	PRR1WATGACE-21- SP-109	100	104	117	101	108
200-10822-6	TB05152012	103	107	112	99	105
200-10822-8	VHBLK01	99	103	109	98	106
MB 200-38798/4		102	100	106	90	90

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1

Sdg Number: PRR1288

Method Blank - Batch: 200-38798

Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR

Lab Sample ID: MB 200-38798/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/16/2012 1110
Prep Date: 05/16/2012 1110
Leach Date: N/A

Analysis Batch: 200-38798
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdje04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	88	65 - 131
Chloroethane-d5	92	71 - 131
1,1-Dichloroethene-d2	70	55 - 104
2-Butanone-d5	95	49 - 155
Chloroform-d	93	78 - 121
1,2-Dichloroethane-d4	100	78 - 129
Benzene-d6	106	77 - 124
1,2-Dichloropropane-d6	86	79 - 124
Toluene-d8	102	77 - 121
trans-1,3-Dichloropropene-d4	100	73 - 121
2-Hexanone-d5	106	28 - 135
1,1,2,2-Tetrachloroethane-d2	90	73 - 125
1,2-Dichlorobenzene-d4	90	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

PROJ. NO.		PROJECT NAME		SDG NUMBER		COC Number																		
B0009966.0002.70004		Tierra Phase I Removal		PRR1288																				
SAMPLERS: CHES		Requested Analyses		Requested Analyses		Requested Analyses																		
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATGACI-21-SP-105	5/15/2012	11:20	water	Grab	3	X																		
PRR1WATGACE-21-SP-106	5/15/2012	11:15	water	Grab	3	X																		
PRR1WATGACE-21-SP-109	5/15/2012	11:10	water	Grab	3	X																		
PRR1WATCME-47	5/15/2012	11:05	water	Grab	1	X																		
PRR1WAT-21-SP-101	5/15/2012	11:25	water	Grab	1	X																		
TB05152012	5/15/2012		water	Grab	3	X																		
PRR1WATCME-46	5/14/2012	10:02	water	Grab	1	X																		
Special Instructions/Comments: <input type="checkbox"/> Special QA/QC Instructions																								
Requested Analyses																								
1 2-Buonone, Chlorobenzene																								
2 TSS																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								
15																								
16																								
17																								

Laboratory Information and Receipt		Sample Receipt:	
Relinquished by:	DATE	TIME	DATE
Received by: <i>ASB</i>	5/15/12	12:50	Received by: _____
Relinquished by: <i>WAT</i>	05/15/12	1500	Received by: _____
Relinquished by: _____	DATE	TIME	Received by: _____

Shipping Tracking #		Specify Turnaround Requirements: 24 hr TAT	
Relinquished by:	DATE	TIME	DATE
Received by: <i>ASB</i>	5/15/12	12:50	Received by: _____
Relinquished by: <i>WAT</i>	05/15/12	1500	Received by: _____
Relinquished by: _____	DATE	TIME	Received by: _____

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10822-1

SDG Number: PRR1288

Login Number: 10822

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699015
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4°C IR GUN ID 154/CF=-0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St.
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 15MAY12
ActWgt: 20.0 LB
CAD: 103886297/NET3250

Dims: 12 X 10 X 12 IN

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Delivery Address Bar Code

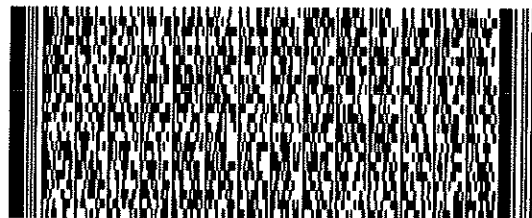


Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

WED - 16 MAY A4
FIRST OVERNIGHT

TRK# 7984 0027 3662

0201



E9 BTVA

05403
VT-US
BTV



512G361A1A/278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10822-2

SDG Number: PRR1288

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Ryan J Hammond
Project Manager I
5/17/2012 2:41 PM

Designee for
Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/17/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	11
QC Results	12
Qc Association Summary	13
Qc Reports	14
Client Chain of Custody	15
Sample Receipt Checklist	16

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1288 (200-10822-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis.

Manual integration was employed in deriving certain of the analytical results.

Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10822-2
Sdg Number: PRR1288

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10822-2

Sdg Number: PRR1288

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10822-2
Sdg Number: PRR1288

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10822-4	PRR1WATCME-47	Water	05/15/2012 1105	05/16/2012 0820
200-10822-5	PRR1WAT-21-SP-101	Water	05/15/2012 1125	05/16/2012 0820
200-10822-7	PRR1WATCME-46	Water	05/14/2012 1002	05/16/2012 0820

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10822-2

Sdg Number: PRR1288

General Chemistry

Client Sample ID: PRR1WATCME-47

Lab Sample ID: 200-10822-4

Date Sampled: 05/15/2012 1105

Client Matrix: Water

Date Received: 05/16/2012 0820

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	5.4		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-38737		Analysis Date: 05/16/2012 1038					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10822-2

Sdg Number: PRR1288

General Chemistry

Client Sample ID: PRR1WAT-21-SP-101

Lab Sample ID: 200-10822-5

Date Sampled: 05/15/2012 1125

Client Matrix: Water

Date Received: 05/16/2012 0820

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	28.6		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-38737		Analysis Date: 05/16/2012 1038					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10822-2

Sdg Number: PRR1288

General Chemistry

Client Sample ID: PRR1WATCME-46

Lab Sample ID: 200-10822-7

Date Sampled: 05/14/2012 1002

Client Matrix: Water

Date Received: 05/16/2012 0820

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	10.2		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-38737		Analysis Date: 05/16/2012 1038					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10822-2

Sdg Number: PRR1288

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10822-2

Sdg Number: PRR1288

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-38737					
LCS 200-38737/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-38737/1	Method Blank	T	Water	SM 2540D	
200-10822-4	PRR1WATCME-47	T	Water	SM 2540D	
200-10822-5	PRR1WAT-21-SP-101	T	Water	SM 2540D	
200-10822-7	PRR1WATCME-46	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10822-2
Sdg Number: PRR1288

Method Blank - Batch: 200-38737

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-38737/1	Analysis Batch:	200-38737	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/16/2012 1038	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-38737

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-38737/2	Analysis Batch:	200-38737	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/16/2012 1038	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	466.0	93	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

PROJ. NO.		PROJECT NAME		SDG NUMBER		COC Number																		
B0009966.0002.70004		Tierra Phase I Removal		PRR1288																				
SAMPLERS: CHES		Requested Analyses		Requested Analyses		Requested Analyses																		
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATGACI-21-SP-105	5/15/2012	11:20	water	Grab	3	X																		
PRR1WATGACE-21-SP-106	5/15/2012	11:15	water	Grab	3	X																		
PRR1WATGACE-21-SP-109	5/15/2012	11:10	water	Grab	3	X																		
PRR1WATCME-47	5/15/2012	11:05	water	Grab	1	X																		
PRR1WAT-21-SP-101	5/15/2012	11:25	water	Grab	1	X																		
TB05152012	5/15/2012		water	Grab	3	X																		
PRR1WATCME-46	5/14/2012	10:02	water	Grab	1	X																		
Special Instructions/Comments: <input type="checkbox"/> Special QA/QC Instructions																								
Requested Analyses																								
1 2-Buonone, Chlorobenzene																								
2 TSS																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								
15																								
16																								
17																								

Laboratory Information and Receipt	
Lab Name: TestAmerica -Burlington, VT	Sample Receipt:
Shipping Tracking #	Condition/Cooler Temp:
Specify Turnaround Requirements: 24 hr TAT	
Relinquished by: <i>[Signature]</i>	Received by: <i>[Signature]</i>
DATE: 5/15/12	DATE: 5/15/12
TIME: 12:50	TIME: 12:50
Relinquished by: <i>[Signature]</i>	Received by: <i>[Signature]</i>
DATE: 05/15/12	DATE: 05/15/12
TIME: 1500	TIME: 1500
Relinquished by: <i>[Signature]</i>	Received by: <i>[Signature]</i>
DATE: _____	DATE: _____
TIME: _____	TIME: _____

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10822-2

SDG Number: PRR1288

Login Number: 10822

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699015
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4°C IR GUN ID 154/CF=-0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St.
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 15MAY12
ActWgt: 20.0 LB
CAD: 103886297/NET3250

Dims: 12 X 10 X 12 IN

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Delivery Address Bar Code

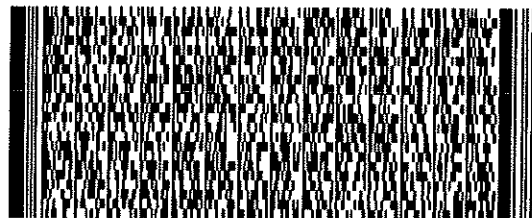


Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

WED - 16 MAY A4
FIRST OVERNIGHT

TRK# 7984 0027 3662

0201



E9 BTVA

05403
VT-US
BTV



512G361A1A/278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10832-1

SDG Number: PRR1290

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/24/2012 4:00 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/24/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	24
QC Results	25
Qc Association Summary	26
Surrogate Recovery Report	29
Qc Reports	35
Client Chain of Custody	50
Sample Receipt Checklist	51

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1290 (200-10832-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis.

Manual integration was employed in deriving certain of the analytical results.

Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR
Semivolatiles	TAL BUR	SOM01.2 SOM01.2/SV	
Extraction of Water Samples	TAL BUR		SOM01.2 CONT
Aroclors	TAL BUR	SOM01.2 SOM01.2/PCB	
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Sulfuric Acid/Permanganate Cleanup	TAL BUR		SOM01.2 SOM01.2/SO4CU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Extraction of Low level Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Low Level CLP Extraction of Pesticides	TAL BUR		SOM01.2 SOM01.2LL_Pest
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
ISM01.2 Mercury	TAL BUR	ISM01.2 ISM01.2/HG	
7470A	TAL BUR		SW846 7470A
ISM01.2 Metals (ICPMS)	TAL BUR	ISM01.2 ISM01.2/ICPMS	
200.8	TAL BUR		EPA 200.8
ISM01.2 Cyanide	TAL BUR	ISM01.2 ISM01.2/CN	
Midi-distillation	TAL BUR		ISM01.1 Midi-Distillati

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

ISM01.1 = U.S. Environmental Protection Agency

ISM01.2 = U.S. Environmental Protection Agency

SOM01.2 = U.S. Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP
SOM01.2 SOM01.2/SV	Bissonette, Donald J	DJB
SOM01.2 SOM01.2/PCB	Duncan, Stacey L	SLD
SOM01.2 SOM01.2/Pest	Lambert, Kelly T	KTL
ISM01.2 ISM01.2/HG	Pham, Vu T	VTP
ISM01.2 ISM01.2/ICPMS	Lyons, Benjamin	BL
ISM01.2 ISM01.2/CN	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10832-1	PRR1WATCME-48	Water	05/16/2012 0930	05/17/2012 0805
200-10832-2TB	TB05162012	Water	05/16/2012 0930	05/17/2012 0805
200-10832-3STOBL K	VHBLK01	Water	05/17/2012 0945	05/17/2012 0805

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1

Date Sampled: 05/16/2012 0930

Client Matrix: Water

Date Received: 05/17/2012 0805

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38951	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dina15.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/18/2012 1647			Final Weight/Volume:	25 mL
Prep Date:	05/18/2012 1647				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.30	J	1.0
Vinyl chloride	1.0	U	1.0
Bromomethane	1.0	U	1.0
Chloroethane	0.10	J	1.0
Acrolein	20	U	20
1,1-Dichloroethene	1.0	U	1.0
Methylene chloride	30	B	1.0
Acrylonitrile	20	U	20
trans-1,2-Dichloroethene	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
2-Butanone	12		10
Chloroform	1.9		1.0
1,1,1-Trichloroethane	1.0	U	1.0
Carbon tetrachloride	0.033	J B	1.0
Benzene	0.062	J	1.0
1,2-Dichloroethane	1.0	U	1.0
Trichloroethene	1.0	U	1.0
1,2-Dichloropropane	1.0	U	1.0
Bromodichloromethane	1.0	U	1.0
cis-1,3-Dichloropropene	1.0	U	1.0
Toluene	1.0	U	1.0
trans-1,3-Dichloropropene	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0
Tetrachloroethene	1.0	U	1.0
Dibromochloromethane	1.0	U	1.0
Chlorobenzene	0.24	J	1.0
Ethylbenzene	1.0	U	1.0
Bromoform	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
1,2,3-Trichlorobenzene	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	104		65 - 131
Chloroethane-d5	108		71 - 131
1,1-Dichloroethene-d2	87		55 - 104
2-Butanone-d5	118		49 - 155
Chloroform-d	111		78 - 121
1,2-Dichloroethane-d4	118		78 - 129
Benzene-d6	118		77 - 124
1,2-Dichloropropane-d6	119		79 - 124
Toluene-d8	119		77 - 121
trans-1,3-Dichloropropene-d4	120		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1
Client Matrix: Water

Date Sampled: 05/16/2012 0930
Date Received: 05/17/2012 0805

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38951	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dina15.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/18/2012 1647			Final Weight/Volume:	25 mL
Prep Date:	05/18/2012 1647				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	127		28 - 135
1,1,2,2-Tetrachloroethane-d2	112		73 - 125
1,2-Dichlorobenzene-d4	130		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Client Sample ID: TB05162012

Lab Sample ID: 200-10832-2TB

Date Sampled: 05/16/2012 0930

Client Matrix: Water

Date Received: 05/17/2012 0805

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38951	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dina17.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/18/2012 1735			Final Weight/Volume:	25 mL
Prep Date:	05/18/2012 1735				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.086	J B	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.018	J B	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	81		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	108		77 - 124
1,2-Dichloropropane-d6	107		79 - 124
Toluene-d8	108		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Client Sample ID: TB05162012

Lab Sample ID: 200-10832-2TB
Client Matrix: Water

Date Sampled: 05/16/2012 0930
Date Received: 05/17/2012 0805

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38951	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dina17.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/18/2012 1735			Final Weight/Volume:	25 mL
Prep Date:	05/18/2012 1735				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	107		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	120		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Client Sample ID: VHBLK01

Lab Sample ID: 200-10832-3STOBLK

Date Sampled: 05/17/2012 0945

Client Matrix: Water

Date Received: 05/17/2012 0805

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38951	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dina18.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/18/2012 1759			Final Weight/Volume:	25 mL
Prep Date:	05/18/2012 1759				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.017	J B	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	93		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	104		77 - 124
1,2-Dichloropropane-d6	105		79 - 124
Toluene-d8	104		77 - 121
trans-1,3-Dichloropropene-d4	102		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Client Sample ID: VHBLK01

Lab Sample ID: 200-10832-3STOBLK
Client Matrix: Water

Date Sampled: 05/17/2012 0945
Date Received: 05/17/2012 0805

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-38951	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dina18.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/18/2012 1759			Final Weight/Volume:	25 mL
Prep Date:	05/18/2012 1759				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	105		28 - 135
1,1,2,2-Tetrachloroethane-d2	97		73 - 125
1,2-Dichlorobenzene-d4	119		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1

Date Sampled: 05/16/2012 0930

Client Matrix: Water

Date Received: 05/17/2012 0805

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-39108	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-38855	Lab File ID:	rjzvp10.d
Dilution:	1.0			Initial Weight/Volume:	990 mL
Analysis Date:	05/23/2012 1005			Final Weight/Volume:	1000 uL
Prep Date:	05/17/2012 2215			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	RL
N-Nitrosodimethylamine	10	U	10
Phenol	5.1	U	5.1
Bis(2-chloroethyl)ether	5.1	U	5.1
2-Chlorophenol	5.1	U	5.1
2,2'-Oxybis(1-chloropropane)	5.1	U	5.1
Hexachloroethane	5.1	U	5.1
Nitrobenzene	5.1	U	5.1
Isophorone	5.1	U	5.1
2-Nitrophenol	5.1	U	5.1
2,4-Dimethylphenol	5.1	U	5.1
2,4-Dichlorophenol	5.1	U	5.1
Naphthalene	5.1	U	5.1
Hexachlorobutadiene	5.1	U	5.1
Hexachlorocyclopentadiene	5.1	U	5.1
2,4,6-Trichlorophenol	5.1	U	5.1
2,4,5-Trichlorophenol	5.1	U	5.1
Dimethylphthalate	5.1	U	5.1
2,6-Dinitrotoluene	5.1	U	5.1
2,4-Dinitrophenol	10	U	10
4-Nitrophenol	10	U	10
2,4-Dinitrotoluene	5.1	U	5.1
Diethylphthalate	5.1	U	5.1
Fluorene	5.1	U	5.1
4,6-Dinitro-2-methylphenol	10	U	10
N-Nitrosodiphenylamine	5.1	U	5.1
Hexachlorobenzene	5.1	U	5.1
Pentachlorophenol	10	U	10
Phenanthrene	5.1	U	5.1
Anthracene	5.1	U	5.1
Di-n-butylphthalate	5.1	U	5.1
Fluoranthene	5.1	U	5.1
Benzidine	10	U	10
Pyrene	5.1	U	5.1
Butylbenzylphthalate	5.1	U	5.1
3,3'-Dichlorobenzidine	5.1	U	5.1
Benzo(a)anthracene	5.1	U	5.1
Chrysene	5.1	U	5.1
Bis(2-ethylhexyl)phthalate	5.1	U	5.1
Benzo(b)fluoranthene	5.1	U	5.1
Benzo(k)fluoranthene	5.1	U	5.1
Benzo(a)pyrene	5.1	U	5.1
Indeno(1,2,3-cd)pyrene	5.1	U	5.1
Dibenzo(a,h)anthracene	5.1	U	5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	55		39 - 106

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1

Date Sampled: 05/16/2012 0930

Client Matrix: Water

Date Received: 05/17/2012 0805

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-39108	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-38855	Lab File ID:	rjzvp10.d
Dilution:	1.0			Initial Weight/Volume:	990 mL
Analysis Date:	05/23/2012 1005			Final Weight/Volume:	1000 uL
Prep Date:	05/17/2012 2215			Injection Volume:	2 uL

Surrogate	%Rec	Qualifier	Acceptance Limits
Bis(2-chloroethyl)ether-d8	60		40 - 105
2-Chlorophenol-d4	58		41 - 106
4-Methylphenol-d8	61		25 - 111
Nitrobenzene-d5	78		43 - 108
2-Nitrophenol-d4	75		40 - 108
2,4-Dichlorophenol-d3	66		37 - 105
4-Chloroaniline-d4	12		1 - 145
Dimethylphthalate-d6	73		47 - 114
Acenaphthylene-d8	76		41 - 107
4-Nitrophenol-d4	81		33 - 116
Fluorene-d10	68		42 - 111
4,6-Dinitro-2-methylphenol-d2	62		22 - 104
Anthracene-d10	74		44 - 110
Pyrene-d10	64		52 - 119
Benzo(a)pyrene-d12	75		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1
Client Matrix: Water

Date Sampled: 05/16/2012 0930
Date Received: 05/17/2012 0805

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-39192	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-38856	Initial Weight/Volume:	990 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/23/2012 1742			Injection Volume:	1 uL
Prep Date:	05/17/2012 2320			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Aroclor-1016	1.0	U	1.0
Aroclor-1221	1.0	U	1.0
Aroclor-1232	1.0	U	1.0
Aroclor-1242	1.0	U	1.0
Aroclor-1248	1.0	U	1.0
Aroclor-1254	1.0	U	1.0
Aroclor-1260	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	78		30 - 150
Decachlorobiphenyl	62		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1
Client Matrix: Water

Date Sampled: 05/16/2012 0930
Date Received: 05/17/2012 0805

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-39192	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-38856	Initial Weight/Volume:	990 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/23/2012 1742			Injection Volume:	1 uL
Prep Date:	05/17/2012 2320			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	83		30 - 150
Decachlorobiphenyl	68		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1

Date Sampled: 05/16/2012 0930

Client Matrix: Water

Date Received: 05/17/2012 0805

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest	Analysis Batch: 200-39171	Instrument ID: 5005.i
Prep Method: SEPF	Prep Batch: 200-38857	Initial Weight/Volume: 990 mL
Dilution: 1.0		Final Weight/Volume: 1000 uL
Analysis Date: 05/23/2012 1711		Injection Volume: 1 uL
Prep Date: 05/17/2012 2257		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.000063	J B P	0.0051
beta-BHC	0.00074	J B P	0.0051
delta-BHC	0.0087	B P	0.0051
gamma-BHC (Lindane)	0.000089	J P	0.0051
Heptachlor	0.000048	J P	0.0051
Aldrin	0.00017	J B P	0.0051
Heptachlor epoxide	0.00022	J P	0.0051
Endosulfan I	0.00019	J P	0.0051
Dieldrin	0.010	U	0.010
4,4'-DDE	0.0076	J	0.010
Endrin	0.00037	J P	0.010
Endosulfan II	0.0032	J	0.010
4,4'-DDD	0.020		0.010
Endosulfan sulfate	0.00013	J P	0.010
4,4'-DDT	0.062		0.010
Endrin aldehyde	0.00038	J B P	0.010
alpha-Chlordane	0.00033	J P	0.0051
gamma-Chlordane	0.00023	J P	0.0051
Toxaphene	0.51	U	0.51

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	58		30 - 150
Decachlorobiphenyl	47		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1
Client Matrix: Water

Date Sampled: 05/16/2012 0930
Date Received: 05/17/2012 0805

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-39171	Instrument ID:	5005.i
Prep Method:	SEPF	Prep Batch:	200-38857	Initial Weight/Volume:	990 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	05/23/2012 1711			Injection Volume:	1 uL
Prep Date:	05/17/2012 2257			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	60		30 - 150
Decachlorobiphenyl	50		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1
Client Matrix: Water

Date Sampled: 05/16/2012 0930
Date Received: 05/17/2012 0805

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-39199	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-38857	Initial Weight/Volume:	990 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	05/23/2012 2239			Injection Volume:	1 uL
Prep Date:	05/17/2012 2257			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	0.0017	J P	0.010
2,4'-DDT	0.013		0.010
2,4'-DDD	0.0071	J P	0.010

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	56		30 - 150
Decachlorobiphenyl	50		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1

Date Sampled: 05/16/2012 0930

Client Matrix: Water

Date Received: 05/17/2012 0805

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-39199	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-38857	Initial Weight/Volume:	990 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	05/23/2012 2239			Injection Volume:	1 uL
Prep Date:	05/17/2012 2257			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	60		30 - 150
Decachlorobiphenyl	51		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1

Date Sampled: 05/16/2012 0930

Client Matrix: Water

Date Received: 05/17/2012 0805

ISM01.2/HG ISM01.2 Mercury

Analysis Method:	ISM01.2/HG	Analysis Batch:	200-38931	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-38925	Lab File ID:	051812BB.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	05/18/2012 1615			Final Weight/Volume:	50 mL
Prep Date:	05/18/2012 1100				

Analyte	Result (ug/L)	Qualifier	MDLE	RL
Mercury	0.20	U	0.084	0.20

ISM01.2/ICPMS ISM01.2 Metals (ICPMS)

Analysis Method:	ISM01.2/ICPMS	Analysis Batch:	200-39088	Instrument ID:	METICPMS2
Prep Method:	200.8	Prep Batch:	200-38912	Lab File ID:	052212-04ISM.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	05/22/2012 1520			Final Weight/Volume:	100 mL
Prep Date:	05/18/2012 1200				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	14.7	E	0.15	2.0
Arsenic	4.6		0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	1.2	J	0.21	2.0
Copper	3.4		0.60	2.0
Lead	1.2		0.10	1.0
Nickel	14.2		0.14	1.0
Selenium	4.2	J	0.15	5.0
Silver	1.0	U	0.028	1.0
Zinc	34.5	*	0.57	2.0

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

General Chemistry

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1

Date Sampled: 05/16/2012 0930

Client Matrix: Water

Date Received: 05/17/2012 0805

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide	3.4	J	ug/L	1.0	10.0	1.0	ISM01.2/CN
	Analysis Batch: 200-39059	Analysis Date: 05/22/2012 1337					
	Prep Batch: 200-39044	Prep Date: 05/22/2012 1100					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Lab Section	Qualifier	Description
GC/MS VOA	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	B	The analyte was found in an associated blank, as well as in the sample.
GC/MS Semi VOA	U	Analyzed for but not detected.
GC Semi VOA	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	P	The % Difference between columns is greater than 25%.
	B	The analyte was found in an associated blank, as well as in the sample.
Metals	*	Duplicate analysis not within control limits.
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL
	E	The reported value is estimated because of the presence of interference based on serial dilution analysis.
General Chemistry	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-38951					
MB 200-38951/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10832-1	PRR1WATCME-48	T	Water	SOM01.2/VOA_T	
200-10832-2TB	TB05162012	T	Water	SOM01.2/VOA_T	
200-10832-3STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

GC/MS Semi VOA

Prep Batch: 200-38855					
MB 200-38855/1-A	Method Blank	T	Water	CONT	
200-10832-1	PRR1WATCME-48	T	Water	CONT	
Analysis Batch:200-39108					
MB 200-38855/1-A	Method Blank	T	Water	SOM01.2/SV	200-38855
200-10832-1	PRR1WATCME-48	T	Water	SOM01.2/SV	200-38855

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC Semi VOA					
Prep Batch: 200-38856					
LCS 200-38856/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-38856/1-C	Method Blank	T	Water	SEPF	
200-10832-1	PRR1WATCME-48	T	Water	SEPF	
Prep Batch: 200-38857					
LCS 200-38857/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-38857/1-C	Method Blank	T	Water	SEPF	
LCS 200-38857/3-C	Lab Control Sample	T	Water	SOM01.2LL_Pest	
MB 200-38857/1-C	Method Blank	T	Water	SOM01.2LL_Pest	
200-10832-1	PRR1WATCME-48	T	Water	SEPF	
200-10832-1	PRR1WATCME-48	T	Water	SOM01.2LL_Pest	
Analysis Batch:200-39171					
LCS 200-38857/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-38857
MB 200-38857/1-C	Method Blank	T	Water	SOM01.2/Pest	200-38857
200-10832-1	PRR1WATCME-48	T	Water	SOM01.2/Pest	200-38857
Analysis Batch:200-39192					
LCS 200-38856/2-C	Lab Control Sample	T	Water	SOM01.2/PCB	200-38856
MB 200-38856/1-C	Method Blank	T	Water	SOM01.2/PCB	200-38856
200-10832-1	PRR1WATCME-48	T	Water	SOM01.2/PCB	200-38856
Analysis Batch:200-39199					
LCS 200-38857/3-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-38857
MB 200-38857/1-C	Method Blank	T	Water	SOM01.2/Pest	200-38857
200-10832-1	PRR1WATCME-48	T	Water	SOM01.2/Pest	200-38857

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-38912					
LCS 200-38912/2-A	Lab Control Sample	T	Water	200.8	
MB 200-38912/1-A	Method Blank	T	Water	200.8	
200-10832-1	PRR1WATCME-48	T	Water	200.8	
200-10832-1DU	Duplicate	T	Water	200.8	
200-10832-1MS	Matrix Spike	T	Water	200.8	
Prep Batch: 200-38925					
MB 200-38925/11-A	Method Blank	T	Water	7470A	
200-10832-1	PRR1WATCME-48	T	Water	7470A	
Analysis Batch:200-38931					
MB 200-38925/11-A	Method Blank	T	Water	ISM01.2/HG	200-38925
200-10832-1	PRR1WATCME-48	T	Water	ISM01.2/HG	200-38925
Analysis Batch:200-39088					
LCS 200-38912/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-38912
MB 200-38912/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-38912
200-10832-1	PRR1WATCME-48	T	Water	ISM01.2/ICPMS	200-38912
200-10832-1DU	Duplicate	T	Water	ISM01.2/ICPMS	200-38912
200-10832-1MS	Matrix Spike	T	Water	ISM01.2/ICPMS	200-38912
Report Basis					
T = Total					
General Chemistry					
Prep Batch: 200-39044					
MB 200-39044/11-A	Method Blank	T	Water	Midi-Distillati	
200-10832-1	PRR1WATCME-48	T	Water	Midi-Distillati	
Analysis Batch:200-39059					
MB 200-39044/11-A	Method Blank	T	Water	ISM01.2/CN	200-39044
200-10832-1	PRR1WATCME-48	T	Water	ISM01.2/CN	200-39044
Report Basis					
T = Total					

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10832-1	PRR1WATCME-48	104	108	87	118	111	118	118	119
200-10832-2	TB05162012	97	102	81	103	102	107	108	107
200-10832-3	VHBLK01	93	98	78	103	99	104	104	105
MB 200-38951/4		95	97	79	115	103	111	108	112

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10832-1	PRR1WATCME-48	119	120	127	112	130
200-10832-2	TB05162012	108	103	107	99	120
200-10832-3	VHBLK01	104	102	105	97	119
MB 200-38951/4		109	114	121	106	118

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	PHL %Rec	BCE %Rec	2CP %Rec	4MP %Rec	NBZ %Rec	2NP %Rec	DCP %Rec	4CA %Rec
200-10832-1	PRR1WATCME-48	55	60	58	61	78	75	66	12
MB 200-38855/1-A		64	70	66	71	78	72	66	71

Surrogate	Acceptance Limits
PHL = Phenol-d5	39-106
BCE = Bis(2-chloroethyl)ether-d8	40-105
2CP = 2-Chlorophenol-d4	41-106
4MP = 4-Methylphenol-d8	25-111
NBZ = Nitrobenzene-d5	43-108
2NP = 2-Nitrophenol-d4	40-108
DCP = 2,4-Dichlorophenol-d3	37-105
4CA = 4-Chloroaniline-d4	1-145

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	DMP %Rec	ACY %Rec	4NP %Rec	FLR %Rec	NMP %Rec	ANC %Rec	PYR %Rec	BAP %Rec
200-10832-1	PRR1WATCME-48	73	76	81	68	62	74	64	75
MB 200-38855/1-A		75	81	54	67	35	82	67	82

Surrogate	Acceptance Limits
DMP = Dimethylphthalate-d6	47-114
ACY = Acenaphthylene-d8	41-107
4NP = 4-Nitrophenol-d4	33-116
FLR = Fluorene-d10	42-111
NMP = 4,6-Dinitro-2-methylphenol-d2	22-104
ANC = Anthracene-d10	44-110
PYR = Pyrene-d10	52-119
BAP = Benzo(a)pyrene-d12	32-121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Surrogate Recovery Report

SOM01.2/PCB Aroclors

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10832-1	PRR1WATCME-48	83	78	68	62
MB 200-38856/1-C		98	89	92	84
LCS 200-38856/2-C		78	72	82	76

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Surrogate Recovery Report

SOM01.2/Pest Pesticides

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10832-1	PRR1WATCME-48	56	60	50	51
200-10832-1	PRR1WATCME-48	58	60	47	50
MB 200-38857/1-C		74	82	94	95
MB 200-38857/1-C		78	83	91	95
LCS 200-38857/2-C		82	86	93	98
LCS 200-38857/3-C		72	79	86	86

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Method Blank - Batch: 200-38951

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-38951/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/18/2012 1006
 Prep Date: 05/18/2012 1006
 Leach Date: N/A

Analysis Batch: 200-38951
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: D.i
 Lab File ID: dina04.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.077	J	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.016	J	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.018	J	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	95	65 - 131
Chloroethane-d5	97	71 - 131
1,1-Dichloroethene-d2	79	55 - 104
2-Butanone-d5	115	49 - 155
Chloroform-d	103	78 - 121
1,2-Dichloroethane-d4	111	78 - 129
Benzene-d6	108	77 - 124
1,2-Dichloropropane-d6	112	79 - 124
Toluene-d8	109	77 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Surrogate	% Rec	Acceptance Limits
trans-1,3-Dichloropropene-d4	114	73 - 121
2-Hexanone-d5	121	28 - 135
1,1,2,2-Tetrachloroethane-d2	106	73 - 125
1,2-Dichlorobenzene-d4	118	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Method Blank - Batch: 200-38855

Method: SOM01.2/SV

Preparation: CONT

Lab Sample ID: MB 200-38855/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/23/2012 0818
 Prep Date: 05/17/2012 2215
 Leach Date: N/A

Analysis Batch: 200-39108
 Prep Batch: 200-38855
 Leach Batch: N/A
 Units: ug/L

Instrument ID: R.i
 Lab File ID: rjzvp07.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1000 uL
 Injection Volume: 2 uL

Analyte	Result	Qual	RL
N-Nitrosodimethylamine	10	U	10
Phenol	5.0	U	5.0
Bis(2-chloroethyl)ether	5.0	U	5.0
2-Chlorophenol	5.0	U	5.0
2,2'-Oxybis(1-chloropropane)	5.0	U	5.0
Hexachloroethane	5.0	U	5.0
Nitrobenzene	5.0	U	5.0
Isophorone	5.0	U	5.0
2-Nitrophenol	5.0	U	5.0
2,4-Dimethylphenol	5.0	U	5.0
2,4-Dichlorophenol	5.0	U	5.0
Naphthalene	5.0	U	5.0
Hexachlorobutadiene	5.0	U	5.0
Hexachlorocyclopentadiene	5.0	U	5.0
2,4,6-Trichlorophenol	5.0	U	5.0
2,4,5-Trichlorophenol	5.0	U	5.0
Dimethylphthalate	5.0	U	5.0
2,6-Dinitrotoluene	5.0	U	5.0
2,4-Dinitrophenol	10	U	10
4-Nitrophenol	10	U	10
2,4-Dinitrotoluene	5.0	U	5.0
Diethylphthalate	5.0	U	5.0
Fluorene	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10
N-Nitrosodiphenylamine	5.0	U	5.0
Hexachlorobenzene	5.0	U	5.0
Pentachlorophenol	10	U	10
Phenanthrene	5.0	U	5.0
Anthracene	5.0	U	5.0
Di-n-butylphthalate	5.0	U	5.0
Fluoranthene	5.0	U	5.0
Benzidine	10	U	10
Pyrene	5.0	U	5.0
Butylbenzylphthalate	5.0	U	5.0
3,3'-Dichlorobenzidine	5.0	U	5.0
Benzo(a)anthracene	5.0	U	5.0
Chrysene	5.0	U	5.0
Bis(2-ethylhexyl)phthalate	5.0	U	5.0
Benzo(b)fluoranthene	5.0	U	5.0
Benzo(k)fluoranthene	5.0	U	5.0
Benzo(a)pyrene	5.0	U	5.0
Indeno(1,2,3-cd)pyrene	5.0	U	5.0
Dibenzo(a,h)anthracene	5.0	U	5.0

Surrogate	% Rec	Acceptance Limits
-----------	-------	-------------------

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

Sdg Number: PRR1290

Surrogate	% Rec	Acceptance Limits
Phenol-d5	64	39 - 106
Bis(2-chloroethyl)ether-d8	70	40 - 105
2-Chlorophenol-d4	66	41 - 106
4-Methylphenol-d8	71	25 - 111
Nitrobenzene-d5	78	43 - 108
2-Nitrophenol-d4	72	40 - 108
2,4-Dichlorophenol-d3	66	37 - 105
4-Chloroaniline-d4	71	1 - 145
Dimethylphthalate-d6	75	47 - 114
Acenaphthylene-d8	81	41 - 107
4-Nitrophenol-d4	54	33 - 116
Fluorene-d10	67	42 - 111
4,6-Dinitro-2-methylphenol-d2	35	22 - 104
Anthracene-d10	82	44 - 110
Pyrene-d10	67	52 - 119
Benzo(a)pyrene-d12	82	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Method Blank - Batch: 200-38856

**Method: SOM01.2/PCB
Preparation: SEPF**

Lab Sample ID: MB 200-38856/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/23/2012 1654
Prep Date: 05/17/2012 2320
Leach Date: N/A

Analysis Batch: 200-39192
Prep Batch: 200-38856
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 23may121601-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Aroclor-1016	1.0	U	1.0
Aroclor-1221	1.0	U	1.0
Aroclor-1232	1.0	U	1.0
Aroclor-1242	1.0	U	1.0
Aroclor-1248	1.0	U	1.0
Aroclor-1254	1.0	U	1.0
Aroclor-1260	1.0	U	1.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	89	30 - 150
Decachlorobiphenyl	84	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	98	30 - 150
Decachlorobiphenyl	92	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Lab Control Sample - Batch: 200-38856

Method: SOM01.2/PCB
Preparation: SEPF

Lab Sample ID: LCS 200-38856/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/23/2012 1718
Prep Date: 05/17/2012 2320
Leach Date: N/A

Analysis Batch: 200-39192
Prep Batch: 200-38856
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 23may121601-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	0.90	90	50 - 150	J
Aroclor-1260	1.00	1.3	132	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		72		30 - 150	
Decachlorobiphenyl		76		30 - 150	

Lab Control Sample - Batch: 200-38856

Method: SOM01.2/PCB
Preparation: SEPF

Lab Sample ID: LCS 200-38856/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/23/2012 1718
Prep Date: 05/17/2012 2320
Leach Date: N/A

Analysis Batch: 200-39192
Prep Batch: 200-38856
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 23may121601-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.2	119	50 - 150	
Aroclor-1260	1.00	1.3	135	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		78		30 - 150	
Decachlorobiphenyl		82		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Method Blank - Batch: 200-38857

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-38857/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/23/2012 1554
Prep Date: 05/17/2012 2257
Leach Date: N/A

Analysis Batch: 200-39171
Prep Batch: 200-38857
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 23may121512-r011.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
alpha-BHC	0.00017	J P	0.0050
beta-BHC	0.00014	J P	0.0050
delta-BHC	0.000096	J P	0.0050
gamma-BHC (Lindane)	0.0050	U	0.0050
Heptachlor	0.0050	U	0.0050
Aldrin	0.000033	J P	0.0050
Heptachlor epoxide	0.0050	U	0.0050
Endosulfan I	0.0050	U	0.0050
Dieldrin	0.010	U	0.010
4,4'-DDE	0.010	U	0.010
Endrin	0.010	U	0.010
Endosulfan II	0.010	U	0.010
4,4'-DDD	0.010	U	0.010
Endosulfan sulfate	0.010	U	0.010
4,4'-DDT	0.010	U	0.010
Methoxychlor	0.050	U	0.050
Endrin aldehyde	0.00017	J P	0.010
alpha-Chlordane	0.0050	U	0.0050
gamma-Chlordane	0.0050	U	0.0050
Toxaphene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	78	30 - 150
Decachlorobiphenyl	91	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	83	30 - 150
Decachlorobiphenyl	95	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Method Blank - Batch: 200-38857

**Method: SOM01.2/Pest
Preparation: SOM01.2LL_Pest**

Lab Sample ID: MB 200-38857/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/23/2012 2100
Prep Date: 05/17/2012 2257
Leach Date: N/A

Analysis Batch: 200-39199
Prep Batch: 200-38857
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 23may121452-r011.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
2,4'-DDE	0.010	U	0.010
2,4'-DDT	0.010	U	0.010
2,4'-DDD	0.010	U	0.010

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	74	30 - 150
Decachlorobiphenyl	94	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	82	30 - 150
Decachlorobiphenyl	95	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Lab Control Sample - Batch: 200-38857

Method: SOM01.2/Pest
Preparation: SEPF

Lab Sample ID: LCS 200-38857/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/23/2012 1619
Prep Date: 05/17/2012 2257
Leach Date: N/A

Analysis Batch: 200-39171
Prep Batch: 200-38857
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 23may121512-r021.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0041	81	50 - 120	J
Heptachlor epoxide	0.00500	0.0047	95	50 - 150	J
Dieldrin	0.0100	0.0092	92	30 - 130	J
4,4'-DDE	0.0100	0.0091	91	50 - 150	J
Endrin	0.0100	0.0094	94	50 - 120	J
Endosulfan sulfate	0.0100	0.0082	82	50 - 120	J
gamma-Chlordane	0.00500	0.0047	93	30 - 130	J
Surrogate			% Rec	Acceptance Limits	
Tetrachloro-m-xylene			82	30 - 150	
Decachlorobiphenyl			93	30 - 150	

Lab Control Sample - Batch: 200-38857

Method: SOM01.2/Pest
Preparation: SEPF

Lab Sample ID: LCS 200-38857/2-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/23/2012 1619
Prep Date: 05/17/2012 2257
Leach Date: N/A

Analysis Batch: 200-39171
Prep Batch: 200-38857
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 23may121512-r021.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0043	85	50 - 120	J
Heptachlor epoxide	0.00500	0.0048	95	50 - 150	J
Dieldrin	0.0100	0.0092	92	30 - 130	J
4,4'-DDE	0.0100	0.0091	91	50 - 150	J
Endrin	0.0100	0.0095	95	50 - 120	J
Endosulfan sulfate	0.0100	0.0083	83	50 - 120	J
gamma-Chlordane	0.00500	0.0047	94	30 - 130	J
Surrogate			% Rec	Acceptance Limits	
Tetrachloro-m-xylene			86	30 - 150	
Decachlorobiphenyl			98	30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Lab Control Sample - Batch: 200-38857

Method: SOM01.2/Pest
Preparation: SOM01.2LL_Pest

Lab Sample ID:	LCS 200-38857/3-C	Analysis Batch:	200-39199	Instrument ID:	0911.i
Client Matrix:	Water	Prep Batch:	200-38857	Lab File ID:	23may121452-r021.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/23/2012 2133	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	05/17/2012 2257			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.0078	78	50 - 150	J
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		72		30 - 150	
Decachlorobiphenyl		86		30 - 150	

Lab Control Sample - Batch: 200-38857

Method: SOM01.2/Pest
Preparation: SOM01.2LL_Pest

Lab Sample ID:	LCS 200-38857/3-C	Analysis Batch:	200-39199	Instrument ID:	0911.i
Client Matrix:	Water	Prep Batch:	200-38857	Lab File ID:	23may121452-r021.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/23/2012 2133	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	05/17/2012 2257			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.0094	94	50 - 150	J
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		79		30 - 150	
Decachlorobiphenyl		86		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Method Blank - Batch: 200-38925

Method: ISM01.2/HG Preparation: 7470A

Lab Sample ID: MB 200-38925/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/18/2012 1612
Prep Date: 05/18/2012 1100
Leach Date: N/A

Analysis Batch: 200-38931
Prep Batch: 200-38925
Leach Batch: N/A
Units: ug/L

Instrument ID: MEPCV3 II
Lab File ID: 051812BB.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDLE	RL
Mercury	0.20	U	0.084	0.20

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Method Blank - Batch: 200-38912

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: MB 200-38912/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/22/2012 1343
Prep Date: 05/18/2012 1200
Leach Date: N/A

Analysis Batch: 200-39088
Prep Batch: 200-38912
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 052212-04ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Antimony	0.58	J	0.15	2.0
Arsenic	-0.42	J	0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	0.25	J	0.21	2.0
Copper	2.0	U	0.60	2.0
Lead	0.39	J	0.10	1.0
Nickel	1.0	U	0.14	1.0
Selenium	-1.6	J	0.15	5.0
Silver	1.0	U	0.028	1.0
Zinc	2.0	U	0.57	2.0

Lab Control Sample - Batch: 200-38912

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: LCS 200-38912/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/22/2012 1350
Prep Date: 05/18/2012 1200
Leach Date: N/A

Analysis Batch: 200-39088
Prep Batch: 200-38912
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 052212-04ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	4.00	4.8	121	70 - 130	
Arsenic	2.00	1.9	96	70 - 130	
Beryllium	2.00	2.2	111	70 - 130	
Cadmium	2.00	2.3	115	70 - 130	
Chromium	4.00	4.4	111	70 - 130	
Copper	4.00	4.4	109	70 - 130	
Lead	2.00	2.5	125	70 - 130	
Nickel	2.00	2.3	114	70 - 130	
Selenium	10.0	10.7	107	70 - 130	
Silver	2.00	2.9	143	70 - 130	
Zinc	4.00	5.5	137	70 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Matrix Spike - Batch: 200-38912

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID: 200-10832-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/22/2012 1547
Prep Date: 05/18/2012 1200
Leach Date: N/A

Analysis Batch: 200-39088
Prep Batch: 200-38912
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 052212-04ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	14.7	100	121	106	75 - 125	
Arsenic	4.6	40.0	44.5	100	75 - 125	
Beryllium	1.0 U	50.0	50.9	102	75 - 125	
Cadmium	1.0 U	50.0	48.8	98	75 - 125	
Lead	1.2	20.0	23.6	112	75 - 125	
Selenium	4.2 J	100	101	97	75 - 125	
Silver	1.0 U	50.0	44.2	88	75 - 125	

Matrix Spike - Batch: 200-38912

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID: 200-10832-1
Client Matrix: Water
Dilution: 10
Analysis Date: 05/22/2012 1553
Prep Date: 05/18/2012 1200
Leach Date: N/A

Analysis Batch: 200-39088
Prep Batch: 200-38912
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 052212-04ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chromium	1.2 J	200	215	107	75 - 125	
Copper	3.4	250	269	106	75 - 125	
Nickel	14.2	500	549	107	75 - 125	
Zinc	34.5	500	567	106	75 - 125	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Duplicate - Batch: 200-38912

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: 200-10832-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/22/2012 1540
Prep Date: 05/18/2012 1200
Leach Date: N/A

Analysis Batch: 200-39088
Prep Batch: 200-38912
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 052212-04ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Antimony	14.7	14.1	4		
Arsenic	4.6	5.1	10	1.0	
Beryllium	1.0 U	1.0			U
Cadmium	1.0 U	1.0			U
Chromium	1.2 J	1.1	6	2.0	J
Copper	3.4	3.4	2	2.0	
Lead	1.2	1.1	2	1.0	
Nickel	14.2	13.7	4		
Selenium	4.2 J	7.4	55	5.0	
Silver	1.0 U	1.0			U
Zinc	34.5	25.3	31		*

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1
Sdg Number: PRR1290

Method Blank - Batch: 200-39044

Method: ISM01.2/CN
Preparation: Midi-Distillati

Lab Sample ID: MB 200-39044/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/22/2012 1336
Prep Date: 05/22/2012 1100
Leach Date: N/A

Analysis Batch: 200-39059
Prep Batch: 200-39044
Leach Batch: N/A
Units: ug/L

Instrument ID: WCLachat
Lab File ID: OM_05-22-12_01-24-0
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Cyanide	10.0	U	1.0	10.0

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJECT NAME		SDG NUMBER		COC Number																				
Tierra Phase I Removal		PRR1290																						
PROJ. NO.	SDG NUMBER	COC NUMBER	Requested Analyses																					
B000966.0002.70004																								
SAMPLERS:		Requested Analyses	Requested Analyses																					
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATCHME-48	5/16/2012	9:30	water	Grab	17	X	X	X	X	X	X	X	X	X	X									
TB05162012	5/16/2012	9:30	water		3	X																		

Special QA/QC Instructions

Special Instructions/Comments:
 Refer to RAWP QAPP WS 15-4 for Effluent Samples

Laboratory Information and Receipt

Lab Name: TestAmerica -Burlington, VT
 Shipping Tracking # Cooler packed with ice
 Specify Turnaround Requirements: 7 day TAT; TSS samples 24 hr TAT Cooler custody seal intact

Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME
Kevin Ganelli	05/16/12		Received by: <i>[Signature]</i>	05/16/12		Received by:		
Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME
Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME

Condition/Cooler Temp: 3.6

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10832-1

SDG Number: PRR1290

Login Number: 10832

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699017, 018
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 16MAY12
ActWgt: 45.0 LB
CAD: 103886297/NET3250
Dims: 24 X 14 X 14 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

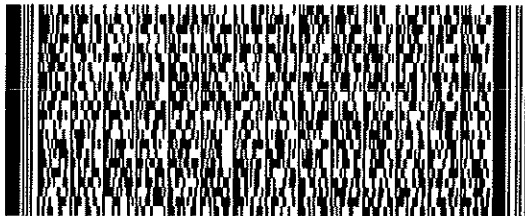
THU - 17 MAY A4
FIRST OVERNIGHT

TRK# 7935 7440 9423

0201

05403
VT-US
BTVA

E9 BTVA



512G361A/A/278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10832-2

SDG Number: PRR1290

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/24/2012 9:36 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/24/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	12
QC Results	13
Qc Association Summary	14
Surrogate Recovery Report	15
Qc Reports	16
Client Chain of Custody	19
Sample Receipt Checklist	20

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1290 (200-10832-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Manual integration was employed in deriving certain of the analytical results. The values that have been derived from manual integration are qualified on the quantitation reports, and further document with chromatographic profiles. An itemized listing of the manual integrations that were performed is provided at the end of this submittal, referencing the specific acquisition file names and the compounds for which manual integration was applied.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The sample in this sample set was received on 05/17/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping Documentation section of this submittal. The sample was received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 3.6 °C.

SW846 Method 8151A (Chlorinated Herbicides)

Sample PRR1WATCME-48 was extracted for the analysis of chlorinated herbicides by the referenced method. A nominal 1000 milliliters of sample was extracted, and the final extract volume was brought to 10.0 milliliters for analysis.

The sample extract was analyzed without a dilution. DCAA (2,4-dichlorophenylacetic acid) was used as a surrogate in the performance of the work. There was an acceptable recovery of the surrogate control in each of the analyses associated with the sample set. Matrix spike and matrix spike duplicate analyses were not performed on the sample in this sample set. A laboratory control sample was prepared and analyzed in association with the sample. There was an acceptable recovery of 2,4-D, 2,4-DB, and 2,4,5-T in that analysis. The recovery of dinoseb in the laboratory control sample analysis was 43 percent. While that recovery value is above the lower control limit of 10 percent that is established by the laboratory for this method of analysis, it is below the lower control limit of 70 percent that is referenced in the project QAPP. SW846 Method 8151A does formally identify the fact that dinoseb (specifically) may be lost in the alkaline hydrolysis clean-up step within the defined extraction process. The analysis of the method blank associated with the analytical work was free of analyte contamination.

The initial calibration was established using five concentration levels. The relative standard

deviation of the responses for each analyte in the initial calibration was below 20.0 percent. The initial calibration was verified with an analytical standard from a source different than was used for calibration. There was an acceptable performance of each analyte in the initial calibration verification, as measured against a ± 20.0 percent tolerance. There was an acceptable performance of each analyte in each calibration check, as measured against a ± 15.0 percent tolerance.

Peak height response was used for calibration and quantification. Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL). In performing the analytical work, the laboratory did evaluate the results that were generated from each column in deriving a result for a particular compound, and has reported the higher of the two values. In those instances when the results from each of the two columns differed by more than 40 percent, the lower value is reported and qualified with a "p" qualifier.

SM 5310B (Total Organic Carbon)

Sample PRR1WATCME-48 was analyzed for total organic carbon by the cited method. Matrix spike and replicate analyses were not performed on the sample in this sample set. Laboratory control samples were analyzed in association with the sample, and there was an acceptable recovery of the spiked organic carbon in each of those analyses. A trace concentration of organic carbon was identified in the analysis of one of the method blanks associated with the analytical work. The concentration in that analysis was below the established reporting limit, and the analysis did meet the laboratory's technical acceptance criteria for a compliant method blank analysis.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10832-2

Sdg Number: PRR1290

Description		Lab Location	Method	Preparation Method
Matrix	Water			
Herbicides (GC)		TAL BUR	SW846 8151A	
Extraction (Herbicides)		TAL BUR		SW846 8151A
Organic Carbon, Total (TOC)		TAL BUR	SM SM 5310B	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10832-2

Sdg Number: PRR1290

Method	Analyst	Analyst ID
SW846 8151A	Lambert, Kelly T	KTL
SM SM 5310B	Sutton, Zachariah M	ZMS

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10832-2
Sdg Number: PRR1290

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10832-1	PRR1WATCME-48	Water	05/16/2012 0930	05/17/2012 0805

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-2
Sdg Number: PRR1290

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1
Client Matrix: Water

Date Sampled: 05/16/2012 0930
Date Received: 05/17/2012 0805

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-39135	Instrument ID:	0911.i
Prep Method:	8151A	Prep Batch:	200-38806	Initial Weight/Volume:	975 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/23/2012 1150			Injection Volume:	1 uL
Prep Date:	05/17/2012 1053			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	1.0	J	0.67	1.9
2,4-DB	0.57	J	0.48	1.7
Dinoseb	0.97	U	0.19	0.97
2,4,5-T	0.48	U	0.13	0.48

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	105		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-2

Sdg Number: PRR1290

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1

Date Sampled: 05/16/2012 0930

Client Matrix: Water

Date Received: 05/17/2012 0805

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-39135	Instrument ID:	0911.i
Prep Method:	8151A	Prep Batch:	200-38806	Initial Weight/Volume:	975 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/23/2012 1150			Injection Volume:	1 uL
Prep Date:	05/17/2012 1053			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	82		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-2

Sdg Number: PRR1290

General Chemistry

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1

Date Sampled: 05/16/2012 0930

Client Matrix: Water

Date Received: 05/17/2012 0805

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	5.9	B	mg/L	0.14	1.0	1.0	SM 5310B

Analysis Batch: 200-39110 Analysis Date: 05/18/2012 1535

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10832-2

Sdg Number: PRR1290

Lab Section	Qualifier	Description
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-2

Sdg Number: PRR1290

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-38806					
LCS 200-38806/2-A	Lab Control Sample	T	Water	8151A	
MB 200-38806/1-A	Method Blank	T	Water	8151A	
200-10832-1	PRR1WATCME-48	T	Water	8151A	
Analysis Batch:200-39135					
LCS 200-38806/2-A	Lab Control Sample	T	Water	8151A	200-38806
MB 200-38806/1-A	Method Blank	T	Water	8151A	200-38806
200-10832-1	PRR1WATCME-48	T	Water	8151A	200-38806

Report Basis

T = Total

General Chemistry

Analysis Batch:200-39110					
LCS 200-39110/1	Lab Control Sample	T	Water	SM 5310B	
LCS 200-39110/4	Lab Control Sample	T	Water	SM 5310B	
MB 200-39110/2	Method Blank	T	Water	SM 5310B	
MB 200-39110/5	Method Blank	T	Water	SM 5310B	
200-10832-1	PRR1WATCME-48	T	Water	SM 5310B	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-2

Sdg Number: PRR1290

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
200-10832-1	PRR1WATCME-48	105	82
MB 200-38806/1-A		96	80
LCS 200-38806/2-A		93	83

Surrogate	Acceptance Limits
DCPA = 2,4-Dichlorophenylacetic acid	60-130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-2
Sdg Number: PRR1290

Method Blank - Batch: 200-38806

Lab Sample ID: MB 200-38806/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/23/2012 1055
Prep Date: 05/17/2012 1053
Leach Date: N/A

Analysis Batch: 200-39135
Prep Batch: 200-38806
Leach Batch: N/A
Units: ug/L

**Method: 8151A
Preparation: 8151A**

Instrument ID: 0911.i
Lab File ID: 23may120914-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95
2,4,5-T	0.47	U	0.13	0.47

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	96	60 - 130

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	80	60 - 130

Lab Control Sample - Batch: 200-38806

Lab Sample ID: LCS 200-38806/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/23/2012 1122
Prep Date: 05/17/2012 1053
Leach Date: N/A

Analysis Batch: 200-39135
Prep Batch: 200-38806
Leach Batch: N/A
Units: ug/L

**Method: 8151A
Preparation: 8151A**

Instrument ID: 0911.i
Lab File ID: 23may120914-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	7.12	89	75 - 135	
2,4-DB	4.02	3.81	95	40 - 165	
Dinoseb	4.00	1.70	43	10 - 115	
2,4,5-T	2.00	1.84	92	60 - 155	

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	93	60 - 130

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	83	60 - 130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-2
Sdg Number: PRR1290

Method Blank - Batch: 200-39110

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-39110/2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/18/2012 1520
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-39110
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 051812A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.14	1.0

Method Blank - Batch: 200-39110

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-39110/5
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/18/2012 1608
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-39110
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 051812A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	0.148	J	0.14	1.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-2

Sdg Number: PRR1290

Lab Control Sample - Batch: 200-39110

Method: SM 5310B

Preparation: N/A

Lab Sample ID: LCS 200-39110/1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/18/2012 1504
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-39110
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 051812A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	10.05	100	85 - 115	

Lab Control Sample - Batch: 200-39110

Method: SM 5310B

Preparation: N/A

Lab Sample ID: LCS 200-39110/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/18/2012 1552
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-39110
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 051812A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	10.12	101	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

PROJ. NO.		PROJECT NAME		SDG NUMBER		COC Number																		
B0009966.0002.70004		Tierra Phase I Removal		PRR1290																				
SAMPLERS:		Requested Analyses																						
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATCHME-48	5/16/2012	9:30	water	Grab	17	X	X	X	X	X	X	X	X	X	X									
TB05162012	5/16/2012	9:30	water		3		X																	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10832-2

SDG Number: PRR1290

Login Number: 10832

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699017, 018
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
 Michael Pelenski
 ARCADIS
 117 Blanchard St
 Newark, NJ 07105

Origin ID: VAKA



Ship Date: 16MAY12
 ActWgt: 45.0 LB
 CAD: 103886297/NET3250
 Dims: 24 X 14 X 14 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
 Invoice #
 PO # B0009966.0002.70004
 Dept #

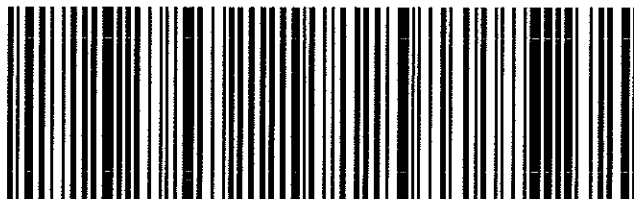
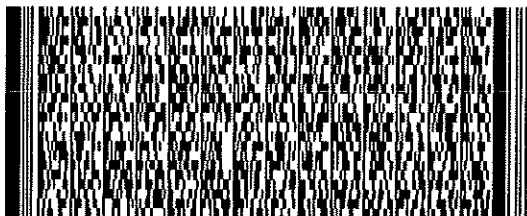
THU - 17 MAY A4
 FIRST OVERNIGHT

TRK# 7935 7440 9423

0201

05403
 VT-US
 BTV

E9 BTVA



512G361A/A/278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10832-3

SDG Number: PRR1290

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/18/2012 11:57 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/18/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	9
QC Results	10
Qc Association Summary	11
Qc Reports	12
Client Chain of Custody	13
Sample Receipt Checklist	14

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1290 (200-10832-3)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The sample in this sample set was received on 05/17/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The sample was received as part of a larger sample set, which was received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperatures were 3.6 °C.

SM 2540D Total suspended Solids

The sample in this sample set was analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the sample in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10832-3

Sdg Number: PRR1290

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10832-3

Sdg Number: PRR1290

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10832-3

Sdg Number: PRR1290

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10832-1	PRR1WATCME-48	Water	05/16/2012 0930	05/17/2012 0805

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10832-3

Sdg Number: PRR1290

General Chemistry

Client Sample ID: PRR1WATCME-48

Lab Sample ID: 200-10832-1

Date Sampled: 05/16/2012 0930

Client Matrix: Water

Date Received: 05/17/2012 0805

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	2.0	U	mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-38825		Analysis Date: 05/17/2012 1226					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10832-3

Sdg Number: PRR1290

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-3

Sdg Number: PRR1290

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-38825					
LCS 200-38825/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-38825/1	Method Blank	T	Water	SM 2540D	
200-10832-1	PRR1WATCME-48	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10832-3
Sdg Number: PRR1290

Method Blank - Batch: 200-38825

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-38825/1	Analysis Batch:	200-38825	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/17/2012 1226	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-38825

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-38825/2	Analysis Batch:	200-38825	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/17/2012 1226	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	484.0	97	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO. B0009966.0002.70004	PROJECT NAME Tierra Phase I Removal		SDG NUMBER PRR1290	COC Number																																																																																																																																																																																																																																																																																																																																																																																																																									
SAMPLERS:																																																																																																																																																																																																																																																																																																																																																																																																																													
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks																																																																																																																																																																																																																																																																																																																																																																																																						
PRR1WATCHME-48	5/16/2012	9:30	water	Grab	17	X	X	X	X	X	X	X	X	X	X																																																																																																																																																																																																																																																																																																																																																																																																														
TB05162012	5/16/2012	9:30	water		3	X																																																																																																																																																																																																																																																																																																																																																																																																																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Requested Analyses</td> <td colspan="22"><input type="checkbox"/> Special QA/QC Instructions</td> </tr> <tr> <td>1 TOC</td> <td colspan="22">Refer to RAWP QAPP WS 15-4 for Effluent Samples</td> </tr> <tr> <td>2 VOCs</td> <td colspan="22"></td> </tr> <tr> <td>3 SVOCs</td> <td colspan="22"></td> </tr> <tr> <td>4 Aroclor PCBs</td> <td colspan="22"></td> </tr> <tr> <td>5 Pesticides</td> <td colspan="22"></td> </tr> <tr> <td>6 Metals + Hg</td> <td colspan="22"></td> </tr> <tr> <td>7 Cyanide</td> <td colspan="22"></td> </tr> <tr> <td>8 Herbicides</td> <td colspan="22"></td> </tr> <tr> <td>9 TSS</td> <td colspan="22"></td> </tr> <tr> <td>10</td> <td colspan="22"></td> </tr> <tr> <td>11</td> <td colspan="22"></td> </tr> <tr> <td>12</td> <td colspan="22"></td> </tr> <tr> <td>13</td> <td colspan="22"></td> </tr> <tr> <td>14</td> <td colspan="22"></td> </tr> <tr> <td>15</td> <td colspan="22"></td> </tr> <tr> <td>16</td> <td colspan="22"></td> </tr> </table>																							Requested Analyses	<input type="checkbox"/> Special QA/QC Instructions																						1 TOC	Refer to RAWP QAPP WS 15-4 for Effluent Samples																						2 VOCs																							3 SVOCs																							4 Aroclor PCBs																							5 Pesticides																							6 Metals + Hg																							7 Cyanide																							8 Herbicides																							9 TSS																							10																							11																							12																							13																							14																							15																							16																						
Requested Analyses	<input type="checkbox"/> Special QA/QC Instructions																																																																																																																																																																																																																																																																																																																																																																																																																												
1 TOC	Refer to RAWP QAPP WS 15-4 for Effluent Samples																																																																																																																																																																																																																																																																																																																																																																																																																												
2 VOCs																																																																																																																																																																																																																																																																																																																																																																																																																													
3 SVOCs																																																																																																																																																																																																																																																																																																																																																																																																																													
4 Aroclor PCBs																																																																																																																																																																																																																																																																																																																																																																																																																													
5 Pesticides																																																																																																																																																																																																																																																																																																																																																																																																																													
6 Metals + Hg																																																																																																																																																																																																																																																																																																																																																																																																																													
7 Cyanide																																																																																																																																																																																																																																																																																																																																																																																																																													
8 Herbicides																																																																																																																																																																																																																																																																																																																																																																																																																													
9 TSS																																																																																																																																																																																																																																																																																																																																																																																																																													
10																																																																																																																																																																																																																																																																																																																																																																																																																													
11																																																																																																																																																																																																																																																																																																																																																																																																																													
12																																																																																																																																																																																																																																																																																																																																																																																																																													
13																																																																																																																																																																																																																																																																																																																																																																																																																													
14																																																																																																																																																																																																																																																																																																																																																																																																																													
15																																																																																																																																																																																																																																																																																																																																																																																																																													
16																																																																																																																																																																																																																																																																																																																																																																																																																													
Special Instructions/Comments:																																																																																																																																																																																																																																																																																																																																																																																																																													
Refer to RAWP QAPP WS 15-4 for Effluent Samples																																																																																																																																																																																																																																																																																																																																																																																																																													
Laboratory Information and Receipt																																																																																																																																																																																																																																																																																																																																																																																																																													
Lab Name: TestAmerica -Burlington, VT		<input checked="" type="checkbox"/> Cooler packed with ice																																																																																																																																																																																																																																																																																																																																																																																																																											
Shipping Tracking #		<input checked="" type="checkbox"/> Cooler custody seal intact																																																																																																																																																																																																																																																																																																																																																																																																																											
Specify Turnaround Requirements: 7 day TAT; TSS samples 24 hr TAT																																																																																																																																																																																																																																																																																																																																																																																																																													
Relinquished by: Kevin Ganelli		DATE 05/16/12		TIME		Relinquished by: [Signature]		DATE		TIME		Relinquished by:		DATE		TIME		Relinquished by:		DATE		TIME		Relinquished by:		DATE		TIME		Relinquished by:		DATE		TIME																																																																																																																																																																																																																																																																																																																																																																																											
Received by:		DATE		TIME		Received by:		DATE		TIME		Received by:		DATE		TIME		Received by:		DATE		TIME		Received by:		DATE		TIME		Received by:		DATE		TIME																																																																																																																																																																																																																																																																																																																																																																																											

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10832-3

SDG Number: PRR1290

Login Number: 10832

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699017, 018
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 16MAY12
ActWgt: 45.0 LB
CAD: 103886297/NET3250
Dims: 24 X 14 X 14 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

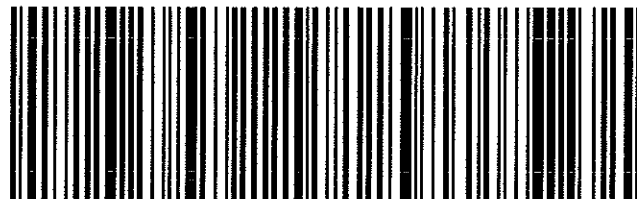
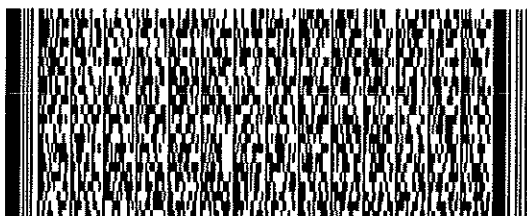
THU - 17 MAY A4
FIRST OVERNIGHT

TRK# 7935 7440 9423

0201

05403
VT-US
BTVA

E9 BTVA



512G361A/A/278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10886-1

SDG Number: PRR1297

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/22/2012 11:17 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/22/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	17
QC Results	18
Qc Association Summary	19
Surrogate Recovery Report	20
Qc Reports	22
Client Chain of Custody	23
Sample Receipt Checklist	24

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1297 (200-10886-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 05/21/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 5.8 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of each sample in the sample set did meet the technical acceptance criteria specific to DMC recoveries, although not all DMC recoveries were within the control range in each analysis. The method allowance criteria provide for the recovery of up to three DMCs to be outside the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination. A trace concentration of chlorobenzene was identified in the analysis of the storage blank associated with the sample set. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant storage blank analysis. A trace concentration of chlorobenzene was identified in the analysis of each of the instrument blanks associated with the

analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in the closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1

Sdg Number: PRR1297

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1

Sdg Number: PRR1297

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1
Sdg Number: PRR1297

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10886-1	PRR1WATGACI-22-SP-105	Water	05/19/2012 0830	05/21/2012 0800
200-10886-2	PRR1WATGACE-22-SP-106	Water	05/19/2012 0830	05/21/2012 0800
200-10886-3	PRR1WATGACE-22-SP-109	Water	05/19/2012 0830	05/21/2012 0800
200-10886-6TB	TB05192012	Water	05/19/2012 0000	05/21/2012 0800
200-10886-9STOBL K	VHBLK01	Water	05/21/2012 0950	05/21/2012 0800

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1
Sdg Number: PRR1297

Client Sample ID: PRR1WATGACI-22-SP-105

Lab Sample ID: 200-10886-1
Client Matrix: Water

Date Sampled: 05/19/2012 0830
Date Received: 05/21/2012 0800

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39037	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dinb13.d
Dilution:	8.8			Initial Weight/Volume:	25 mL
Analysis Date:	05/21/2012 1857			Final Weight/Volume:	25 mL
Prep Date:	05/21/2012 1857				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	8.0	J	44
Chlorobenzene	920	E	4.4

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	89		65 - 131
Chloroethane-d5	92		71 - 131
1,1-Dichloroethene-d2	72		55 - 104
2-Butanone-d5	92		49 - 155
Chloroform-d	91		78 - 121
1,2-Dichloroethane-d4	94		78 - 129
Benzene-d6	93		77 - 124
1,2-Dichloropropane-d6	94		79 - 124
Toluene-d8	94		77 - 121
trans-1,3-Dichloropropene-d4	93		73 - 121
2-Hexanone-d5	96		28 - 135
1,1,2,2-Tetrachloroethane-d2	92		73 - 125
1,2-Dichlorobenzene-d4	104		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1

Sdg Number: PRR1297

Client Sample ID: PRR1WATGACI-22-SP-105

Lab Sample ID: 200-10886-1

Date Sampled: 05/19/2012 0830

Client Matrix: Water

Date Received: 05/21/2012 0800

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39037	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dinb12.d
Dilution:	60.3			Initial Weight/Volume:	25 mL
Analysis Date:	05/21/2012 1833	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/21/2012 1833				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	300	U	300
Chlorobenzene	930	D	30

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	103		65 - 131
Chloroethane-d5	111		71 - 131
1,1-Dichloroethene-d2	85		55 - 104
2-Butanone-d5	111		49 - 155
Chloroform-d	107		78 - 121
1,2-Dichloroethane-d4	114		78 - 129
Benzene-d6	112		77 - 124
1,2-Dichloropropane-d6	114		79 - 124
Toluene-d8	113		77 - 121
trans-1,3-Dichloropropene-d4	111		73 - 121
2-Hexanone-d5	115		28 - 135
1,1,2,2-Tetrachloroethane-d2	109		73 - 125
1,2-Dichlorobenzene-d4	125		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1
Sdg Number: PRR1297

Client Sample ID: PRR1WATGACE-22-SP-106

Lab Sample ID: 200-10886-2
Client Matrix: Water

Date Sampled: 05/19/2012 0830
Date Received: 05/21/2012 0800

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39037	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dinb16.d
Dilution:	15.7			Initial Weight/Volume:	25 mL
Analysis Date:	05/21/2012 2009			Final Weight/Volume:	25 mL
Prep Date:	05/21/2012 2009				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	89		79
Chlorobenzene	2100	E	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	99		65 - 131
Chloroethane-d5	104		71 - 131
1,1-Dichloroethene-d2	83		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	109		78 - 121
1,2-Dichloroethane-d4	111		78 - 129
Benzene-d6	105		77 - 124
1,2-Dichloropropane-d6	107		79 - 124
Toluene-d8	105		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121
2-Hexanone-d5	105		28 - 135
1,1,2,2-Tetrachloroethane-d2	104		73 - 125
1,2-Dichlorobenzene-d4	124		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1

Sdg Number: PRR1297

Client Sample ID: PRR1WATGACE-22-SP-106

Lab Sample ID: 200-10886-2

Date Sampled: 05/19/2012 0830

Client Matrix: Water

Date Received: 05/21/2012 0800

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39037	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dinb15.d
Dilution:	115.8			Initial Weight/Volume:	25 mL
Analysis Date:	05/21/2012 1945	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/21/2012 1945				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	81	J D	580
Chlorobenzene	1500	D	58

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	102		65 - 131
Chloroethane-d5	108		71 - 131
1,1-Dichloroethene-d2	84		55 - 104
2-Butanone-d5	108		49 - 155
Chloroform-d	106		78 - 121
1,2-Dichloroethane-d4	111		78 - 129
Benzene-d6	111		77 - 124
1,2-Dichloropropane-d6	112		79 - 124
Toluene-d8	111		77 - 121
trans-1,3-Dichloropropene-d4	108		73 - 121
2-Hexanone-d5	112		28 - 135
1,1,2,2-Tetrachloroethane-d2	104		73 - 125
1,2-Dichlorobenzene-d4	123		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1
Sdg Number: PRR1297

Client Sample ID: PRR1WATGACE-22-SP-109

Lab Sample ID: 200-10886-3
Client Matrix: Water

Date Sampled: 05/19/2012 0830
Date Received: 05/21/2012 0800

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39037	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dinb19.d
Dilution:	12.6			Initial Weight/Volume:	25 mL
Analysis Date:	05/21/2012 2121			Final Weight/Volume:	25 mL
Prep Date:	05/21/2012 2121				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	22	J	63
Chlorobenzene	1600	E	6.3

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	102		65 - 131
Chloroethane-d5	106		71 - 131
1,1-Dichloroethene-d2	83		55 - 104
2-Butanone-d5	104		49 - 155
Chloroform-d	110		78 - 121
1,2-Dichloroethane-d4	109		78 - 129
Benzene-d6	107		77 - 124
1,2-Dichloropropane-d6	108		79 - 124
Toluene-d8	107		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121
2-Hexanone-d5	106		28 - 135
1,1,2,2-Tetrachloroethane-d2	104		73 - 125
1,2-Dichlorobenzene-d4	122		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1

Sdg Number: PRR1297

Client Sample ID: PRR1WATGACE-22-SP-109

Lab Sample ID: 200-10886-3

Date Sampled: 05/19/2012 0830

Client Matrix: Water

Date Received: 05/21/2012 0800

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39037	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dinb18.d
Dilution:	89.8			Initial Weight/Volume:	25 mL
Analysis Date:	05/21/2012 2057	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/21/2012 2057				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	450	U	450
Chlorobenzene	1500	D	45

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	102		65 - 131
Chloroethane-d5	108		71 - 131
1,1-Dichloroethene-d2	85		55 - 104
2-Butanone-d5	111		49 - 155
Chloroform-d	108		78 - 121
1,2-Dichloroethane-d4	113		78 - 129
Benzene-d6	111		77 - 124
1,2-Dichloropropane-d6	113		79 - 124
Toluene-d8	111		77 - 121
trans-1,3-Dichloropropene-d4	108		73 - 121
2-Hexanone-d5	113		28 - 135
1,1,2,2-Tetrachloroethane-d2	107		73 - 125
1,2-Dichlorobenzene-d4	127		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1

Sdg Number: PRR1297

Client Sample ID: TB05192012

Lab Sample ID: 200-10886-6TB

Date Sampled: 05/19/2012 0000

Client Matrix: Water

Date Received: 05/21/2012 0800

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39037	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dinb21.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/21/2012 2209			Final Weight/Volume:	25 mL
Prep Date:	05/21/2012 2209				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.089	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	109		65 - 131
Chloroethane-d5	111		71 - 131
1,1-Dichloroethene-d2	89		55 - 104
2-Butanone-d5	110		49 - 155
Chloroform-d	111		78 - 121
1,2-Dichloroethane-d4	116		78 - 129
Benzene-d6	117		77 - 124
1,2-Dichloropropane-d6	117		79 - 124
Toluene-d8	117		77 - 121
trans-1,3-Dichloropropene-d4	112		73 - 121
2-Hexanone-d5	113		28 - 135
1,1,2,2-Tetrachloroethane-d2	110		73 - 125
1,2-Dichlorobenzene-d4	132	*	80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1
Sdg Number: PRR1297

Client Sample ID: VHBLK01

Lab Sample ID: 200-10886-9STOBLK
Client Matrix: Water

Date Sampled: 05/21/2012 0950
Date Received: 05/21/2012 0800

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39037	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dinb22.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/21/2012 2233			Final Weight/Volume:	25 mL
Prep Date:	05/21/2012 2233				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.050	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	108		65 - 131
Chloroethane-d5	112		71 - 131
1,1-Dichloroethene-d2	88		55 - 104
2-Butanone-d5	114		49 - 155
Chloroform-d	111		78 - 121
1,2-Dichloroethane-d4	117		78 - 129
Benzene-d6	116		77 - 124
1,2-Dichloropropane-d6	118		79 - 124
Toluene-d8	115		77 - 121
trans-1,3-Dichloropropene-d4	113		73 - 121
2-Hexanone-d5	116		28 - 135
1,1,2,2-Tetrachloroethane-d2	112		73 - 125
1,2-Dichlorobenzene-d4	131		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1

Sdg Number: PRR1297

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	*	Surrogate exceeds the control limit

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1

Sdg Number: PRR1297

QC Association Summary

Lab Sample ID	Client Sample ID	Report			Prep Batch
		Basis	Client Matrix	Method	
GC/MS VOA					
Analysis Batch:200-39037					
MB 200-39037/3	Method Blank	T	Water	SOM01.2/VOA_T	
200-10886-1	PRR1WATGACI-22-SP-105	T	Water	SOM01.2/VOA_T	
200-10886-1DL	PRR1WATGACI-22-SP-105	T	Water	SOM01.2/VOA_T	
200-10886-2	PRR1WATGACE-22-SP-106	T	Water	SOM01.2/VOA_T	
200-10886-2DL	PRR1WATGACE-22-SP-106	T	Water	SOM01.2/VOA_T	
200-10886-3	PRR1WATGACE-22-SP-109	T	Water	SOM01.2/VOA_T	
200-10886-3DL	PRR1WATGACE-22-SP-109	T	Water	SOM01.2/VOA_T	
200-10886-6TB	TB05192012	T	Water	SOM01.2/VOA_T	
200-10886-9STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1

Sdg Number: PRR1297

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10886-1 DL	PRR1WATGACI-22-S P-105 DL	103	111	85	111	107	114	112	114
200-10886-1	PRR1WATGACI-22-S P-105	89	92	72	92	91	94	93	94
200-10886-2 DL	PRR1WATGACE-22- SP-106 DL	102	108	84	108	106	111	111	112
200-10886-2	PRR1WATGACE-22- SP-106	99	104	83	105	109	111	105	107
200-10886-3 DL	PRR1WATGACE-22- SP-109 DL	102	108	85	111	108	113	111	113
200-10886-3	PRR1WATGACE-22- SP-109	102	106	83	104	110	109	107	108
200-10886-6	TB05192012	109	111	89	110	111	116	117	117
200-10886-9	VHBLK01	108	112	88	114	111	117	116	118
MB 200-39037/3		94	100	79	104	99	105	106	107

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1

Sdg Number: PRR1297

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10886-1 DL	PRR1WATGACI-22-S P-105 DL	113	111	115	109	125
200-10886-1	PRR1WATGACI-22-S P-105	94	93	96	92	104
200-10886-2 DL	PRR1WATGACE-22- SP-106 DL	111	108	112	104	123
200-10886-2	PRR1WATGACE-22- SP-106	105	103	105	104	124
200-10886-3 DL	PRR1WATGACE-22- SP-109 DL	111	108	113	107	127
200-10886-3	PRR1WATGACE-22- SP-109	107	103	106	104	122
200-10886-6	TB05192012	117	112	113	110	132*
200-10886-9	VHBLK01	115	113	116	112	131
MB 200-39037/3		107	108	108	101	119

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1

Sdg Number: PRR1297

Method Blank - Batch: 200-39037

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-39037/3
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2012 1337
 Prep Date: 05/21/2012 1337
 Leach Date: N/A

Analysis Batch: 200-39037
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: D.i
 Lab File ID: dinb03.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	94	65 - 131
Chloroethane-d5	100	71 - 131
1,1-Dichloroethene-d2	79	55 - 104
2-Butanone-d5	104	49 - 155
Chloroform-d	99	78 - 121
1,2-Dichloroethane-d4	105	78 - 129
Benzene-d6	106	77 - 124
1,2-Dichloropropane-d6	107	79 - 124
Toluene-d8	107	77 - 121
trans-1,3-Dichloropropene-d4	108	73 - 121
2-Hexanone-d5	108	28 - 135
1,1,2,2-Tetrachloroethane-d2	101	73 - 125
1,2-Dichlorobenzene-d4	119	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJECT NAME		Requested Analyses													SDG NUMBER/COC Number									
Tierra Phase I Removal															PRR1297									
PROJ. NO.	SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
B000966.0002.70004	PRR1WATGACI-22-SP-105	5/19/2012	0830	water	Grab	3	X																	
	PRR1WATGACE-22-SP-106	5/19/2012	0930	water	Grab	3	X																	
	PRR1WATGACE-22-SP-109	5/19/2012	0830	water	Grab	3	X																	
	PRR1WATCME-51	5/19/2012	0835	water	Grab	1	X																	
	PRR1WAT-22-SP-101	5/19/2012	0830	water	Grab	1	X																	
	TB05192012	5/19/2012		water	Grab	3	X																	
	PRR1WATCME-49	5/17/2012	0835	water	Grab	1	X																	
	PRR1WATCME-50	5/18/2012	2000	water	Grab	1	X																	
Special Instructions/Comments: <input type="checkbox"/> Special QA/QC Instructions																								
Requested Analyses												Laboratory Information and Receipt												
1-2-Butanone, Chlorobenzene												Lab Name: TestAmerica -Burlington, VT												
2-ESS												Shipping Tracking #												
												Specify Turnaround Requirements: 24 hr TAT												
Relinquished by: <i>MATT McLEOD</i>			DATE: 05/19/12			TIME: 0845			Received by: <i>Kevin Gandhi</i>			DATE:			TIME:			Relinquished by:			DATE:			
Relinquished by: <i>Kevin Gandhi</i>			DATE: 05/19/12			TIME: 1030			Received by: <i>Kevin Gandhi</i>			DATE:			TIME:			Relinquished by:			DATE:			
Relinquished by:			DATE:			TIME:			Received by:			DATE:			TIME:			Relinquished by:			DATE:			

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10886-1

SDG Number: PRR1297

Login Number: 10886

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699021, 699022
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.8°C. ID GUN 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
 Michael Pelenski
 ARCADIS
 117 Blanchard St.
 Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 19MAY12
 Act/Wgt: 25.0 LB
 CAD: 103886297/INET3250

Delivery Address Bar Code



SHIP TO: (802) 660-1990
BILL SENDER
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

Ref # B0009966.0002.70004
 Invoice #
 PO #
 Dept #

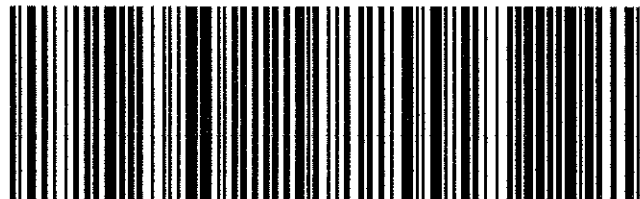
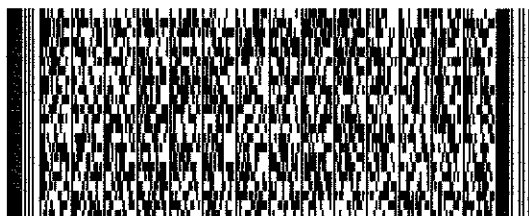
MON - 21 MAY A4
FIRST OVERNIGHT

TRK# 7984 1635 5389

0201

X1 BTVA

05403
 VT-US
BTV



512G3/61AA/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10886-2

SDG Number: PRR1297

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/22/2012 10:58 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/22/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	12
QC Results	13
Qc Association Summary	14
Qc Reports	15
Client Chain of Custody	16
Sample Receipt Checklist	17

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1297 (200-10886-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 05/21/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 5.8 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10886-2
Sdg Number: PRR1297

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10886-2
Sdg Number: PRR1297

Method	Analyst	Analyst ID
SM SM 2540D	Sutton, Zachariah M	ZMS

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10886-2
Sdg Number: PRR1297

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10886-4	PRR1WATCME-51	Water	05/19/2012 0835	05/21/2012 0800
200-10886-5	PRR1WAT-22-SP-101	Water	05/19/2012 0830	05/21/2012 0800
200-10886-7	PRR1WATCME-49	Water	05/19/2012 0835	05/21/2012 0800
200-10886-8	PRR1WATCME-50	Water	05/19/2012 2000	05/21/2012 0800

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10886-2

Sdg Number: PRR1297

General Chemistry

Client Sample ID: PRR1WATCME-51

Lab Sample ID: 200-10886-4

Date Sampled: 05/19/2012 0835

Client Matrix: Water

Date Received: 05/21/2012 0800

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	7.2		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-38973		Analysis Date: 05/21/2012 1045					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10886-2

Sdg Number: PRR1297

General Chemistry

Client Sample ID: PRR1WAT-22-SP-101

Lab Sample ID: 200-10886-5

Date Sampled: 05/19/2012 0830

Client Matrix: Water

Date Received: 05/21/2012 0800

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	23.6		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-38973		Analysis Date: 05/21/2012 1045					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10886-2

Sdg Number: PRR1297

General Chemistry

Client Sample ID: PRR1WATCME-49

Lab Sample ID: 200-10886-7

Date Sampled: 05/19/2012 0835

Client Matrix: Water

Date Received: 05/21/2012 0800

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	4.0		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-38973		Analysis Date: 05/21/2012 1045					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10886-2

Sdg Number: PRR1297

General Chemistry

Client Sample ID: PRR1WATCME-50

Lab Sample ID: 200-10886-8

Date Sampled: 05/19/2012 2000

Client Matrix: Water

Date Received: 05/21/2012 0800

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	6.4		mg/L	1.0	1.0	1.0	SM 2540D
Analysis Batch: 200-38973		Analysis Date: 05/21/2012 1045					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10886-2

Sdg Number: PRR1297

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10886-2

Sdg Number: PRR1297

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-38973					
LCS 200-38973/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-38973/1	Method Blank	T	Water	SM 2540D	
200-10886-4	PRR1WATCME-51	T	Water	SM 2540D	
200-10886-5	PRR1WAT-22-SP-101	T	Water	SM 2540D	
200-10886-7	PRR1WATCME-49	T	Water	SM 2540D	
200-10886-8	PRR1WATCME-50	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10886-2
Sdg Number: PRR1297

Method Blank - Batch: 200-38973

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-38973/1	Analysis Batch:	200-38973	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/21/2012 1045	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-38973

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-38973/2	Analysis Batch:	200-38973	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/21/2012 1045	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	444.0	89	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJECT NAME		Requested Analyses													SDG NUMBER/COC Number											
Tierra Phase I Removal															PRR1297											
PROJ. NO.	SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks		
B000966.0002.70004	PRR1WATGACI-22-SP-105	5/19/2012	0830	water	Grab	3	X																			
	PRR1WATGACE-22-SP-106	5/19/2012	0930	water	Grab	3	X																			
	PRR1WATGACE-22-SP-109	5/19/2012	0830	water	Grab	3	X																			
	PRR1WATCME-51	5/19/2012	0835	water	Grab	1	X																			
	PRR1WAT-22-SP-101	5/19/2012	0830	water	Grab	1	X																			
	TB05192012	5/19/2012		water	Grab	3	X																			
	PRR1WATCME-49	5/17/2012	0835	water	Grab	1	X																			
	PRR1WATCME-50	5/18/2012	2000	water	Grab	1	X																			
Special Instructions/Comments: <input type="checkbox"/> Special QA/QC Instructions																										
Requested Analyses												Laboratory Information and Receipt														
1-2-Butanone, Chlorobenzene												Lab Name: TestAmerica -Burlington, VT														
0-2-TSS												Shipping Tracking #														
												Specify Turnaround Requirements: 24 hr TAT														
Relinquished by: <i>MATT McLEOD</i>			DATE: 05/19/12			TIME: 0845			Received by: <i>Kevin Gandhi</i>			DATE:			TIME:			Relinquished by:			DATE:			Received by:		
Relinquished by: <i>Kevin Gandhi</i>			DATE: 05/19/12			TIME: 1030			Received by: <i>Kevin Gandhi</i>			DATE:			TIME:			Relinquished by:			DATE:			Received by:		
Relinquished by:			DATE:			TIME:			Received by:			DATE:			TIME:			Relinquished by:			DATE:			Received by:		

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10886-2

SDG Number: PRR1297

Login Number: 10886

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699021, 699022
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.8°C. ID GUN 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
 Michael Pelenski
 ARCADIS
 117 Blanchard St.
 Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 19MAY12
 Act/Wgt: 25.0 LB
 CAD: 103886297/INET3250

Delivery Address Bar Code



SHIP TO: (802) 660-1990

BILL SENDER

Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

Ref # B0009966.0002.70004
 Invoice #
 PO #
 Dept #

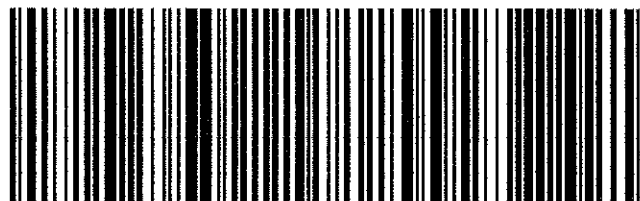
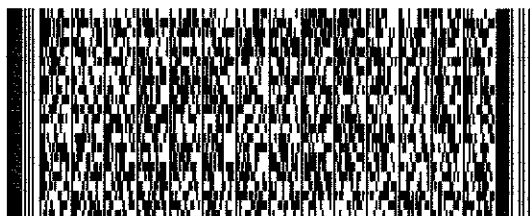
MON - 21 MAY A4
FIRST OVERNIGHT

TRK# 7984 1635 5389

0201

05403
 VT-US
BTVA

X1 BTVA



512G3/61AA/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10897-1

SDG Number: PRR1300

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/23/2012 11:09 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/23/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	17
QC Results	18
Qc Association Summary	19
Surrogate Recovery Report	20
Qc Reports	22
Client Chain of Custody	23
Sample Receipt Checklist	24

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1300 (200-10897-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 05/22/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 1.8 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of each sample in the sample set did meet the technical acceptance criteria specific to DMC recoveries, although not all DMC recoveries were within the control range in each analysis. The method allowance criteria provide for the recovery of up to three DMCs to be outside the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set. A trace concentration of chlorobenzene was identified in the analysis of each of the instrument blanks associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in the closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1

Sdg Number: PRR1300

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2	SOM01.2/VOA_Tr
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1

Sdg Number: PRR1300

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1
Sdg Number: PRR1300

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10897-1	PRR1WATGACI-23-SP-105	Water	05/21/2012 1038	05/22/2012 0850
200-10897-2	PRR1WATGACI-23-SP-106	Water	05/21/2012 1033	05/22/2012 0850
200-10897-3	PRR1WATGACI-23-SP-109	Water	05/21/2012 1036	05/22/2012 0850
200-10897-6TB	TB05212012	Water	05/21/2012 0000	05/22/2012 0850
200-10897-7STOBL K	VHBLK01	Water	05/22/2012 0930	05/22/2012 0850

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1

Sdg Number: PRR1300

Client Sample ID: PRR1WATGACI-23-SP-105

Lab Sample ID: 200-10897-1

Date Sampled: 05/21/2012 1038

Client Matrix: Water

Date Received: 05/22/2012 0850

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39094	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjj19.d
Dilution:	15.2			Initial Weight/Volume:	25 mL
Analysis Date:	05/22/2012 1624			Final Weight/Volume:	25 mL
Prep Date:	05/22/2012 1624				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	76	U	76
Chlorobenzene	2000	E	7.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	99		65 - 131
Chloroethane-d5	117		71 - 131
1,1-Dichloroethene-d2	90		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	114		78 - 129
Benzene-d6	97		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121
2-Hexanone-d5	106		28 - 135
1,1,2,2-Tetrachloroethane-d2	103		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1

Sdg Number: PRR1300

Client Sample ID: PRR1WATGACI-23-SP-105

Lab Sample ID: 200-10897-1

Date Sampled: 05/21/2012 1038

Client Matrix: Water

Date Received: 05/22/2012 0850

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39094	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjj18.d
Dilution:	107.3			Initial Weight/Volume:	25 mL
Analysis Date:	05/22/2012 1559	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/22/2012 1559				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	540	U	540
Chlorobenzene	1700	D	54

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	114		71 - 131
1,1-Dichloroethene-d2	89		55 - 104
2-Butanone-d5	98		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	118		78 - 129
Benzene-d6	110		77 - 124
1,2-Dichloropropane-d6	95		79 - 124
Toluene-d8	108		77 - 121
trans-1,3-Dichloropropene-d4	110		73 - 121
2-Hexanone-d5	108		28 - 135
1,1,2,2-Tetrachloroethane-d2	97		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1
Sdg Number: PRR1300

Client Sample ID: PRR1WATGACI-23-SP-106

Lab Sample ID: 200-10897-2
Client Matrix: Water

Date Sampled: 05/21/2012 1033
Date Received: 05/22/2012 0850

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39094	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjj22.d
Dilution:	11.9			Initial Weight/Volume:	25 mL
Analysis Date:	05/22/2012 1737			Final Weight/Volume:	25 mL
Prep Date:	05/22/2012 1737				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	110		60
Chlorobenzene	1600	E	6.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	114		71 - 131
1,1-Dichloroethene-d2	88		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	108		78 - 121
1,2-Dichloroethane-d4	110		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	106		73 - 121
2-Hexanone-d5	105		28 - 135
1,1,2,2-Tetrachloroethane-d2	97		73 - 125
1,2-Dichlorobenzene-d4	109		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1

Sdg Number: PRR1300

Client Sample ID: PRR1WATGACI-23-SP-106

Lab Sample ID: 200-10897-2

Date Sampled: 05/21/2012 1033

Client Matrix: Water

Date Received: 05/22/2012 0850

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39094	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjj21.d
Dilution:	84.6			Initial Weight/Volume:	25 mL
Analysis Date:	05/22/2012 1713	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/22/2012 1713				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	130	J D	420
Chlorobenzene	1400	D	42

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	104		65 - 131
Chloroethane-d5	121		71 - 131
1,1-Dichloroethene-d2	93		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	107		78 - 121
1,2-Dichloroethane-d4	117		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	104		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121
2-Hexanone-d5	100		28 - 135
1,1,2,2-Tetrachloroethane-d2	95		73 - 125
1,2-Dichlorobenzene-d4	111		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1
Sdg Number: PRR1300

Client Sample ID: PRR1WATGACI-23-SP-109

Lab Sample ID: 200-10897-3
Client Matrix: Water

Date Sampled: 05/21/2012 1036
Date Received: 05/22/2012 0850

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39094	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjj25.d
Dilution:	3.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/22/2012 1850			Final Weight/Volume:	25 mL
Prep Date:	05/22/2012 1850				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	7.8	J	15
Chlorobenzene	400	E	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	98		65 - 131
Chloroethane-d5	113		71 - 131
1,1-Dichloroethene-d2	88		55 - 104
2-Butanone-d5	106		49 - 155
Chloroform-d	125	*	78 - 121
1,2-Dichloroethane-d4	116		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	95		79 - 124
Toluene-d8	106		77 - 121
trans-1,3-Dichloropropene-d4	106		73 - 121
2-Hexanone-d5	107		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	109		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1

Sdg Number: PRR1300

Client Sample ID: PRR1WATGACI-23-SP-109

Lab Sample ID: 200-10897-3

Date Sampled: 05/21/2012 1036

Client Matrix: Water

Date Received: 05/22/2012 0850

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-39094	Instrument ID: J.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: djjj24.d
Dilution: 22		Initial Weight/Volume: 25 mL
Analysis Date: 05/22/2012 1825	Run Type: DL	Final Weight/Volume: 25 mL
Prep Date: 05/22/2012 1825		

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	110	U	110
Chlorobenzene	350	D	11

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	103		65 - 131
Chloroethane-d5	118		71 - 131
1,1-Dichloroethene-d2	94		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	108		78 - 121
1,2-Dichloroethane-d4	116		78 - 129
Benzene-d6	109		77 - 124
1,2-Dichloropropane-d6	101		79 - 124
Toluene-d8	114		77 - 121
trans-1,3-Dichloropropene-d4	117		73 - 121
2-Hexanone-d5	115		28 - 135
1,1,2,2-Tetrachloroethane-d2	103		73 - 125
1,2-Dichlorobenzene-d4	112		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1

Sdg Number: PRR1300

Client Sample ID: TB05212012

Lab Sample ID: 200-10897-6TB

Date Sampled: 05/21/2012 0000

Client Matrix: Water

Date Received: 05/22/2012 0850

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39094	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjj27.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/22/2012 1938			Final Weight/Volume:	25 mL
Prep Date:	05/22/2012 1938				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	102		65 - 131
Chloroethane-d5	116		71 - 131
1,1-Dichloroethene-d2	92		55 - 104
2-Butanone-d5	104		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	119		78 - 129
Benzene-d6	113		77 - 124
1,2-Dichloropropane-d6	98		79 - 124
Toluene-d8	109		77 - 121
trans-1,3-Dichloropropene-d4	107		73 - 121
2-Hexanone-d5	110		28 - 135
1,1,2,2-Tetrachloroethane-d2	101		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1

Sdg Number: PRR1300

Client Sample ID: VHBLK01

Lab Sample ID: 200-10897-7STOBLK

Date Sampled: 05/22/2012 0930

Client Matrix: Water

Date Received: 05/22/2012 0850

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39094	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdjj28.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/22/2012 2003			Final Weight/Volume:	25 mL
Prep Date:	05/22/2012 2003				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	102		65 - 131
Chloroethane-d5	117		71 - 131
1,1-Dichloroethene-d2	92		55 - 104
2-Butanone-d5	107		49 - 155
Chloroform-d	104		78 - 121
1,2-Dichloroethane-d4	120		78 - 129
Benzene-d6	111		77 - 124
1,2-Dichloropropane-d6	105		79 - 124
Toluene-d8	115		77 - 121
trans-1,3-Dichloropropene-d4	116		73 - 121
2-Hexanone-d5	115		28 - 135
1,1,2,2-Tetrachloroethane-d2	107		73 - 125
1,2-Dichlorobenzene-d4	113		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1

Sdg Number: PRR1300

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	*	Surrogate exceeds the control limit

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1

Sdg Number: PRR1300

QC Association Summary

Lab Sample ID	Client Sample ID	Report			Prep Batch
		Basis	Client Matrix	Method	
GC/MS VOA					
Analysis Batch:200-39094					
MB 200-39094/6	Method Blank	T	Water	SOM01.2/VOA_T	
200-10897-1	PRR1WATGACI-23-SP-105	T	Water	SOM01.2/VOA_T	
200-10897-1DL	PRR1WATGACI-23-SP-105	T	Water	SOM01.2/VOA_T	
200-10897-2	PRR1WATGACI-23-SP-106	T	Water	SOM01.2/VOA_T	
200-10897-2DL	PRR1WATGACI-23-SP-106	T	Water	SOM01.2/VOA_T	
200-10897-3	PRR1WATGACI-23-SP-109	T	Water	SOM01.2/VOA_T	
200-10897-3DL	PRR1WATGACI-23-SP-109	T	Water	SOM01.2/VOA_T	
200-10897-6TB	TB05212012	T	Water	SOM01.2/VOA_T	
200-10897-7STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1

Sdg Number: PRR1300

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10897-1 DL	PRR1WATGACI-23-S P-105 DL	100	114	89	98	98	118	110	95
200-10897-1	PRR1WATGACI-23-S P-105	99	117	90	105	102	114	97	92
200-10897-2 DL	PRR1WATGACI-23-S P-106 DL	104	121	93	105	107	117	101	93
200-10897-2	PRR1WATGACI-23-S P-106	97	114	88	103	108	110	100	92
200-10897-3 DL	PRR1WATGACI-23-S P-109 DL	103	118	94	105	108	116	109	101
200-10897-3	PRR1WATGACI-23-S P-109	98	113	88	106	125*	116	102	95
200-10897-6	TB05212012	102	116	92	104	101	119	113	98
200-10897-7	VHBLK01	102	117	92	107	104	120	111	105
MB 200-39094/6		100	116	90	103	102	117	118	103

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1
Sdg Number: PRR1300

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10897-1 DL	PRR1WATGACI-23-S P-105 DL	108	110	108	97	105
200-10897-1	PRR1WATGACI-23-S P-105	101	104	106	103	103
200-10897-2 DL	PRR1WATGACI-23-S P-106 DL	104	104	100	95	111
200-10897-2	PRR1WATGACI-23-S P-106	103	106	105	97	109
200-10897-3 DL	PRR1WATGACI-23-S P-109 DL	114	117	115	103	112
200-10897-3	PRR1WATGACI-23-S P-109	106	106	107	100	109
200-10897-6	TB05212012	109	107	110	101	105
200-10897-7	VHBLK01	115	116	115	107	113
MB 200-39094/6		115	118	121	106	110

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1

Sdg Number: PRR1300

Method Blank - Batch: 200-39094

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-39094/6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/22/2012 1043
 Prep Date: 05/22/2012 1043
 Leach Date: N/A

Analysis Batch: 200-39094
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: J.i
 Lab File ID: jdjj06.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	100	65 - 131
Chloroethane-d5	116	71 - 131
1,1-Dichloroethene-d2	90	55 - 104
2-Butanone-d5	103	49 - 155
Chloroform-d	102	78 - 121
1,2-Dichloroethane-d4	117	78 - 129
Benzene-d6	118	77 - 124
1,2-Dichloropropane-d6	103	79 - 124
Toluene-d8	115	77 - 121
trans-1,3-Dichloropropene-d4	118	73 - 121
2-Hexanone-d5	121	28 - 135
1,1,2,2-Tetrachloroethane-d2	106	73 - 125
1,2-Dichlorobenzene-d4	110	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO.		PROJECT NAME		SDG NUMBER/COC Number																				
B000966.0002.70004		Tierra Phase I Removal		PRR1300																				
SAMPLERS: CHES		Requested Analyses																						
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATGACI-23-SP-105	5/21/2012	10:38	water	Grab	3	X																		
PRR1WATGACE-23-SP-106	5/21/2012	10:33	water	Grab	3	X																		
PRR1WATGACE-23-SP-109	5/21/2012	10:36	water	Grab	3	X																		
PRR1WATCME-52	5/21/2012	10:28	water	Grab	1	X																		
PRR1WAT-23-SP-101	5/21/2012	10:40	water	Grab	1	X																		
T905212012	5/21/2012		water	Grab	3	X																		
Special Instructions/Comments:		Special QA/QC instructions																						
Requested Analyses		2-Butanone, Chlorobenzene																						
Requested Analyses		TSS																						
Requested Analyses		2																						
Requested Analyses		3																						
Requested Analyses		4																						
Requested Analyses		5																						
Requested Analyses		6																						
Requested Analyses		7																						
Requested Analyses		8																						
Requested Analyses		9																						
Requested Analyses		10																						
Requested Analyses		11																						
Requested Analyses		12																						
Requested Analyses		13																						
Requested Analyses		14																						
Requested Analyses		15																						
Requested Analyses		16																						
Requested Analyses		17																						

Laboratory Information and Receipt			
Sample Receipt:	Condition/Cooler Temp:	Relinquished by:	Received by:
<input type="checkbox"/> Cooler packed with ice			
<input type="checkbox"/> Cooler custody seal intact			
Lab Name: TestAmerica - Burlington, VT			
Shipping Tracking #			
Specify Turnaround Requirements: 24 hr TAT			
Relinquished by: <i>LaBour</i>	DATE: 5/21/12	TIME: 1330	Received by: <i>JM</i>
Relinquished by: <i>WAT</i>	DATE: 05/24/12	TIME: 1500	Received by: <i>JM</i>
Relinquished by:	DATE:	TIME:	Received by:

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10897-1

SDG Number: PRR1300

Login Number: 10897

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699031,032
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8°C IR GUN ID 154/CF=-0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (732) 575-4275
 Michael Pelenski
 ARCADIS
 117 Blanchard St.
 Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 21MAY12
 ActWgt: 15.0 LB
 CAD: 103886297/INET3250

Dims: 12 X 9 X 9 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
 Invoice #
 PO # B0009966.0002.70004
 Dept #

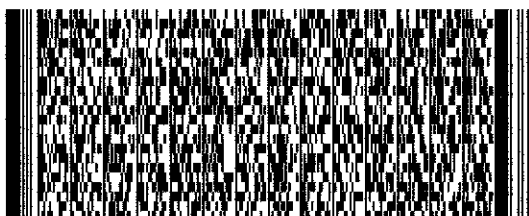
TUE - 22 MAY A4
 FIRST OVERNIGHT

TRK# 7984 1960 0380

0201

E9 BTVA

05403
 VT-US
BTV



512G3161A4/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10897-2

SDG Number: PRR1300

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/23/2012 11:21 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/23/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	15

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1300 (200-10897-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 05/22/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 1.8 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10897-2

Sdg Number: PRR1300

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10897-2

Sdg Number: PRR1300

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10897-2
Sdg Number: PRR1300

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10897-4	PRR1WATCME-52	Water	05/21/2012 1028	05/22/2012 0850
200-10897-5	PRR1WAT-23-SP-101	Water	05/21/2012 1040	05/22/2012 0850

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10897-2

Sdg Number: PRR1300

General Chemistry

Client Sample ID: PRR1WATCME-52

Lab Sample ID: 200-10897-4

Date Sampled: 05/21/2012 1028

Client Matrix: Water

Date Received: 05/22/2012 0850

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	3.3		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-39042		Analysis Date: 05/22/2012 1109					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10897-2

Sdg Number: PRR1300

General Chemistry

Client Sample ID: PRR1WAT-23-SP-101

Lab Sample ID: 200-10897-5

Date Sampled: 05/21/2012 1040

Client Matrix: Water

Date Received: 05/22/2012 0850

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	39.6		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-39042		Analysis Date: 05/22/2012 1109					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10897-2

Sdg Number: PRR1300

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10897-2

Sdg Number: PRR1300

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-39042					
LCS 200-39042/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-39042/1	Method Blank	T	Water	SM 2540D	
200-10897-4	PRR1WATCME-52	T	Water	SM 2540D	
200-10897-5	PRR1WAT-23-SP-101	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10897-2
Sdg Number: PRR1300

Method Blank - Batch: 200-39042

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	MB 200-39042/1	Analysis Batch:	200-39042	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/22/2012 1109	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-39042

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	LCS 200-39042/2	Analysis Batch:	200-39042	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/22/2012 1109	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	496.0	99	85 - 115	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10897-2

SDG Number: PRR1300

Login Number: 10897

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699031,032
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8°C IR GUN ID 154/CF=-0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (732) 575-4275
 Michael Pelenski
 ARCADIS
 117 Blanchard St.
 Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 21MAY12
 ActWgt: 15.0 LB
 CAD: 103886297/INET3250
 Dims: 12 X 9 X 9 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
 Invoice #
 PO # B0009966.0002.70004
 Dept #

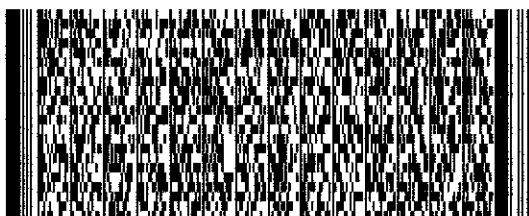
TUE - 22 MAY A4
 FIRST OVERNIGHT

TRK# 7984 1960 0380

0201

E9 BTVA

05403
 VT-US
BTV



512G3161A4/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10925-2

SDG Number: PRR1303

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/24/2012 11:20 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/24/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	15

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1303 (200-10925-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 05/23/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 3.0 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10925-2
Sdg Number: PRR1303

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10925-2

Sdg Number: PRR1303

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10925-2
Sdg Number: PRR1303

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10925-4	PRR1WATCME-53	Water	05/22/2012 0835	05/23/2012 0920
200-10925-5	PRR1WAT-24-SP-101	Water	05/22/2012 0847	05/23/2012 0920

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10925-2

Sdg Number: PRR1303

General Chemistry

Client Sample ID: PRR1WATCME-53

Lab Sample ID: 200-10925-4

Date Sampled: 05/22/2012 0835

Client Matrix: Water

Date Received: 05/23/2012 0920

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	6.3		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-39123		Analysis Date: 05/23/2012 1150					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10925-2

Sdg Number: PRR1303

General Chemistry

Client Sample ID: PRR1WAT-24-SP-101

Lab Sample ID: 200-10925-5

Date Sampled: 05/22/2012 0847

Client Matrix: Water

Date Received: 05/23/2012 0920

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	37.8		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-39123		Analysis Date: 05/23/2012 1150					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10925-2

Sdg Number: PRR1303

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10925-2

Sdg Number: PRR1303

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-39123					
LCS 200-39123/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-39123/1	Method Blank	T	Water	SM 2540D	
200-10925-4	PRR1WATCME-53	T	Water	SM 2540D	
200-10925-5	PRR1WAT-24-SP-101	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10925-2
Sdg Number: PRR1303

Method Blank - Batch: 200-39123

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-39123/1	Analysis Batch:	200-39123	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/23/2012 1150	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-39123

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-39123/2	Analysis Batch:	200-39123	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/23/2012 1150	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	504.0	101	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

PROJECT NAME		Requested Analyses																	SDG NUMBER	COC Number					
Tierra Phase I Removal																			PRR1303						
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks		
PRR1WATGACI-24-SP-105	5/22/2012	08:45	water	Grab	3	X																			
PRR1WATGACE-24-SP-106	5/22/2012	08:43	water	Grab	3	X																			
PRR1WATGACE-24-SP-109	5/22/2012	08:40	water	Grab	3	X																			
PRR1WATCME-53	5/22/2012	08:35	water	Grab	1	X																			
PRR1WAT-24-SP-101	5/22/2012	08:47	water	Grab	1	X																			
TB05222012	5/22/2012		water	Grab	3	X																			
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																							
Requested Analyses		<p>1 2-Butanones, Chlorobenzene</p> <p>2 TSS</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p>																							
Laboratory Information and Receipt		<p>Lab Name: TestAmerica -Burlington, VT</p> <p>Shipping Tracking #</p> <p>Specify Turnaround Requirements: 24 hr TAT</p> <p><input checked="" type="checkbox"/> Cooler packed with ice</p> <p><input checked="" type="checkbox"/> Cooler custody seal intact</p> <p>Sample Receipt:</p> <p>Condition/Cooler Temp: 70</p>																							
Relinquished by:		DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME
Relinquished by:		5/22/12	1230	5/23/12		5/23/12		5/23/12		5/23/12		5/23/12		5/23/12		5/23/12		5/23/12		5/23/12		5/23/12		5/23/12	
Relinquished by:		5/22/12	1500	5/22/12	1500	5/22/12	1500	5/22/12	1500	5/22/12	1500	5/22/12	1500	5/22/12	1500	5/22/12	1500	5/22/12	1500	5/22/12	1500	5/22/12	1500	5/22/12	1500

From: (732) 575-4275
 Michael Pelenski
 ARCADIS
 117 Blanchard St.
 Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 22MAY12
 ActWgt: 20.0 LB
 CAD: 103886297/INET3250

Dims: 13 X 10 X 14 IN

SHIP TO: (802) 660-1990

BILL SENDER

Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

Delivery Address Bar Code



Ref # B0009966.0002.70004
 Invoice #
 PO # B0009966.0002.70004
 Dept #

WED - 23 MAY A4
FIRST OVERNIGHT

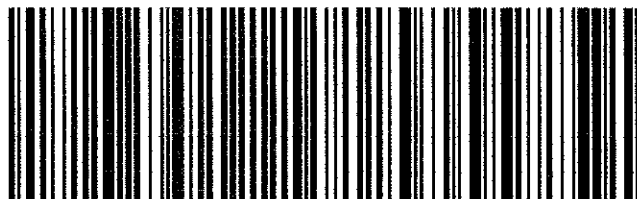
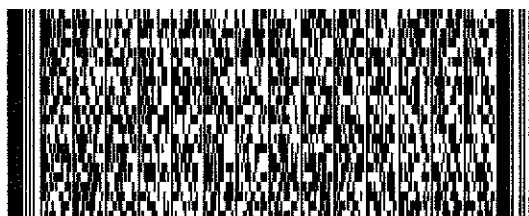
TRK# 7935 9382 1041

0201

05403

VT-US

BTVA

E9 BTVA

512G3161A4IA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10925-2

SDG Number: PRR1303

Login Number: 10925

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699025, 026
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

ANALYTICAL REPORT

Job Number: 200-10948-1

SDG Number: PRR1307

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/25/2012 1:49 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/25/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	17
QC Results	18
Qc Association Summary	19
Surrogate Recovery Report	20
Qc Reports	22
Client Chain of Custody	24
Sample Receipt Checklist	25

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1307 (200-10948-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 05/24/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 1.8 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of each sample in the sample set did meet the technical acceptance criteria specific to DMC recoveries, although not all DMC recoveries were within the control range in each analysis. The method allowance criteria provide for the recovery of up to three DMCs to be outside the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were performed on sample PRR1WATGACE-25-SP-10. Those analyses were performed at a 20-fold dilution, consistent with the more concentrated analysis of the parent sample. The constituent concentration of chlorobenzene in the sample was significantly higher than the spike amount that was used in preparing the test volumes for the matrix spike and matrix spike duplicate analyses. This precluded a meaningful evaluation of recovery performance. The analysis of the method blank associated with the analytical work was free of analyte contamination. A trace concentration of

chlorobenzene was identified in the analysis of the storage blank associated with the sample set. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant storage blank analysis. A trace concentration of chlorobenzene was identified in the analysis of each of the instrument blanks associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The samples in this sample set were analyzed in an analytical sequence that included the initial calibration. The response for each target analyte met the 50.0 percent difference criterion in the closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1

Sdg Number: PRR1307

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1

Sdg Number: PRR1307

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1
Sdg Number: PRR1307

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10948-1	PRR1WATGACI-25-SP-105	Water	05/23/2012 1200	05/24/2012 0815
200-10948-2	PRR1WATGACE-25-SP-106	Water	05/23/2012 1200	05/24/2012 0815
200-10948-2MS	PRR1WATGACE-25-SP-106	Water	05/23/2012 1200	05/24/2012 0815
200-10948-2MSD	PRR1WATGACE-25-SP-106	Water	05/23/2012 1200	05/24/2012 0815
200-10948-3	PRR1WATGACE-25-SP-109	Water	05/23/2012 1200	05/24/2012 0815
200-10948-5TB	TB05232012-A	Water	05/23/2012 0000	05/24/2012 0815
200-10948-6STOBL K	VHBLK01	Water	05/24/2012 0947	05/24/2012 0815

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1
Sdg Number: PRR1307

Client Sample ID: PRR1WATGACI-25-SP-105

Lab Sample ID: 200-10948-1
Client Matrix: Water

Date Sampled: 05/23/2012 1200
Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39291	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dio14.d
Dilution:	118.9			Initial Weight/Volume:	25 mL
Analysis Date:	05/24/2012 1724			Final Weight/Volume:	25 mL
Prep Date:	05/24/2012 1724				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	590	U	590
Chlorobenzene	13000	E	59

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	100		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	96		49 - 155
Chloroform-d	95		78 - 121
1,2-Dichloroethane-d4	99		78 - 129
Benzene-d6	96		77 - 124
1,2-Dichloropropane-d6	98		79 - 124
Toluene-d8	97		77 - 121
trans-1,3-Dichloropropene-d4	93		73 - 121
2-Hexanone-d5	97		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1

Sdg Number: PRR1307

Client Sample ID: PRR1WATGACI-25-SP-105

Lab Sample ID: 200-10948-1

Date Sampled: 05/23/2012 1200

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39291	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dio13.d
Dilution:	880			Initial Weight/Volume:	25 mL
Analysis Date:	05/24/2012 1700	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/24/2012 1700				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	4400	U	4400
Chlorobenzene	12000	D	440

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	99		65 - 131
Chloroethane-d5	105		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	106		79 - 124
Toluene-d8	104		77 - 121
trans-1,3-Dichloropropene-d4	101		73 - 121
2-Hexanone-d5	104		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	110		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1

Sdg Number: PRR1307

Client Sample ID: PRR1WATGACE-25-SP-106

Lab Sample ID: 200-10948-2

Date Sampled: 05/23/2012 1200

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39291	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dio17.d
Dilution:	20			Initial Weight/Volume:	25 mL
Analysis Date:	05/24/2012 1836			Final Weight/Volume:	25 mL
Prep Date:	05/24/2012 1836				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	88	J	100
Chlorobenzene	2300	E	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	98		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	102		78 - 129
Benzene-d6	99		77 - 124
1,2-Dichloropropane-d6	100		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	94		73 - 121
2-Hexanone-d5	98		28 - 135
1,1,2,2-Tetrachloroethane-d2	96		73 - 125
1,2-Dichlorobenzene-d4	107		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1
Sdg Number: PRR1307

Client Sample ID: PRR1WATGACE-25-SP-106

Lab Sample ID: 200-10948-2
Client Matrix: Water

Date Sampled: 05/23/2012 1200
Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39291	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dio16.d
Dilution:	141.9			Initial Weight/Volume:	25 mL
Analysis Date:	05/24/2012 1812	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/24/2012 1812				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	97	J D	710
Chlorobenzene	2200	D	71

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	92		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	72		55 - 104
2-Butanone-d5	92		49 - 155
Chloroform-d	91		78 - 121
1,2-Dichloroethane-d4	96		78 - 129
Benzene-d6	96		77 - 124
1,2-Dichloropropane-d6	98		79 - 124
Toluene-d8	96		77 - 121
trans-1,3-Dichloropropene-d4	91		73 - 121
2-Hexanone-d5	94		28 - 135
1,1,2,2-Tetrachloroethane-d2	90		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1

Sdg Number: PRR1307

Client Sample ID: PRR1WATGACE-25-SP-109

Lab Sample ID: 200-10948-3

Date Sampled: 05/23/2012 1200

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39291	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dio24.d
Dilution:	7.3			Initial Weight/Volume:	25 mL
Analysis Date:	05/24/2012 2125			Final Weight/Volume:	25 mL
Prep Date:	05/24/2012 2125				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	13	J	37
Chlorobenzene	860	E	3.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	101		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	95		49 - 155
Chloroform-d	104		78 - 121
1,2-Dichloroethane-d4	100		78 - 129
Benzene-d6	98		77 - 124
1,2-Dichloropropane-d6	98		79 - 124
Toluene-d8	97		77 - 121
trans-1,3-Dichloropropene-d4	90		73 - 121
2-Hexanone-d5	96		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	109		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1

Sdg Number: PRR1307

Client Sample ID: PRR1WATGACE-25-SP-109

Lab Sample ID: 200-10948-3

Date Sampled: 05/23/2012 1200

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39291	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dio23.d
Dilution:	52.4			Initial Weight/Volume:	25 mL
Analysis Date:	05/24/2012 2101	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/24/2012 2101				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	18	J D	260
Chlorobenzene	710	D	26

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	91		65 - 131
Chloroethane-d5	99		71 - 131
1,1-Dichloroethene-d2	72		55 - 104
2-Butanone-d5	93		49 - 155
Chloroform-d	93		78 - 121
1,2-Dichloroethane-d4	96		78 - 129
Benzene-d6	96		77 - 124
1,2-Dichloropropane-d6	97		79 - 124
Toluene-d8	95		77 - 121
trans-1,3-Dichloropropene-d4	90		73 - 121
2-Hexanone-d5	96		28 - 135
1,1,2,2-Tetrachloroethane-d2	91		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1

Sdg Number: PRR1307

Client Sample ID: TB05232012-A

Lab Sample ID: 200-10948-5TB

Date Sampled: 05/23/2012 0000

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39291	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dio26.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/24/2012 2213			Final Weight/Volume:	25 mL
Prep Date:	05/24/2012 2213				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.090	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	108		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	100		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	108		79 - 124
Toluene-d8	106		77 - 121
trans-1,3-Dichloropropene-d4	98		73 - 121
2-Hexanone-d5	105		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	114		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1
Sdg Number: PRR1307

Client Sample ID: VHBLK01

Lab Sample ID: 200-10948-6STOBLK
Client Matrix: Water

Date Sampled: 05/24/2012 0947
Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39291	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dio27.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/24/2012 2237			Final Weight/Volume:	25 mL
Prep Date:	05/24/2012 2237				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.059	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	95		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	89		49 - 155
Chloroform-d	93		78 - 121
1,2-Dichloroethane-d4	96		78 - 129
Benzene-d6	99		77 - 124
1,2-Dichloropropane-d6	99		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	89		73 - 121
2-Hexanone-d5	92		28 - 135
1,1,2,2-Tetrachloroethane-d2	90		73 - 125
1,2-Dichlorobenzene-d4	110		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1

Sdg Number: PRR1307

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	*	Surrogate exceeds the control limit

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1

Sdg Number: PRR1307

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC/MS VOA					
Analysis Batch:200-39291					
MB 200-39291/10	Method Blank	T	Water	SOM01.2/VOA_T	
200-10948-1	PRR1WATGACI-25-SP-105	T	Water	SOM01.2/VOA_T	
200-10948-1DL	PRR1WATGACI-25-SP-105	T	Water	SOM01.2/VOA_T	
200-10948-2	PRR1WATGACE-25-SP-106	T	Water	SOM01.2/VOA_T	
200-10948-2DL	PRR1WATGACE-25-SP-106	T	Water	SOM01.2/VOA_T	
200-10948-2MS	Matrix Spike	T	Water	SOM01.2/VOA_T	
200-10948-2MSD	Matrix Spike Duplicate	T	Water	SOM01.2/VOA_T	
200-10948-3	PRR1WATGACE-25-SP-109	T	Water	SOM01.2/VOA_T	
200-10948-3DL	PRR1WATGACE-25-SP-109	T	Water	SOM01.2/VOA_T	
200-10948-5TB	TB05232012-A	T	Water	SOM01.2/VOA_T	
200-10948-6STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1
Sdg Number: PRR1307

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10948-1 DL	PRR1WATGACI-25-S P-105 DL	99	105	79	103	99	105	103	106
200-10948-1	PRR1WATGACI-25-S P-105	94	100	75	96	95	99	96	98
200-10948-2 DL	PRR1WATGACE-25- SP-106 DL	92	98	72	92	91	96	96	98
200-10948-2	PRR1WATGACE-25- SP-106	97	102	76	98	101	102	99	100
200-10948-3 DL	PRR1WATGACE-25- SP-109 DL	91	99	72	93	93	96	96	97
200-10948-3	PRR1WATGACE-25- SP-109	96	101	75	95	104	100	98	98
200-10948-5	TB05232012-A	101	108	79	100	101	105	106	108
200-10948-6	VHBLK01	95	102	74	89	93	96	99	99
MB 200-39291/10		93	98	74	96	94	100	99	102
200-10948-2 MS	PRR1WATGACE-25- SP-106 MS	100	107	108*	105	105	108	102	106
200-10948-2 MSD	PRR1WATGACE-25- SP-106 MSD	93	100	99	94	98	99	96	98

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1

Sdg Number: PRR1307

Surrogate Recovery Report**SOM01.2/VOA Tr Trace Water****Client Matrix: Water**

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10948-1 DL	PRR1WATGACI-25-S P-105 DL	104	101	104	100	110
200-10948-1	PRR1WATGACI-25-S P-105	97	93	97	93	106
200-10948-2 DL	PRR1WATGACE-25- SP-106 DL	96	91	94	90	101
200-10948-2	PRR1WATGACE-25- SP-106	99	94	98	96	107
200-10948-3 DL	PRR1WATGACE-25- SP-109 DL	95	90	96	91	105
200-10948-3	PRR1WATGACE-25- SP-109	97	90	96	94	109
200-10948-5	TB05232012-A	106	98	105	100	114
200-10948-6	VHBLK01	99	89	92	90	110
MB 200-39291/10		100	97	99	93	107
200-10948-2 MS	PRR1WATGACE-25- SP-106 MS	103	101	107	100	115
200-10948-2 MSD	PRR1WATGACE-25- SP-106 MSD	95	91	95	92	106

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1
Sdg Number: PRR1307

Method Blank - Batch: 200-39291

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-39291/10
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/24/2012 1548
Prep Date: 05/24/2012 1548
Leach Date: N/A

Analysis Batch: 200-39291
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: D.i
Lab File ID: dio10.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	93	65 - 131
Chloroethane-d5	98	71 - 131
1,1-Dichloroethene-d2	74	55 - 104
2-Butanone-d5	96	49 - 155
Chloroform-d	94	78 - 121
1,2-Dichloroethane-d4	100	78 - 129
Benzene-d6	99	77 - 124
1,2-Dichloropropane-d6	102	79 - 124
Toluene-d8	100	77 - 121
trans-1,3-Dichloropropene-d4	97	73 - 121
2-Hexanone-d5	99	28 - 135
1,1,2,2-Tetrachloroethane-d2	93	73 - 125
1,2-Dichlorobenzene-d4	107	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1
Sdg Number: PRR1307

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-39291**

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

MS Lab Sample ID:	200-10948-2	Analysis Batch:	200-39291	Instrument ID:	D.i
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	dio19.d
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	05/24/2012 1925			Final Weight/Volume:	25 mL
Prep Date:	05/24/2012 1925				25 mL
Leach Date:	N/A				

MSD Lab Sample ID:	200-10948-2	Analysis Batch:	200-39291	Instrument ID:	D.i
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	dio21.d
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	05/24/2012 2013			Final Weight/Volume:	25 mL
Prep Date:	05/24/2012 2013				25 mL
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Chlorobenzene	-71	12	75 - 130	-283	13	E	E

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Vinyl chloride-d3	100	93	65 - 131
Chloroethane-d5	107	100	71 - 131
1,1-Dichloroethene-d2	108	*	55 - 104
2-Butanone-d5	105	94	49 - 155
Chloroform-d	105	98	78 - 121
1,2-Dichloroethane-d4	108	99	78 - 129
Benzene-d6	102	96	77 - 124
1,2-Dichloropropane-d6	106	98	79 - 124
Toluene-d8	103	95	77 - 121
trans-1,3-Dichloropropene-d4	101	91	73 - 121
2-Hexanone-d5	107	95	28 - 135
1,1,2,2-Tetrachloroethane-d2	100	92	73 - 125
1,2-Dichlorobenzene-d4	115	106	80 - 131

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10948-1

SDG Number: PRR1307

Login Number: 10948

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699033, 034
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
 Michael Pelenski
 ARCADIS
 117 Blanchard St.
 Newark, NJ 07105

Origin ID: VAKA



J1210112190225

Ship Date: 23MAY12
 ActWgt: 15.0 LB
 CAD: 103886297/NET3250
 Dims: 12 X 6 X 8 IN

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Delivery Address Bar Code



Ref # B0009966.0002.70004
 Invoice #
 PO #
 Dept #

3 of 3

THU - 24 MAY A4
FIRST OVERNIGHT

MPS# 7936 0054 6568

0263

Mstr# 7936 0054 6373

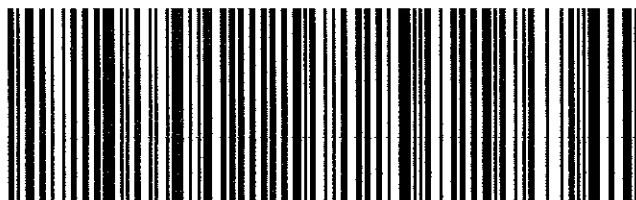
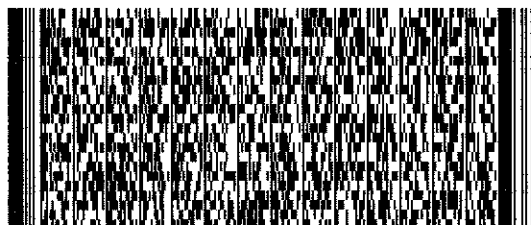
0201

05403

VT-US

E9 BTVA

BTV



512G361A4/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10948-2

SDG Number: PRR1307

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/25/2012 9:43 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/25/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	9
QC Results	10
Qc Association Summary	11
Qc Reports	12
Client Chain of Custody	13
Sample Receipt Checklist	14

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1307 (200-10948-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The sample in this sample set was received on 05/24/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The sample was received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 1.8 °C.

SM 2540D Total suspended Solids

The sample in this sample set was analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10948-2

Sdg Number: PRR1307

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10948-2

Sdg Number: PRR1307

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10948-2
Sdg Number: PRR1307

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10948-4	PRR1WAT-25-SP-101	Water	05/23/2012 1200	05/24/2012 0815

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10948-2

Sdg Number: PRR1307

General Chemistry

Client Sample ID: PRR1WAT-25-SP-101

Lab Sample ID: 200-10948-4

Date Sampled: 05/23/2012 1200

Client Matrix: Water

Date Received: 05/24/2012 0815

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	25.8		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-39218		Analysis Date: 05/24/2012 1212					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10948-2

Sdg Number: PRR1307

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10948-2

Sdg Number: PRR1307

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-39218					
LCS 200-39218/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-39218/1	Method Blank	T	Water	SM 2540D	
200-10948-4	PRR1WAT-25-SP-101	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10948-2
Sdg Number: PRR1307

Method Blank - Batch: 200-39218

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	MB 200-39218/1	Analysis Batch:	200-39218	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/24/2012 1212	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-39218

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	LCS 200-39218/2	Analysis Batch:	200-39218	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/24/2012 1212	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	498.0	100	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

ARCADIS
infrastructure, environment, buildings
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJECT NAME Terra Phase I Removal																													
PROJ. NO. B000966.0002.70004	SDG NUMBER/COC Number PRR1307																												
SAMPLERS: CHES	<input type="checkbox"/> Special QA/QC Instructions																												
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks						
PRR1WATGACI-25-SP-105	5/23/2012	12:00	water	Grab	3	X																							
PRR1WATGACE-25-SP-106	5/23/2012	12:00	water	Grab	9	X																		MS/MSD					
PRR1WATGACE-25-SP-109	5/23/2012	12:00	water	Grab	3	X																							
PRR1WAT-25-SP-101	5/23/2012	12:00	water	Grab	1	X																							
TB05232012-A	5/23/2012		water		3	X																							
Special Instructions/Comments:																													
<input type="checkbox"/> Special QA/QC Instructions																													
Laboratory Information and Receipt																													
Lab Name: TestAmerica - Burlington, VT																													
Shipping Tracking #																													
<input checked="" type="checkbox"/> Cooler packed with ice																													
<input checked="" type="checkbox"/> Cooler custody seal intact																													
Sample Receipt:																													
Condition/Cooler Temp: 1.8 °C																													
Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME			
John Li	5/23/12	1215	Karin Gendini	5/24/12	1815	John Li	5/23/12	1800	Karin Gendini	5/24/12	1815	John Li	5/23/12	1800	Karin Gendini	5/24/12	1815	John Li	5/23/12	1800	Karin Gendini	5/24/12	1815	John Li	5/23/12	1800	Karin Gendini	5/24/12	1815

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10948-2

SDG Number: PRR1307

Login Number: 10948

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699033, 034
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
 Michael Pelenski
 ARCADIS
 117 Blanchard St.
 Newark, NJ 07105

Origin ID: VAKA



J1210112190225

Ship Date: 23MAY12
 ActWgt: 15.0 LB
 CAD: 103886297/NET3250
 Dims: 12 X 6 X 8 IN

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Delivery Address Bar Code



Ref # B0009966.0002.70004
 Invoice #
 PO #
 Dept #

3 of 3

THU - 24 MAY A4
FIRST OVERNIGHT

MPS# 7936 0054 6568

0263

Mstr# 7936 0054 6373

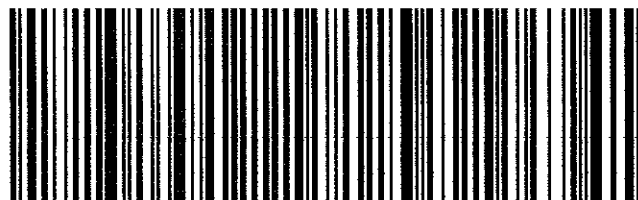
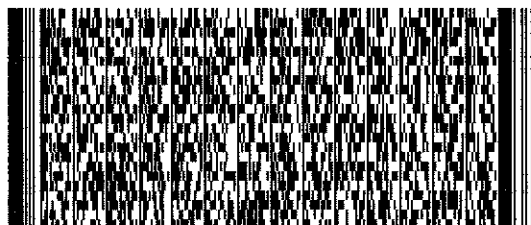
0201

05403

VT-US

E9 BTVA

BTV



512G361A4/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10949-1

SDG Number: PRR1306

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/31/2012 3:08 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/31/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	34
QC Results	36
Qc Association Summary	37
Surrogate Recovery Report	40
Qc Reports	46
Client Chain of Custody	66
Sample Receipt Checklist	67

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1306 (200-10949-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis.

Manual integration was employed in deriving certain of the analytical results.

Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR
Semivolatiles	TAL BUR	SOM01.2 SOM01.2/SV	
Extraction of Water Samples	TAL BUR		SOM01.2 CONT
Aroclors	TAL BUR	SOM01.2 SOM01.2/PCB	
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Sulfuric Acid/Permanganate Cleanup	TAL BUR		SOM01.2 SOM01.2/SO4CU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Extraction of Low level Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Low Level CLP Extraction of Pesticides	TAL BUR		SOM01.2 SOM01.2LL_Pest
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
ISM01.2 Mercury	TAL BUR	ISM01.2 ISM01.2/HG	
7470A	TAL BUR		SW846 7470A
ISM01.2 Metals (ICPMS)	TAL BUR	ISM01.2 ISM01.2/ICPMS	
200.8	TAL BUR		EPA 200.8
ISM01.2 Cyanide	TAL BUR	ISM01.2 ISM01.2/CN	
Midi-distillation	TAL BUR		ISM01.1 Midi-Distillati

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

ISM01.1 = U.S. Environmental Protection Agency

ISM01.2 = U.S. Environmental Protection Agency

SOM01.2 = U.S. Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP
SOM01.2 SOM01.2/SV	Bissonette, Donald J	DJB
SOM01.2 SOM01.2/PCB	Duncan, Stacey L	SLD
SOM01.2 SOM01.2/Pest	Downing, David P	DPD
SOM01.2 SOM01.2/Pest	Lambert, Kelly T	KTL
SOM01.2 SOM01.2/Pest	Toomey, Lisa M	LMT
ISM01.2 ISM01.2/HG	Pham, Vu T	VTP
ISM01.2 ISM01.2/ICPMS	Holzschuh, Jessica A	JAH
ISM01.2 ISM01.2/ICPMS	Lyons, Benjamin	BL
ISM01.2 ISM01.2/CN	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10949-1	PRR1WATCME-54	Water	05/23/2012 1130	05/24/2012 0815
200-10949-2	PRR1WATCMI-54	Water	05/23/2012 1145	05/24/2012 0815
200-10949-3TB	TB05232012	Water	05/23/2012 0000	05/24/2012 0815
200-10949-4STOBL K	VHBLK01	Water	05/24/2012 1020	05/24/2012 0815

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1

Date Sampled: 05/23/2012 1130

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob22.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/25/2012 2236			Final Weight/Volume:	25 mL
Prep Date:	05/25/2012 2236				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.24	J	1.0
Vinyl chloride	1.0	U	1.0
Bromomethane	1.0	U	1.0
Chloroethane	1.0	U	1.0
Acrolein	20	U	20
1,1-Dichloroethene	1.0	U	1.0
Methylene chloride	48	E B	1.0
Acrylonitrile	20	U	20
trans-1,2-Dichloroethene	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
2-Butanone	27		10
Chloroform	6.5		1.0
1,1,1-Trichloroethane	1.0	U	1.0
Carbon tetrachloride	0.029	J B	1.0
Benzene	0.77	J	1.0
1,2-Dichloroethane	1.0	U	1.0
Trichloroethene	1.0	U	1.0
1,2-Dichloropropane	0.90	J	1.0
Bromodichloromethane	1.0	U	1.0
cis-1,3-Dichloropropene	1.0	U	1.0
Toluene	0.023	J	1.0
trans-1,3-Dichloropropene	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0
Tetrachloroethene	1.0	U	1.0
Dibromochloromethane	1.0	U	1.0
Chlorobenzene	3.4		1.0
Ethylbenzene	1.0	U	1.0
Bromoform	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
1,2,3-Trichlorobenzene	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	93		65 - 131
Chloroethane-d5	105		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	92		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	98		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	101		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	90		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1

Date Sampled: 05/23/2012 1130

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob22.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/25/2012 2236			Final Weight/Volume:	25 mL
Prep Date:	05/25/2012 2236				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	100		28 - 135
1,1,2,2-Tetrachloroethane-d2	95		73 - 125
1,2-Dichlorobenzene-d4	112		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1

Date Sampled: 05/23/2012 1130

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39558	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diof05.d
Dilution:	3.4			Initial Weight/Volume:	25 mL
Analysis Date:	05/30/2012 1007	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/30/2012 1007				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.33	J D	1.7
Vinyl chloride	1.7	U	1.7
Bromomethane	1.7	U	1.7
Chloroethane	1.7	U	1.7
Acrolein	34	U	34
1,1-Dichloroethene	1.7	U	1.7
Methylene chloride	55	B D	1.7
Acrylonitrile	34	U	34
trans-1,2-Dichloroethene	1.7	U	1.7
1,1-Dichloroethane	1.7	U	1.7
2-Butanone	33	D	17
Chloroform	7.6	D	1.7
1,1,1-Trichloroethane	1.7	U	1.7
Carbon tetrachloride	0.053	J B D	1.7
Benzene	0.93	J D	1.7
1,2-Dichloroethane	1.7	U	1.7
Trichloroethene	1.7	U	1.7
1,2-Dichloropropane	1.7	U	1.7
Bromodichloromethane	1.7	U	1.7
cis-1,3-Dichloropropene	1.7	U	1.7
Toluene	0.039	J B D	1.7
trans-1,3-Dichloropropene	1.7	U	1.7
1,1,2-Trichloroethane	1.7	U	1.7
Tetrachloroethene	1.7	U	1.7
Dibromochloromethane	1.7	U	1.7
Chlorobenzene	4.1	B D	1.7
Ethylbenzene	1.7	U	1.7
Bromoform	1.7	U	1.7
1,1,2,2-Tetrachloroethane	1.7	U	1.7
1,3-Dichlorobenzene	1.7	U	1.7
1,4-Dichlorobenzene	1.7	U	1.7
1,2-Dichlorobenzene	1.7	U	1.7
1,2,4-Trichlorobenzene	1.7	U	1.7
1,2,3-Trichlorobenzene	1.7	U	1.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	89		65 - 131
Chloroethane-d5	100		71 - 131
1,1-Dichloroethene-d2	71		55 - 104
2-Butanone-d5	90		49 - 155
Chloroform-d	94		78 - 121
1,2-Dichloroethane-d4	96		78 - 129
Benzene-d6	95		77 - 124
1,2-Dichloropropane-d6	97		79 - 124
Toluene-d8	94		77 - 121
trans-1,3-Dichloropropene-d4	90		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1
Client Matrix: Water

Date Sampled: 05/23/2012 1130
Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39558	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diof05.d
Dilution:	3.4			Initial Weight/Volume:	25 mL
Analysis Date:	05/30/2012 1007	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/30/2012 1007				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	94		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	109		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: PRR1WATCMI-54

Lab Sample ID: 200-10949-2

Date Sampled: 05/23/2012 1145

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob24.d
Dilution:	15.7			Initial Weight/Volume:	25 mL
Analysis Date:	05/25/2012 2324			Final Weight/Volume:	25 mL
Prep Date:	05/25/2012 2324				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	39	J	79
1,2,3-Trichlorobenzene	25		7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	105		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	92		49 - 155
Chloroform-d	100		78 - 121
1,2-Dichloroethane-d4	100		78 - 129
Benzene-d6	98		77 - 124
1,2-Dichloropropane-d6	99		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	90		73 - 121
2-Hexanone-d5	97		28 - 135
1,1,2,2-Tetrachloroethane-d2	106		73 - 125
1,2-Dichlorobenzene-d4	107		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: TB05232012

Lab Sample ID: 200-10949-3TB

Date Sampled: 05/23/2012 0000

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob26.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/26/2012 0012			Final Weight/Volume:	25 mL
Prep Date:	05/26/2012 0012				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.038	J B	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.015	J B	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.31	J	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	86		65 - 131
Chloroethane-d5	97		71 - 131
1,1-Dichloroethene-d2	69		55 - 104
2-Butanone-d5	85		49 - 155
Chloroform-d	88		78 - 121
1,2-Dichloroethane-d4	91		78 - 129
Benzene-d6	94		77 - 124
1,2-Dichloropropane-d6	95		79 - 124
Toluene-d8	94		77 - 121
trans-1,3-Dichloropropene-d4	83		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Client Sample ID: TB05232012

Lab Sample ID: 200-10949-3TB
Client Matrix: Water

Date Sampled: 05/23/2012 0000
Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob26.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/26/2012 0012			Final Weight/Volume:	25 mL
Prep Date:	05/26/2012 0012				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	91		28 - 135
1,1,2,2-Tetrachloroethane-d2	88		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: VHBLK01

Lab Sample ID: 200-10949-4STOBLK

Date Sampled: 05/24/2012 1020

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39558	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diof06.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/30/2012 1031			Final Weight/Volume:	25 mL
Prep Date:	05/30/2012 1031				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.071	J B	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.017	J B	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.073	J B	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	93		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	73		55 - 104
2-Butanone-d5	98		49 - 155
Chloroform-d	95		78 - 121
1,2-Dichloroethane-d4	100		78 - 129
Benzene-d6	98		77 - 124
1,2-Dichloropropane-d6	99		79 - 124
Toluene-d8	95		77 - 121
trans-1,3-Dichloropropene-d4	87		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: VHBLK01

Lab Sample ID: 200-10949-4STOBLK

Client Matrix: Water

Date Sampled: 05/24/2012 1020

Date Received: 05/24/2012 0815

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39558	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diof06.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/30/2012 1031			Final Weight/Volume:	25 mL
Prep Date:	05/30/2012 1031				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	92		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	115		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1

Date Sampled: 05/23/2012 1130

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-39549	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-39220	Lab File ID:	rjzwr05.d
Dilution:	1.0			Initial Weight/Volume:	1015 mL
Analysis Date:	05/31/2012 0806			Final Weight/Volume:	1000 uL
Prep Date:	05/24/2012 1227			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	RL
N-Nitrosodimethylamine	9.9	U	9.9
Phenol	0.89	J B	4.9
Bis(2-chloroethyl)ether	4.9	U	4.9
2-Chlorophenol	0.60	J	4.9
2,2'-Oxybis(1-chloropropane)	4.9	U	4.9
Hexachloroethane	4.9	U	4.9
Nitrobenzene	4.9	U	4.9
Isophorone	4.9	U	4.9
2-Nitrophenol	4.9	U	4.9
2,4-Dimethylphenol	4.9	U	4.9
2,4-Dichlorophenol	4.9	U	4.9
Naphthalene	4.9	U	4.9
Hexachlorobutadiene	4.9	U	4.9
Hexachlorocyclopentadiene	4.9	U	4.9
2,4,6-Trichlorophenol	0.095	J	4.9
2,4,5-Trichlorophenol	4.9	U	4.9
Dimethylphthalate	4.9	U	4.9
2,6-Dinitrotoluene	4.9	U	4.9
2,4-Dinitrophenol	9.9	U	9.9
4-Nitrophenol	9.9	U	9.9
2,4-Dinitrotoluene	4.9	U	4.9
Diethylphthalate	4.9	U	4.9
Fluorene	4.9	U	4.9
4,6-Dinitro-2-methylphenol	9.9	U	9.9
N-Nitrosodiphenylamine	4.9	U	4.9
Hexachlorobenzene	4.9	U	4.9
Pentachlorophenol	9.9	U	9.9
Phenanthrene	4.9	U	4.9
Anthracene	4.9	U	4.9
Di-n-butylphthalate	0.16	J B	4.9
Fluoranthene	4.9	U	4.9
Benzidine	9.9	U	9.9
Pyrene	4.9	U	4.9
Butylbenzylphthalate	0.14	J B	4.9
3,3'-Dichlorobenzidine	4.9	U	4.9
Benzo(a)anthracene	4.9	U	4.9
Chrysene	4.9	U	4.9
Bis(2-ethylhexyl)phthalate	0.22	J B	4.9
Benzo(b)fluoranthene	4.9	U	4.9
Benzo(k)fluoranthene	4.9	U	4.9
Benzo(a)pyrene	4.9	U	4.9
Indeno(1,2,3-cd)pyrene	4.9	U	4.9
Dibenzo(a,h)anthracene	4.9	U	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	59		39 - 106

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1

Date Sampled: 05/23/2012 1130

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-39549	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-39220	Lab File ID:	rjzwr05.d
Dilution:	1.0			Initial Weight/Volume:	1015 mL
Analysis Date:	05/31/2012 0806			Final Weight/Volume:	1000 uL
Prep Date:	05/24/2012 1227			Injection Volume:	2 uL

Surrogate	%Rec	Qualifier	Acceptance Limits
Bis(2-chloroethyl)ether-d8	68		40 - 105
2-Chlorophenol-d4	58		41 - 106
4-Methylphenol-d8	73		25 - 111
Nitrobenzene-d5	83		43 - 108
2-Nitrophenol-d4	80		40 - 108
2,4-Dichlorophenol-d3	72		37 - 105
4-Chloroaniline-d4	42		1 - 145
Dimethylphthalate-d6	91		47 - 114
Acenaphthylene-d8	87		41 - 107
4-Nitrophenol-d4	88		33 - 116
Fluorene-d10	81		42 - 111
4,6-Dinitro-2-methylphenol-d2	89		22 - 104
Anthracene-d10	86		44 - 110
Pyrene-d10	120	*	52 - 119
Benzo(a)pyrene-d12	86		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: PRR1WATCMI-54

Lab Sample ID: 200-10949-2

Date Sampled: 05/23/2012 1145

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-39549	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-39221	Lab File ID:	rjzwr07.d
Dilution:	20			Initial Weight/Volume:	970 mL
Analysis Date:	05/31/2012 0918			Final Weight/Volume:	1000 uL
Prep Date:	05/24/2012 1230			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	RL
2,4,5-Trichlorophenol	1200		100
4,6-Dinitro-2-methylphenol	210	U	210

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	104		39 - 106
Bis(2-chloroethyl)ether-d8	95		40 - 105
2-Chlorophenol-d4	94		41 - 106
4-Methylphenol-d8	102		25 - 111
Nitrobenzene-d5	94		43 - 108
2-Nitrophenol-d4	95		40 - 108
2,4-Dichlorophenol-d3	209	D	37 - 105
4-Chloroaniline-d4	0	D	1 - 145
Dimethylphthalate-d6	100		47 - 114
Acenaphthylene-d8	109	D	41 - 107
4-Nitrophenol-d4	81		33 - 116
Fluorene-d10	104		42 - 111
4,6-Dinitro-2-methylphenol-d2	65		22 - 104
Anthracene-d10	106		44 - 110
Pyrene-d10	116		52 - 119
Benzo(a)pyrene-d12	83		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1
Client Matrix: Water

Date Sampled: 05/23/2012 1130
Date Received: 05/24/2012 0815

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-39484	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-39264	Initial Weight/Volume:	985 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/26/2012 1037			Injection Volume:	1 uL
Prep Date:	05/24/2012 1927			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Aroclor-1016	1.0	U	1.0
Aroclor-1221	1.0	U	1.0
Aroclor-1232	1.0	U	1.0
Aroclor-1242	1.0	U	1.0
Aroclor-1248	1.0	U	1.0
Aroclor-1254	1.0	U	1.0
Aroclor-1260	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	88		30 - 150
Decachlorobiphenyl	74		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1
Client Matrix: Water

Date Sampled: 05/23/2012 1130
Date Received: 05/24/2012 0815

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-39484	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-39264	Initial Weight/Volume:	985 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/26/2012 1037			Injection Volume:	1 uL
Prep Date:	05/24/2012 1927			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	88		30 - 150
Decachlorobiphenyl	75		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1

Date Sampled: 05/23/2012 1130

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest	Analysis Batch: 200-39462	Instrument ID: 5005.i
Prep Method: SEPF	Prep Batch: 200-39272	Initial Weight/Volume: 1000 mL
Dilution: 1.0		Final Weight/Volume: 1000 uL
Analysis Date: 05/25/2012 2000		Injection Volume: 1 uL
Prep Date: 05/24/2012 1715		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.00011	J P B	0.0050
beta-BHC	0.028	B	0.0050
delta-BHC	0.016	P B	0.0050
gamma-BHC (Lindane)	0.00036	J P	0.0050
Heptachlor	0.00017	J P B	0.0050
Aldrin	0.00080	J P	0.0050
Heptachlor epoxide	0.0083		0.0050
Endosulfan I	0.00067	J P	0.0050
Dieldrin	0.010	U	0.010
4,4'-DDE	0.018		0.010
Endrin	0.0016	J P	0.010
Endosulfan II	0.011		0.010
4,4'-DDD	0.053		0.010
Endosulfan sulfate	0.000090	J P	0.010
4,4'-DDT	0.27	E	0.010
Endrin aldehyde	0.0011	J P B	0.010
alpha-Chlordane	0.0010	J P	0.0050
gamma-Chlordane	0.00021	J P B	0.0050
Toxaphene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	91		30 - 150
Decachlorobiphenyl	59		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1
Client Matrix: Water

Date Sampled: 05/23/2012 1130
Date Received: 05/24/2012 0815

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-39462	Instrument ID:	5005.i
Prep Method:	SEPF	Prep Batch:	200-39272	Initial Weight/Volume:	1000 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	05/25/2012 2000			Injection Volume:	1 uL
Prep Date:	05/24/2012 1715			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	96		30 - 150
Decachlorobiphenyl	73		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1

Date Sampled: 05/23/2012 1130

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest	Analysis Batch: 200-39463	Instrument ID: 5005.i
Prep Method: SEPF	Prep Batch: 200-39272	Initial Weight/Volume: 1000 mL
Dilution: 3.0		Final Weight/Volume: 1000 uL
Analysis Date: 05/29/2012 1615	Run Type: DL	Injection Volume: 1 uL
Prep Date: 05/24/2012 1715		Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.00023	J P D B	0.015
beta-BHC	0.030	D B	0.015
delta-BHC	0.017	P D B	0.015
gamma-BHC (Lindane)	0.00030	J P D	0.015
Heptachlor	0.00017	J P D B	0.015
Aldrin	0.00088	J P D	0.015
Heptachlor epoxide	0.0086	J D	0.015
Endosulfan I	0.00067	J P D	0.015
Dieldrin	0.030	U	0.030
4,4'-DDE	0.017	J D	0.030
Endrin	0.0017	J P D	0.030
Endosulfan II	0.011	J D	0.030
4,4'-DDD	0.048	D	0.030
Endosulfan sulfate	0.030	U	0.030
4,4'-DDT	0.23	D	0.030
Endrin aldehyde	0.0012	J P D B	0.030
alpha-Chlordane	0.0010	J P D	0.015
gamma-Chlordane	0.00077	J P D B	0.015
Toxaphene	1.5	U	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	96		30 - 150
Tetrachloro-m-xylene	94		30 - 150
Decachlorobiphenyl	77		30 - 150
Decachlorobiphenyl	76		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1

Date Sampled: 05/23/2012 1130

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-39399	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-39272	Initial Weight/Volume:	1000 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	05/25/2012 1711			Injection Volume:	1 uL
Prep Date:	05/24/2012 1715			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	0.0035	J P	0.010
2,4'-DDT	0.054		0.010
2,4'-DDD	0.018	P	0.010

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	88		30 - 150
Decachlorobiphenyl	70		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1

Date Sampled: 05/23/2012 1130

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-39399	Instrument ID:	0911.i
Prep Method:	SOM01.2LL_Pest	Prep Batch:	200-39272	Initial Weight/Volume:	1000 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	05/25/2012 1711			Injection Volume:	1 uL
Prep Date:	05/24/2012 1715			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	93		30 - 150
Decachlorobiphenyl	72		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: PRR1WATCMI-54

Lab Sample ID: 200-10949-2

Date Sampled: 05/23/2012 1145

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-39399	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-39263	Initial Weight/Volume:	1040 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/25/2012 1923			Injection Volume:	1 uL
Prep Date:	05/24/2012 1919			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	1.2	P	0.096
2,4'-DDD	3.3	E P	0.096
2,4'-DDT	2.9	E P	0.096

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	0	*	30 - 150
Decachlorobiphenyl	60		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Client Sample ID: PRR1WATCMI-54

Lab Sample ID: 200-10949-2
Client Matrix: Water

Date Sampled: 05/23/2012 1145
Date Received: 05/24/2012 0815

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-39399	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-39263	Initial Weight/Volume:	1040 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/25/2012 1923			Injection Volume:	1 uL
Prep Date:	05/24/2012 1919			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	1083	*	30 - 150
Decachlorobiphenyl	73		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Client Sample ID: PRR1WATCMI-54

Lab Sample ID: 200-10949-2

Date Sampled: 05/23/2012 1145

Client Matrix: Water

Date Received: 05/24/2012 0815

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-39399	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-39263	Initial Weight/Volume:	1040 mL
Dilution:	10			Final Weight/Volume:	10000 uL
Analysis Date:	05/25/2012 1850	Run Type:	DL	Injection Volume:	1 uL
Prep Date:	05/24/2012 1919			Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	0.99	P D	0.96
2,4'-DDD	2.7	P D	0.96
2,4'-DDT	3.7	P D	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	4328	D	30 - 150
Tetrachloro-m-xylene	2551	D	30 - 150
Decachlorobiphenyl	68	D	30 - 150
Decachlorobiphenyl	58	D	30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Client Sample ID: PRR1WATCMI-54

Lab Sample ID: 200-10949-2
Client Matrix: Water

Date Sampled: 05/23/2012 1145
Date Received: 05/24/2012 0815

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-39462	Instrument ID:	5005.i
Prep Method:	SEPF	Prep Batch:	200-39263	Initial Weight/Volume:	1040 mL
Dilution:	10			Final Weight/Volume:	10000 uL
Analysis Date:	05/25/2012 2143			Injection Volume:	1 uL
Prep Date:	05/24/2012 1919			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
delta-BHC	0.18	J P B	0.48

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	2909	*	30 - 150
Decachlorobiphenyl	62		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Client Sample ID: PRR1WATCMI-54

Lab Sample ID: 200-10949-2
Client Matrix: Water

Date Sampled: 05/23/2012 1145
Date Received: 05/24/2012 0815

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-39462	Instrument ID:	5005.i
Prep Method:	SEPF	Prep Batch:	200-39263	Initial Weight/Volume:	1040 mL
Dilution:	10			Final Weight/Volume:	10000 uL
Analysis Date:	05/25/2012 2143			Injection Volume:	1 uL
Prep Date:	05/24/2012 1919			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	4437	*	30 - 150
Decachlorobiphenyl	62		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1
Client Matrix: Water

Date Sampled: 05/23/2012 1130
Date Received: 05/24/2012 0815

ISM01.2/HG ISM01.2 Mercury

Analysis Method:	ISM01.2/HG	Analysis Batch:	200-39514	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-39511	Lab File ID:	053012CC.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	05/30/2012 1613			Final Weight/Volume:	50 mL
Prep Date:	05/30/2012 0930				

Analyte	Result (ug/L)	Qualifier	MDLE	RL
Mercury	0.20	U	0.084	0.20

ISM01.2/ICPMS ISM01.2 Metals (ICPMS)

Analysis Method:	ISM01.2/ICPMS	Analysis Batch:	200-39523	Instrument ID:	METICPMS2
Prep Method:	200.8	Prep Batch:	200-39320	Lab File ID:	053012-05.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	05/30/2012 1440			Final Weight/Volume:	100 mL
Prep Date:	05/25/2012 1351				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	12.9		0.15	2.0
Arsenic	7.7		0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	1.7	J	0.21	2.0
Copper	3.4		0.60	2.0
Lead	0.82	J	0.10	1.0
Nickel	10.8	E	0.14	1.0
Selenium	13.2	E	0.15	5.0
Zinc	14.2		0.57	2.0

Analysis Method:	ISM01.2/ICPMS	Analysis Batch:	200-39524	Instrument ID:	METICPMS2
Prep Method:	200.8	Prep Batch:	200-39320	Lab File ID:	053012-08ISM.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	05/30/2012 2112			Final Weight/Volume:	100 mL
Prep Date:	05/25/2012 1351				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	0.062	J	0.028	1.0

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

General Chemistry

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1

Date Sampled: 05/23/2012 1130

Client Matrix: Water

Date Received: 05/24/2012 0815

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide	2.7	J	ug/L	1.0	10.0	1.0	ISM01.2/CN
	Analysis Batch: 200-39423	Analysis Date: 05/29/2012 1513					
	Prep Batch: 200-39396	Prep Date: 05/29/2012 1015					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	B	The analyte was found in an associated blank, as well as in the sample.
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	*	Surrogate exceeds the control limit
	B	The analyte was found in an associated blank, as well as in the sample.
GC Semi VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	*	Surrogate exceeds the control limit
	P	The % Difference between columns is greater than 25%.
	B	The analyte was found in an associated blank, as well as in the sample.

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Lab Section	Qualifier	Description
Metals		
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL
	E	The reported value is estimated because of the presence of interference based on serial dilution analysis.
General Chemistry		
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-39359					
MB 200-39359/5	Method Blank	T	Water	SOM01.2/VOA_T	
200-10949-1	PRR1WATCME-54	T	Water	SOM01.2/VOA_T	
200-10949-2	PRR1WATCMI-54	T	Water	SOM01.2/VOA_T	
200-10949-3TB	TB05232012	T	Water	SOM01.2/VOA_T	
Analysis Batch:200-39558					
MB 200-39558/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-10949-1DL	PRR1WATCME-54	T	Water	SOM01.2/VOA_T	
200-10949-4STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	
Report Basis					
T = Total					
GC/MS Semi VOA					
Prep Batch: 200-39220					
MB 200-39220/1-A	Method Blank	T	Water	CONT	
200-10949-1	PRR1WATCME-54	T	Water	CONT	
Prep Batch: 200-39221					
MB 200-39221/1-A	Method Blank	T	Water	CONT	
200-10949-2	PRR1WATCMI-54	T	Water	CONT	
Analysis Batch:200-39549					
MB 200-39220/1-A	Method Blank	T	Water	SOM01.2/SV	200-39220
MB 200-39221/1-A	Method Blank	T	Water	SOM01.2/SV	200-39221
200-10949-1	PRR1WATCME-54	T	Water	SOM01.2/SV	200-39220
200-10949-2	PRR1WATCMI-54	T	Water	SOM01.2/SV	200-39221

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC Semi VOA					
Prep Batch: 200-39263					
LCS 200-39263/2-C	Lab Control Sample	T	Water	SEPF	
LCS 200-39263/3-C	Lab Control Sample	T	Water	SEPF	
MB 200-39263/1-C	Method Blank	T	Water	SEPF	
200-10949-2	PRR1WATCMI-54	T	Water	SEPF	
200-10949-2DL	PRR1WATCMI-54	T	Water	SEPF	
Prep Batch: 200-39264					
LCS 200-39264/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-39264/1-C	Method Blank	T	Water	SEPF	
200-10949-1	PRR1WATCME-54	T	Water	SEPF	
Prep Batch: 200-39272					
LCS 200-39272/2-C	Lab Control Sample	T	Water	SEPF	
LCS 200-39272/3-C	Lab Control Sample	T	Water	SEPF	
MB 200-39272/1-C	Method Blank	T	Water	SEPF	
MB 200-39272/1-C	Method Blank	T	Water	SOM01.2LL_Pest	
200-10949-1	PRR1WATCME-54	T	Water	SEPF	
200-10949-1DL	PRR1WATCME-54	T	Water	SEPF	
200-10949-1	PRR1WATCME-54	T	Water	SOM01.2LL_Pest	
Analysis Batch:200-39399					
LCS 200-39263/3-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-39263
MB 200-39263/1-C	Method Blank	T	Water	SOM01.2/Pest	200-39263
LCS 200-39272/3-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-39272
MB 200-39272/1-C	Method Blank	T	Water	SOM01.2/Pest	200-39272
200-10949-1	PRR1WATCME-54	T	Water	SOM01.2/Pest	200-39272
200-10949-2	PRR1WATCMI-54	T	Water	SOM01.2/Pest	200-39263
200-10949-2DL	PRR1WATCMI-54	T	Water	SOM01.2/Pest	200-39263
Analysis Batch:200-39462					
MB 200-39263/1-C	Method Blank	T	Water	SOM01.2/Pest	200-39263
MB 200-39272/1-C	Method Blank	T	Water	SOM01.2/Pest	200-39272
200-10949-1	PRR1WATCME-54	T	Water	SOM01.2/Pest	200-39272
200-10949-2	PRR1WATCMI-54	T	Water	SOM01.2/Pest	200-39263
Analysis Batch:200-39463					
LCS 200-39263/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-39263
LCS 200-39272/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-39272
200-10949-1DL	PRR1WATCME-54	T	Water	SOM01.2/Pest	200-39272
Analysis Batch:200-39484					
LCS 200-39264/2-C	Lab Control Sample	T	Water	SOM01.2/PCB	200-39264
MB 200-39264/1-C	Method Blank	T	Water	SOM01.2/PCB	200-39264
200-10949-1	PRR1WATCME-54	T	Water	SOM01.2/PCB	200-39264

TestAmerica Burlington

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Report Basis					
T = Total					
Metals					
Prep Batch: 200-39320					
LCS 200-39320/2-A	Lab Control Sample	T	Water	200.8	
MB 200-39320/1-A	Method Blank	T	Water	200.8	
200-10949-1	PRR1WATCME-54	T	Water	200.8	
Prep Batch: 200-39511					
MB 200-39511/11-A	Method Blank	T	Water	7470A	
200-10949-1	PRR1WATCME-54	T	Water	7470A	
Analysis Batch:200-39514					
MB 200-39511/11-A	Method Blank	T	Water	ISM01.2/HG	200-39511
200-10949-1	PRR1WATCME-54	T	Water	ISM01.2/HG	200-39511
Analysis Batch:200-39523					
LCS 200-39320/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-39320
MB 200-39320/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-39320
200-10949-1	PRR1WATCME-54	T	Water	ISM01.2/ICPMS	200-39320
Analysis Batch:200-39524					
LCS 200-39320/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-39320
MB 200-39320/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-39320
200-10949-1	PRR1WATCME-54	T	Water	ISM01.2/ICPMS	200-39320
Report Basis					
T = Total					
General Chemistry					
Prep Batch: 200-39396					
MB 200-39396/11-A	Method Blank	T	Water	Midi-Distillati	
200-10949-1	PRR1WATCME-54	T	Water	Midi-Distillati	
Analysis Batch:200-39423					
MB 200-39396/11-A	Method Blank	T	Water	ISM01.2/CN	200-39396
200-10949-1	PRR1WATCME-54	T	Water	ISM01.2/CN	200-39396
Report Basis					
T = Total					

TestAmerica Burlington

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Surrogate Recovery Report**SOM01.2/VOA Tr Trace Water****Client Matrix: Water**

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10949-1	PRR1WATCME-54	93	105	74	92	99	98	101	101
200-10949-1 DL	PRR1WATCME-54 DL	89	100	71	90	94	96	95	97
200-10949-2	PRR1WATCMI-54	94	105	75	92	100	100	98	99
200-10949-3	TB05232012	86	97	69	85	88	91	94	95
200-10949-4	VHBLK01	93	103	73	98	95	100	98	99
MB 200-39359/5		95	103	74	90	93	97	99	99
MB 200-39558/4		89	99	71	90	92	95	95	96

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10949-1	PRR1WATCME-54	100	90	100	95	112
200-10949-1 DL	PRR1WATCME-54 DL	94	90	94	94	109
200-10949-2	PRR1WATCMI-54	98	90	97	106	107
200-10949-3	TB05232012	94	83	91	88	106
200-10949-4	VHBLK01	95	87	92	94	115
MB 200-39359/5		99	92	94	93	109
MB 200-39558/4		95	90	94	93	109

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Surrogate Recovery Report**SOM01.2/SV Semivolatiles****Client Matrix: Water**

Lab Sample ID	Client Sample ID	PHL %Rec	BCE %Rec	2CP %Rec	4MP %Rec	NBZ %Rec	2NP %Rec	DCP %Rec	4CA %Rec
200-10949-1	PRR1WATCME-54	59	68	58	73	83	80	72	42
200-10949-2	PRR1WATCMI-54	104	95	94	102	94	95	209D	0D
MB 200-39220/1-A		56	64	61	60	75	70	63	65
MB 200-39221/1-A		57	52	60	55	64	62	57	60

Surrogate	Acceptance Limits
PHL = Phenol-d5	39-106
BCE = Bis(2-chloroethyl)ether-d8	40-105
2CP = 2-Chlorophenol-d4	41-106
4MP = 4-Methylphenol-d8	25-111
NBZ = Nitrobenzene-d5	43-108
2NP = 2-Nitrophenol-d4	40-108
DCP = 2,4-Dichlorophenol-d3	37-105
4CA = 4-Chloroaniline-d4	1-145

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	DMP %Rec	ACY %Rec	4NP %Rec	FLR %Rec	NMP %Rec	ANC %Rec	PYR %Rec	BAP %Rec
200-10949-1	PRR1WATCHME-54	91	87	88	81	89	86	120*	86
200-10949-2	PRR1WATCHMI-54	100	109D	81	104	65	106	116	83
MB 200-39220/1-A		78	77	52	67	58	78	94	80
MB 200-39221/1-A		66	65	48	58	39	67	74	67

Surrogate	Acceptance Limits
DMP = Dimethylphthalate-d6	47-114
ACY = Acenaphthylene-d8	41-107
4NP = 4-Nitrophenol-d4	33-116
FLR = Fluorene-d10	42-111
NMP = 4,6-Dinitro-2-methylphenol-d2	22-104
ANC = Anthracene-d10	44-110
PYR = Pyrene-d10	52-119
BAP = Benzo(a)pyrene-d12	32-121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Surrogate Recovery Report

SOM01.2/PCB Aroclors

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10949-1	PRR1WATCME-54	88	88	75	74
MB 200-39264/1-C		105	106	120	121
LCS 200-39264/2-C		84	86	93	92

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Surrogate Recovery Report

SOM01.2/Pest Pesticides

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-10949-1	PRR1WATCME-54	88	93	72	70
200-10949-1	PRR1WATCME-54	91	96	59	73
200-10949-1 DL	PRR1WATCME-54 DL	96	94	77	76
200-10949-2 DL	PRR1WATCMI-54 DL	4328D	2551D	68D	58D
200-10949-2	PRR1WATCMI-54	0*	1083*	73	60
200-10949-2	PRR1WATCMI-54	4437*	2909*	62	62
MB 200-39263/1-C		97	106	109	105
MB 200-39263/1-C		110	110	114	116
MB 200-39272/1-C		70	76	97	96
MB 200-39272/1-C		74	75	95	97
LCS 200-39263/2-C		99	97	47	46
LCS 200-39263/3-C		95	105	110	107
LCS 200-39272/2-C		79	76	105	101
LCS 200-39272/3-C		76	83	93	93

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Method Blank - Batch: 200-39359

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-39359/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/25/2012 1545
 Prep Date: 05/25/2012 1545
 Leach Date: N/A

Analysis Batch: 200-39359
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: D.i
 Lab File ID: diob05.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.048	J	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.016	J	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	95	65 - 131
Chloroethane-d5	103	71 - 131
1,1-Dichloroethene-d2	74	55 - 104
2-Butanone-d5	90	49 - 155
Chloroform-d	93	78 - 121
1,2-Dichloroethane-d4	97	78 - 129
Benzene-d6	99	77 - 124
1,2-Dichloropropane-d6	99	79 - 124
Toluene-d8	99	77 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Surrogate	% Rec	Acceptance Limits
trans-1,3-Dichloropropene-d4	92	73 - 121
2-Hexanone-d5	94	28 - 135
1,1,2,2-Tetrachloroethane-d2	93	73 - 125
1,2-Dichlorobenzene-d4	109	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Method Blank - Batch: 200-39558

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-39558/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/30/2012 0943
 Prep Date: 05/30/2012 0943
 Leach Date: N/A

Analysis Batch: 200-39558
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: D.i
 Lab File ID: diof04.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	10	U	10
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.032	J	0.50
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.016	J	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.0046	J	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.057	J	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	89	65 - 131
Chloroethane-d5	99	71 - 131
1,1-Dichloroethene-d2	71	55 - 104
2-Butanone-d5	90	49 - 155
Chloroform-d	92	78 - 121
1,2-Dichloroethane-d4	95	78 - 129
Benzene-d6	95	77 - 124
1,2-Dichloropropane-d6	96	79 - 124
Toluene-d8	95	77 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Surrogate	% Rec	Acceptance Limits
trans-1,3-Dichloropropene-d4	90	73 - 121
2-Hexanone-d5	94	28 - 135
1,1,2,2-Tetrachloroethane-d2	93	73 - 125
1,2-Dichlorobenzene-d4	109	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Method Blank - Batch: 200-39220

Method: SOM01.2/SV

Preparation: CONT

Lab Sample ID: MB 200-39220/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/31/2012 0730
 Prep Date: 05/24/2012 1227
 Leach Date: N/A

Analysis Batch: 200-39549
 Prep Batch: 200-39220
 Leach Batch: N/A
 Units: ug/L

Instrument ID: R.i
 Lab File ID: rjzwr04.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1000 uL
 Injection Volume: 2 uL

Analyte	Result	Qual	RL
N-Nitrosodimethylamine	10	U	10
Phenol	0.81	J	5.0
Bis(2-chloroethyl)ether	5.0	U	5.0
2-Chlorophenol	5.0	U	5.0
2,2'-Oxybis(1-chloropropane)	5.0	U	5.0
Hexachloroethane	5.0	U	5.0
Nitrobenzene	5.0	U	5.0
Isophorone	5.0	U	5.0
2-Nitrophenol	5.0	U	5.0
2,4-Dimethylphenol	5.0	U	5.0
2,4-Dichlorophenol	5.0	U	5.0
Naphthalene	5.0	U	5.0
Hexachlorobutadiene	5.0	U	5.0
Hexachlorocyclopentadiene	5.0	U	5.0
2,4,6-Trichlorophenol	5.0	U	5.0
2,4,5-Trichlorophenol	5.0	U	5.0
Dimethylphthalate	5.0	U	5.0
2,6-Dinitrotoluene	5.0	U	5.0
2,4-Dinitrophenol	10	U	10
4-Nitrophenol	10	U	10
2,4-Dinitrotoluene	5.0	U	5.0
Diethylphthalate	5.0	U	5.0
Fluorene	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10
N-Nitrosodiphenylamine	5.0	U	5.0
Hexachlorobenzene	5.0	U	5.0
Pentachlorophenol	10	U	10
Phenanthrene	5.0	U	5.0
Anthracene	5.0	U	5.0
Di-n-butylphthalate	0.15	J	5.0
Fluoranthene	5.0	U	5.0
Benzidine	10	U	10
Pyrene	5.0	U	5.0
Butylbenzylphthalate	0.16	J	5.0
3,3'-Dichlorobenzidine	5.0	U	5.0
Benzo(a)anthracene	5.0	U	5.0
Chrysene	5.0	U	5.0
Bis(2-ethylhexyl)phthalate	0.23	J	5.0
Benzo(b)fluoranthene	5.0	U	5.0
Benzo(k)fluoranthene	5.0	U	5.0
Benzo(a)pyrene	5.0	U	5.0
Indeno(1,2,3-cd)pyrene	5.0	U	5.0
Dibenzo(a,h)anthracene	5.0	U	5.0

Surrogate	% Rec	Acceptance Limits
-----------	-------	-------------------

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Surrogate	% Rec	Acceptance Limits
Phenol-d5	56	39 - 106
Bis(2-chloroethyl)ether-d8	64	40 - 105
2-Chlorophenol-d4	61	41 - 106
4-Methylphenol-d8	60	25 - 111
Nitrobenzene-d5	75	43 - 108
2-Nitrophenol-d4	70	40 - 108
2,4-Dichlorophenol-d3	63	37 - 105
4-Chloroaniline-d4	65	1 - 145
Dimethylphthalate-d6	78	47 - 114
Acenaphthylene-d8	77	41 - 107
4-Nitrophenol-d4	52	33 - 116
Fluorene-d10	67	42 - 111
4,6-Dinitro-2-methylphenol-d2	58	22 - 104
Anthracene-d10	78	44 - 110
Pyrene-d10	94	52 - 119
Benzo(a)pyrene-d12	80	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Method Blank - Batch: 200-39221

**Method: SOM01.2/SV
Preparation: CONT**

Lab Sample ID: MB 200-39221/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/31/2012 0842
Prep Date: 05/24/2012 1230
Leach Date: N/A

Analysis Batch: 200-39549
Prep Batch: 200-39221
Leach Batch: N/A
Units: ug/L

Instrument ID: R.i
Lab File ID: rjzwr06.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 2 uL

Analyte	Result	Qual	RL
2,4,5-Trichlorophenol	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10

Surrogate	% Rec	Acceptance Limits
Phenol-d5	57	39 - 106
Bis(2-chloroethyl)ether-d8	52	40 - 105
2-Chlorophenol-d4	60	41 - 106
4-Methylphenol-d8	55	25 - 111
Nitrobenzene-d5	64	43 - 108
2-Nitrophenol-d4	62	40 - 108
2,4-Dichlorophenol-d3	57	37 - 105
4-Chloroaniline-d4	60	1 - 145
Dimethylphthalate-d6	66	47 - 114
Acenaphthylene-d8	65	41 - 107
4-Nitrophenol-d4	48	33 - 116
Fluorene-d10	58	42 - 111
4,6-Dinitro-2-methylphenol-d2	39	22 - 104
Anthracene-d10	67	44 - 110
Pyrene-d10	74	52 - 119
Benzo(a)pyrene-d12	67	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Method Blank - Batch: 200-39264

Method: SOM01.2/PCB

Preparation: SEPF

Lab Sample ID: MB 200-39264/1-C
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/26/2012 0950
 Prep Date: 05/24/2012 1927
 Leach Date: N/A

Analysis Batch: 200-39484
 Prep Batch: 200-39264
 Leach Batch: N/A
 Units: ug/L

Instrument ID: 5253.i
 Lab File ID: 25may121455-r031.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 10000 uL
 Injection Volume: 1 uL
 Column ID: PRIMARY

Analyte	Result	Qual	RL
Aroclor-1016	1.0	U	1.0
Aroclor-1221	1.0	U	1.0
Aroclor-1232	1.0	U	1.0
Aroclor-1242	1.0	U	1.0
Aroclor-1248	1.0	U	1.0
Aroclor-1254	1.0	U	1.0
Aroclor-1260	1.0	U	1.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	105	30 - 150
Decachlorobiphenyl	120	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	106	30 - 150
Decachlorobiphenyl	121	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Lab Control Sample - Batch: 200-39264

Method: SOM01.2/PCB
Preparation: SEPF

Lab Sample ID:	LCS 200-39264/2-C	Analysis Batch:	200-39484	Instrument ID:	5253.i
Client Matrix:	Water	Prep Batch:	200-39264	Lab File ID:	25may121455-r041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/26/2012 1014	Units:	ug/L	Final Weight/Volume:	10000 uL
Prep Date:	05/24/2012 1927			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.2	122	50 - 150	
Aroclor-1260	1.00	1.3	129	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		84		30 - 150	
Decachlorobiphenyl		92		30 - 150	

Lab Control Sample - Batch: 200-39264

Method: SOM01.2/PCB
Preparation: SEPF

Lab Sample ID:	LCS 200-39264/2-C	Analysis Batch:	200-39484	Instrument ID:	5253.i
Client Matrix:	Water	Prep Batch:	200-39264	Lab File ID:	25may121455-r041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/26/2012 1014	Units:	ug/L	Final Weight/Volume:	10000 uL
Prep Date:	05/24/2012 1927			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.2	124	50 - 150	
Aroclor-1260	1.00	1.4	136	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		86		30 - 150	
Decachlorobiphenyl		93		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Method Blank - Batch: 200-39263

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-39263/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/25/2012 1744
Prep Date: 05/24/2012 1919
Leach Date: N/A

Analysis Batch: 200-39399
Prep Batch: 200-39263
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 25may121434-r061.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
2,4'-DDE	0.10	U	0.10
2,4'-DDT	0.10	U	0.10
2,4'-DDD	0.10	U	0.10

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	97	30 - 150
Decachlorobiphenyl	105	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	106	30 - 150
Decachlorobiphenyl	109	30 - 150

Method Blank - Batch: 200-39263

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-39263/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/25/2012 2026
Prep Date: 05/24/2012 1919
Leach Date: N/A

Analysis Batch: 200-39462
Prep Batch: 200-39263
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 25may121640-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
alpha-BHC	0.00048	J	0.050
beta-BHC	0.00074	J P	0.050
delta-BHC	0.00053	J P	0.050
gamma-BHC (Lindane)	0.050	U	0.050
Endrin	0.10	U	0.10
Methoxychlor	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	110	30 - 150
Decachlorobiphenyl	114	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	110	30 - 150
Decachlorobiphenyl	116	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Lab Control Sample - Batch: 200-39263

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-39263/3-C	Analysis Batch: 200-39399	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-39263	Lab File ID: 25may121434-r071.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 05/25/2012 1817	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 05/24/2012 1919		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.100	0.11	109	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		95		30 - 150	
Decachlorobiphenyl		107		30 - 150	

Lab Control Sample - Batch: 200-39263

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-39263/3-C	Analysis Batch: 200-39399	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-39263	Lab File ID: 25may121434-r071.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 05/25/2012 1817	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 05/24/2012 1919		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.100	0.12	124	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		105		30 - 150	
Decachlorobiphenyl		110		30 - 150	

Lab Control Sample - Batch: 200-39263

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-39263/2-C	Analysis Batch: 200-39463	Instrument ID: 5005.i
Client Matrix: Water	Prep Batch: 200-39263	Lab File ID: 29may121422-r041.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 05/29/2012 1549	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 05/24/2012 1919		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.0500	0.043	86	50 - 120	J
Endrin	0.100	0.093	93	50 - 120	J
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		97		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	46	30 - 150

Lab Control Sample - Batch: 200-39263

Method: SOM01.2/Pest

Preparation: SEPF

Lab Sample ID: LCS 200-39263/2-C	Analysis Batch: 200-39463	Instrument ID: 5005.i
Client Matrix: Water	Prep Batch: 200-39263	Lab File ID: 29may121422-r041.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 05/29/2012 1549	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 05/24/2012 1919		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.0500	0.044	89	50 - 120	J
Endrin	0.100	0.093	93	50 - 120	J

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	99	30 - 150
Decachlorobiphenyl	47	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

Sdg Number: PRR1306

Method Blank - Batch: 200-39272

**Method: SOM01.2/Pest
Preparation: SOM01.2LL_Pest**

Lab Sample ID: MB 200-39272/1-C
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/25/2012 1605
 Prep Date: 05/24/2012 1715
 Leach Date: N/A

Analysis Batch: 200-39399
 Prep Batch: 200-39272
 Leach Batch: N/A
 Units: ug/L

Instrument ID: 0911.i
 Lab File ID: 25may121434-r031.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1000 uL
 Injection Volume: 1 uL
 Column ID: PRIMARY

Analyte	Result	Qual	RL
2,4'-DDE	0.010	U	0.010
2,4'-DDT	0.010	U	0.010
2,4'-DDD	0.010	U	0.010

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	70	30 - 150
Decachlorobiphenyl	96	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	76	30 - 150
Decachlorobiphenyl	97	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Method Blank - Batch: 200-39272

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-39272/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/25/2012 1908
Prep Date: 05/24/2012 1715
Leach Date: N/A

Analysis Batch: 200-39462
Prep Batch: 200-39272
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 25may121640-r011.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
alpha-BHC	0.000019	J	0.0050
beta-BHC	0.0074		0.0050
delta-BHC	0.000095	J	0.0050
Heptachlor	0.000028	J	0.0050
Aldrin	0.0050	U	0.0050
gamma-BHC (Lindane)	0.0050	U	0.0050
Heptachlor epoxide	0.0050	U	0.0050
Endosulfan I	0.0050	U	0.0050
Dieldrin	0.010	U	0.010
4,4'-DDE	0.010	U	0.010
Endrin	0.010	U	0.010
Endosulfan II	0.010	U	0.010
4,4'-DDD	0.010	U	0.010
Endosulfan sulfate	0.010	U	0.010
4,4'-DDT	0.010	U	0.010
Methoxychlor	0.050	U	0.050
Endrin aldehyde	0.00035	J	0.010
alpha-Chlordane	0.0050	U	0.0050
gamma-Chlordane	0.000047	J	0.0050
Toxaphene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	74	30 - 150
Decachlorobiphenyl	95	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	75	30 - 150
Decachlorobiphenyl	97	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Lab Control Sample - Batch: 200-39272

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID:	LCS 200-39272/3-C	Analysis Batch:	200-39399	Instrument ID:	0911.i
Client Matrix:	Water	Prep Batch:	200-39272	Lab File ID:	25may121434-r041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/25/2012 1638	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	05/24/2012 1715			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.0085	85	50 - 150	J
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		76		30 - 150	
Decachlorobiphenyl		93		30 - 150	

Lab Control Sample - Batch: 200-39272

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID:	LCS 200-39272/3-C	Analysis Batch:	200-39399	Instrument ID:	0911.i
Client Matrix:	Water	Prep Batch:	200-39272	Lab File ID:	25may121434-r041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/25/2012 1638	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	05/24/2012 1715			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.010	103	50 - 150	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		83		30 - 150	
Decachlorobiphenyl		93		30 - 150	

Lab Control Sample - Batch: 200-39272

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID:	LCS 200-39272/2-C	Analysis Batch:	200-39463	Instrument ID:	5005.i
Client Matrix:	Water	Prep Batch:	200-39272	Lab File ID:	29may121422-r031.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/29/2012 1523	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	05/24/2012 1715			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0039	79	50 - 120	J
Heptachlor epoxide	0.00500	0.0045	90	50 - 150	J
Dieldrin	0.0100	0.0087	87	30 - 130	J
4,4'-DDE	0.0100	0.0089	89	50 - 150	J
Endrin	0.0100	0.0086	86	50 - 120	J

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Lab Control Sample - Batch: 200-39272

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID:	LCS 200-39272/2-C	Analysis Batch:	200-39463	Instrument ID:	5005.i
Client Matrix:	Water	Prep Batch:	200-39272	Lab File ID:	29may121422-r031.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/29/2012 1523	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	05/24/2012 1715			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Endosulfan sulfate	0.0100	0.0080	80	50 - 120	J
gamma-Chlordane	0.00500	0.0045	89	30 - 130	J B
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		76		30 - 150	
Decachlorobiphenyl		101		30 - 150	

Lab Control Sample - Batch: 200-39272

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID:	LCS 200-39272/2-C	Analysis Batch:	200-39463	Instrument ID:	5005.i
Client Matrix:	Water	Prep Batch:	200-39272	Lab File ID:	29may121422-r031.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/29/2012 1523	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	05/24/2012 1715			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0040	80	50 - 120	J
Heptachlor epoxide	0.00500	0.0045	90	50 - 150	J
Dieldrin	0.0100	0.0087	87	30 - 130	J
4,4'-DDE	0.0100	0.0095	95	50 - 150	J
Endrin	0.0100	0.0087	87	50 - 120	J
Endosulfan sulfate	0.0100	0.0081	81	50 - 120	J
gamma-Chlordane	0.00500	0.0045	90	30 - 130	J B
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		79		30 - 150	
Decachlorobiphenyl		105		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Method Blank - Batch: 200-39511

**Method: ISM01.2/HG
Preparation: 7470A**

Lab Sample ID: MB 200-39511/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/30/2012 1610
Prep Date: 05/30/2012 0930
Leach Date: N/A

Analysis Batch: 200-39514
Prep Batch: 200-39511
Leach Batch: N/A
Units: ug/L

Instrument ID: MEPCV3 II
Lab File ID: 053012CC.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDLE	RL
Mercury	0.20	U	0.084	0.20

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Method Blank - Batch: 200-39320

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: MB 200-39320/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/30/2012 1454
Prep Date: 05/25/2012 1351
Leach Date: N/A

Analysis Batch: 200-39523
Prep Batch: 200-39320
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 053012-05.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Antimony	0.16	J	0.15	2.0
Arsenic	0.20	J	0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	0.39	J	0.21	2.0
Copper	2.0	U	0.60	2.0
Lead	0.43	J	0.10	1.0
Nickel	1.0	U	0.14	1.0
Selenium	-1.6	J	0.15	5.0
Zinc	2.0	U	0.57	2.0

Method Blank - Batch: 200-39320

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: MB 200-39320/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/30/2012 2125
Prep Date: 05/25/2012 1351
Leach Date: N/A

Analysis Batch: 200-39524
Prep Batch: 200-39320
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 053012-08ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Silver	1.0	U	0.028	1.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Lab Control Sample - Batch: 200-39320

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: LCS 200-39320/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/30/2012 1501
Prep Date: 05/25/2012 1351
Leach Date: N/A

Analysis Batch: 200-39523
Prep Batch: 200-39320
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 053012-05.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	4.00	4.7	117	70 - 130	
Arsenic	2.00	2.5	127	70 - 130	
Beryllium	2.00	2.3	116	70 - 130	
Cadmium	2.00	2.5	126	70 - 130	
Chromium	4.00	4.7	118	70 - 130	
Copper	4.00	4.1	102	70 - 130	
Lead	2.00	2.5	124	70 - 130	
Nickel	2.00	2.3	115	70 - 130	
Selenium	10.0	11.4	114	70 - 130	
Zinc	4.00	5.3	133	70 - 130	

Lab Control Sample - Batch: 200-39320

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Lab Sample ID: LCS 200-39320/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/30/2012 2132
Prep Date: 05/25/2012 1351
Leach Date: N/A

Analysis Batch: 200-39524
Prep Batch: 200-39320
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 053012-08ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silver	2.00	2.3	114	70 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1
Sdg Number: PRR1306

Method Blank - Batch: 200-39396

Method: ISM01.2/CN Preparation: Midi-Distillati

Lab Sample ID: MB 200-39396/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/29/2012 1512
Prep Date: 05/29/2012 1015
Leach Date: N/A

Analysis Batch: 200-39423
Prep Batch: 200-39396
Leach Batch: N/A
Units: ug/L

Instrument ID: WCLachat
Lab File ID: OM_05-29-12_03-00-2
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Cyanide	10.0	U	1.0	10.0

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10949-1

SDG Number: PRR1306

Login Number: 10949

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699036, 029, 030, & 035
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C & 5.2°C IR GUN ID 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	False	Refer to Job Narrative for details.
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 23MAY12
Act/Wgt: 35.0 LB
CAD: 103886297/INET3250
Dims: 22 X 14 X 15 IN

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO #
Dept #

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11
S. Burlington, VT 05403

BILL SENDER

2 of 3

THU - 24 MAY A4
FIRST OVERNIGHT

MPS# 7936 0054 6498

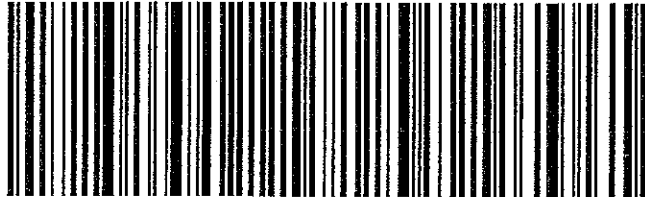
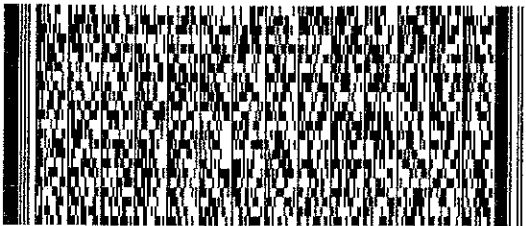
0263

Mstr# 7936 0054 6373

0201

05403
VT-US
BTVA

E9 BTVA



512G3161A4/A278

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 23MAY12
Act/Wgt: 35.0 LB
CAD: 103886297/INET3250
Dims: 20 X 14 X 15 IN

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO #
Dept #

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11
S. Burlington, VT 05403

BILL SENDER

1 of 3

THU - 24 MAY A4
FIRST OVERNIGHT

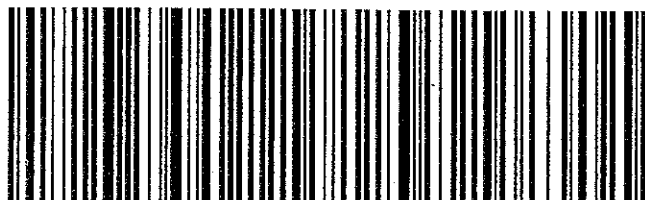
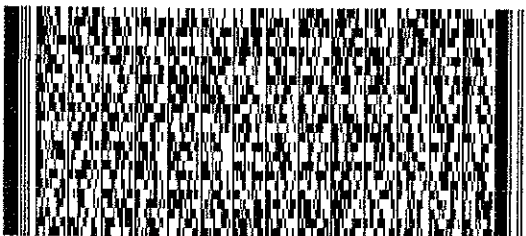
TRK# 7936 0054 6373

0201

MASTER

05403
VT-US
BTVA

E9 BTVA



512G3161A4/A278

ANALYTICAL REPORT

Job Number: 200-10949-2

SDG Number: PRR1306

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/31/2012 12:16 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/31/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	14
QC Results	15
Qc Association Summary	16
Surrogate Recovery Report	17
Qc Reports	18
Client Chain of Custody	21
Sample Receipt Checklist	22

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1306 (200-10949-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Manual integration was employed in deriving certain of the analytical results. The values that have been derived from manual integration are qualified on the quantitation reports, and further document with chromatographic profiles. An itemized listing of the manual integrations that were performed is provided at the end of this submittal, referencing the specific acquisition file names and the compounds for which manual integration was applied.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 05/24/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping Documentation section of this submittal. The samples were received in two coolers. The temperature of the contents of each cooler was determined at the time of receipt. The temperatures were 4.2 °C and 5.2 °C.

SW846 Method 8151A (Chlorinated Herbicides)

The samples in this sample set were extracted for the analysis of chlorinated herbicides by the referenced method. A nominal 1000 milliliters of sample was extracted, and the final extract volume was brought to 10.0 milliliters for analysis.

The extract of sample PRR1WATCMI-54 was analyzed at a 500-fold dilution in order to provide for quantification within the range of calibrated instrument response. The extract of sample PRR1WATCME-54 was analyzed without a dilution. DCAA (2,4-dichlorophenylacetic acid) was used as a surrogate in the performance of the work. The surrogate was diluted out of the analysis of sample PRR1WATCMI-54. There was an acceptable recovery of the surrogate control in each of the other analyses associated with the sample set. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. A laboratory control sample was prepared and analyzed in association with the samples. There was an acceptable recovery of 2,4-D, 2,4-DB, and 2,4,5-T in that analysis. The recovery of dinoseb in the laboratory control sample analysis was 37 percent. While that recovery value is above the lower control limit of 10 percent that is established by the laboratory for this method of analysis, it is below the lower control limit of 70 percent that is referenced in the project QAPP. SW846 Method 8151A does formally identify the fact that dinoseb (specifically) may be lost in the alkaline hydrolysis clean-up

step within the defined extraction process. The analysis of the method blank associated with the analytical work was free of analyte contamination.

The initial calibration was established using five concentration levels. The relative standard deviation of the responses for each analyte in the initial calibration was below 20.0 percent. The initial calibration was verified with an analytical standard from a source different than was used for calibration. There was an acceptable performance of each analyte in the initial calibration verification as measured against a ± 20.0 percent tolerance. There was an acceptable performance of each analyte in each calibration check as measured against a ± 15.0 percent tolerance.

Peak height response was used for calibration and quantification. Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL). In performing the analytical work, the laboratory did evaluate the results that were generated from each column in deriving a result for a particular compound, and has reported the higher of the two values. In those instances when the results from each of the two columns differed by more than 40 percent, the lower value is reported and qualified with a "p" qualifier.

SM 5310B (Total Organic Carbon)

Sample PRR1WATCME-54 was analyzed for total organic carbon by the cited method. Matrix spike and replicate analyses were not performed on the sample in this sample set. Laboratory control samples were analyzed in association with the sample, and there was an acceptable recovery of the spiked organic carbon in each of those analyses. A trace concentration of organic carbon was identified in the analysis of one of the method blanks associated with the analytical work. The concentration in that analysis was below the established reporting limit, and the analysis did meet the laboratory's technical acceptance criteria for a compliant method blank analysis.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2

Sdg Number: PRR1306

Description		Lab Location	Method	Preparation Method
Matrix	Water			
Herbicides (GC)		TAL BUR	SW846 8151A	
Extraction (Herbicides)		TAL BUR		SW846 8151A
Organic Carbon, Total (TOC)		TAL BUR	SM SM 5310B	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2

Sdg Number: PRR1306

Method	Analyst	Analyst ID
SW846 8151A	Lambert, Kelly T	KTL
SM SM 5310B	Sutton, Zachariah M	ZMS

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2
Sdg Number: PRR1306

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10949-1	PRR1WATCME-54	Water	05/23/2012 1130	05/24/2012 0815
200-10949-2	PRR1WATCMI-54	Water	05/23/2012 1145	05/24/2012 0815

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2

Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1

Date Sampled: 05/23/2012 1130

Client Matrix: Water

Date Received: 05/24/2012 0815

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-39534	Instrument ID:	0911.i
Prep Method:	8151A	Prep Batch:	200-39360	Initial Weight/Volume:	960 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/30/2012 1242			Injection Volume:	1 uL
Prep Date:	05/26/2012 0730			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	11		0.68	2.0
2,4-DB	0.67	J p	0.49	1.8
Dinoseb	0.99	U	0.20	0.99
2,4,5-T	2.6		0.14	0.49

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	110		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2
Sdg Number: PRR1306

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1
Client Matrix: Water

Date Sampled: 05/23/2012 1130
Date Received: 05/24/2012 0815

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-39534	Instrument ID:	0911.i
Prep Method:	8151A	Prep Batch:	200-39360	Initial Weight/Volume:	960 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/30/2012 1242			Injection Volume:	1 uL
Prep Date:	05/26/2012 0730			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	88		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2
Sdg Number: PRR1306

Client Sample ID: PRR1WATCMI-54

Lab Sample ID: 200-10949-2
Client Matrix: Water

Date Sampled: 05/23/2012 1145
Date Received: 05/24/2012 0815

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-39534	Instrument ID:	0911.i
Prep Method:	8151A	Prep Batch:	200-39360	Initial Weight/Volume:	1035 mL
Dilution:	500			Final Weight/Volume:	10000 uL
Analysis Date:	05/30/2012 1310			Injection Volume:	1 uL
Prep Date:	05/26/2012 0730			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4,5-T	3100		63	230

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	0	X	60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2

Sdg Number: PRR1306

Client Sample ID: PRR1WATCHMI-54

Lab Sample ID: 200-10949-2

Date Sampled: 05/23/2012 1145

Client Matrix: Water

Date Received: 05/24/2012 0815

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	200-39534	Instrument ID:	0911.i
Prep Method:	8151A	Prep Batch:	200-39360	Initial Weight/Volume:	1035 mL
Dilution:	500			Final Weight/Volume:	10000 uL
Analysis Date:	05/30/2012 1310			Injection Volume:	1 uL
Prep Date:	05/26/2012 0730			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	0	X	60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2

Sdg Number: PRR1306

General Chemistry

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1

Date Sampled: 05/23/2012 1130

Client Matrix: Water

Date Received: 05/24/2012 0815

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	5.9	B	mg/L	0.14	1.0	1.0	SM 5310B
Analysis Batch: 200-39407		Analysis Date: 05/29/2012 1112					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2

Sdg Number: PRR1306

Lab Section	Qualifier	Description
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
	p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
General Chemistry		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2

Sdg Number: PRR1306

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC Semi VOA					
Prep Batch: 200-39360					
LCS 200-39360/2-A	Lab Control Sample	T	Water	8151A	
MB 200-39360/1-A	Method Blank	T	Water	8151A	
200-10949-1	PRR1WATCME-54	T	Water	8151A	
200-10949-2	PRR1WATCMI-54	T	Water	8151A	
Analysis Batch:200-39534					
LCS 200-39360/2-A	Lab Control Sample	T	Water	8151A	200-39360
MB 200-39360/1-A	Method Blank	T	Water	8151A	200-39360
200-10949-1	PRR1WATCME-54	T	Water	8151A	200-39360
200-10949-2	PRR1WATCMI-54	T	Water	8151A	200-39360

Report Basis

T = Total

General Chemistry

Analysis Batch:200-39407					
LCS 200-39407/1	Lab Control Sample	T	Water	SM 5310B	
LCS 200-39407/4	Lab Control Sample	T	Water	SM 5310B	
MB 200-39407/2	Method Blank	T	Water	SM 5310B	
MB 200-39407/5	Method Blank	T	Water	SM 5310B	
200-10949-1	PRR1WATCME-54	T	Water	SM 5310B	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2

Sdg Number: PRR1306

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
200-10949-1	PRR1WATCME-54	110	88
200-10949-2	PRR1WATCMI-54	0X	0X
MB 200-39360/1-A		108	91
LCS 200-39360/2-A		106	89

Surrogate	Acceptance Limits
DCPA = 2,4-Dichlorophenylacetic acid	60-130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2
Sdg Number: PRR1306

Method Blank - Batch: 200-39360

Lab Sample ID: MB 200-39360/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/30/2012 1147
Prep Date: 05/26/2012 0730
Leach Date: N/A

Analysis Batch: 200-39534
Prep Batch: 200-39360
Leach Batch: N/A
Units: ug/L

**Method: 8151A
Preparation: 8151A**

Instrument ID: 0911.i
Lab File ID: 30may121001-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95
2,4,5-T	0.47	U	0.13	0.47
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	108		60 - 130	
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	91		60 - 130	

Lab Control Sample - Batch: 200-39360

Lab Sample ID: LCS 200-39360/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/30/2012 1215
Prep Date: 05/26/2012 0730
Leach Date: N/A

Analysis Batch: 200-39534
Prep Batch: 200-39360
Leach Batch: N/A
Units: ug/L

**Method: 8151A
Preparation: 8151A**

Instrument ID: 0911.i
Lab File ID: 30may121001-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	8.29	104	75 - 135	
2,4-DB	4.02	4.78	119	40 - 165	
Dinoseb	4.00	1.50	37	10 - 115	
2,4,5-T	2.00	2.27	114	60 - 155	
Surrogate	% Rec		Acceptance Limits		
2,4-Dichlorophenylacetic acid	106		60 - 130		
Surrogate	% Rec		Acceptance Limits		
2,4-Dichlorophenylacetic acid	89		60 - 130		

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2
Sdg Number: PRR1306

Method Blank - Batch: 200-39407

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-39407/2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/29/2012 1057
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-39407
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 052912A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.14	1.0

Method Blank - Batch: 200-39407

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-39407/5
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/29/2012 1145
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-39407
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 052912A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	0.223	J	0.14	1.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2

Sdg Number: PRR1306

Lab Control Sample - Batch: 200-39407

Method: SM 5310B

Preparation: N/A

Lab Sample ID: LCS 200-39407/1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/29/2012 1040
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-39407
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 052912A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	10.07	101	85 - 115	

Lab Control Sample - Batch: 200-39407

Method: SM 5310B

Preparation: N/A

Lab Sample ID: LCS 200-39407/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/29/2012 1129
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-39407
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 052912A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	10.23	102	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

PROJ. NO. B0009966.0002.70004		PROJECT NAME Tierra Phase I Removal		SDG NUMBER PRR1306		COC Number																	
SAMPLERS:																							
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	Requested Analyses																	
PRR1WATCME-54	5/23/2012	11:30	water	Grab	18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
PRR1WATCMI-54	5/23/2012	11:45	water	Grab	9	X	X	X	X	X	X	X	X	X									
TB05232012	5/23/2012		water		3	X	X	X															
Requested Analyses																							
<input type="checkbox"/> TOC																							
<input type="checkbox"/> VOCs																							
<input type="checkbox"/> SVOCs																							
<input type="checkbox"/> Aroclor PCBs																							
<input type="checkbox"/> Pesticides																							
<input type="checkbox"/> Metals + Hg																							
<input type="checkbox"/> Cyanide																							
<input type="checkbox"/> Herbicides																							
<input type="checkbox"/> TSS																							
<input type="checkbox"/> Special QA/QC Instructions																							
Special Instructions/Comments: Refer to RAWP QAPP WS 15-4 for Effluent Samples and WS 15-5 for Effluent Samples																							
Laboratory Information and Receipt																							
Lab Name: TestAmerica -Burlington, VT																							
Shipping Tracking #																							
Specify Turnaround Requirements: 7 day TAT; TSS samples 24 hr TAT																							
<input type="checkbox"/> Cooler packed with ice <input type="checkbox"/> Cooler custody seal intact																							
Relinquished by:		DATE	TIME	Received by:		DATE	TIME																
Kevin Gandhi		05/23/12	1800	[Signature]		5/24/12	0815																
Relinquished by:		DATE	TIME	Relinquished by:		DATE	TIME																
Relinquished by:		DATE	TIME	Relinquished by:		DATE	TIME																

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J12101112190225

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11
S. Burlington, VT 05403

BILL SENDER

Ship Date: 23MAY12
Act/Wgt: 35.0 LB
CAD: 103886297/INET3250
Dims: 22 X 14 X 15 IN

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO #
Dept #

2 of 3

THU - 24 MAY A4
FIRST OVERNIGHT

MPS# 7936 0054 6498

0263

Mstr# 7936 0054 6373

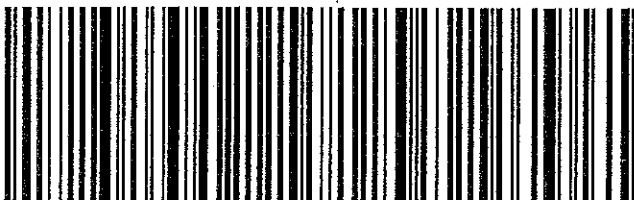
0201

05403

VT-US

BTV

E9 BTVA



512G3161A4/A278

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J12101112190225

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11
S. Burlington, VT 05403

BILL SENDER

Ship Date: 23MAY12
Act/Wgt: 35.0 LB
CAD: 103886297/INET3250
Dims: 20 X 14 X 15 IN

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO #
Dept #

1 of 3

THU - 24 MAY A4
FIRST OVERNIGHT

TRK# 7936 0054 6373

0201

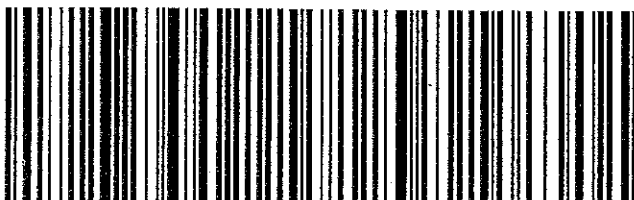
MASTER

05403

VT-US

BTV

E9 BTVA



512G3161A4/A278

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10949-2

SDG Number: PRR1306

Login Number: 10949

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699036, 029, 030, & 035
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C & 5.2°C IR GUN ID 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	False	Refer to Job Narrative for details.
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

ANALYTICAL REPORT

Job Number: 200-10949-3

SDG Number: PRR1306

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/25/2012 9:33 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/25/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	9
QC Results	10
Qc Association Summary	11
Qc Reports	12
Client Chain of Custody	13
Sample Receipt Checklist	14

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1306 (200-10949-3)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The sample in this sample set was received on 05/24/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The sample was received as part of a larger sample set, which was received in two coolers. The temperature of the contents of each cooler was determined at the time of receipt. The temperatures were 4.2 °C and 5.2 °C.

SM 2540D Total suspended Solids

The sample in this sample set was analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the sample in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10949-3

Sdg Number: PRR1306

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10949-3

Sdg Number: PRR1306

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10949-3
Sdg Number: PRR1306

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10949-1	PRR1WATCME-54	Water	05/23/2012 1130	05/24/2012 0815

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10949-3

Sdg Number: PRR1306

General Chemistry

Client Sample ID: PRR1WATCME-54

Lab Sample ID: 200-10949-1

Date Sampled: 05/23/2012 1130

Client Matrix: Water

Date Received: 05/24/2012 0815

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	2.2		mg/L	2.2	2.2	1.0	SM 2540D
	Analysis Batch: 200-39218	Analysis Date: 05/24/2012 1212					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10949-3

Sdg Number: PRR1306

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-3

Sdg Number: PRR1306

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-39218					
LCS 200-39218/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-39218/1	Method Blank	T	Water	SM 2540D	
200-10949-1	PRR1WATCME-54	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10949-3
Sdg Number: PRR1306

Method Blank - Batch: 200-39218

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	MB 200-39218/1	Analysis Batch:	200-39218	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/24/2012 1212	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-39218

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	LCS 200-39218/2	Analysis Batch:	200-39218	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/24/2012 1212	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	498.0	100	85 - 115	

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 23MAY12
Act/Wgt: 35.0 LB
CAD: 103886297/INET3250
Dims: 22 X 14 X 15 IN

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO #
Dept #

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11
S. Burlington, VT 05403

BILL SENDER

2 of 3

THU - 24 MAY A4
FIRST OVERNIGHT

MPS# 7936 0054 6498

0263

Mstr# 7936 0054 6373

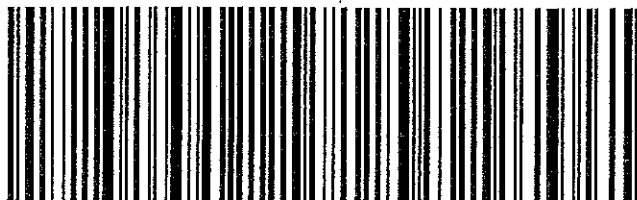
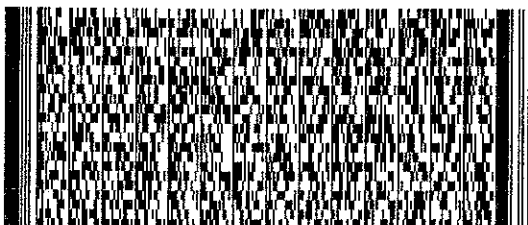
0201

05403

VT-US

BTV

E9 BTVA



512G3161A4/A278

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 23MAY12
Act/Wgt: 35.0 LB
CAD: 103886297/INET3250
Dims: 20 X 14 X 15 IN

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO #
Dept #

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11
S. Burlington, VT 05403

BILL SENDER

1 of 3

THU - 24 MAY A4
FIRST OVERNIGHT

TRK# 7936 0054 6373

0201

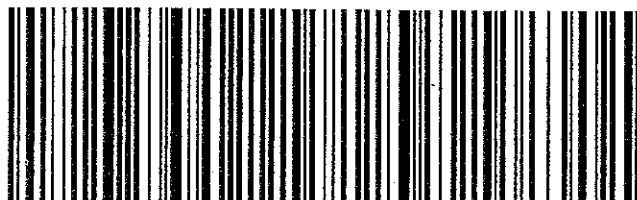
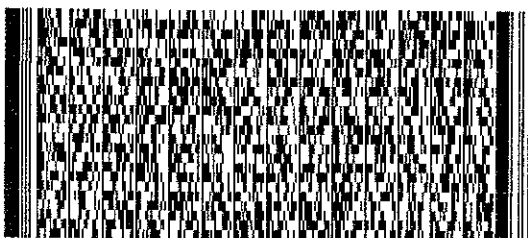
MASTER

05403

VT-US

BTV

E9 BTVA



512G3161A4/A278

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10949-3

SDG Number: PRR1306

Login Number: 10949

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699036, 029, 030, & 035
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C & 5.2°C IR GUN ID 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	False	Refer to Job Narrative for details.
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

ANALYTICAL REPORT

Job Number: 200-10971-1

SDG Number: PRR1310

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/29/2012 2:30 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/29/2012

cc: Mr. Joe Houser
Justin Lis
Rhiannon Parmelee
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	19
QC Results	20
Qc Association Summary	21
Surrogate Recovery Report	22
Qc Reports	24
Client Chain of Custody	25
Sample Receipt Checklist	26

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1310 (200-10971-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 05/25/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 4.6 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set. A trace concentration of chlorobenzene was identified in the analysis of each of the instrument blanks associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in the closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1

Sdg Number: PRR1310

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1

Sdg Number: PRR1310

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1

Sdg Number: PRR1310

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10971-1	PRR1WATGACI-26-SP-105	Water	05/24/2012 0912	05/25/2012 0900
200-10971-2	PRR1WATGAC-26-SP-106	Water	05/24/2012 0909	05/25/2012 0900
200-10971-3	PRR1WATGAC-26-SP-109	Water	05/24/2012 0905	05/25/2012 0900
200-10971-4	PRR1WATGAC-26-SP-107	Water	05/24/2012 0907	05/25/2012 0900
200-10971-5	PRR1WATGAC-26-SP-108	Water	05/24/2012 0900	05/25/2012 0900
200-10971-8TB	TB05242012-A	Water	05/24/2012 0000	05/25/2012 0900
200-10971-9STOBL K	VHBLK01	Water	05/25/2012 0940	05/25/2012 0900

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1
Sdg Number: PRR1310

Client Sample ID: PRR1WATGACI-26-SP-105

Lab Sample ID: 200-10971-1
Client Matrix: Water

Date Sampled: 05/24/2012 0912
Date Received: 05/25/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob07.d
Dilution:	102.3			Initial Weight/Volume:	25 mL
Analysis Date:	05/25/2012 1635			Final Weight/Volume:	25 mL
Prep Date:	05/25/2012 1635				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	67	J	510
Chlorobenzene	10000	E	51

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	105		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	92		49 - 155
Chloroform-d	94		78 - 121
1,2-Dichloroethane-d4	97		78 - 129
Benzene-d6	94		77 - 124
1,2-Dichloropropane-d6	95		79 - 124
Toluene-d8	94		77 - 121
trans-1,3-Dichloropropene-d4	88		73 - 121
2-Hexanone-d5	92		28 - 135
1,1,2,2-Tetrachloroethane-d2	91		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1

Sdg Number: PRR1310

Client Sample ID: PRR1WATGACI-26-SP-105

Lab Sample ID: 200-10971-1

Date Sampled: 05/24/2012 0912

Client Matrix: Water

Date Received: 05/25/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob06.d
Dilution:	733.3			Initial Weight/Volume:	25 mL
Analysis Date:	05/25/2012 1611	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/25/2012 1611				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	3700	U	3700
Chlorobenzene	9700	D	370

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	107		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	96		49 - 155
Chloroform-d	96		78 - 121
1,2-Dichloroethane-d4	101		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	102		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	96		73 - 121
2-Hexanone-d5	101		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	111		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1

Sdg Number: PRR1310

Client Sample ID: PRR1WATGAC-26-SP-106

Lab Sample ID: 200-10971-2

Date Sampled: 05/24/2012 0909

Client Matrix: Water

Date Received: 05/25/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob10.d
Dilution:	31.4			Initial Weight/Volume:	25 mL
Analysis Date:	05/25/2012 1746			Final Weight/Volume:	25 mL
Prep Date:	05/25/2012 1746				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	78	J	160
Chlorobenzene	3200	E	16

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	99		65 - 131
Chloroethane-d5	108		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	99		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	102		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	97		73 - 121
2-Hexanone-d5	102		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	115		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1

Sdg Number: PRR1310

Client Sample ID: PRR1WATGAC-26-SP-106

Lab Sample ID: 200-10971-2

Date Sampled: 05/24/2012 0909

Client Matrix: Water

Date Received: 05/25/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob09.d
Dilution:	231.6			Initial Weight/Volume:	25 mL
Analysis Date:	05/25/2012 1722	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/25/2012 1722				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	1200	U	1200
Chlorobenzene	2600	D	120

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	90		49 - 155
Chloroform-d	92		78 - 121
1,2-Dichloroethane-d4	97		78 - 129
Benzene-d6	97		77 - 124
1,2-Dichloropropane-d6	98		79 - 124
Toluene-d8	97		77 - 121
trans-1,3-Dichloropropene-d4	90		73 - 121
2-Hexanone-d5	94		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	104		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1
Sdg Number: PRR1310

Client Sample ID: PRR1WATGAC-26-SP-109

Lab Sample ID: 200-10971-3
Client Matrix: Water

Date Sampled: 05/24/2012 0905
Date Received: 05/25/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob13.d
Dilution:	19.1			Initial Weight/Volume:	25 mL
Analysis Date:	05/25/2012 1859			Final Weight/Volume:	25 mL
Prep Date:	05/25/2012 1859				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	28	J	96
Chlorobenzene	1900	E	9.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	105		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	90		49 - 155
Chloroform-d	97		78 - 121
1,2-Dichloroethane-d4	97		78 - 129
Benzene-d6	96		77 - 124
1,2-Dichloropropane-d6	97		79 - 124
Toluene-d8	96		77 - 121
trans-1,3-Dichloropropene-d4	89		73 - 121
2-Hexanone-d5	93		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	107		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1
Sdg Number: PRR1310

Client Sample ID: PRR1WATGAC-26-SP-109

Lab Sample ID: 200-10971-3
Client Matrix: Water

Date Sampled: 05/24/2012 0905
Date Received: 05/25/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob12.d
Dilution:	133.3			Initial Weight/Volume:	25 mL
Analysis Date:	05/25/2012 1834	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/25/2012 1834				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	670	U	670
Chlorobenzene	1500	D	67

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	107		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	98		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	105		79 - 124
Toluene-d8	104		77 - 121
trans-1,3-Dichloropropene-d4	98		73 - 121
2-Hexanone-d5	106		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	113		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1
Sdg Number: PRR1310

Client Sample ID: PRR1WATGAC-26-SP-107

Lab Sample ID: 200-10971-4
Client Matrix: Water

Date Sampled: 05/24/2012 0907
Date Received: 05/25/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob15.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/25/2012 1947			Final Weight/Volume:	25 mL
Prep Date:	05/25/2012 1947				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	62		10
Chlorobenzene	3.2		1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	94		65 - 131
Chloroethane-d5	104		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	97		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	101		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	101		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	94		73 - 121
2-Hexanone-d5	103		28 - 135
1,1,2,2-Tetrachloroethane-d2	96		73 - 125
1,2-Dichlorobenzene-d4	111		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1
Sdg Number: PRR1310

Client Sample ID: PRR1WATGAC-26-SP-108

Lab Sample ID: 200-10971-5
Client Matrix: Water

Date Sampled: 05/24/2012 0900
Date Received: 05/25/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob16.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/25/2012 2011			Final Weight/Volume:	25 mL
Prep Date:	05/25/2012 2011				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	26		10
Chlorobenzene	3.8		1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	102		65 - 131
Chloroethane-d5	114		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	106		49 - 155
Chloroform-d	110		78 - 121
1,2-Dichloroethane-d4	111		78 - 129
Benzene-d6	109		77 - 124
1,2-Dichloropropane-d6	111		79 - 124
Toluene-d8	108		77 - 121
trans-1,3-Dichloropropene-d4	100		73 - 121
2-Hexanone-d5	111		28 - 135
1,1,2,2-Tetrachloroethane-d2	105		73 - 125
1,2-Dichlorobenzene-d4	126		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1

Sdg Number: PRR1310

Client Sample ID: TB05242012-A

Lab Sample ID: 200-10971-8TB

Date Sampled: 05/24/2012 0000

Client Matrix: Water

Date Received: 05/25/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob17.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/25/2012 2035			Final Weight/Volume:	25 mL
Prep Date:	05/25/2012 2035				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.044	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	108		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	99		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	103		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	104		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	95		73 - 121
2-Hexanone-d5	102		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	111		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1
Sdg Number: PRR1310

Client Sample ID: VHBLK01

Lab Sample ID: 200-10971-9STOBLK
Client Matrix: Water

Date Sampled: 05/25/2012 0940
Date Received: 05/25/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39359	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	diob18.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/25/2012 2059			Final Weight/Volume:	25 mL
Prep Date:	05/25/2012 2059				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	93		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	73		55 - 104
2-Butanone-d5	95		49 - 155
Chloroform-d	95		78 - 121
1,2-Dichloroethane-d4	99		78 - 129
Benzene-d6	99		77 - 124
1,2-Dichloropropane-d6	102		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	93		73 - 121
2-Hexanone-d5	96		28 - 135
1,1,2,2-Tetrachloroethane-d2	95		73 - 125
1,2-Dichlorobenzene-d4	109		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1

Sdg Number: PRR1310

Lab Section	Qualifier	Description
GC/MS VOA	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1

Sdg Number: PRR1310

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC/MS VOA					
Analysis Batch:200-39359					
MB 200-39359/5	Method Blank	T	Water	SOM01.2/VOA_T	
200-10971-1	PRR1WATGACI-26-SP-105	T	Water	SOM01.2/VOA_T	
200-10971-1DL	PRR1WATGACI-26-SP-105	T	Water	SOM01.2/VOA_T	
200-10971-2	PRR1WATGAC-26-SP-106	T	Water	SOM01.2/VOA_T	
200-10971-2DL	PRR1WATGAC-26-SP-106	T	Water	SOM01.2/VOA_T	
200-10971-3	PRR1WATGAC-26-SP-109	T	Water	SOM01.2/VOA_T	
200-10971-3DL	PRR1WATGAC-26-SP-109	T	Water	SOM01.2/VOA_T	
200-10971-4	PRR1WATGAC-26-SP-107	T	Water	SOM01.2/VOA_T	
200-10971-5	PRR1WATGAC-26-SP-108	T	Water	SOM01.2/VOA_T	
200-10971-8TB	TB05242012-A	T	Water	SOM01.2/VOA_T	
200-10971-9STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1

Sdg Number: PRR1310

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-10971-1 DL	PRR1WATGACI-26-S P-105 DL	97	107	77	96	96	101	101	102
200-10971-1	PRR1WATGACI-26-S P-105	94	105	75	92	94	97	94	95
200-10971-2 DL	PRR1WATGAC-26-S P-106 DL	94	103	74	90	92	97	97	98
200-10971-2	PRR1WATGAC-26-S P-106	99	108	78	99	102	105	101	102
200-10971-3 DL	PRR1WATGAC-26-S P-109 DL	96	107	77	98	99	104	103	105
200-10971-3	PRR1WATGAC-26-S P-109	94	105	74	90	97	97	96	97
200-10971-4	PRR1WATGAC-26-S P-107	94	104	74	97	101	101	102	101
200-10971-5	PRR1WATGAC-26-S P-108	102	114	80	106	110	111	109	111
200-10971-8	TB05242012-A	96	108	76	99	98	103	102	104
200-10971-9	VHBLK01	93	103	73	95	95	99	99	102
MB 200-39359/5		95	103	74	90	93	97	99	99

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1

Sdg Number: PRR1310

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-10971-1 DL	PRR1WATGACI-26-S P-105 DL	101	96	101	98	111
200-10971-1	PRR1WATGACI-26-S P-105	94	88	92	91	106
200-10971-2 DL	PRR1WATGAC-26-S P-106 DL	97	90	94	93	104
200-10971-2	PRR1WATGAC-26-S P-106	101	97	102	100	115
200-10971-3 DL	PRR1WATGAC-26-S P-109 DL	104	98	106	100	113
200-10971-3	PRR1WATGAC-26-S P-109	96	89	93	94	107
200-10971-4	PRR1WATGAC-26-S P-107	100	94	103	96	111
200-10971-5	PRR1WATGAC-26-S P-108	108	100	111	105	126
200-10971-8	TB05242012-A	101	95	102	99	111
200-10971-9	VHBLK01	98	93	96	95	109
MB 200-39359/5		99	92	94	93	109

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1

Sdg Number: PRR1310

Method Blank - Batch: 200-39359

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-39359/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/25/2012 1545
 Prep Date: 05/25/2012 1545
 Leach Date: N/A

Analysis Batch: 200-39359
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: D.i
 Lab File ID: diob05.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	95	65 - 131
Chloroethane-d5	103	71 - 131
1,1-Dichloroethene-d2	74	55 - 104
2-Butanone-d5	90	49 - 155
Chloroform-d	93	78 - 121
1,2-Dichloroethane-d4	97	78 - 129
Benzene-d6	99	77 - 124
1,2-Dichloropropane-d6	99	79 - 124
Toluene-d8	99	77 - 121
trans-1,3-Dichloropropene-d4	92	73 - 121
2-Hexanone-d5	94	28 - 135
1,1,2,2-Tetrachloroethane-d2	93	73 - 125
1,2-Dichlorobenzene-d4	109	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

PROJECT NAME		Requested Analyses																					
Tierra Phase I Removal																							
PROJ. NO.	80009966.0002.70004																SDG NUMBER	COC Number					
SAMPLERS:	CHES																PRR1310						
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
PRR1WATGACI-26-SP-105	5/24/2012	9:12	water	Grab	3	X																	
PRR1WATGACE-26-SP-106	5/24/2012	9:09	water	Grab	9	X																	
PRR1WATGACE-26-SP-109	5/24/2012	9:05	water	Grab	3	X																	
PRR1WATGACE-26-SP-107	5/24/2012	9:07	water	Grab	3	X																	
PRR1WATGACE-26-SP-108	5/24/2012	9:00	water	Grab	3	X																	
PRR1WATCME-55	5/24/2012	8:55	water	Grab	1	X																	
PRR1WAT-26-SP-101	5/24/2012	9:15	water	Grab	1	X																	
TB05242012-A	5/24/2012		water		3	X																	
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																					
Requested Analyses																							
0 1 2-Butanone, Chlorobenzene																							
1 2 TSS																							
2 3																							
3 4																							
4 5																							
5 6																							
6 7																							
7 8																							
8 9																							
9 10																							
10 11																							
11 12																							
12 13																							
13 14																							
14 15																							

Laboratory Information and Receipt			
Lab Name:	TestAmerica -Burlington, VT	<input type="checkbox"/> Cooler packed with ice	Sample Receipt:
Shipping Tracking #		<input type="checkbox"/> Cooler custody seal intact	Condition/Cooler Temp:
Specify Turnaround Requirements: 24 hr TAT			
Relinquished by:	DATE	TIME	Received by:
<i>V. Burns</i>	5/24/12	1255	<i>Craig S. Burroughs</i>
Relinquished by:	DATE	TIME	Received by:
			<i>5/25/12</i>
Relinquished by:	DATE	TIME	Received by:
<i>Craig S. Burroughs</i>	5/24/12	1430	<i>5/25/12</i>
Relinquished by:	DATE	TIME	Received by:

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10971-1

SDG Number: PRR1310

Login Number: 10971

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698982 & 698981
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6°C IR GUN ID 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
 Michael Pefenski
 ARCADIS
 117 Blanchard St
 Newark, NJ 07105

Origin ID: VAKA



Ship Date: 24MAY12
 ActWgt: 20.0 LB
 CAD: 103886297/NET3250
 Dims: 12 X 9 X 11 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

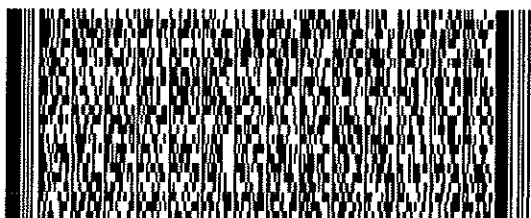
S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
 Invoice #
 PO # B0009966.0002.70004
 Dept #

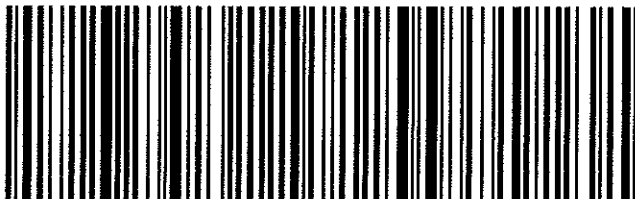
FRI - 25 MAY A4
FIRST OVERNIGHT

TRK# 7984 3434 2701
 0201



E9 BTVA

05403
 VT-US
BTV



512G361A4/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-10971-2

SDG Number: PRR1310

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/29/2012 2:38 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/29/2012

cc: Mr. Joe Houser
Justin Lis
Rhiannon Parmelee
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	15

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1310 (200-10971-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 05/25/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 4.6 °C.

SM 2540D Total suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10971-2
Sdg Number: PRR1310

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10971-2

Sdg Number: PRR1310

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-10971-2
Sdg Number: PRR1310

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-10971-6	PRR1WATCME-55	Water	05/24/2012 0855	05/25/2012 0900
200-10971-7	PRR1WAT-26-SP-101	Water	05/24/2012 0915	05/25/2012 0900

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10971-2

Sdg Number: PRR1310

General Chemistry

Client Sample ID: PRR1WATCME-55

Lab Sample ID: 200-10971-6

Date Sampled: 05/24/2012 0855

Client Matrix: Water

Date Received: 05/25/2012 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	4.7		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-39293		Analysis Date: 05/25/2012 1003					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-10971-2

Sdg Number: PRR1310

General Chemistry

Client Sample ID: PRR1WAT-26-SP-101

Lab Sample ID: 200-10971-7

Date Sampled: 05/24/2012 0915

Client Matrix: Water

Date Received: 05/25/2012 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	34.7		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-39293		Analysis Date: 05/25/2012 1003					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-10971-2

Sdg Number: PRR1310

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10971-2

Sdg Number: PRR1310

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-39293					
LCS 200-39293/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-39293/1	Method Blank	T	Water	SM 2540D	
200-10971-6	PRR1WATCME-55	T	Water	SM 2540D	
200-10971-7	PRR1WAT-26-SP-101	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-10971-2
Sdg Number: PRR1310

Method Blank - Batch: 200-39293

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-39293/1	Analysis Batch:	200-39293	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/25/2012 1003	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-39293

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-39293/2	Analysis Batch:	200-39293	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/25/2012 1003	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	496.0	99	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

PROJECT NAME		Requested Analyses																					
Tierra Phase I Removal		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17					
PROJ. NO.	SAMPLERS:	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
80009966.0002.70004	CHES	5/24/2012	9:12	water	Grab	3	X																
		5/24/2012	9:09	water	Grab	9	X																
		5/24/2012	9:05	water	Grab	3	X																
		5/24/2012	9:07	water	Grab	3	X																
		5/24/2012	9:00	water	Grab	3	X																
		5/24/2012	8:55	water	Grab	1	X																
		5/24/2012	9:15	water	Grab	1	X																
		5/24/2012		water		3	X																
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																					
Requested Analyses		0 1 2-Butanone, Chlorobenzene 1 2 TSS 3 4 7 5 6 7 8 9 10 11 12 13 14 15																					
Laboratory Information and Receipt		Lab Name: TestAmerica -Burlington, VT Shipping Tracking # Specify Turnaround Requirements: 24 hr TAT Relinquished by: <i>[Signature]</i> Received by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i> Received by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i> Received by: <i>[Signature]</i>																					
Sample Receipt:		Condition/Cooler Temp: <input type="checkbox"/> Cooler packed with ice <input type="checkbox"/> Cooler custody seal intact Relinquished by: DATE Relinquished by: DATE Relinquished by: DATE																					

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-10971-2

SDG Number: PRR1310

Login Number: 10971

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698982 & 698981
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6°C IR GUN ID 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
 Michael Pefenski
 ARCADIS
 117 Blanchard St
 Newark, NJ 07105

Origin ID: VAKA



Ship Date: 24MAY12
 ActWgt: 20.0 LB
 CAD: 103886297/NET3250
 Dims: 12 X 9 X 11 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

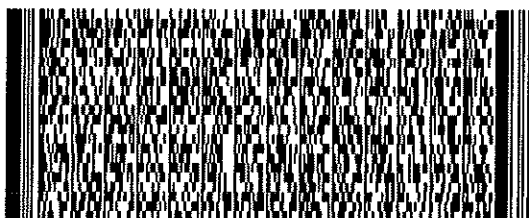
S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
 Invoice #
 PO # B0009966.0002.70004
 Dept #

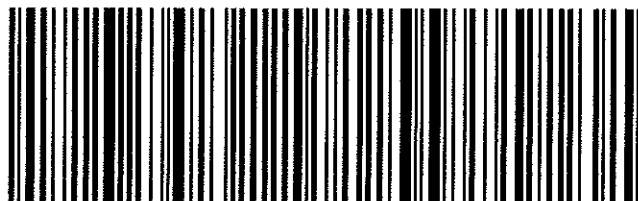
FRI - 25 MAY A4
FIRST OVERNIGHT

TRK# 7984 3434 2701
 0201



E9 BTVA

05403
 VT-US
BTV



512G361A4/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-11015-1

SDG Number: PRR1313

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/30/2012 11:31 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/30/2012

cc: Mr. Joe Houser
Justin Lis
Rhiannon Parmelee
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	17
QC Results	18
Qc Association Summary	19
Surrogate Recovery Report	20
Qc Reports	22
Client Chain of Custody	23
Sample Receipt Checklist	24

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1313 (200-11015-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 05/29/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 22.4 °C. The project team was apprised of the elevated temperature, and the laboratory was instructed to proceed with the analysis of the samples.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. A trace concentration of chlorobenzene was identified in the analysis of the method blank associated with the analytical work. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant method blank analysis. A trace concentration of chlorobenzene was identified in the analysis of the storage blank associated with the sample set. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant storage blank analysis. A trace concentration of chlorobenzene was identified in the analysis of each of the instrument blanks associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance

criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. With the exception of that for chlorobenzene, the response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. In that acquisition, the response for chlorobenzene, relative to the average response in the initial calibration, represented a 35.4 percent difference. Although above the 30.0 percent difference criterion established for that compound, the acquisition did meet the technical acceptance criteria for a compliant opening/continuing calibration check. The response for each target analyte met the 50.0 percent difference criterion in the closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um
Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1

Sdg Number: PRR1313

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1

Sdg Number: PRR1313

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Dragoo, Jennifer P	JPD

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1
Sdg Number: PRR1313

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-11015-1	PRR1WATGACI-27-SP-105	Water	05/25/2012 0920	05/29/2012 0830
200-11015-2	PRR1WATGACE-27-SP-106	Water	05/25/2012 0916	05/29/2012 0830
200-11015-3	PRR1WATGACE-27-SP-109	Water	05/25/2012 0911	05/29/2012 0830
200-11015-6TB	TB05252012	Water	05/25/2012 0000	05/29/2012 0830
200-11015-7STOBL K	VHBLK01	Water	05/29/2012 1155	05/29/2012 0830

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1

Sdg Number: PRR1313

Client Sample ID: PRR1WATGACI-27-SP-105

Lab Sample ID: 200-11015-1

Date Sampled: 05/25/2012 0920

Client Matrix: Water

Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe08.d
Dilution:	47.3			Initial Weight/Volume:	25 mL
Analysis Date:	05/29/2012 2207			Final Weight/Volume:	25 mL
Prep Date:	05/29/2012 2207				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	130	J	240
Chlorobenzene	5100	E B	24

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	83		65 - 131
Chloroethane-d5	93		71 - 131
1,1-Dichloroethene-d2	66		55 - 104
2-Butanone-d5	84		49 - 155
Chloroform-d	86		78 - 121
1,2-Dichloroethane-d4	92		78 - 129
Benzene-d6	85		77 - 124
1,2-Dichloropropane-d6	88		79 - 124
Toluene-d8	83		77 - 121
trans-1,3-Dichloropropene-d4	83		73 - 121
2-Hexanone-d5	84		28 - 135
1,1,2,2-Tetrachloroethane-d2	87		73 - 125
1,2-Dichlorobenzene-d4	98		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1
Sdg Number: PRR1313

Client Sample ID: PRR1WATGACI-27-SP-105

Lab Sample ID: 200-11015-1
Client Matrix: Water

Date Sampled: 05/25/2012 0920
Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe07.d
Dilution:	338			Initial Weight/Volume:	25 mL
Analysis Date:	05/29/2012 2143	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/29/2012 2143				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	150	J D	1700
Chlorobenzene	4600	D B	170

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	85		65 - 131
Chloroethane-d5	94		71 - 131
1,1-Dichloroethene-d2	67		55 - 104
2-Butanone-d5	84		49 - 155
Chloroform-d	87		78 - 121
1,2-Dichloroethane-d4	92		78 - 129
Benzene-d6	88		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	87		77 - 121
trans-1,3-Dichloropropene-d4	83		73 - 121
2-Hexanone-d5	84		28 - 135
1,1,2,2-Tetrachloroethane-d2	86		73 - 125
1,2-Dichlorobenzene-d4	104		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1
Sdg Number: PRR1313

Client Sample ID: PRR1WATGACE-27-SP-106

Lab Sample ID: 200-11015-2
Client Matrix: Water

Date Sampled: 05/25/2012 0916
Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe11.d
Dilution:	60.3			Initial Weight/Volume:	25 mL
Analysis Date:	05/29/2012 2320			Final Weight/Volume:	25 mL
Prep Date:	05/29/2012 2320				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	230	J	300
Chlorobenzene	6500	E B	30

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	83		65 - 131
Chloroethane-d5	94		71 - 131
1,1-Dichloroethene-d2	67		55 - 104
2-Butanone-d5	86		49 - 155
Chloroform-d	88		78 - 121
1,2-Dichloroethane-d4	93		78 - 129
Benzene-d6	87		77 - 124
1,2-Dichloropropane-d6	89		79 - 124
Toluene-d8	85		77 - 121
trans-1,3-Dichloropropene-d4	83		73 - 121
2-Hexanone-d5	85		28 - 135
1,1,2,2-Tetrachloroethane-d2	88		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1

Sdg Number: PRR1313

Client Sample ID: PRR1WATGACE-27-SP-106

Lab Sample ID: 200-11015-2

Date Sampled: 05/25/2012 0916

Client Matrix: Water

Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-39446	Instrument ID: D.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: dioe10.d
Dilution: 440		Initial Weight/Volume: 25 mL
Analysis Date: 05/29/2012 2255	Run Type: DL	Final Weight/Volume: 25 mL
Prep Date: 05/29/2012 2255		

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	340	J D	2200
Chlorobenzene	5700	D B	220

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	88		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	70		55 - 104
2-Butanone-d5	105		49 - 155
Chloroform-d	94		78 - 121
1,2-Dichloroethane-d4	108		78 - 129
Benzene-d6	92		77 - 124
1,2-Dichloropropane-d6	98		79 - 124
Toluene-d8	90		77 - 121
trans-1,3-Dichloropropene-d4	93		73 - 121
2-Hexanone-d5	100		28 - 135
1,1,2,2-Tetrachloroethane-d2	102		73 - 125
1,2-Dichlorobenzene-d4	114		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1
Sdg Number: PRR1313

Client Sample ID: PRR1WATGACE-27-SP-109

Lab Sample ID: 200-11015-3
Client Matrix: Water

Date Sampled: 05/25/2012 0911
Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe14.d
Dilution:	24.4			Initial Weight/Volume:	25 mL
Analysis Date:	05/30/2012 0032			Final Weight/Volume:	25 mL
Prep Date:	05/30/2012 0032				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	170		120
Chlorobenzene	2600	E B	12

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	82		65 - 131
Chloroethane-d5	92		71 - 131
1,1-Dichloroethene-d2	66		55 - 104
2-Butanone-d5	86		49 - 155
Chloroform-d	90		78 - 121
1,2-Dichloroethane-d4	93		78 - 129
Benzene-d6	89		77 - 124
1,2-Dichloropropane-d6	90		79 - 124
Toluene-d8	86		77 - 121
trans-1,3-Dichloropropene-d4	83		73 - 121
2-Hexanone-d5	86		28 - 135
1,1,2,2-Tetrachloroethane-d2	89		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1
Sdg Number: PRR1313

Client Sample ID: PRR1WATGACE-27-SP-109

Lab Sample ID: 200-11015-3
Client Matrix: Water

Date Sampled: 05/25/2012 0911
Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe13.d
Dilution:	176			Initial Weight/Volume:	25 mL
Analysis Date:	05/30/2012 0008	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/30/2012 0008				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	180	J D	880
Chlorobenzene	2400	D B	88

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	83		65 - 131
Chloroethane-d5	95		71 - 131
1,1-Dichloroethene-d2	68		55 - 104
2-Butanone-d5	86		49 - 155
Chloroform-d	88		78 - 121
1,2-Dichloroethane-d4	93		78 - 129
Benzene-d6	90		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	89		77 - 121
trans-1,3-Dichloropropene-d4	84		73 - 121
2-Hexanone-d5	86		28 - 135
1,1,2,2-Tetrachloroethane-d2	88		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1

Sdg Number: PRR1313

Client Sample ID: TB05252012

Lab Sample ID: 200-11015-6TB

Date Sampled: 05/25/2012 0000

Client Matrix: Water

Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe05.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/29/2012 2055			Final Weight/Volume:	25 mL
Prep Date:	05/29/2012 2055				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.17	J B	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	82		65 - 131
Chloroethane-d5	92		71 - 131
1,1-Dichloroethene-d2	67		55 - 104
2-Butanone-d5	84		49 - 155
Chloroform-d	87		78 - 121
1,2-Dichloroethane-d4	93		78 - 129
Benzene-d6	90		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	90		77 - 121
trans-1,3-Dichloropropene-d4	86		73 - 121
2-Hexanone-d5	86		28 - 135
1,1,2,2-Tetrachloroethane-d2	87		73 - 125
1,2-Dichlorobenzene-d4	104		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1

Sdg Number: PRR1313

Client Sample ID: VHBLK01

Lab Sample ID: 200-11015-7STOBLK

Date Sampled: 05/29/2012 1155

Client Matrix: Water

Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe25.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/30/2012 0457			Final Weight/Volume:	25 mL
Prep Date:	05/30/2012 0457				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.13	J B	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	87		65 - 131
Chloroethane-d5	98		71 - 131
1,1-Dichloroethene-d2	70		55 - 104
2-Butanone-d5	85		49 - 155
Chloroform-d	91		78 - 121
1,2-Dichloroethane-d4	95		78 - 129
Benzene-d6	94		77 - 124
1,2-Dichloropropane-d6	96		79 - 124
Toluene-d8	93		77 - 121
trans-1,3-Dichloropropene-d4	83		73 - 121
2-Hexanone-d5	85		28 - 135
1,1,2,2-Tetrachloroethane-d2	89		73 - 125
1,2-Dichlorobenzene-d4	113		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1

Sdg Number: PRR1313

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	B	The analyte was found in an associated blank, as well as in the sample.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1

Sdg Number: PRR1313

QC Association Summary

Lab Sample ID	Client Sample ID	Report			Prep Batch
		Basis	Client Matrix	Method	
GC/MS VOA					
Analysis Batch:200-39446					
MB 200-39446/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-11015-1	PRR1WATGACI-27-SP-105	T	Water	SOM01.2/VOA_T	
200-11015-1DL	PRR1WATGACI-27-SP-105	T	Water	SOM01.2/VOA_T	
200-11015-2	PRR1WATGACE-27-SP-106	T	Water	SOM01.2/VOA_T	
200-11015-2DL	PRR1WATGACE-27-SP-106	T	Water	SOM01.2/VOA_T	
200-11015-3	PRR1WATGACE-27-SP-109	T	Water	SOM01.2/VOA_T	
200-11015-3DL	PRR1WATGACE-27-SP-109	T	Water	SOM01.2/VOA_T	
200-11015-6TB	TB05252012	T	Water	SOM01.2/VOA_T	
200-11015-7STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1

Sdg Number: PRR1313

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-11015-1 DL	PRR1WATGACI-27-S P-105 DL	85	94	67	84	87	92	88	91
200-11015-1	PRR1WATGACI-27-S P-105	83	93	66	84	86	92	85	88
200-11015-2 DL	PRR1WATGACE-27- SP-106 DL	88	98	70	105	94	108	92	98
200-11015-2	PRR1WATGACE-27- SP-106	83	94	67	86	88	93	87	89
200-11015-3 DL	PRR1WATGACE-27- SP-109 DL	83	95	68	86	88	93	90	91
200-11015-3	PRR1WATGACE-27- SP-109	82	92	66	86	90	93	89	90
200-11015-6	TB05252012	82	92	67	84	87	93	90	92
200-11015-7	VHBLK01	87	98	70	85	91	95	94	96
MB 200-39446/4		84	92	67	83	87	91	89	91

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1

Sdg Number: PRR1313

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-11015-1 DL	PRR1WATGACI-27-S P-105 DL	87	83	84	86	104
200-11015-1	PRR1WATGACI-27-S P-105	83	83	84	87	98
200-11015-2 DL	PRR1WATGACE-27- SP-106 DL	90	93	100	102	114
200-11015-2	PRR1WATGACE-27- SP-106	85	83	85	88	103
200-11015-3 DL	PRR1WATGACE-27- SP-109 DL	89	84	86	88	106
200-11015-3	PRR1WATGACE-27- SP-109	86	83	86	89	103
200-11015-6	TB05252012	90	86	86	87	104
200-11015-7	VHBLK01	93	83	85	89	113
MB 200-39446/4		89	86	84	85	101

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1

Sdg Number: PRR1313

Method Blank - Batch: 200-39446

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-39446/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/29/2012 2031
 Prep Date: 05/29/2012 2031
 Leach Date: N/A

Analysis Batch: 200-39446
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: D.i
 Lab File ID: dioe04.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.18	J	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	84	65 - 131
Chloroethane-d5	92	71 - 131
1,1-Dichloroethene-d2	67	55 - 104
2-Butanone-d5	83	49 - 155
Chloroform-d	87	78 - 121
1,2-Dichloroethane-d4	91	78 - 129
Benzene-d6	89	77 - 124
1,2-Dichloropropane-d6	91	79 - 124
Toluene-d8	89	77 - 121
trans-1,3-Dichloropropene-d4	86	73 - 121
2-Hexanone-d5	84	28 - 135
1,1,2,2-Tetrachloroethane-d2	85	73 - 125
1,2-Dichlorobenzene-d4	101	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJECT NAME		Requested Analyses																					
Tierra Phase I Removal																							
PROJ. NO.	80009966.0002.70004																						
SAMPLERS:	CHES																						
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
PRR1WATGACI-27-SP-105	5/25/2012	9:20	water	Grab	3	X																	
PRR1WATGACE-27-SP-106	5/25/2012	9:16	water	Grab	3	X																	
PRR1WATGACE-27-SP-109	5/25/2012	9:11	water	Grab	3	X																	
PRR1WATCME-56	5/25/2012	9:05	water	Grab	1		X																
PRR1WAT-27-SP-101	5/25/2012	9:25	water	Grab	1		X																
TB05252012	5/25/2012		water	-	3	X																	
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																					
Requested Analyses																							
1,2-Dibromochlorobenzene																							
LUTSS																							
O&P																							
NUTRI																							
S																							
6																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							
15																							
Laboratory Information and Receipt																							
Lab Name: TestAmerica -Burlington, VT																							
Shipping Tracking #																							
Specify Turnaround Requirements: 24 hr TAT																							
Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME
<i>Leo Bourne</i>	5/25/12	1330	<i>Chris J. Burns</i>	5/24/12	0830	<i>Chris J. Burns</i>	5/24/12	0830															

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-11015-1

SDG Number: PRR1313

Login Number: 11015

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698983 & 698984
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	22.4°C IR GUN ID 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 25MAY12
ActWgt: 15.0 LB
CAD: 103886297/NET3250
Dims: 12 X 7 X 10 IN

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

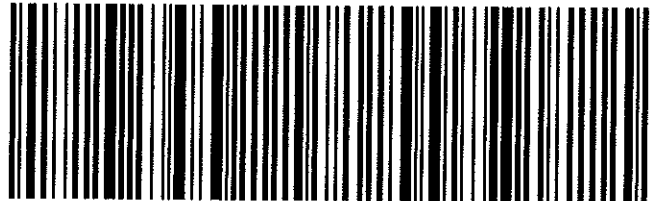
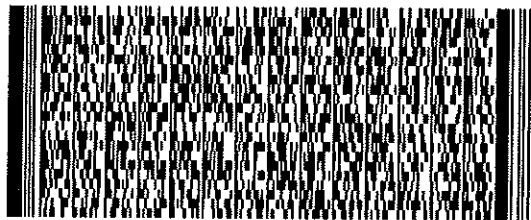
TUE - 29 MAY A4
FIRST OVERNIGHT

TRK# 7984 3999 3104

0201

X1 BTVA

05403
VT-US
BTVA



512G361A4/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-11015-2

SDG Number: PRR1313

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/30/2012 11:01 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/30/2012

cc: Mr. Joe Houser
Justin Lis
Rhiannon Parmelee
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	15

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1313 (200-11015-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 05/29/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 22.4 °C. The project team was apprised of the elevated temperature, and the laboratory was instructed to proceed with the analysis of the samples.

SM 2540D Total Suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11015-2
Sdg Number: PRR1313

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11015-2

Sdg Number: PRR1313

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11015-2
Sdg Number: PRR1313

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-11015-4	PRR1WATCME-56	Water	05/25/2012 0905	05/29/2012 0830
200-11015-5	PRR1WAT-27-SP-101	Water	05/25/2012 0925	05/29/2012 0830

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11015-2

Sdg Number: PRR1313

General Chemistry

Client Sample ID: PRR1WATCME-56

Lab Sample ID: 200-11015-4

Date Sampled: 05/25/2012 0905

Client Matrix: Water

Date Received: 05/29/2012 0830

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	4.9		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-39418		Analysis Date: 05/29/2012 1508					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11015-2

Sdg Number: PRR1313

General Chemistry

Client Sample ID: PRR1WAT-27-SP-101

Lab Sample ID: 200-11015-5

Date Sampled: 05/25/2012 0925

Client Matrix: Water

Date Received: 05/29/2012 0830

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	33.6		mg/L	2.1	2.1	1.0	SM 2540D
Analysis Batch: 200-39418		Analysis Date: 05/29/2012 1508					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-11015-2

Sdg Number: PRR1313

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11015-2

Sdg Number: PRR1313

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-39418					
LCS 200-39418/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-39418/1	Method Blank	T	Water	SM 2540D	
200-11015-4	PRR1WATCME-56	T	Water	SM 2540D	
200-11015-5	PRR1WAT-27-SP-101	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11015-2
Sdg Number: PRR1313

Method Blank - Batch: 200-39418

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-39418/1	Analysis Batch:	200-39418	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/29/2012 1508	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-39418

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-39418/2	Analysis Batch:	200-39418	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/29/2012 1508	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	508.0	102	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

ARCADIS
6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJ. NO. 80009966.0002.70004		PROJECT NAME Tierra Phase I Removal												SDG NUMBER PRR1313		COC Number							
SAMPLERS: CHES		Requested Analyses																					
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
PRR1WATGACI-27-SP-105	5/25/2012	9:20	water	Grab	3	X																	
PRR1WATGACE-27-SP-106	5/25/2012	9:16	water	Grab	3	X																	
PRR1WATGACE-27-SP-109	5/25/2012	9:11	water	Grab	3	X																	
PRR1WATCME-56	5/25/2012	9:05	water	Grab	1		X																
PRR1WAT-27-SP-101	5/25/2012	9:25	water	Grab	1		X																
TB05252012	5/25/2012		water	-	3	X																	
Special Instructions/Comments: <input type="checkbox"/> Special QA/QC Instructions																							
Requested Analyses																							
1,2-Butanone, Chlorobenzene																							
METS																							
OPE																							
LAB																							
S																							
6																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							
15																							

Laboratory Information and Receipt			
Lab Name: TestAmerica -Burlington, VT		<input type="checkbox"/> Cooler packed with ice	
Shipping Tracking #		<input type="checkbox"/> Cooler custody seal intact	
Relinquished by:	DATE	TIME	Received by:
<i>Leo Brown</i>	5/25/12	1330	<i>Craig J. Burns</i>
Relinquished by:	DATE	TIME	Received by:
<i>Craig J. Burns</i>	5/25/12	1430	<i>W. J. ...</i>
Relinquished by:	DATE	TIME	Received by:

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-11015-2

SDG Number: PRR1313

Login Number: 11015

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698983 & 698984
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	22.4°C IR GUN ID 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 25MAY12
ActWgt: 15.0 LB
CAD: 103886297/NET3250
Dims: 12 X 7 X 10 IN

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

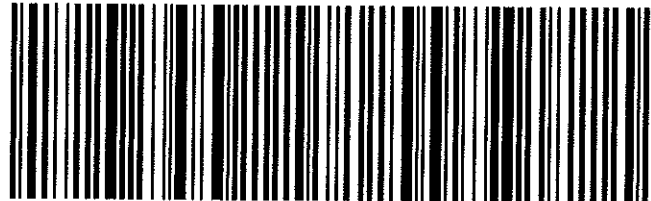
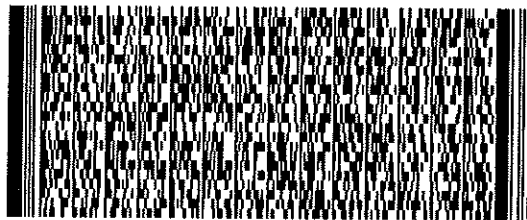
TUE - 29 MAY A4
FIRST OVERNIGHT

TRK# 7984 3999 3104

0201

X1 BTVA

05403
VT-US
BTVA



512G361A4/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-11016-1

SDG Number: PRR1317

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/30/2012 12:14 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/30/2012

cc: Mr. Joe Houser
Justin Lis
Rhiannon Parmelee
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	17
QC Results	18
Qc Association Summary	19
Surrogate Recovery Report	20
Qc Reports	22
Client Chain of Custody	23
Sample Receipt Checklist	24

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1317 (200-11016-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 05/29/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 22.6 °C. The project team was apprised of the elevated temperature, and the laboratory was instructed to proceed with the analysis of the samples.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. A trace concentration of chlorobenzene was identified in the analysis of the method blank associated with the analytical work. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant method blank analysis. A trace concentration of chlorobenzene was identified in the analysis of the storage blank associated with the sample set. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant storage blank analysis. A trace concentration of chlorobenzene was identified in the analysis of each of the instrument blanks associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance

criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. With the exception of that for chlorobenzene, the response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. In that acquisition, the response for chlorobenzene, relative to the average response in the initial calibration, represented a 35.4 percent difference. Although above the 30.0 percent difference criterion established for that compound, the acquisition did meet the technical acceptance criteria for a compliant opening/continuing calibration check. The response for each target analyte met the 50.0 percent difference criterion in the closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um
Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1
Sdg Number: PRR1317

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1

Sdg Number: PRR1317

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Dragoo, Jennifer P	JPD

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1
Sdg Number: PRR1317

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-11016-1	PRR1WATGACI-28-SP-105	Water	05/26/2012 0700	05/29/2012 0830
200-11016-2	PRR1WATGACE-28-SP-106	Water	05/26/2012 0705	05/29/2012 0830
200-11016-3	PRR1WATGACE-28-SP-109	Water	05/26/2012 0710	05/29/2012 0830
200-11016-6TB	TB05262012	Water	05/26/2012 0000	05/29/2012 0830
200-11016-7STOBL K	VHBLK01	Water	05/29/2012 1215	05/29/2012 0830

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1
Sdg Number: PRR1317

Client Sample ID: PRR1WATGACI-28-SP-105

Lab Sample ID: 200-11016-1
Client Matrix: Water

Date Sampled: 05/26/2012 0700
Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe17.d
Dilution:	40			Initial Weight/Volume:	25 mL
Analysis Date:	05/30/2012 0144			Final Weight/Volume:	25 mL
Prep Date:	05/30/2012 0144				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	310		200
Chlorobenzene	4300	E B	20

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	79		65 - 131
Chloroethane-d5	89		71 - 131
1,1-Dichloroethene-d2	64		55 - 104
2-Butanone-d5	80		49 - 155
Chloroform-d	84		78 - 121
1,2-Dichloroethane-d4	89		78 - 129
Benzene-d6	88		77 - 124
1,2-Dichloropropane-d6	88		79 - 124
Toluene-d8	85		77 - 121
trans-1,3-Dichloropropene-d4	83		73 - 121
2-Hexanone-d5	88		28 - 135
1,1,2,2-Tetrachloroethane-d2	84		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1
Sdg Number: PRR1317

Client Sample ID: PRR1WATGACI-28-SP-105

Lab Sample ID: 200-11016-1
Client Matrix: Water

Date Sampled: 05/26/2012 0700
Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe16.d
Dilution:	284			Initial Weight/Volume:	25 mL
Analysis Date:	05/30/2012 0120	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/30/2012 0120				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	290	J D	1400
Chlorobenzene	3900	D B	140

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	82		65 - 131
Chloroethane-d5	92		71 - 131
1,1-Dichloroethene-d2	66		55 - 104
2-Butanone-d5	81		49 - 155
Chloroform-d	86		78 - 121
1,2-Dichloroethane-d4	91		78 - 129
Benzene-d6	89		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	88		77 - 121
trans-1,3-Dichloropropene-d4	84		73 - 121
2-Hexanone-d5	85		28 - 135
1,1,2,2-Tetrachloroethane-d2	86		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1
Sdg Number: PRR1317

Client Sample ID: PRR1WATGACE-28-SP-106

Lab Sample ID: 200-11016-2
Client Matrix: Water

Date Sampled: 05/26/2012 0705
Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe20.d
Dilution:	152			Initial Weight/Volume:	25 mL
Analysis Date:	05/30/2012 0257			Final Weight/Volume:	25 mL
Prep Date:	05/30/2012 0257				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	1000		760
Chlorobenzene	20000	E B	76

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	77		65 - 131
Chloroethane-d5	88		71 - 131
1,1-Dichloroethene-d2	64		55 - 104
2-Butanone-d5	80		49 - 155
Chloroform-d	86		78 - 121
1,2-Dichloroethane-d4	89		78 - 129
Benzene-d6	83		77 - 124
1,2-Dichloropropane-d6	85		79 - 124
Toluene-d8	81		77 - 121
trans-1,3-Dichloropropene-d4	78		73 - 121
2-Hexanone-d5	80		28 - 135
1,1,2,2-Tetrachloroethane-d2	84		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1
Sdg Number: PRR1317

Client Sample ID: PRR1WATGACE-28-SP-106

Lab Sample ID: 200-11016-2
Client Matrix: Water

Date Sampled: 05/26/2012 0705
Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe19.d
Dilution:	1100			Initial Weight/Volume:	25 mL
Analysis Date:	05/30/2012 0232	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/30/2012 0232				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	790	J D	5500
Chlorobenzene	15000	D B	550

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	83		65 - 131
Chloroethane-d5	94		71 - 131
1,1-Dichloroethene-d2	67		55 - 104
2-Butanone-d5	84		49 - 155
Chloroform-d	89		78 - 121
1,2-Dichloroethane-d4	93		78 - 129
Benzene-d6	90		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	89		77 - 121
trans-1,3-Dichloropropene-d4	83		73 - 121
2-Hexanone-d5	85		28 - 135
1,1,2,2-Tetrachloroethane-d2	90		73 - 125
1,2-Dichlorobenzene-d4	108		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1
Sdg Number: PRR1317

Client Sample ID: PRR1WATGACE-28-SP-109

Lab Sample ID: 200-11016-3
Client Matrix: Water

Date Sampled: 05/26/2012 0710
Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe23.d
Dilution:	71			Initial Weight/Volume:	25 mL
Analysis Date:	05/30/2012 0409			Final Weight/Volume:	25 mL
Prep Date:	05/30/2012 0409				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	580		360
Chlorobenzene	7900	E B	36

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	81		65 - 131
Chloroethane-d5	94		71 - 131
1,1-Dichloroethene-d2	66		55 - 104
2-Butanone-d5	88		49 - 155
Chloroform-d	93		78 - 121
1,2-Dichloroethane-d4	94		78 - 129
Benzene-d6	90		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	87		77 - 121
trans-1,3-Dichloropropene-d4	83		73 - 121
2-Hexanone-d5	87		28 - 135
1,1,2,2-Tetrachloroethane-d2	89		73 - 125
1,2-Dichlorobenzene-d4	107		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1
Sdg Number: PRR1317

Client Sample ID: PRR1WATGACE-28-SP-109

Lab Sample ID: 200-11016-3
Client Matrix: Water

Date Sampled: 05/26/2012 0710
Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe22.d
Dilution:	518			Initial Weight/Volume:	25 mL
Analysis Date:	05/30/2012 0345	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	05/30/2012 0345				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	580	J D	2600
Chlorobenzene	6900	D B	260

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	85		65 - 131
Chloroethane-d5	96		71 - 131
1,1-Dichloroethene-d2	69		55 - 104
2-Butanone-d5	86		49 - 155
Chloroform-d	91		78 - 121
1,2-Dichloroethane-d4	95		78 - 129
Benzene-d6	93		77 - 124
1,2-Dichloropropane-d6	96		79 - 124
Toluene-d8	92		77 - 121
trans-1,3-Dichloropropene-d4	84		73 - 121
2-Hexanone-d5	87		28 - 135
1,1,2,2-Tetrachloroethane-d2	91		73 - 125
1,2-Dichlorobenzene-d4	111		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1
Sdg Number: PRR1317

Client Sample ID: TB05262012

Lab Sample ID: 200-11016-6TB
Client Matrix: Water

Date Sampled: 05/26/2012 0000
Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe06.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/29/2012 2119			Final Weight/Volume:	25 mL
Prep Date:	05/29/2012 2119				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.16	J B	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	85		65 - 131
Chloroethane-d5	96		71 - 131
1,1-Dichloroethene-d2	70		55 - 104
2-Butanone-d5	85		49 - 155
Chloroform-d	91		78 - 121
1,2-Dichloroethane-d4	94		78 - 129
Benzene-d6	94		77 - 124
1,2-Dichloropropane-d6	96		79 - 124
Toluene-d8	93		77 - 121
trans-1,3-Dichloropropene-d4	87		73 - 121
2-Hexanone-d5	85		28 - 135
1,1,2,2-Tetrachloroethane-d2	88		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1

Sdg Number: PRR1317

Client Sample ID: VHBLK01

Lab Sample ID: 200-11016-7STOBLK

Date Sampled: 05/29/2012 1215

Client Matrix: Water

Date Received: 05/29/2012 0830

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39446	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dioe26.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	05/30/2012 0521			Final Weight/Volume:	25 mL
Prep Date:	05/30/2012 0521				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.11	J B	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	84		65 - 131
Chloroethane-d5	95		71 - 131
1,1-Dichloroethene-d2	69		55 - 104
2-Butanone-d5	86		49 - 155
Chloroform-d	90		78 - 121
1,2-Dichloroethane-d4	93		78 - 129
Benzene-d6	93		77 - 124
1,2-Dichloropropane-d6	95		79 - 124
Toluene-d8	92		77 - 121
trans-1,3-Dichloropropene-d4	82		73 - 121
2-Hexanone-d5	85		28 - 135
1,1,2,2-Tetrachloroethane-d2	90		73 - 125
1,2-Dichlorobenzene-d4	107		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1

Sdg Number: PRR1317

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	B	The analyte was found in an associated blank, as well as in the sample.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1

Sdg Number: PRR1317

QC Association Summary

Lab Sample ID	Client Sample ID	Report			Prep Batch
		Basis	Client Matrix	Method	
GC/MS VOA					
Analysis Batch:200-39446					
MB 200-39446/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-11016-1	PRR1WATGACI-28-SP-105	T	Water	SOM01.2/VOA_T	
200-11016-1DL	PRR1WATGACI-28-SP-105	T	Water	SOM01.2/VOA_T	
200-11016-2	PRR1WATGACE-28-SP-106	T	Water	SOM01.2/VOA_T	
200-11016-2DL	PRR1WATGACE-28-SP-106	T	Water	SOM01.2/VOA_T	
200-11016-3	PRR1WATGACE-28-SP-109	T	Water	SOM01.2/VOA_T	
200-11016-3DL	PRR1WATGACE-28-SP-109	T	Water	SOM01.2/VOA_T	
200-11016-6TB	TB05262012	T	Water	SOM01.2/VOA_T	
200-11016-7STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1

Sdg Number: PRR1317

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-11016-1 DL	PRR1WATGACI-28-S P-105 DL	82	92	66	81	86	91	89	91
200-11016-1	PRR1WATGACI-28-S P-105	79	89	64	80	84	89	88	88
200-11016-2 DL	PRR1WATGACE-28- SP-106 DL	83	94	67	84	89	93	90	92
200-11016-2	PRR1WATGACE-28- SP-106	77	88	64	80	86	89	83	85
200-11016-3 DL	PRR1WATGACE-28- SP-109 DL	85	96	69	86	91	95	93	96
200-11016-3	PRR1WATGACE-28- SP-109	81	94	66	88	93	94	90	92
200-11016-6	TB05262012	85	96	70	85	91	94	94	96
200-11016-7	VHBLK01	84	95	69	86	90	93	93	95
MB 200-39446/4		84	92	67	83	87	91	89	91

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1

Sdg Number: PRR1317

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-11016-1 DL	PRR1WATGACI-28-S P-105 DL	88	84	85	86	106
200-11016-1	PRR1WATGACI-28-S P-105	85	83	88	84	101
200-11016-2 DL	PRR1WATGACE-28- SP-106 DL	89	83	85	90	108
200-11016-2	PRR1WATGACE-28- SP-106	81	78	80	84	103
200-11016-3 DL	PRR1WATGACE-28- SP-109 DL	92	84	87	91	111
200-11016-3	PRR1WATGACE-28- SP-109	87	83	87	89	107
200-11016-6	TB05262012	93	87	85	88	105
200-11016-7	VHBLK01	92	82	85	90	107
MB 200-39446/4		89	86	84	85	101

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1

Sdg Number: PRR1317

Method Blank - Batch: 200-39446

Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR

Lab Sample ID: MB 200-39446/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/29/2012 2031
Prep Date: 05/29/2012 2031
Leach Date: N/A

Analysis Batch: 200-39446
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: D.i
Lab File ID: dioe04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.18	J	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	84	65 - 131
Chloroethane-d5	92	71 - 131
1,1-Dichloroethene-d2	67	55 - 104
2-Butanone-d5	83	49 - 155
Chloroform-d	87	78 - 121
1,2-Dichloroethane-d4	91	78 - 129
Benzene-d6	89	77 - 124
1,2-Dichloropropane-d6	91	79 - 124
Toluene-d8	89	77 - 121
trans-1,3-Dichloropropene-d4	86	73 - 121
2-Hexanone-d5	84	28 - 135
1,1,2,2-Tetrachloroethane-d2	85	73 - 125
1,2-Dichlorobenzene-d4	101	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJECT NAME		Requested Analyses																								
Tierra Phase I Removal																										
PROJ. NO.	80009966.0002.70004																									
SAMPLERS:	CHES																									
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks			
PRR1WATGACI-28-SP-105	5/26/2012	7:00	water	Grab	3	X																				
PRR1WATGACE-28-SP-106	5/26/2012	7:05	water	Grab	3	X																				
PRR1WATGACE-28-SP-109	5/26/2012	7:10	water	Grab	3	X																				
PRR1WATCME-57	5/26/2012	7:15	water	Grab	1	X																				
PRR1WAT-28-SP-101	5/26/2012	7:20	water	Grab	1	X																				
T805262012	5/26/2012		water		3	X																				
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																								
Requested Analyses		1 2-Butanone, Chlorobenzene Lab TSS																								
Lab Name: TestAmerica -Burlington, VT		Laboratory Information and Receipt <input type="checkbox"/> Cooler packed with ice <input type="checkbox"/> Cooler custody seal intact																								
Shipping Tracking #																										
Specify Turnaround Requirements: 24 hr TAT																										
Relinquished by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:		
AAA-T McLeod	5-26-12	730	Chris S. Bernoff	5-26-12	0830	Chris S. Bernoff	5-29-12	0830	Chris S. Bernoff	5-29-12	0830	Chris S. Bernoff	5-29-12	0830	Chris S. Bernoff	5-29-12	0830	Chris S. Bernoff	5-29-12	0830	Chris S. Bernoff	5-29-12	0830	Chris S. Bernoff	5-29-12	0830

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-11016-1

SDG Number: PRR1317

Login Number: 11016

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698985 & 698986
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	22.6°C IR GUN ID 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St.

Newark, NJ 07105

Origin ID: VAKA



Ship Date: 26MAY12
ActWgt: 20.0 LB
CAD: 103886297/INET3250

Dims: 12 X 9 X 10 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

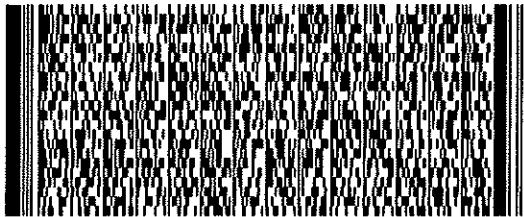
S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

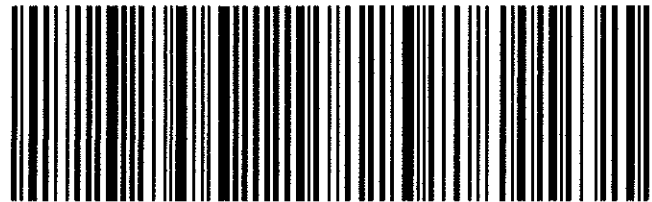
TUE - 29 MAY A4
FIRST OVERNIGHT

TRK# 7936 1174 2554
0201



X1 BTVA

05403
VT-US
BTV



512G361A4/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-11016-2

SDG Number: PRR1317

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
5/30/2012 11:03 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
05/30/2012

cc: Mr. Joe Houser
Justin Lis
Rhiannon Parmelee
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	15

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1317 (200-11016-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 05/29/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 22.6 °C. The project team was apprised of the elevated temperature, and the laboratory was instructed to proceed with the analysis of the samples.

SM 2540D Total Suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11016-2
Sdg Number: PRR1317

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11016-2

Sdg Number: PRR1317

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11016-2
Sdg Number: PRR1317

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-11016-4	PRR1WATCME-57	Water	05/26/2012 0715	05/29/2012 0830
200-11016-5	PRR1WAT-28-SP-101	Water	05/26/2012 0720	05/29/2012 0830

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11016-2

Sdg Number: PRR1317

General Chemistry

Client Sample ID: PRR1WATCME-57

Lab Sample ID: 200-11016-4

Date Sampled: 05/26/2012 0715

Client Matrix: Water

Date Received: 05/29/2012 0830

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	13.6		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-39418		Analysis Date: 05/29/2012 1508					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11016-2

Sdg Number: PRR1317

General Chemistry

Client Sample ID: PRR1WAT-28-SP-101

Lab Sample ID: 200-11016-5

Date Sampled: 05/26/2012 0720

Client Matrix: Water

Date Received: 05/29/2012 0830

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	103		mg/L	2.6	2.6	1.0	SM 2540D
	Analysis Batch: 200-39418	Analysis Date: 05/29/2012 1508					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-11016-2

Sdg Number: PRR1317

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11016-2

Sdg Number: PRR1317

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-39418					
LCS 200-39418/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-39418/1	Method Blank	T	Water	SM 2540D	
200-11016-4	PRR1WATCME-57	T	Water	SM 2540D	
200-11016-5	PRR1WAT-28-SP-101	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11016-2
Sdg Number: PRR1317

Method Blank - Batch: 200-39418

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-39418/1	Analysis Batch:	200-39418	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/29/2012 1508	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-39418

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-39418/2	Analysis Batch:	200-39418	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/29/2012 1508	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	508.0	102	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

PROJECT NAME		Requested Analyses																	SDG NUMBER	COC Number				
Tierra Phase I Removal																			PRR1317					
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATGACI-28-SP-105	5/26/2012	7:00	water	Grab	3	X																		
PRR1WATGACE-28-SP-106	5/26/2012	7:05	water	Grab	3	X																		
PRR1WATGACE-28-SP-109	5/26/2012	7:10	water	Grab	3	X																		
PRR1WATCME-57	5/26/2012	7:15	water	Grab	1		X																	
PRR1WAT-28-SP-101	5/26/2012	7:20	water	Grab	1		X																	
T805262012	5/26/2012		water		3	X																		
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																						
Requested Analyses		1, 2-Butanone, Chlorobenzene																						
Lab Name: TestAmerica -Burlington, VT		Shipping Tracking #																						
Specify Turnaround Requirements: 24 hr TAT		Relinquished by: <i>Matt Murphy</i> DATE: 5-26-12 TIME: 7:30																						
Relinquished by:		Received by: <i>Craig S. Bernoff</i> DATE: 5-29-12 TIME: 08:30																						
Relinquished by:		Received by: <i>[Signature]</i> DATE: 5-29-12 TIME: 08:30																						
Relinquished by:		Received by: <i>[Signature]</i> DATE: 5-29-12 TIME: 08:30																						
Relinquished by:		Received by: <i>[Signature]</i> DATE: 5-29-12 TIME: 08:30																						

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-11016-2

SDG Number: PRR1317

Login Number: 11016

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698985 & 698986
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	22.6°C IR GUN ID 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St.

Newark, NJ 07105

Origin ID: VAKA



Ship Date: 26MAY12
ActWgt: 20.0 LB
CAD: 103886297/NET3250

Dims: 12 X 9 X 10 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

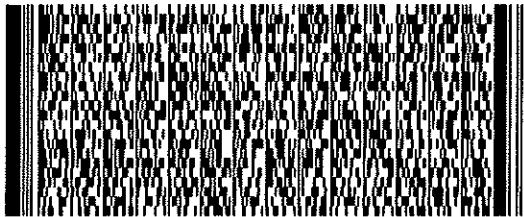
S. Burlington, VT 05403

BILL SENDER

Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

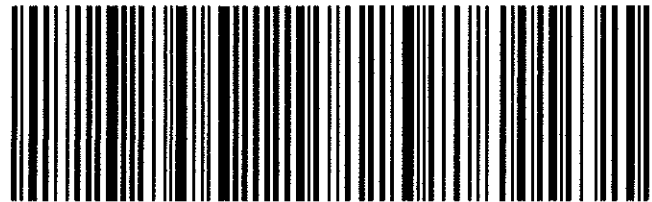
TUE - 29 MAY A4
FIRST OVERNIGHT

TRK# 7936 1174 2554
0201



X1 BTVA

05403
VT-US
BTV



512G361A4/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-11101-1

SDG Number: PRR1334

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
6/5/2012 2:12 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
06/05/2012

cc: Mr. Joe Houser
Justin Lis
Rhiannon Parmelee
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	17
QC Results	18
Qc Association Summary	19
Surrogate Recovery Report	20
Qc Reports	22
Client Chain of Custody	23
Sample Receipt Checklist	24

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1334 (200-11101-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 06/04/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 13.2 °C. The project team was apprised of the elevated temperature, and the laboratory was instructed to proceed with the analysis of the samples.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. A trace concentration of chlorobenzene was identified in the analysis of the method blank associated with the analytical work. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant method blank analysis. A trace concentration of chlorobenzene was identified in the analysis of the storage blank associated with the sample set. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant storage blank analysis. A trace concentration of chlorobenzene was identified in the analysis of each of the instrument blanks associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance

criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in the closing calibration check acquisition. It should be noted that the acquisition of the closing calibration check did occur beyond the expiration of the 12-hour analytical window. The test volumes for the acquisitions that would have closed out the analytical sequence were not formulated correctly. This was identified prior to any instrument maintenance, and a test volume was prepared and analyzed to provide for the closing calibration assessment.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um
Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1

Sdg Number: PRR1334

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1

Sdg Number: PRR1334

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Dragoo, Jennifer P	JPD

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1
Sdg Number: PRR1334

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-11101-1	PRR1WATGACI-29-SP-105	Water	06/01/2012 1025	06/04/2012 0820
200-11101-2	PRR1WATGACE-29-SP-107	Water	06/01/2012 1015	06/04/2012 0820
200-11101-3	PRR1WATGACE-29-SP-111	Water	06/01/2012 1010	06/04/2012 0820
200-11101-6TB	TB06012012	Water	06/01/2012 0000	06/04/2012 0820
200-11101-7STOBL K	VHBLK01	Water	06/04/2012 0910	06/04/2012 0820

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1
Sdg Number: PRR1334

Client Sample ID: PRR1WATGACI-29-SP-105

Lab Sample ID: 200-11101-1
Client Matrix: Water

Date Sampled: 06/01/2012 1025
Date Received: 06/04/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39791	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipb10.d
Dilution:	96.7			Initial Weight/Volume:	25 mL
Analysis Date:	06/04/2012 1411			Final Weight/Volume:	25 mL
Prep Date:	06/04/2012 1411				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	690		480
Chlorobenzene	8700	E B	48

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	104		65 - 131
Chloroethane-d5	117		71 - 131
1,1-Dichloroethene-d2	85		55 - 104
2-Butanone-d5	113		49 - 155
Chloroform-d	109		78 - 121
1,2-Dichloroethane-d4	117		78 - 129
Benzene-d6	113		77 - 124
1,2-Dichloropropane-d6	115		79 - 124
Toluene-d8	111		77 - 121
trans-1,3-Dichloropropene-d4	108		73 - 121
2-Hexanone-d5	116		28 - 135
1,1,2,2-Tetrachloroethane-d2	105		73 - 125
1,2-Dichlorobenzene-d4	126		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1

Sdg Number: PRR1334

Client Sample ID: PRR1WATGACI-29-SP-105

Lab Sample ID: 200-11101-1

Date Sampled: 06/01/2012 1025

Client Matrix: Water

Date Received: 06/04/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39791	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipb09.d
Dilution:	676.9			Initial Weight/Volume:	25 mL
Analysis Date:	06/04/2012 1347	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	06/04/2012 1347				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	890	J D	3400
Chlorobenzene	8400	D B	340

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	110		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	100		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	105		77 - 124
1,2-Dichloropropane-d6	107		79 - 124
Toluene-d8	105		77 - 121
trans-1,3-Dichloropropene-d4	100		73 - 121
2-Hexanone-d5	104		28 - 135
1,1,2,2-Tetrachloroethane-d2	97		73 - 125
1,2-Dichlorobenzene-d4	119		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1
Sdg Number: PRR1334

Client Sample ID: PRR1WATGACE-29-SP-107

Lab Sample ID: 200-11101-2
Client Matrix: Water

Date Sampled: 06/01/2012 1015
Date Received: 06/04/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39791	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipb13.d
Dilution:	36.7			Initial Weight/Volume:	25 mL
Analysis Date:	06/04/2012 1523			Final Weight/Volume:	25 mL
Prep Date:	06/04/2012 1523				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	1300		180
Chlorobenzene	3500	E B	18

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	93		65 - 131
Chloroethane-d5	104		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	100		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	102		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	94		73 - 121
2-Hexanone-d5	103		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	115		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1

Sdg Number: PRR1334

Client Sample ID: PRR1WATGACE-29-SP-107

Lab Sample ID: 200-11101-2

Date Sampled: 06/01/2012 1015

Client Matrix: Water

Date Received: 06/04/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39791	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipb12.d
Dilution:	251.4			Initial Weight/Volume:	25 mL
Analysis Date:	06/04/2012 1459	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	06/04/2012 1459				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	1300	J D	1300
Chlorobenzene	2900	D B	130

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	93		65 - 131
Chloroethane-d5	105		71 - 131
1,1-Dichloroethene-d2	76		55 - 104
2-Butanone-d5	98		49 - 155
Chloroform-d	97		78 - 121
1,2-Dichloroethane-d4	103		78 - 129
Benzene-d6	103		77 - 124
1,2-Dichloropropane-d6	105		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	94		73 - 121
2-Hexanone-d5	100		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	116		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1
Sdg Number: PRR1334

Client Sample ID: PRR1WATGACE-29-SP-111

Lab Sample ID: 200-11101-3
Client Matrix: Water

Date Sampled: 06/01/2012 1010
Date Received: 06/04/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr Analysis Batch: 200-39791 Instrument ID: D.i
Prep Method: SOM01.2/VOA_PR Prep Batch: N/A Lab File ID: dipb16.d
Dilution: 70.4 Initial Weight/Volume: 25 mL
Analysis Date: 06/04/2012 1636 Final Weight/Volume: 25 mL
Prep Date: 06/04/2012 1636

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	820		350
Chlorobenzene	6600	E B	35

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	92		65 - 131
Chloroethane-d5	105		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	102		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	104		77 - 124
1,2-Dichloropropane-d6	106		79 - 124
Toluene-d8	99		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121
2-Hexanone-d5	105		28 - 135
1,1,2,2-Tetrachloroethane-d2	96		73 - 125
1,2-Dichlorobenzene-d4	119		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1

Sdg Number: PRR1334

Client Sample ID: PRR1WATGACE-29-SP-111

Lab Sample ID: 200-11101-3

Date Sampled: 06/01/2012 1010

Client Matrix: Water

Date Received: 06/04/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39791	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipb15.d
Dilution:	488.9			Initial Weight/Volume:	25 mL
Analysis Date:	06/04/2012 1611	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	06/04/2012 1611				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	850	J D	2400
Chlorobenzene	5800	D B	240

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	91		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	97		49 - 155
Chloroform-d	96		78 - 121
1,2-Dichloroethane-d4	101		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	105		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	94		73 - 121
2-Hexanone-d5	100		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	118		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1
Sdg Number: PRR1334

Client Sample ID: TB06012012

Lab Sample ID: 200-11101-6TB
Client Matrix: Water

Date Sampled: 06/01/2012 0000
Date Received: 06/04/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39791	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipb18.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	06/04/2012 1724			Final Weight/Volume:	25 mL
Prep Date:	06/04/2012 1724				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.061	J B	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	98		65 - 131
Chloroethane-d5	110		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	105		77 - 124
1,2-Dichloropropane-d6	107		79 - 124
Toluene-d8	106		77 - 121
trans-1,3-Dichloropropene-d4	96		73 - 121
2-Hexanone-d5	104		28 - 135
1,1,2,2-Tetrachloroethane-d2	97		73 - 125
1,2-Dichlorobenzene-d4	120		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1
Sdg Number: PRR1334

Client Sample ID: VHBLK01

Lab Sample ID: 200-11101-7STOBLK
Client Matrix: Water

Date Sampled: 06/04/2012 0910
Date Received: 06/04/2012 0820

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39791	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipb19.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	06/04/2012 1748			Final Weight/Volume:	25 mL
Prep Date:	06/04/2012 1748				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.044	J B	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	105		65 - 131
Chloroethane-d5	119		71 - 131
1,1-Dichloroethene-d2	86		55 - 104
2-Butanone-d5	111		49 - 155
Chloroform-d	110		78 - 121
1,2-Dichloroethane-d4	115		78 - 129
Benzene-d6	114		77 - 124
1,2-Dichloropropane-d6	117		79 - 124
Toluene-d8	114		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121
2-Hexanone-d5	112		28 - 135
1,1,2,2-Tetrachloroethane-d2	105		73 - 125
1,2-Dichlorobenzene-d4	128		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1

Sdg Number: PRR1334

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	B	The analyte was found in an associated blank, as well as in the sample.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1

Sdg Number: PRR1334

QC Association Summary

Lab Sample ID	Client Sample ID	Report			Prep Batch
		Basis	Client Matrix	Method	
GC/MS VOA					
Analysis Batch:200-39791					
MB 200-39791/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-11101-1	PRR1WATGACI-29-SP-105	T	Water	SOM01.2/VOA_T	
200-11101-1DL	PRR1WATGACI-29-SP-105	T	Water	SOM01.2/VOA_T	
200-11101-2	PRR1WATGACE-29-SP-107	T	Water	SOM01.2/VOA_T	
200-11101-2DL	PRR1WATGACE-29-SP-107	T	Water	SOM01.2/VOA_T	
200-11101-3	PRR1WATGACE-29-SP-111	T	Water	SOM01.2/VOA_T	
200-11101-3DL	PRR1WATGACE-29-SP-111	T	Water	SOM01.2/VOA_T	
200-11101-6TB	TB06012012	T	Water	SOM01.2/VOA_T	
200-11101-7STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1

Sdg Number: PRR1334

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-11101-1 DL	PRR1WATGACI-29-S P-105 DL	97	110	79	103	100	107	105	107
200-11101-1	PRR1WATGACI-29-S P-105	104	117	85	113	109	117	113	115
200-11101-2 DL	PRR1WATGACE-29- SP-107 DL	93	105	76	98	97	103	103	105
200-11101-2	PRR1WATGACE-29- SP-107	93	104	74	100	101	104	102	102
200-11101-3 DL	PRR1WATGACE-29- SP-111 DL	91	102	74	97	96	101	102	105
200-11101-3	PRR1WATGACE-29- SP-111	92	105	74	102	99	107	104	106
200-11101-6	TB06012012	98	110	79	103	102	107	105	107
200-11101-7	VHBLK01	105	119	86	111	110	115	114	117
MB 200-39791/4		97	109	79	105	101	106	105	108

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1
Sdg Number: PRR1334

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-11101-1 DL	PRR1WATGACI-29-S P-105 DL	105	100	104	97	119
200-11101-1	PRR1WATGACI-29-S P-105	111	108	116	105	126
200-11101-2 DL	PRR1WATGACE-29- SP-107 DL	101	94	100	94	116
200-11101-2	PRR1WATGACE-29- SP-107	98	94	103	93	115
200-11101-3 DL	PRR1WATGACE-29- SP-111 DL	100	94	100	94	118
200-11101-3	PRR1WATGACE-29- SP-111	99	99	105	96	119
200-11101-6	TB06012012	106	96	104	97	120
200-11101-7	VHBLK01	114	103	112	105	128
MB 200-39791/4		105	98	103	97	116

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1

Sdg Number: PRR1334

Method Blank - Batch: 200-39791

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-39791/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/04/2012 1134
 Prep Date: 06/04/2012 1134
 Leach Date: N/A

Analysis Batch: 200-39791
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: D.i
 Lab File ID: dipb04.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.023	J	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	97	65 - 131
Chloroethane-d5	109	71 - 131
1,1-Dichloroethene-d2	79	55 - 104
2-Butanone-d5	105	49 - 155
Chloroform-d	101	78 - 121
1,2-Dichloroethane-d4	106	78 - 129
Benzene-d6	105	77 - 124
1,2-Dichloropropane-d6	108	79 - 124
Toluene-d8	105	77 - 121
trans-1,3-Dichloropropene-d4	98	73 - 121
2-Hexanone-d5	103	28 - 135
1,1,2,2-Tetrachloroethane-d2	97	73 - 125
1,2-Dichlorobenzene-d4	116	80 - 131

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-11101-1

SDG Number: PRR1334

Login Number: 11101

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698979 & 698980
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	13.2°C IR GUN ID 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
 Michael Pelenski
 ARCADIS
 117 Blanchard St
 Newark, NJ 07105

Origin ID: VAKA

FedEx
 Express



J12101112190225

Ship Date: 01JUN12
 ActWgt: 20.0 LB
 CAD: 103886297/NET3250

Dims: 12 X 8 X 13 IN

SHIP TO: (802) 660-1990

BILL SENDER

Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

Delivery Address Bar Code



Ref # B0009966.0002.70004
 Invoice #
 PO # B0009966.0002.70004
 Dept #

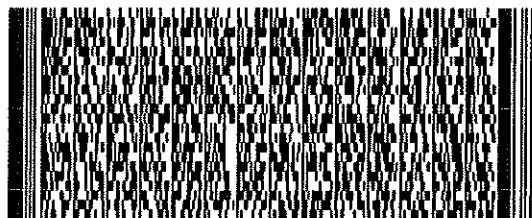
MON - 04 JUN A4
 FIRST OVERNIGHT

TRK# 7984 6247 7250

0201

X1 BTVA

05403
 VT-US
 BTV



512G361A4/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-11101-2

SDG Number: PRR1334

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
6/5/2012 11:08 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
06/05/2012

cc: Mr. Joe Houser
Justin Lis
Rhiannon Parmelee
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	10
QC Results	11
Qc Association Summary	12
Qc Reports	13
Client Chain of Custody	14
Sample Receipt Checklist	15

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1334 (200-11101-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 06/04/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 13.2 °C. The project team was apprised of the elevated temperature, and the laboratory was instructed to proceed with the analysis of the samples.

SM 2540D Total Suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the samples, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11101-2
Sdg Number: PRR1334

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11101-2
Sdg Number: PRR1334

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11101-2
Sdg Number: PRR1334

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-11101-4	PRR1WATCME-58	Water	05/28/2012 1815	06/04/2012 0820
200-11101-5	PRR1WAT-29-SP-101	Water	06/01/2012 1030	06/04/2012 0820

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11101-2

Sdg Number: PRR1334

General Chemistry

Client Sample ID: PRR1WATCME-58

Lab Sample ID: 200-11101-4

Date Sampled: 05/28/2012 1815

Client Matrix: Water

Date Received: 06/04/2012 0820

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	40.4		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-39707		Analysis Date: 06/04/2012 1036					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11101-2

Sdg Number: PRR1334

General Chemistry

Client Sample ID: PRR1WAT-29-SP-101

Lab Sample ID: 200-11101-5

Date Sampled: 06/01/2012 1030

Client Matrix: Water

Date Received: 06/04/2012 0820

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	66.5		mg/L	3.2	3.2	1.0	SM 2540D
Analysis Batch: 200-39707		Analysis Date: 06/04/2012 1036					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-11101-2

Sdg Number: PRR1334

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11101-2

Sdg Number: PRR1334

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-39707					
LCS 200-39707/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-39707/1	Method Blank	T	Water	SM 2540D	
200-11101-4	PRR1WATCME-58	T	Water	SM 2540D	
200-11101-5	PRR1WAT-29-SP-101	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11101-2
Sdg Number: PRR1334

Method Blank - Batch: 200-39707

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	MB 200-39707/1	Analysis Batch:	200-39707	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	06/04/2012 1036	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-39707

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	LCS 200-39707/2	Analysis Batch:	200-39707	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	06/04/2012 1036	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	502.0	100	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJ. NO. B0009966.0002.70004		PROJECT NAME Terra Phase I Removal		Requested Analyses																	SDG NUMBER COC Number PRR1334						
SAMPLERS: CHES		DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks			
PRR1WATGACI-29-SP-105	6/1/2012	10:25	water	Grab	3	X																					
PRR1WATGACE-29-SP-107	6/1/2012	10:15	water	Grab	3	X																					
PRR1WATGACE-29-SP-111	6/1/2012	10:10	water	Grab	3	X																					
PRR1WATCME-58	5/28/2012	18:15	water	Grab	1		X																				
PRR1WAT-29-SP-101	6/1/2012	10:30	water	Grab	1		X																				
TB06012012	6/1/2012		water		3	X																					
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC instructions																									
Requested Analyses		L-1 2-Buranone, Chlorobenzene P-2 TSS O-3 T-4 H-7 O-1 5 6 7 8 9 10 11 12 13 14 15																									
Lab Name: TestAmerica -Burlington, VT		Laboratory Information and Receipt																									
Shipping Tracking #		<input type="checkbox"/> Cooler packed with ice																									
Specify Turnaround Requirements: 24 hr TAT		<input type="checkbox"/> Cooler custody seal intact																									
Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:
JSD Brown	6/1/12	1340	Craig A. Burrows	6/1/12	1340																						
Craig A. Burrows	6/1/12	1350		6/1/12	1350																						

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-11101-2

SDG Number: PRR1334

Login Number: 11101

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698979 & 698980
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	13.2°C IR GUN ID 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 01JUN12
ActWgt: 20.0 LB
CAD: 103886297/NET3250

Dims: 12 X 8 X 13 IN

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

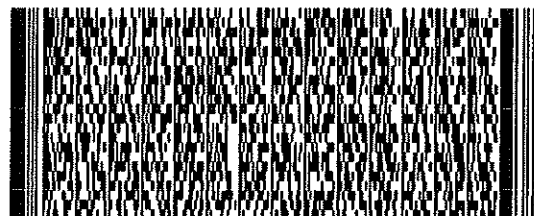
SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

BILL SENDER

S. Burlington, VT 05403

MON - 04 JUN A4
FIRST OVERNIGHT

TRK# 7984 6247 7250
0201



X1 BTVA

05403
VT-US
BTV



512G361A4/A278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-11114-1

SDG Number: PRR1336

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
6/6/2012 12:28 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
06/06/2012

cc: Mr. Joe Houser
Justin Lis
Rhiannon Parmelee
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	20
QC Results	21
Qc Association Summary	22
Surrogate Recovery Report	23
Qc Reports	25
Client Chain of Custody	27
Sample Receipt Checklist	28

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1336 (200-11114-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 06/05/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 3.8 °C. The project team was apprised of the elevated temperature, and the laboratory was instructed to proceed with the analysis of the samples.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance. There was an acceptable recovery of each deuterated monitoring compound (DMC) in the analysis of the method blank associated with the analytical work, and in the analysis of the storage blank associated with the sample set. The analysis of each sample in the sample set did meet the technical acceptance criteria specific to DMC recoveries, although not all DMC recoveries were within the control range in each analysis. The method allowance criteria provide for the recovery of up to three DMCs to be outside the control range in the analysis of field samples. Matrix spike and matrix spike duplicate analyses were performed on sample PRR1WATGACE-30-SP-107. Those analyses were performed at a 40-fold dilution, consistent with the more concentrated analysis of the parent sample. The constituent concentration of chlorobenzene in the sample was significantly higher than the spike amount that was used in preparing the test volumes for the matrix spike and matrix spike duplicate analyses. This precluded a meaningful evaluation of recovery performance. The analysis of the method blank

associated with the analytical work was free of target analyte contamination. A trace concentration of chlorobenzene was identified in the analysis of the storage blank associated with the sample set. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant storage blank analysis. A trace concentration of chlorobenzene was identified in the analysis of each of the instrument blanks associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in the closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um
Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1

Sdg Number: PRR1336

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1

Sdg Number: PRR1336

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1

Sdg Number: PRR1336

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-11114-1	PRR1WATGACI-30-SP-105	Water	06/02/2012 1908	06/05/2012 0940
200-11114-2	PRR1WATGACE-30-SP-107	Water	06/02/2012 1902	06/05/2012 0940
200-11114-2MS	PRR1WATGACE-30-SP-107	Water	06/02/2012 1902	06/05/2012 0940
200-11114-2MSD	PRR1WATGACE-30-SP-107	Water	06/02/2012 1902	06/05/2012 0940
200-11114-3	PRR1WATGACE-30-SP-108	Water	06/02/2012 1849	06/05/2012 0940
200-11114-4	PRR1WATGACE-30-SP-110	Water	06/02/2012 1934	06/05/2012 0940
200-11114-5	PRR1WATGACE-30-SP-111	Water	06/02/2012 1940	06/05/2012 0940
200-11114-7TB	TB06022012	Water	06/02/2012 0000	06/05/2012 0940
200-11114-8STOBL	VHBLK01	Water	06/05/2012 1000	06/05/2012 0940

K

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1

Sdg Number: PRR1336

Client Sample ID: PRR1WATGACI-30-SP-105

Lab Sample ID: 200-11114-1

Date Sampled: 06/02/2012 1908

Client Matrix: Water

Date Received: 06/05/2012 0940

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39857	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipc10.d
Dilution:	60.3			Initial Weight/Volume:	25 mL
Analysis Date:	06/05/2012 1413			Final Weight/Volume:	25 mL
Prep Date:	06/05/2012 1413				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	610		300
Chlorobenzene	4400	E	30

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	110		65 - 131
Chloroethane-d5	126		71 - 131
1,1-Dichloroethene-d2	89		55 - 104
2-Butanone-d5	119		49 - 155
Chloroform-d	117		78 - 121
1,2-Dichloroethane-d4	122		78 - 129
Benzene-d6	120		77 - 124
1,2-Dichloropropane-d6	122		79 - 124
Toluene-d8	117		77 - 121
trans-1,3-Dichloropropene-d4	111		73 - 121
2-Hexanone-d5	122		28 - 135
1,1,2,2-Tetrachloroethane-d2	112		73 - 125
1,2-Dichlorobenzene-d4	136	*	80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1

Sdg Number: PRR1336

Client Sample ID: PRR1WATGACI-30-SP-105

Lab Sample ID: 200-11114-1

Date Sampled: 06/02/2012 1908

Client Matrix: Water

Date Received: 06/05/2012 0940

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39857	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipc09.d
Dilution:	440			Initial Weight/Volume:	25 mL
Analysis Date:	06/05/2012 1349	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	06/05/2012 1349				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	670	J D	2200
Chlorobenzene	4000	D	220

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	95		65 - 131
Chloroethane-d5	108		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	106		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	107		79 - 124
Toluene-d8	105		77 - 121
trans-1,3-Dichloropropene-d4	97		73 - 121
2-Hexanone-d5	105		28 - 135
1,1,2,2-Tetrachloroethane-d2	97		73 - 125
1,2-Dichlorobenzene-d4	120		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1
Sdg Number: PRR1336

Client Sample ID: PRR1WATGACE-30-SP-107

Lab Sample ID: 200-11114-2
Client Matrix: Water

Date Sampled: 06/02/2012 1902
Date Received: 06/05/2012 0940

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39857	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipc13.d
Dilution:	40			Initial Weight/Volume:	25 mL
Analysis Date:	06/05/2012 1525			Final Weight/Volume:	25 mL
Prep Date:	06/05/2012 1525				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	1600		200
Chlorobenzene	3900	E	20

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	93		65 - 131
Chloroethane-d5	105		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	100		49 - 155
Chloroform-d	103		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	104		77 - 124
1,2-Dichloropropane-d6	105		79 - 124
Toluene-d8	100		77 - 121
trans-1,3-Dichloropropene-d4	97		73 - 121
2-Hexanone-d5	106		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	119		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1
Sdg Number: PRR1336

Client Sample ID: PRR1WATGACE-30-SP-107

Lab Sample ID: 200-11114-2
Client Matrix: Water

Date Sampled: 06/02/2012 1902
Date Received: 06/05/2012 0940

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39857	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipc12.d
Dilution:	293.3			Initial Weight/Volume:	25 mL
Analysis Date:	06/05/2012 1501	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	06/05/2012 1501				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	1200	J D	1500
Chlorobenzene	3100	D	150

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	99		65 - 131
Chloroethane-d5	112		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	104		49 - 155
Chloroform-d	104		78 - 121
1,2-Dichloroethane-d4	109		78 - 129
Benzene-d6	109		77 - 124
1,2-Dichloropropane-d6	112		79 - 124
Toluene-d8	108		77 - 121
trans-1,3-Dichloropropene-d4	100		73 - 121
2-Hexanone-d5	106		28 - 135
1,1,2,2-Tetrachloroethane-d2	101		73 - 125
1,2-Dichlorobenzene-d4	124		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1

Sdg Number: PRR1336

Client Sample ID: PRR1WATGACE-30-SP-108

Lab Sample ID: 200-11114-3

Date Sampled: 06/02/2012 1849

Client Matrix: Water

Date Received: 06/05/2012 0940

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39857	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipc20.d
Dilution:	73.3			Initial Weight/Volume:	25 mL
Analysis Date:	06/05/2012 1814			Final Weight/Volume:	25 mL
Prep Date:	06/05/2012 1814				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	800		370
Chlorobenzene	5500	E	37

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	105		65 - 131
Chloroethane-d5	119		71 - 131
1,1-Dichloroethene-d2	85		55 - 104
2-Butanone-d5	112		49 - 155
Chloroform-d	112		78 - 121
1,2-Dichloroethane-d4	117		78 - 129
Benzene-d6	115		77 - 124
1,2-Dichloropropane-d6	116		79 - 124
Toluene-d8	112		77 - 121
trans-1,3-Dichloropropene-d4	108		73 - 121
2-Hexanone-d5	117		28 - 135
1,1,2,2-Tetrachloroethane-d2	105		73 - 125
1,2-Dichlorobenzene-d4	131		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1
Sdg Number: PRR1336

Client Sample ID: PRR1WATGACE-30-SP-108

Lab Sample ID: 200-11114-3
Client Matrix: Water

Date Sampled: 06/02/2012 1849
Date Received: 06/05/2012 0940

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39857	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipc19.d
Dilution:	517.6			Initial Weight/Volume:	25 mL
Analysis Date:	06/05/2012 1750	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	06/05/2012 1750				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	690	J D	2600
Chlorobenzene	3700	D	260

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	116		71 - 131
1,1-Dichloroethene-d2	83		55 - 104
2-Butanone-d5	109		49 - 155
Chloroform-d	107		78 - 121
1,2-Dichloroethane-d4	113		78 - 129
Benzene-d6	110		77 - 124
1,2-Dichloropropane-d6	113		79 - 124
Toluene-d8	109		77 - 121
trans-1,3-Dichloropropene-d4	101		73 - 121
2-Hexanone-d5	110		28 - 135
1,1,2,2-Tetrachloroethane-d2	101		73 - 125
1,2-Dichlorobenzene-d4	125		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1
Sdg Number: PRR1336

Client Sample ID: PRR1WATGACE-30-SP-110

Lab Sample ID: 200-11114-4
Client Matrix: Water

Date Sampled: 06/02/2012 1934
Date Received: 06/05/2012 0940

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39857	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipc23.d
Dilution:	110			Initial Weight/Volume:	25 mL
Analysis Date:	06/05/2012 1927			Final Weight/Volume:	25 mL
Prep Date:	06/05/2012 1927				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	2000		550
Chlorobenzene	9000	E	55

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	75		65 - 131
Chloroethane-d5	85		71 - 131
1,1-Dichloroethene-d2	61		55 - 104
2-Butanone-d5	85		49 - 155
Chloroform-d	88		78 - 121
1,2-Dichloroethane-d4	90		78 - 129
Benzene-d6	84		77 - 124
1,2-Dichloropropane-d6	87		79 - 124
Toluene-d8	81		77 - 121
trans-1,3-Dichloropropene-d4	79		73 - 121
2-Hexanone-d5	85		28 - 135
1,1,2,2-Tetrachloroethane-d2	80		73 - 125
1,2-Dichlorobenzene-d4	99		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1

Sdg Number: PRR1336

Client Sample ID: PRR1WATGACE-30-SP-110

Lab Sample ID: 200-11114-4

Date Sampled: 06/02/2012 1934

Client Matrix: Water

Date Received: 06/05/2012 0940

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39857	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipc22.d
Dilution:	800			Initial Weight/Volume:	25 mL
Analysis Date:	06/05/2012 1903	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	06/05/2012 1903				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	2300	J D	4000
Chlorobenzene	8700	D	400

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	110		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	103		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	107		77 - 124
1,2-Dichloropropane-d6	111		79 - 124
Toluene-d8	106		77 - 121
trans-1,3-Dichloropropene-d4	97		73 - 121
2-Hexanone-d5	105		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	124		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1

Sdg Number: PRR1336

Client Sample ID: PRR1WATGACE-30-SP-111

Lab Sample ID: 200-11114-5

Date Sampled: 06/02/2012 1940

Client Matrix: Water

Date Received: 06/05/2012 0940

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39857	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipc26.d
Dilution:	40			Initial Weight/Volume:	25 mL
Analysis Date:	06/05/2012 2039			Final Weight/Volume:	25 mL
Prep Date:	06/05/2012 2039				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	1900		200
Chlorobenzene	290		20

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	88		65 - 131
Chloroethane-d5	99		71 - 131
1,1-Dichloroethene-d2	72		55 - 104
2-Butanone-d5	96		49 - 155
Chloroform-d	100		78 - 121
1,2-Dichloroethane-d4	103		78 - 129
Benzene-d6	105		77 - 124
1,2-Dichloropropane-d6	109		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	93		73 - 121
2-Hexanone-d5	105		28 - 135
1,1,2,2-Tetrachloroethane-d2	91		73 - 125
1,2-Dichlorobenzene-d4	117		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1

Sdg Number: PRR1336

Client Sample ID: TB06022012

Lab Sample ID: 200-11114-7TB

Date Sampled: 06/02/2012 0000

Client Matrix: Water

Date Received: 06/05/2012 0940

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39857	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipc28.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	06/05/2012 2127			Final Weight/Volume:	25 mL
Prep Date:	06/05/2012 2127				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.041	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	103		65 - 131
Chloroethane-d5	117		71 - 131
1,1-Dichloroethene-d2	84		55 - 104
2-Butanone-d5	109		49 - 155
Chloroform-d	109		78 - 121
1,2-Dichloroethane-d4	114		78 - 129
Benzene-d6	112		77 - 124
1,2-Dichloropropane-d6	115		79 - 124
Toluene-d8	111		77 - 121
trans-1,3-Dichloropropene-d4	98		73 - 121
2-Hexanone-d5	109		28 - 135
1,1,2,2-Tetrachloroethane-d2	103		73 - 125
1,2-Dichlorobenzene-d4	127		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1

Sdg Number: PRR1336

Client Sample ID: VHBLK01

Lab Sample ID: 200-11114-8STOBLK

Date Sampled: 06/05/2012 1000

Client Matrix: Water

Date Received: 06/05/2012 0940

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-39857	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipc29.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	06/05/2012 2151			Final Weight/Volume:	25 mL
Prep Date:	06/05/2012 2151				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.029	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	113		71 - 131
1,1-Dichloroethene-d2	81		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	104		78 - 121
1,2-Dichloroethane-d4	108		78 - 129
Benzene-d6	109		77 - 124
1,2-Dichloropropane-d6	112		79 - 124
Toluene-d8	108		77 - 121
trans-1,3-Dichloropropene-d4	94		73 - 121
2-Hexanone-d5	103		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	122		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1

Sdg Number: PRR1336

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	*	Surrogate exceeds the control limit

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1

Sdg Number: PRR1336

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
GC/MS VOA					
Analysis Batch:200-39857					
MB 200-39857/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-11114-1	PRR1WATGACI-30-SP-105	T	Water	SOM01.2/VOA_T	
200-11114-1DL	PRR1WATGACI-30-SP-105	T	Water	SOM01.2/VOA_T	
200-11114-2	PRR1WATGACE-30-SP-107	T	Water	SOM01.2/VOA_T	
200-11114-2DL	PRR1WATGACE-30-SP-107	T	Water	SOM01.2/VOA_T	
200-11114-2MS	Matrix Spike	T	Water	SOM01.2/VOA_T	
200-11114-2MSD	Matrix Spike Duplicate	T	Water	SOM01.2/VOA_T	
200-11114-3	PRR1WATGACE-30-SP-108	T	Water	SOM01.2/VOA_T	
200-11114-3DL	PRR1WATGACE-30-SP-108	T	Water	SOM01.2/VOA_T	
200-11114-4	PRR1WATGACE-30-SP-110	T	Water	SOM01.2/VOA_T	
200-11114-4DL	PRR1WATGACE-30-SP-110	T	Water	SOM01.2/VOA_T	
200-11114-5	PRR1WATGACE-30-SP-111	T	Water	SOM01.2/VOA_T	
200-11114-7TB	TB06022012	T	Water	SOM01.2/VOA_T	
200-11114-8STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1
Sdg Number: PRR1336

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-11114-1 DL	PRR1WATGACI-30-S P-105 DL	95	108	79	103	101	106	106	107
200-11114-1	PRR1WATGACI-30-S P-105	110	126	89	119	117	122	120	122
200-11114-2 DL	PRR1WATGACE-30- SP-107 DL	99	112	80	104	104	109	109	112
200-11114-2	PRR1WATGACE-30- SP-107	93	105	75	100	103	105	104	105
200-11114-3 DL	PRR1WATGACE-30- SP-108 DL	101	116	83	109	107	113	110	113
200-11114-3	PRR1WATGACE-30- SP-108	105	119	85	112	112	117	115	116
200-11114-4 DL	PRR1WATGACE-30- SP-110 DL	97	110	79	103	103	107	107	111
200-11114-4	PRR1WATGACE-30- SP-110	75	85	61	85	88	90	84	87
200-11114-5	PRR1WATGACE-30- SP-111	88	99	72	96	100	103	105	109
200-11114-7	TB06022012	103	117	84	109	109	114	112	115
200-11114-8	VHBLK01	100	113	81	103	104	108	109	112
MB 200-39857/4		99	111	81	107	105	109	108	111
200-11114-2 MS	PRR1WATGACE-30- SP-107 MS	90	103	101	100	101	105	101	103
200-11114-2 MSD	PRR1WATGACE-30- SP-107 MSD	90	102	100	99	101	105	101	104

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1
Sdg Number: PRR1336

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-11114-1 DL	PRR1WATGACI-30-S P-105 DL	105	97	105	97	120
200-11114-1	PRR1WATGACI-30-S P-105	117	111	122	112	136*
200-11114-2 DL	PRR1WATGACE-30- SP-107 DL	108	100	106	101	124
200-11114-2	PRR1WATGACE-30- SP-107	100	97	106	93	119
200-11114-3 DL	PRR1WATGACE-30- SP-108 DL	109	101	110	101	125
200-11114-3	PRR1WATGACE-30- SP-108	112	108	117	105	131
200-11114-4 DL	PRR1WATGACE-30- SP-110 DL	106	97	105	100	124
200-11114-4	PRR1WATGACE-30- SP-110	81	79	85	80	99
200-11114-5	PRR1WATGACE-30- SP-111	102	93	105	91	117
200-11114-7	TB06022012	111	98	109	103	127
200-11114-8	VHBLK01	108	94	103	99	122
MB 200-39857/4		107	100	105	100	121
200-11114-2 MS	PRR1WATGACE-30- SP-107 MS	98	96	105	93	116
200-11114-2 MSD	PRR1WATGACE-30- SP-107 MSD	97	94	103	93	119

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1

Sdg Number: PRR1336

Method Blank - Batch: 200-39857

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-39857/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2012 1148
 Prep Date: 06/05/2012 1148
 Leach Date: N/A

Analysis Batch: 200-39857
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: D.i
 Lab File ID: dipc04.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	99	65 - 131
Chloroethane-d5	111	71 - 131
1,1-Dichloroethene-d2	81	55 - 104
2-Butanone-d5	107	49 - 155
Chloroform-d	105	78 - 121
1,2-Dichloroethane-d4	109	78 - 129
Benzene-d6	108	77 - 124
1,2-Dichloropropane-d6	111	79 - 124
Toluene-d8	107	77 - 121
trans-1,3-Dichloropropene-d4	100	73 - 121
2-Hexanone-d5	105	28 - 135
1,1,2,2-Tetrachloroethane-d2	100	73 - 125
1,2-Dichlorobenzene-d4	121	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1
Sdg Number: PRR1336

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-39857**

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

MS Lab Sample ID: 200-11114-2	Analysis Batch: 200-39857	Instrument ID: D.i
Client Matrix: Water	Prep Batch: N/A	Lab File ID: dipc15.d
Dilution: 40	Leach Batch: N/A	Initial Weight/Volume: 25 mL
Analysis Date: 06/05/2012 1613		Final Weight/Volume: 25 mL
Prep Date: 06/05/2012 1613		25 mL
Leach Date: N/A		

MSD Lab Sample ID: 200-11114-2	Analysis Batch: 200-39857	Instrument ID: D.i
Client Matrix: Water	Prep Batch: N/A	Lab File ID: dipc17.d
Dilution: 40	Leach Batch: N/A	Initial Weight/Volume: 25 mL
Analysis Date: 06/05/2012 1702		Final Weight/Volume: 25 mL
Prep Date: 06/05/2012 1702		25 mL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Chlorobenzene	53	157	75 - 130	100	13	E	E

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Vinyl chloride-d3	90	90	65 - 131
Chloroethane-d5	103	102	71 - 131
1,1-Dichloroethene-d2	101	100	55 - 104
2-Butanone-d5	100	99	49 - 155
Chloroform-d	101	101	78 - 121
1,2-Dichloroethane-d4	105	105	78 - 129
Benzene-d6	101	101	77 - 124
1,2-Dichloropropane-d6	103	104	79 - 124
Toluene-d8	98	97	77 - 121
trans-1,3-Dichloropropene-d4	96	94	73 - 121
2-Hexanone-d5	105	103	28 - 135
1,1,2,2-Tetrachloroethane-d2	93	93	73 - 125
1,2-Dichlorobenzene-d4	116	119	80 - 131

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

6723 Towpath Rd
Syracuse, NY 13214
Phone/Fax: (315) 671-9688

PROJECT NAME		Requested Analyses																	SDG NUMBER/COC Number					
Tierra Phase I Removal																			PRR1336					
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATGACI-30-SP-105	6/2/2012	19:08	water	Grab	3	X																		
PRR1WATGACE-30-SP-107	6/2/2012	19:02	water	Grab	9	X																	MS/MSD	
PRR1WATGACE-30-SP-108	6/2/2012	18:49	water	Grab	3	X																		
PRR1WATGACE-30-SP-110	6/2/2012	19:34	water	Grab	3	X																		
PRR1WATGACE-30-SP-111	6/2/2012	19:40	water	Grab	3	X																		
PRR1WAT-30-SP-101	6/2/2012	19:11	water	Grab	1	X																		
T806022012	6/2/2012		water		3	X																		
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																						
Requested Analyses		1, 2-Butanone, Chlorobenzene																						
Lab Name: TestAmerica -Burlington, VT		Laboratory Information and Receipt																						
Shipping Tracking #		<input type="checkbox"/> Cooler packed with ice																						
Specify Turnaround Requirements: 24 hr TAT		<input checked="" type="checkbox"/> Cooler custody seal intact																						
Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Condition/Cooler Temp: 3.8°C
	06/2/12	1938	<i>Chris J. Brown</i>	6/2/12	1938	<i>Chris J. Brown</i>	6/2/12	1938	<i>Chris J. Brown</i>	6/2/12	1938	<i>Chris J. Brown</i>	6/2/12	1938	<i>Chris J. Brown</i>	6/2/12	1938	<i>Chris J. Brown</i>	6/2/12	1938	<i>Chris J. Brown</i>	6/2/12	1938	
Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	
	6/2/12	1745	<i>Chris J. Brown</i>	6/2/12	1745	<i>Chris J. Brown</i>	6/2/12	1745	<i>Chris J. Brown</i>	6/2/12	1745	<i>Chris J. Brown</i>	6/2/12	1745	<i>Chris J. Brown</i>	6/2/12	1745	<i>Chris J. Brown</i>	6/2/12	1745	<i>Chris J. Brown</i>	6/2/12	1745	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-11114-1

SDG Number: PRR1336

Login Number: 11114

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698978
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 04JUN12
ActWgt: 15.0 LB
CAD: 103886297/NET3250

Dims: 20 X 13 X 10 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

Ref # 80009966.0002.70004
Invoice #
PO # 80009966.0002.70004
Dept #

1 of 3

TUE - 05 JUN A4
FIRST OVERNIGHT

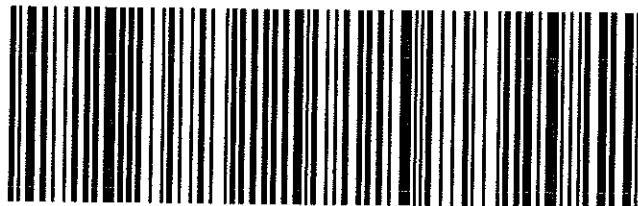
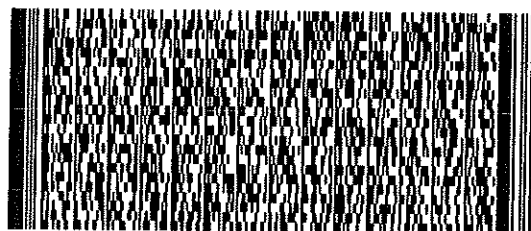
TRK# 7936 3767 2186

0201

MASTER

E9 BTVA

05403
VT-US
BTVA



512G1793NA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-11114-2

SDG Number: PRR1336

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
6/6/2012 11:27 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
06/06/2012

cc: Mr. Joe Houser
Justin Lis
Rhiannon Parmelee
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	9
QC Results	10
Qc Association Summary	11
Qc Reports	12
Client Chain of Custody	13
Sample Receipt Checklist	14

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1336 (200-11114-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The sample in this sample set was received on 06/05/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The sample was received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 3.8 °C.

SM 2540D Total Suspended Solids

The sample in this sample set was analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the sample in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11114-2
Sdg Number: PRR1336

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11114-2
Sdg Number: PRR1336

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11114-2
Sdg Number: PRR1336

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-11114-6	PRR1WAT-30-SP-101	Water	06/02/2012 1911	06/05/2012 0940

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11114-2

Sdg Number: PRR1336

General Chemistry

Client Sample ID: PRR1WAT-30-SP-101

Lab Sample ID: 200-11114-6

Date Sampled: 06/02/2012 1911

Client Matrix: Water

Date Received: 06/05/2012 0940

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	37.7		mg/L	1.9	1.9	1.0	SM 2540D
Analysis Batch: 200-39784		Analysis Date: 06/05/2012 1127					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-11114-2

Sdg Number: PRR1336

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11114-2

Sdg Number: PRR1336

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-39784					
LCS 200-39784/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-39784/1	Method Blank	T	Water	SM 2540D	
200-11114-6	PRR1WAT-30-SP-101	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11114-2
Sdg Number: PRR1336

Method Blank - Batch: 200-39784

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	MB 200-39784/1	Analysis Batch:	200-39784	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	06/05/2012 1127	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-39784

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	LCS 200-39784/2	Analysis Batch:	200-39784	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	06/05/2012 1127	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	516.0	103	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

PROJECT NAME		Requested Analyses																					
Tierra Phase I Removal		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17					
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers													Remarks					
PRR1WATGACI-30-SP-105	6/2/2012	19:08	water	Grab	3	X																	
PRR1WATGACE-30-SP-107	6/2/2012	19:02	water	Grab	9	X																	
PRR1WATGACE-30-SP-108	6/2/2012	18:49	water	Grab	3	X																	
PRR1WATGACE-30-SP-110	6/2/2012	19:34	water	Grab	3	X																	
PRR1WATGACE-30-SP-111	6/2/2012	19:40	water	Grab	3	X																	
PRR1WAT-30-SP-101	6/2/2012	19:11	water	Grab	1	X																	
T806022012	6/2/2012		water		3	X																	
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																					
Requested Analyses		MS/MSD																					
Lab Name: TestAmerica -Burlington, VT		Laboratory Information and Receipt																					
Shipping Tracking #		<input type="checkbox"/> Cooler packed with ice																					
Specify Turnaround Requirements: 24 hr TAT		<input checked="" type="checkbox"/> Cooler custody seal intact																					
Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:		
	06/2/12	1938	<i>Chris J. Brown</i>	6/2/12	1938		6/2/12	1938	<i>Chris J. Brown</i>	6/2/12	1938		6/2/12	1938	<i>Chris J. Brown</i>	6/2/12	1938		6/2/12	1938	<i>Chris J. Brown</i>	6/2/12	1938
Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME	Relinquished by:	DATE	TIME	Received by:	DATE	TIME
	6/2/12	1745	<i>Chris J. Brown</i>	6/2/12	1745		6/2/12	1745	<i>Chris J. Brown</i>	6/2/12	1745		6/2/12	1745	<i>Chris J. Brown</i>	6/2/12	1745		6/2/12	1745	<i>Chris J. Brown</i>	6/2/12	1745

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-11114-2

SDG Number: PRR1336

Login Number: 11114

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698978
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8°C, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 04JUN12
ActWgt: 15.0 LB
CAD: 103886297/NET3250

Dims: 20 X 13 X 10 IN

Delivery Address Bar Code



Ref # 80009966.0002.70004
Invoice #
PO # 80009966.0002.70004
Dept #

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

1 of 3

TUE - 05 JUN A4
FIRST OVERNIGHT

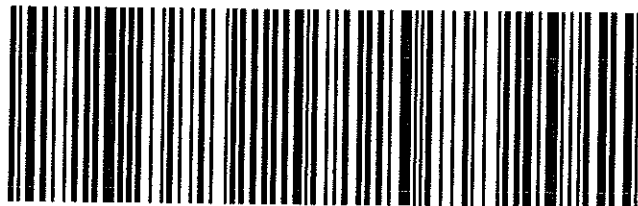
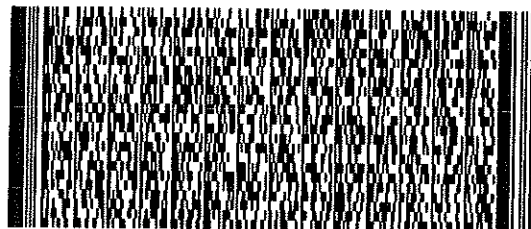
TRK# 7936 3767 2186

0201

MASTER

E9 BTVA

05403
VT-US
BTVA



512G1793NA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-11115-3

SDG Number: PRR1335

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
6/6/2012 12:55 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
06/06/2012

cc: Mr. Joe Houser
Justin Lis
Rhiannon Parmelee
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	11
QC Results	12
Qc Association Summary	13
Qc Reports	14
Client Chain of Custody	15
Sample Receipt Checklist	16

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1335 (200-11115-3)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples in this sample set were received on 06/05/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received as part of a larger sample set, which was received in two coolers. The temperature of the contents of each cooler was determined at the time of receipt. The temperatures were 2.2 °C and 1.8 °C.

SM 2540D Total Suspended Solids

The samples in this sample set were analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on samples in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11115-3

Sdg Number: PRR1335

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11115-3

Sdg Number: PRR1335

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11115-3
Sdg Number: PRR1335

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-11115-1	PRR1WATCME-61	Water	06/04/2012 1050	06/05/2012 0940
200-11115-2	PRR1WATCME-60	Water	06/02/2012 1850	06/05/2012 0940
200-11115-3	PRR1WATCME-59	Water	06/01/2012 1400	06/05/2012 0940

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11115-3

Sdg Number: PRR1335

General Chemistry

Client Sample ID: PRR1WATCME-61

Lab Sample ID: 200-11115-1

Date Sampled: 06/04/2012 1050

Client Matrix: Water

Date Received: 06/05/2012 0940

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	6.5		mg/L	1.9	1.9	1.0	SM 2540D
	Analysis Batch: 200-39784	Analysis Date: 06/05/2012 1127					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11115-3

Sdg Number: PRR1335

General Chemistry

Client Sample ID: PRR1WATCME-60

Lab Sample ID: 200-11115-2

Date Sampled: 06/02/2012 1850

Client Matrix: Water

Date Received: 06/05/2012 0940

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	11.2		mg/L	2.0	2.0	1.0	SM 2540D
	Analysis Batch: 200-39784	Analysis Date: 06/05/2012 1127					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11115-3

Sdg Number: PRR1335

General Chemistry

Client Sample ID: PRR1WATCME-59

Lab Sample ID: 200-11115-3

Date Sampled: 06/01/2012 1400

Client Matrix: Water

Date Received: 06/05/2012 0940

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	13.5		mg/L	0.99	0.99	1.0	SM 2540D
Analysis Batch: 200-39784		Analysis Date: 06/05/2012 1127					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-11115-3

Sdg Number: PRR1335

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11115-3

Sdg Number: PRR1335

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-39784					
LCS 200-39784/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-39784/1	Method Blank	T	Water	SM 2540D	
200-11115-1	PRR1WATCME-61	T	Water	SM 2540D	
200-11115-2	PRR1WATCME-60	T	Water	SM 2540D	
200-11115-3	PRR1WATCME-59	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11115-3
Sdg Number: PRR1335

Method Blank - Batch: 200-39784

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-39784/1	Analysis Batch:	200-39784	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	06/05/2012 1127	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-39784

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-39784/2	Analysis Batch:	200-39784	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	06/05/2012 1127	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	516.0	103	85 - 115	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Page 1 of 1

PROJ. NO.		PROJECT NAME		SDG NUMBER		COC Number																	
B0009966.0002.70004		Tierra Phase I Removal		PRR1335																			
SAMPLERS:		Requested Analyses																					
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks
PRR1WATCME-61	6/4/2012	10:50	water	Grab	1																		
PRR1WATCME-60	6/2/2012	18:50	water	Grab	19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Double Volume TSS, Wet Test Sample
PRR1WATCME-59	6/1/2012	14:00	water	Grab	1																		
TB06042012	6/4/2012		water		3	X																	
Special Instructions/Comments:		<input type="checkbox"/> Special QA/QC Instructions																					
Refer to RAWP QAPP WS 15-4 for Effluent Samples and WS 15-5 for Effluent Samples																							
Requested Analyses																							
0	1	TOC																					
1	2	VOCs																					
2	3	SVOCs																					
3	4	Aroclor PCBs																					
4	5	Pesticides																					
5	6	Metals + Hg																					
6	7	Cyanide																					
7	8	Herbicides																					
8	9	TSS																					
9	10	Wet Testing																					
10	11																						
11	12																						
12	13																						
13	14																						
14	15																						
15	16																						

Laboratory Information and Receipt			
Lab Name: TestAmerica -Burlington, VT		Shipping Tracking #	
Specify Turnaround Requirements: 7 day TAT; TSS samples 24 hr TAT		Cooler packed with ice <input checked="" type="checkbox"/>	
Cooler custody seal intact <input checked="" type="checkbox"/>		Sample Receipt:	
Relinquished by:	DATE	Received by:	DATE
<i>Leana J. Blawie</i>	6/4/12	<i>PRR TSS V2</i>	
Relinquished by:	DATE	Received by:	DATE
Relinquished by:	DATE	Received by:	DATE

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-11115-3

SDG Number: PRR1335

Login Number: 11115

List Source: TestAmerica Burlington

List Number: 1

Creator: Marion, Greg T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698973.974,975,976
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2,1.8°C IR GUN ID 154/CF=-0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	SAMPLER'S NAME NOT LISTED ON THE COC
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 04JUN12
ActWgt: 55.0 LB
CAD: 103886297/NET3250
Dims: 24 X 14 X 14 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990

BILL SENDER

Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

2 of 3

TUE - 05 JUN A4
FIRST OVERNIGHT

MPS# 7936 3767 2326

0263

Mstr# 7936 3767 2186

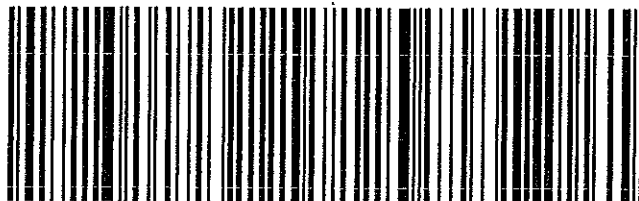
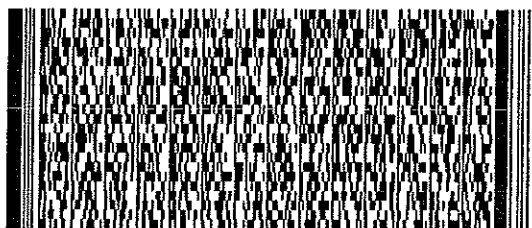
0201

05403

VT-US

BTV

E9 BTVA



512G17S3A/R278

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



J12101112190225

Ship Date: 04JUN12
ActWgt: 60.0 LB
CAD: 103886297/NET3250
Dims: 24 X 14 X 14 IN

Delivery Address Bar Code



SHIP TO: (802) 660-1990

BILL SENDER

Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

3 of 3

TUE - 05 JUN A4
FIRST OVERNIGHT

MPS# 7936 3767 2451

0263

Mstr# 7936 3767 2186

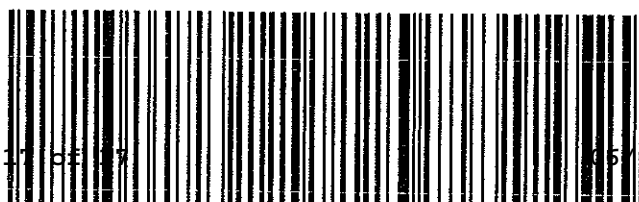
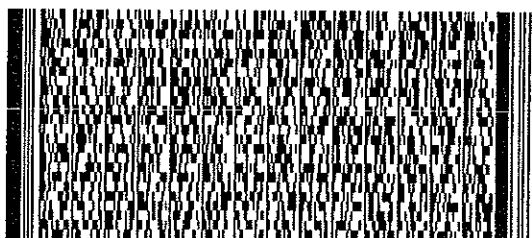
0201

05403

VT-US

BTV

E9 BTVA



ANALYTICAL REPORT

Job Number: 200-11148-1

SDG Number: PRR1342

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
6/8/2012 10:22 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
06/08/2012

cc: Mr. Joe Houser
Justin Lis
Rhiannon Parmelee
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	17
QC Results	18
Qc Association Summary	19
Surrogate Recovery Report	20
Qc Reports	22
Client Chain of Custody	23
Sample Receipt Checklist	24

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1342 (200-11148-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 06/07/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 4.0 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of target analyte contamination. A trace concentration of chlorobenzene was identified in the analysis of the storage blank associated with the sample set. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant storage blank analysis. A trace concentration of chlorobenzene was identified in the analysis of each of the instrument blanks associated with the analytical work. The concentration of chlorobenzene in each analysis was below the established reporting limit, and each analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial

calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in the closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

Sdg Number: PRR1342

Description	Lab Location	Method	Preparation Method
Matrix Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

Sdg Number: PRR1342

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1
Sdg Number: PRR1342

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-11148-1	PRR1WATGACI-31-SP-105	Water	06/06/2012 0858	06/07/2012 0905
200-11148-2	PRR1WATGACE-31-SP-107	Water	06/06/2012 0848	06/07/2012 0905
200-11148-3	PRR1WATGACE-31-SP-108	Water	06/06/2012 0843	06/07/2012 0905
200-11148-5TB	TB06062012	Water	06/06/2012 0000	06/07/2012 0905
200-11148-6STOBL K	VHBLK01	Water	06/07/2012 0940	06/07/2012 0905

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

Sdg Number: PRR1342

Client Sample ID: PRR1WATGACI-31-SP-105

Lab Sample ID: 200-11148-1

Date Sampled: 06/06/2012 0858

Client Matrix: Water

Date Received: 06/07/2012 0905

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-40011	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipe07.d
Dilution:	73.3			Initial Weight/Volume:	25 mL
Analysis Date:	06/07/2012 1512			Final Weight/Volume:	25 mL
Prep Date:	06/07/2012 1512				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	3100		370
Chlorobenzene	9000	E	37

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	103		65 - 131
Chloroethane-d5	115		71 - 131
1,1-Dichloroethene-d2	83		55 - 104
2-Butanone-d5	108		49 - 155
Chloroform-d	106		78 - 121
1,2-Dichloroethane-d4	111		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	108		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	97		73 - 121
2-Hexanone-d5	101		28 - 135
1,1,2,2-Tetrachloroethane-d2	101		73 - 125
1,2-Dichlorobenzene-d4	129		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

Sdg Number: PRR1342

Client Sample ID: PRR1WATGACI-31-SP-105

Lab Sample ID: 200-11148-1

Date Sampled: 06/06/2012 0858

Client Matrix: Water

Date Received: 06/07/2012 0905

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-40011	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipe06.d
Dilution:	550			Initial Weight/Volume:	25 mL
Analysis Date:	06/07/2012 1448	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	06/07/2012 1448				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	2500	J D	2800
Chlorobenzene	7000	D	280

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	102		65 - 131
Chloroethane-d5	115		71 - 131
1,1-Dichloroethene-d2	83		55 - 104
2-Butanone-d5	107		49 - 155
Chloroform-d	105		78 - 121
1,2-Dichloroethane-d4	109		78 - 129
Benzene-d6	110		77 - 124
1,2-Dichloropropane-d6	112		79 - 124
Toluene-d8	109		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121
2-Hexanone-d5	106		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	122		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

Sdg Number: PRR1342

Client Sample ID: PRR1WATGACE-31-SP-107

Lab Sample ID: 200-11148-2

Date Sampled: 06/06/2012 0848

Client Matrix: Water

Date Received: 06/07/2012 0905

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-40011	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipe10.d
Dilution:	62.8			Initial Weight/Volume:	25 mL
Analysis Date:	06/07/2012 1625			Final Weight/Volume:	25 mL
Prep Date:	06/07/2012 1625				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	2700		310
Chlorobenzene	6400	E	31

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	96		65 - 131
Chloroethane-d5	109		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	97		49 - 155
Chloroform-d	100		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	101		79 - 124
Toluene-d8	98		77 - 121
trans-1,3-Dichloropropene-d4	91		73 - 121
2-Hexanone-d5	95		28 - 135
1,1,2,2-Tetrachloroethane-d2	91		73 - 125
1,2-Dichlorobenzene-d4	120		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1
Sdg Number: PRR1342

Client Sample ID: PRR1WATGACE-31-SP-107

Lab Sample ID: 200-11148-2
Client Matrix: Water

Date Sampled: 06/06/2012 0848
Date Received: 06/07/2012 0905

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-40011	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipe09.d
Dilution:	440			Initial Weight/Volume:	25 mL
Analysis Date:	06/07/2012 1600	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	06/07/2012 1600				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	2800	D	2200
Chlorobenzene	6000	D	220

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	103		65 - 131
Chloroethane-d5	116		71 - 131
1,1-Dichloroethene-d2	82		55 - 104
2-Butanone-d5	103		49 - 155
Chloroform-d	105		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	108		77 - 124
1,2-Dichloropropane-d6	111		79 - 124
Toluene-d8	107		77 - 121
trans-1,3-Dichloropropene-d4	96		73 - 121
2-Hexanone-d5	103		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	124		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

Sdg Number: PRR1342

Client Sample ID: PRR1WATGACE-31-SP-108

Lab Sample ID: 200-11148-3

Date Sampled: 06/06/2012 0843

Client Matrix: Water

Date Received: 06/07/2012 0905

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-40011	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipe13.d
Dilution:	95.6			Initial Weight/Volume:	25 mL
Analysis Date:	06/07/2012 1737			Final Weight/Volume:	25 mL
Prep Date:	06/07/2012 1737				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	3200		480
Chlorobenzene	11000	E	48

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	103		65 - 131
Chloroethane-d5	120		71 - 131
1,1-Dichloroethene-d2	82		55 - 104
2-Butanone-d5	112		49 - 155
Chloroform-d	110		78 - 121
1,2-Dichloroethane-d4	116		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	110		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	97		73 - 121
2-Hexanone-d5	105		28 - 135
1,1,2,2-Tetrachloroethane-d2	102		73 - 125
1,2-Dichlorobenzene-d4	125		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

Sdg Number: PRR1342

Client Sample ID: PRR1WATGACE-31-SP-108

Lab Sample ID: 200-11148-3

Date Sampled: 06/06/2012 0843

Client Matrix: Water

Date Received: 06/07/2012 0905

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-40011	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipe12.d
Dilution:	666.7			Initial Weight/Volume:	25 mL
Analysis Date:	06/07/2012 1713	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	06/07/2012 1713				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	3200	J D	3300
Chlorobenzene	11000	D	330

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	99		65 - 131
Chloroethane-d5	112		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	98		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	106		78 - 129
Benzene-d6	105		77 - 124
1,2-Dichloropropane-d6	108		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	92		73 - 121
2-Hexanone-d5	96		28 - 135
1,1,2,2-Tetrachloroethane-d2	95		73 - 125
1,2-Dichlorobenzene-d4	124		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

Sdg Number: PRR1342

Client Sample ID: TB06062012

Lab Sample ID: 200-11148-5TB

Date Sampled: 06/06/2012 0000

Client Matrix: Water

Date Received: 06/07/2012 0905

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-40011	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipe15.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	06/07/2012 1826			Final Weight/Volume:	25 mL
Prep Date:	06/07/2012 1826				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.092	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	110		65 - 131
Chloroethane-d5	125		71 - 131
1,1-Dichloroethene-d2	88		55 - 104
2-Butanone-d5	108		49 - 155
Chloroform-d	113		78 - 121
1,2-Dichloroethane-d4	116		78 - 129
Benzene-d6	114		77 - 124
1,2-Dichloropropane-d6	117		79 - 124
Toluene-d8	112		77 - 121
trans-1,3-Dichloropropene-d4	98		73 - 121
2-Hexanone-d5	106		28 - 135
1,1,2,2-Tetrachloroethane-d2	106		73 - 125
1,2-Dichlorobenzene-d4	129		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

Sdg Number: PRR1342

Client Sample ID: VHBLK01

Lab Sample ID: 200-11148-6STOBLK

Date Sampled: 06/07/2012 0940

Client Matrix: Water

Date Received: 06/07/2012 0905

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-40011	Instrument ID:	D.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	dipe16.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	06/07/2012 1850			Final Weight/Volume:	25 mL
Prep Date:	06/07/2012 1850				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.049	J	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	114		71 - 131
1,1-Dichloroethene-d2	82		55 - 104
2-Butanone-d5	97		49 - 155
Chloroform-d	103		78 - 121
1,2-Dichloroethane-d4	106		78 - 129
Benzene-d6	107		77 - 124
1,2-Dichloropropane-d6	109		79 - 124
Toluene-d8	107		77 - 121
trans-1,3-Dichloropropene-d4	92		73 - 121
2-Hexanone-d5	98		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	124		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

Sdg Number: PRR1342

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

Sdg Number: PRR1342

QC Association Summary

Lab Sample ID	Client Sample ID	Report			Prep Batch
		Basis	Client Matrix	Method	
GC/MS VOA					
Analysis Batch:200-40011					
MB 200-40011/5	Method Blank	T	Water	SOM01.2/VOA_T	
200-11148-1	PRR1WATGACI-31-SP-105	T	Water	SOM01.2/VOA_T	
200-11148-1DL	PRR1WATGACI-31-SP-105	T	Water	SOM01.2/VOA_T	
200-11148-2	PRR1WATGACE-31-SP-107	T	Water	SOM01.2/VOA_T	
200-11148-2DL	PRR1WATGACE-31-SP-107	T	Water	SOM01.2/VOA_T	
200-11148-3	PRR1WATGACE-31-SP-108	T	Water	SOM01.2/VOA_T	
200-11148-3DL	PRR1WATGACE-31-SP-108	T	Water	SOM01.2/VOA_T	
200-11148-5TB	TB06062012	T	Water	SOM01.2/VOA_T	
200-11148-6STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

Sdg Number: PRR1342

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-11148-1 DL	PRR1WATGACI-31-S P-105 DL	102	115	83	107	105	109	110	112
200-11148-1	PRR1WATGACI-31-S P-105	103	115	83	108	106	111	106	108
200-11148-2 DL	PRR1WATGACE-31- SP-107 DL	103	116	82	103	105	107	108	111
200-11148-2	PRR1WATGACE-31- SP-107	96	109	78	97	100	104	100	101
200-11148-3 DL	PRR1WATGACE-31- SP-108 DL	99	112	80	98	102	106	105	108
200-11148-3	PRR1WATGACE-31- SP-108	103	120	82	112	110	116	106	110
200-11148-5	TB06062012	110	125	88	108	113	116	114	117
200-11148-6	VHBLK01	101	114	82	97	103	106	107	109
MB 200-40011/5		102	113	81	104	105	109	106	109

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

Sdg Number: PRR1342

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-11148-1 DL	PRR1WATGACI-31-S P-105 DL	109	99	106	100	122
200-11148-1	PRR1WATGACI-31-S P-105	103	97	101	101	129
200-11148-2 DL	PRR1WATGACE-31- SP-107 DL	107	96	103	98	124
200-11148-2	PRR1WATGACE-31- SP-107	98	91	95	91	120
200-11148-3 DL	PRR1WATGACE-31- SP-108 DL	103	92	96	95	124
200-11148-3	PRR1WATGACE-31- SP-108	101	97	105	102	125
200-11148-5	TB06062012	112	98	106	106	129
200-11148-6	VHBLK01	107	92	98	98	124
MB 200-40011/5		104	95	98	98	120

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

Sdg Number: PRR1342

Method Blank - Batch: 200-40011

Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR

Lab Sample ID: MB 200-40011/5
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/07/2012 1423
Prep Date: 06/07/2012 1423
Leach Date: N/A

Analysis Batch: 200-40011
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: D.i
Lab File ID: dipe05.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	102	65 - 131
Chloroethane-d5	113	71 - 131
1,1-Dichloroethene-d2	81	55 - 104
2-Butanone-d5	104	49 - 155
Chloroform-d	105	78 - 121
1,2-Dichloroethane-d4	109	78 - 129
Benzene-d6	106	77 - 124
1,2-Dichloropropane-d6	109	79 - 124
Toluene-d8	104	77 - 121
trans-1,3-Dichloropropene-d4	95	73 - 121
2-Hexanone-d5	98	28 - 135
1,1,2,2-Tetrachloroethane-d2	98	73 - 125
1,2-Dichlorobenzene-d4	120	80 - 131

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-11148-1

SDG Number: PRR1342

Login Number: 11148

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699037 & 699038
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.0°C IR GUN ID 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 06 JUN 12
ActWgt: 15.0 LB
CAD: 103886297/NET3250
Dims: 12 X 9 X 11 IN

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

S. Burlington, VT 05403

BILL SENDER

1 of 4

THU - 07 JUN A4
FIRST OVERNIGHT

TRK# 7936 5006 7008

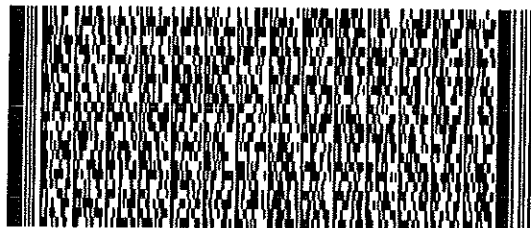
0201

MASTER

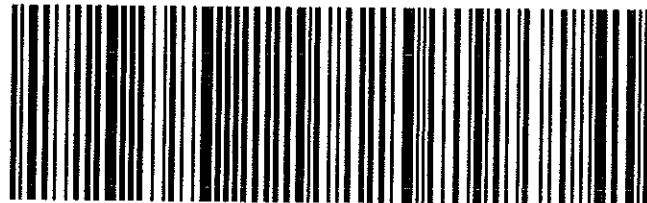
05403

VT-US

BTVA



E9 BTVA



512G1793NA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-11148-2

SDG Number: PRR1342

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
6/8/2012 9:14 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
06/08/2012

cc: Mr. Joe Houser
Justin Lis
Rhiannon Parmelee
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	9
QC Results	10
Qc Association Summary	11
Qc Reports	12
Client Chain of Custody	13
Sample Receipt Checklist	14

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1342 (200-11148-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The sample in this sample set was received on 06/07/2012. Documentation of the condition of the sample at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The sample was received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 4.0 °C.

SM 2540D Total Suspended Solids

The sample in this sample set was analyzed for total suspended solids by the referenced method. Replicate analyses were not performed on the sample in this sample set. A laboratory control sample was analyzed in association with the sample, and there was an acceptable performance in that analysis. The analysis of the method blank associated with the analytical work was free of analyte contamination.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11148-2
Sdg Number: PRR1342

Description	Lab Location	Method	Preparation Method
Matrix Water			
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11148-2

Sdg Number: PRR1342

Method	Analyst	Analyst ID
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-11148-2
Sdg Number: PRR1342

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-11148-4	PRR1WAT-31-SP-101	Water	06/06/2012 0900	06/07/2012 0905

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-11148-2

Sdg Number: PRR1342

General Chemistry

Client Sample ID: PRR1WAT-31-SP-101

Lab Sample ID: 200-11148-4

Date Sampled: 06/06/2012 0900

Client Matrix: Water

Date Received: 06/07/2012 0905

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	43.3		mg/L	2.1	2.1	1.0	SM 2540D
Analysis Batch: 200-39946		Analysis Date: 06/07/2012 1008					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-11148-2

Sdg Number: PRR1342

Lab Section	Qualifier	Description
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11148-2

Sdg Number: PRR1342

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
General Chemistry					
Analysis Batch:200-39946					
LCS 200-39946/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-39946/1	Method Blank	T	Water	SM 2540D	
200-11148-4	PRR1WAT-31-SP-101	T	Water	SM 2540D	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-11148-2
Sdg Number: PRR1342

Method Blank - Batch: 200-39946

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-39946/1	Analysis Batch:	200-39946	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	06/07/2012 1008	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-39946

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-39946/2	Analysis Batch:	200-39946	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	06/07/2012 1008	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	520.0	104	85 - 115	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-11148-2

SDG Number: PRR1342

Login Number: 11148

List Source: TestAmerica Burlington

List Number: 1

Creator: Gagne, Eric

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	699037 & 699038
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.0°C IR GUN ID 154. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (732) 575-4275
Michael Pelenski
ARCADIS
117 Blanchard St
Newark, NJ 07105

Origin ID: VAKA



Ship Date: 06 JUN 12
ActWgt: 15.0 LB
CAD: 103886297/NET3250

Dims: 12 X 9 X 11 IN

Delivery Address Bar Code



Ref # B0009966.0002.70004
Invoice #
PO # B0009966.0002.70004
Dept #

SHIP TO: (802) 660-1990
Kirk Young
Test America
30 Community Dr. Suite 11

BILL SENDER

S. Burlington, VT 05403

1 of 4

THU - 07 JUN A4
FIRST OVERNIGHT

TRK# 7936 5006 7008

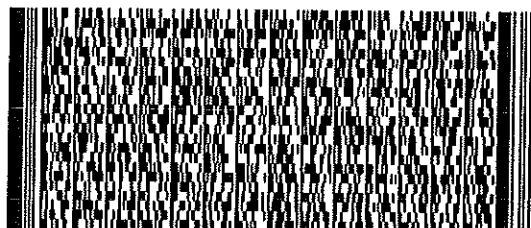
0201

MASTER

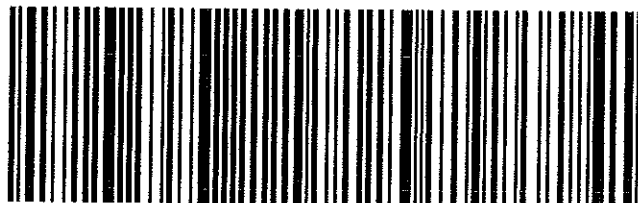
05403

VT-US

BTVA



E9 BTVA



512G1793NA278

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-38129-1
Client Project/Site: Tierra Phase 1 Removal

For:
ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, Washington 98102

Attn: Mr. Ryan Shatt



Authorized for release by:
3/22/2012 4:26:15 PM
Jannel Franklin
Project Manager I
jannel.franklin@testamericainc.com
Designee for
Grace Chang
Project Manager I
grace.chang@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1
2
3
4
5
6
7
8
9
10
11
12
13
14



Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
QC Sample Results	7
QC Association Summary	8
Lab Chronicle	9
Certification Summary	10
Method Summary	11
Sample Summary	12
Chain of Custody	13
Receipt Checklists	14

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38129-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38129-1

Job ID: 460-38129-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: Tierra Phase 1 Removal

Report Number: 460-38129-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 03/21/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.3 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL SUSPENDED SOLIDS

Samples 460-38129-1 and 460-38129-2 were analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 03/22/2012.

No difficulties were encountered during the TSS analyses.

All quality control parameters were within the acceptance limits.

CHEMICAL OXYGEN DEMAND

Samples 460-38129-3 and 460-38129-4 were analyzed for Chemical Oxygen Demand in accordance with SM 5220D. The samples were analyzed on 03/22/2012.

No difficulties were encountered during the COD analyses.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38129-1

Client Sample ID: PRR1WATCME-01

Lab Sample ID: 460-38129-1

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	14.0		4.0	4.0	mg/L	1		SM 2540D	Total/NA

Client Sample ID: PRR1WATCME-02

Lab Sample ID: 460-38129-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	4.0		4.0	4.0	mg/L	1		SM 2540D	Total/NA

Client Sample ID: PRR1WATGACI-01

Lab Sample ID: 460-38129-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chemical Oxygen Demand	415		10.0	5.9	mg/L	1		SM 5220D	Total/NA

Client Sample ID: PRR1WATGACE-01

Lab Sample ID: 460-38129-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chemical Oxygen Demand	706		10.0	5.9	mg/L	1		SM 5220D	Total/NA

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38129-1

Client Sample ID: PRR1WATCME-01

Lab Sample ID: 460-38129-1

Date Collected: 03/19/12 23:00

Matrix: Water

Date Received: 03/21/12 07:30

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	14.0		4.0	4.0	mg/L			03/22/12 07:29	1

Client Sample ID: PRR1WATCME-02

Lab Sample ID: 460-38129-2

Date Collected: 03/20/12 16:40

Matrix: Water

Date Received: 03/21/12 07:30

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0		4.0	4.0	mg/L			03/22/12 07:29	1

Client Sample ID: PRR1WATGACI-01

Lab Sample ID: 460-38129-3

Date Collected: 03/20/12 16:50

Matrix: Water

Date Received: 03/21/12 07:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	415		10.0	5.9	mg/L			03/22/12 10:30	1

Client Sample ID: PRR1WATGACE-01

Lab Sample ID: 460-38129-4

Date Collected: 03/20/12 17:00

Matrix: Water

Date Received: 03/21/12 07:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	706		10.0	5.9	mg/L			03/22/12 10:30	1

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38129-1

Method: SM 5220D - COD

Lab Sample ID: MB 460-106697/3

Matrix: Water

Analysis Batch: 106697

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	5.9	U	10.0	5.9	mg/L			03/22/12 10:30	1

Lab Sample ID: LCS 460-106697/4

Matrix: Water

Analysis Batch: 106697

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	208	216.7		mg/L		104	85 - 115

Lab Sample ID: 460-37709-F-1 MS

Matrix: Water

Analysis Batch: 106697

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	5.9	U	500	514.6		mg/L		103	90 - 110

Lab Sample ID: 460-37709-F-1 MSD

Matrix: Water

Analysis Batch: 106697

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	5.9	U	500	512.5		mg/L		103	90 - 110	0	10

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38129-1

General Chemistry

Analysis Batch: 106627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-38129-1	PRR1WATCME-01	Total/NA	Water	SM 2540D	
460-38129-2	PRR1WATCME-02	Total/NA	Water	SM 2540D	

Analysis Batch: 106697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-37709-F-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
460-37709-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
460-38129-3	PRR1WATGACI-01	Total/NA	Water	SM 5220D	
460-38129-4	PRR1WATGACE-01	Total/NA	Water	SM 5220D	
LCS 460-106697/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 460-106697/3	Method Blank	Total/NA	Water	SM 5220D	

Lab Chronicle

Client: ARCADIS U.S. Inc
 Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38129-1

Client Sample ID: PRR1WATCME-01

Lab Sample ID: 460-38129-1

Date Collected: 03/19/12 23:00

Matrix: Water

Date Received: 03/21/12 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	106627	03/22/12 07:29	PLS	TAL EDI

Client Sample ID: PRR1WATCME-02

Lab Sample ID: 460-38129-2

Date Collected: 03/20/12 16:40

Matrix: Water

Date Received: 03/21/12 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	106627	03/22/12 07:29	PLS	TAL EDI

Client Sample ID: PRR1WATGACI-01

Lab Sample ID: 460-38129-3

Date Collected: 03/20/12 16:50

Matrix: Water

Date Received: 03/21/12 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5220D		1	106697	03/22/12 10:30	HV	TAL EDI

Client Sample ID: PRR1WATGACE-01

Lab Sample ID: 460-38129-4

Date Collected: 03/20/12 17:00

Matrix: Water

Date Received: 03/21/12 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5220D		1	106697	03/22/12 10:30	HV	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38129-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Edison	Connecticut	State Program	1	PH-0200
TestAmerica Edison	DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A
TestAmerica Edison	New Jersey	NELAC	2	12028
TestAmerica Edison	New York	NELAC	2	11452
TestAmerica Edison	Pennsylvania	NELAC	3	68-00522
TestAmerica Edison	Rhode Island	State Program	1	LAO00132
TestAmerica Edison	USDA	Federal		NJCA-003-08

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.



Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38129-1

Method	Method Description	Protocol	Laboratory
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL EDI
SM 5220D	COD	SM	TAL EDI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900



Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38129-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-38129-1	PRR1WATCME-01	Water	03/19/12 23:00	03/21/12 07:30
460-38129-2	PRR1WATCME-02	Water	03/20/12 16:40	03/21/12 07:30
460-38129-3	PRR1WATGACI-01	Water	03/20/12 16:50	03/21/12 07:30
460-38129-4	PRR1WATGACE-01	Water	03/20/12 17:00	03/21/12 07:30

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 460-38129-1

Login Number: 38129

List Number: 1

Creator: Meyers, Gary

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	417837
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3 ° C IR #50
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-38173-1
Client Project/Site: Tierra Phase I Removal

For:
ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, Washington 98102

Attn: Mr. Ryan Shatt



Authorized for release by:
3/22/2012 4:37:34 PM
Jannel Franklin
Project Manager I
jannel.franklin@testamericainc.com
Designee for
Grace Chang
Project Manager I
grace.chang@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

2

3

4

5

6

7

8

9

10

11

12

13

14



Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
QC Sample Results	7
QC Association Summary	8
Lab Chronicle	9
Certification Summary	10
Method Summary	11
Sample Summary	12
Chain of Custody	13
Receipt Checklists	14

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase I Removal

TestAmerica Job ID: 460-38173-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase I Removal

TestAmerica Job ID: 460-38173-1

Job ID: 460-38173-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: Tierra Phase I Removal

Report Number: 460-38173-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 03/21/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.6 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL SUSPENDED SOLIDS

Sample 460-38173-1 was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 03/22/2012.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase I Removal

TestAmerica Job ID: 460-38173-1

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 460-38173-1

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	10.8		4.0	4.0	mg/L	1		SM 2540D	Total/NA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase I Removal

TestAmerica Job ID: 460-38173-1

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 460-38173-1

Date Collected: 03/21/12 10:30

Matrix: Water

Date Received: 03/21/12 16:11

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	10.8		4.0	4.0	mg/L			03/22/12 07:29	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: Tierra Phase I Removal

TestAmerica Job ID: 460-38173-1

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 460-106627/1
Matrix: Water
Analysis Batch: 106627

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	10.0	U	10.0	10.0	mg/L			03/22/12 07:29	1

Lab Sample ID: LCS 460-106627/2
Matrix: Water
Analysis Batch: 106627

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	46.2	49.00		mg/L		106	85 - 115

Lab Sample ID: 460-38133-A-1 DU
Matrix: Water
Analysis Batch: 106627

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	10.0	U	10.0	U	mg/L		NC	5

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase I Removal

TestAmerica Job ID: 460-38173-1

General Chemistry

Analysis Batch: 106627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-38133-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	
460-38173-1	PRR1WATCME-03	Total/NA	Water	SM 2540D	
LCS 460-106627/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 460-106627/1	Method Blank	Total/NA	Water	SM 2540D	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase I Removal

TestAmerica Job ID: 460-38173-1

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 460-38173-1

Date Collected: 03/21/12 10:30

Matrix: Water

Date Received: 03/21/12 16:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	106627	03/22/12 07:29	PLS	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase I Removal

TestAmerica Job ID: 460-38173-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Edison	Connecticut	State Program	1	PH-0200
TestAmerica Edison	DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A
TestAmerica Edison	New Jersey	NELAC	2	12028
TestAmerica Edison	New York	NELAC	2	11452
TestAmerica Edison	Pennsylvania	NELAC	3	68-00522
TestAmerica Edison	Rhode Island	State Program	1	LAO00132
TestAmerica Edison	USDA	Federal		NJCA-003-08

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.



Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase I Removal

TestAmerica Job ID: 460-38173-1

Method	Method Description	Protocol	Laboratory
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL EDI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900



Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase I Removal

TestAmerica Job ID: 460-38173-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-38173-1	PRR1WATCME-03	Water	03/21/12 10:30	03/21/12 16:11

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

**CHAIN OF CUSTODY & LABORATORY
 ANALYSIS REQUEST FORM**

Lab Work Order #
38173

3/27/2012

PROJ. NO. B0009964.0002.70004		PROJECT NAME Tierra Phase I Removal		SDG NUMBER PRR1168		COC Number																		
SAMPLES:				Requested Analyses																				
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks	
PRR1WATCME-03	3/21/2012	10:30	water	Grab	1	X																		
Requested Analyses																								
Special Instructions/Comments: <input checked="" type="checkbox"/> Analyze Now <input type="checkbox"/> Special QA/QC Instructions																								
Laboratory Information and Receipt																								
Lab Name: TestAmerica - Edison, NJ Shipping Tracking # Specify Turnaround Requirements: TAT <input type="checkbox"/> Cooler packed with ice <input type="checkbox"/> Cooler custody seal intact												Sample Receipt: Condition/Cooler Temp:												
Relinquished by:			DATE			TIME			Received by:			Relinquished by:			DATE			TIME			Received by:			
Kevin Gandhi			3/21/2012			1400			[Signature]			[Signature]			3/21/12			3/21/12			[Signature]			
Relinquished by:			DATE			TIME			Received by:			Relinquished by:			DATE			TIME			Received by:			
[Signature]			DATE			TIME			Received by:			Relinquished by:			DATE			TIME			Received by:			
Relinquished by:			DATE			TIME			Received by:			Relinquished by:			DATE			TIME			Received by:			
[Signature]			DATE			TIME			Received by:			Relinquished by:			DATE			TIME			Received by:			
Relinquished by:			DATE			TIME			Received by:			Relinquished by:			DATE			TIME			Received by:			
[Signature]			DATE			TIME			Received by:			Relinquished by:			DATE			TIME			Received by:			
Relinquished by:			DATE			TIME			Received by:			Relinquished by:			DATE			TIME			Received by:			
[Signature]			DATE			TIME			Received by:			Relinquished by:			DATE			TIME			Received by:			
Relinquished by:			DATE			TIME			Received by:			Relinquished by:			DATE			TIME			Received by:			
[Signature]			DATE			TIME			Received by:			Relinquished by:			DATE			TIME			Received by:			
Relinquished by:			DATE			TIME			Received by:			Relinquished by:			DATE			TIME			Received by:			
[Signature]			DATE			TIME			Received by:			Relinquished by:			DATE			TIME			Received by:			

1.675-0

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 460-38173-1

Login Number: 38173

List Number: 1

Creator: Hall, Alonzo

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6° C IR 50
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-38365-1
Client Project/Site: Tierra Phase 1 Removal

For:
ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, Washington 98102

Attn: Mr. Ryan Shatt



Authorized for release by:
3/28/2012 4:59:38 PM
Jannel Franklin
Project Manager I
jannel.franklin@testamericainc.com
Designee for
Grace Chang
Project Manager I
grace.chang@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
QC Sample Results	7
QC Association Summary	8
Lab Chronicle	9
Certification Summary	10
Method Summary	11
Sample Summary	12
Chain of Custody	13
Receipt Checklists	15

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38365-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38365-1

Job ID: 460-38365-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: Tierra Phase 1 Removal

Report Number: 460-38365-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 03/27/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.0 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL SUSPENDED SOLIDS

Samples 460-38365-1 through 460-38365-4 and 460-38365-7 were analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 03/28/2012.

No difficulties were encountered during the TSS analyses.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38365-1

Client Sample ID: PRR1WATCME-05

Lab Sample ID: 460-38365-1

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	13.2		4.0	4.0	mg/L	1		SM 2540D	Total/NA

Client Sample ID: PRR1WATCME-06

Lab Sample ID: 460-38365-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	13.2		4.0	4.0	mg/L	1		SM 2540D	Total/NA

Client Sample ID: PRR1WATCME-07

Lab Sample ID: 460-38365-3

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	15.6		4.0	4.0	mg/L	1		SM 2540D	Total/NA

Client Sample ID: PRR1WATCME-08

Lab Sample ID: 460-38365-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	15.2		4.0	4.0	mg/L	1		SM 2540D	Total/NA

Client Sample ID: PRR1WATSP101-02

Lab Sample ID: 460-38365-7

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	43.0		10.0	10.0	mg/L	1		SM 2540D	Total/NA

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38365-1

Client Sample ID: PRR1WATCME-05

Lab Sample ID: 460-38365-1

Date Collected: 03/23/12 19:00

Matrix: Water

Date Received: 03/27/12 17:15

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	13.2		4.0	4.0	mg/L			03/28/12 11:00	1

Client Sample ID: PRR1WATCME-06

Lab Sample ID: 460-38365-2

Date Collected: 03/24/12 23:00

Matrix: Water

Date Received: 03/27/12 17:15

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	13.2		4.0	4.0	mg/L			03/28/12 11:00	1

Client Sample ID: PRR1WATCME-07

Lab Sample ID: 460-38365-3

Date Collected: 03/26/12 19:25

Matrix: Water

Date Received: 03/27/12 17:15

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	15.6		4.0	4.0	mg/L			03/28/12 11:00	1

Client Sample ID: PRR1WATCME-08

Lab Sample ID: 460-38365-4

Date Collected: 03/27/12 15:10

Matrix: Water

Date Received: 03/27/12 17:15

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	15.2		4.0	4.0	mg/L			03/28/12 11:00	1

Client Sample ID: PRR1WATSP101-02

Lab Sample ID: 460-38365-7

Date Collected: 03/27/12 14:45

Matrix: Water

Date Received: 03/27/12 17:15

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	43.0		10.0	10.0	mg/L			03/28/12 11:00	1

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38365-1

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 460-107337/1
Matrix: Water
Analysis Batch: 107337

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	10.0	U	10.0	10.0	mg/L	-		03/28/12 11:00	1

Lab Sample ID: LCS 460-107337/2
Matrix: Water
Analysis Batch: 107337

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	46.2	47.00		mg/L	-	102	85 - 115

Lab Sample ID: 460-38361-A-8 DU
Matrix: Water
Analysis Batch: 107337

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	86.0		82.00		mg/L	-	5	5

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38365-1

General Chemistry

Analysis Batch: 107337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-38361-A-8 DU	Duplicate	Total/NA	Water	SM 2540D	
460-38365-1	PRR1WATCME-05	Total/NA	Water	SM 2540D	
460-38365-2	PRR1WATCME-06	Total/NA	Water	SM 2540D	
460-38365-3	PRR1WATCME-07	Total/NA	Water	SM 2540D	
460-38365-4	PRR1WATCME-08	Total/NA	Water	SM 2540D	
460-38365-7	PRR1WATSP101-02	Total/NA	Water	SM 2540D	
LCS 460-107337/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 460-107337/1	Method Blank	Total/NA	Water	SM 2540D	

Lab Chronicle

Client: ARCADIS U.S. Inc
 Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38365-1

Client Sample ID: PRR1WATCME-05

Lab Sample ID: 460-38365-1

Date Collected: 03/23/12 19:00

Matrix: Water

Date Received: 03/27/12 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	107337	03/28/12 11:00	HV	TAL EDI

Client Sample ID: PRR1WATCME-06

Lab Sample ID: 460-38365-2

Date Collected: 03/24/12 23:00

Matrix: Water

Date Received: 03/27/12 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	107337	03/28/12 11:00	HV	TAL EDI

Client Sample ID: PRR1WATCME-07

Lab Sample ID: 460-38365-3

Date Collected: 03/26/12 19:25

Matrix: Water

Date Received: 03/27/12 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	107337	03/28/12 11:00	HV	TAL EDI

Client Sample ID: PRR1WATCME-08

Lab Sample ID: 460-38365-4

Date Collected: 03/27/12 15:10

Matrix: Water

Date Received: 03/27/12 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	107337	03/28/12 11:00	HV	TAL EDI

Client Sample ID: PRR1WATSP101-02

Lab Sample ID: 460-38365-7

Date Collected: 03/27/12 14:45

Matrix: Water

Date Received: 03/27/12 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	107337	03/28/12 11:00	HV	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38365-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Edison	Connecticut	State Program	1	PH-0200
TestAmerica Edison	DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A
TestAmerica Edison	New Jersey	NELAC	2	12028
TestAmerica Edison	New York	NELAC	2	11452
TestAmerica Edison	Pennsylvania	NELAC	3	68-00522
TestAmerica Edison	Rhode Island	State Program	1	LAO00132
TestAmerica Edison	USDA	Federal		NJCA-003-08

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38365-1

Method	Method Description	Protocol	Laboratory
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL EDI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Tierra Phase 1 Removal

TestAmerica Job ID: 460-38365-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-38365-1	PRR1WATCME-05	Water	03/23/12 19:00	03/27/12 17:15
460-38365-2	PRR1WATCME-06	Water	03/24/12 23:00	03/27/12 17:15
460-38365-3	PRR1WATCME-07	Water	03/26/12 19:25	03/27/12 17:15
460-38365-4	PRR1WATCME-08	Water	03/27/12 15:10	03/27/12 17:15
460-38365-7	PRR1WATSP101-02	Water	03/27/12 14:45	03/27/12 17:15

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 460-38365-1

Login Number: 38365

List Number: 1

Creator: Meyers, Gary

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.0 ° C iR #50
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Job Number: 200-9783-1

SDG Number: PRR1152

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
3/15/2012 2:02 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
03/15/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	33
QC Results	34
Qc Association Summary	35
Surrogate Recovery Report	39
Qc Reports	45
Client Chain of Custody	61
Sample Receipt Checklist	62

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1152 (200-9783-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis.

Manual integration was employed in deriving certain of the analytical results.

Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

This report is submitted as a preliminary report. All reported values are in a final, reviewed state. Missing from the data set are the results for the storage blank for the volatile organics analysis. The analysis of the storage blank will be performed once a decision has been made by the project team relative to the analyses that have been placed on "Hold" status for the influent samples.

The volatile organics analysis of each of the influent samples was performed at a 2-fold dilution in order to mitigate the tendency of the test volumes to foam in the purge process. This was coordinated with the project team.

Not all internal standard response criteria were met in the ICP/MS analysis. The specific acquisitions were those for the serial dilution analysis of sample PRR1WATSME-03, the replicate analysis of sample PRR1WATSME-03, and the dilution analysis that was performed in providing for the for the matrix spike analysis of sample PRR1WATSME-03. The excursions were not extreme in any one of those acquisitions.

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Low/Medium Volatiles	TAL BUR	SOM01.2 SOM01.2/VOA	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR
Semivolatiles	TAL BUR	SOM01.2 SOM01.2/SV	
Extraction of Water Samples	TAL BUR		SOM01.2 CONT
Aroclors	TAL BUR	SOM01.2 SOM01.2/PCB	
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Sulfuric Acid/Permanganate Cleanup	TAL BUR		SOM01.2 SOM01.2/SO4CU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Extraction of Low level Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
ISM01.2 Mercury	TAL BUR	ISM01.2 ISM01.2/HG	
7470A	TAL BUR		SW846 7470A
ISM01.2 Metals (ICPMS)	TAL BUR	ISM01.2 ISM01.2/ICPMS	
200.8	TAL BUR		EPA 200.8
ISM01.2 Cyanide	TAL BUR	ISM01.2 ISM01.2/CN	
Midi-distillation	TAL BUR		ISM01.1 Midi-Distillati

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

ISM01.1 = U.S. Environmental Protection Agency

ISM01.2 = U.S. Environmental Protection Agency

SOM01.2 = U.S. Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA	Phillips, Mark T	MTP
SOM01.2 SOM01.2/SV	Bissonette, Donald J	DJB
SOM01.2 SOM01.2/PCB	Duncan, Stacey L	SLD
SOM01.2 SOM01.2/Pest	Malaspina, Richard R	RRM
ISM01.2 ISM01.2/HG	Holzschuh, Jessica A	JAH
ISM01.2 ISM01.2/ICPMS	Lyons, Benjamin	BL
ISM01.2 ISM01.2/CN	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-9783-2	PRR1WATSME-01	Water	03/13/2012 0410	03/13/2012 1350
200-9783-4	PRR1WATSME-02	Water	03/13/2012 0430	03/13/2012 1350
200-9783-6	PRR1WATSME-03	Water	03/13/2012 0500	03/13/2012 1350
200-9783-6MS	PRR1WATSME-03	Water	03/13/2012 0500	03/13/2012 1350
200-9783-6MSD	PRR1WATSME-03	Water	03/13/2012 0500	03/13/2012 1350
200-9783-6DU	PRR1WATSME-03	Water	03/13/2012 0500	03/13/2012 1350
200-9783-7TB	TB03132012	Water	03/13/2012 0000	03/13/2012 1350

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/VOA Low/Medium Volatiles

Analysis Method: SOM01.2/VOA Analysis Batch: 200-35036 Instrument ID: M.i
Prep Method: SOM01.2/VOA_PR Prep Batch: N/A Lab File ID: mjda14.d
Dilution: 2.0 Initial Weight/Volume: 5 mL
Analysis Date: 03/14/2012 1731 Final Weight/Volume: 5 mL
Prep Date: 03/14/2012 1731

Analyte	Result (ug/L)	Qualifier	RL
1,1-Dichloroethene	10	U	10
Methylene chloride	10	U	10
Chloroform	10	U	10
Benzene	10	U	10
Trichloroethene	10	U	10
Toluene	10	U	10
Tetrachloroethene	10	U	10
Chlorobenzene	10	U	10
Ethylbenzene	10	U	10
1,3-Dichlorobenzene	10	U	10
1,4-Dichlorobenzene	10	U	10
1,2-Dichlorobenzene	10	U	10
1,2,4-Trichlorobenzene	10	U	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	75		65 - 131
Chloroethane-d5	92		71 - 131
1,1-Dichloroethene-d2	66		55 - 104
2-Butanone-d5	89		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	105		77 - 124
1,2-Dichloropropane-d6	96		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121
2-Hexanone-d5	123		28 - 135
1,4-Dioxane-d8	116		50 - 150
1,1,2,2-Tetrachloroethane-d2	117		73 - 125
1,2-Dichlorobenzene-d4	99		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/VOA Low/Medium Volatiles

Analysis Method: SOM01.2/VOA Analysis Batch: 200-35036 Instrument ID: M.i
Prep Method: SOM01.2/VOA_PR Prep Batch: N/A Lab File ID: mjda15.d
Dilution: 2.0 Initial Weight/Volume: 5 mL
Analysis Date: 03/14/2012 1758 Final Weight/Volume: 5 mL
Prep Date: 03/14/2012 1758

Analyte	Result (ug/L)	Qualifier	RL
1,1-Dichloroethene	10	U	10
Methylene chloride	10	U	10
Chloroform	10	U	10
Benzene	10	U	10
Trichloroethene	10	U	10
Toluene	0.075	J B	10
Tetrachloroethene	10	U	10
Chlorobenzene	10	U	10
Ethylbenzene	10	U	10
1,3-Dichlorobenzene	10	U	10
1,4-Dichlorobenzene	10	U	10
1,2-Dichlorobenzene	10	U	10
1,2,4-Trichlorobenzene	10	U	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	76		65 - 131
Chloroethane-d5	91		71 - 131
1,1-Dichloroethene-d2	64		55 - 104
2-Butanone-d5	96		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	95		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121
2-Hexanone-d5	124		28 - 135
1,4-Dioxane-d8	122		50 - 150
1,1,2,2-Tetrachloroethane-d2	116		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/VOA Low/Medium Volatiles

Analysis Method: SOM01.2/VOA Analysis Batch: 200-35036 Instrument ID: M.i
Prep Method: SOM01.2/VOA_PR Prep Batch: N/A Lab File ID: mjda16.d
Dilution: 2.0 Initial Weight/Volume: 5 mL
Analysis Date: 03/14/2012 1826 Final Weight/Volume: 5 mL
Prep Date: 03/14/2012 1826

Analyte	Result (ug/L)	Qualifier	RL
1,1-Dichloroethene	10	U	10
Methylene chloride	10	U	10
Chloroform	10	U	10
Benzene	10	U	10
Trichloroethene	10	U	10
Toluene	10	U	10
Tetrachloroethene	10	U	10
Chlorobenzene	10	U	10
Ethylbenzene	10	U	10
1,3-Dichlorobenzene	10	U	10
1,4-Dichlorobenzene	10	U	10
1,2-Dichlorobenzene	10	U	10
1,2,4-Trichlorobenzene	10	U	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	75		65 - 131
Chloroethane-d5	94		71 - 131
1,1-Dichloroethene-d2	65		55 - 104
2-Butanone-d5	89		49 - 155
Chloroform-d	99		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	97		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	106		73 - 121
2-Hexanone-d5	123		28 - 135
1,4-Dioxane-d8	117		50 - 150
1,1,2,2-Tetrachloroethane-d2	117		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: TB03132012

Lab Sample ID: 200-9783-7TB

Date Sampled: 03/13/2012 0000

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/VOA Low/Medium Volatiles

Analysis Method:	SOM01.2/VOA	Analysis Batch:	200-35036	Instrument ID:	M.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	mjda05.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	03/14/2012 1232			Final Weight/Volume:	5 mL
Prep Date:	03/14/2012 1232				

Analyte	Result (ug/L)	Qualifier	RL
1,1-Dichloroethene	5.0	U	5.0
Methylene chloride	5.0	U	5.0
Chloroform	5.0	U	5.0
Benzene	5.0	U	5.0
Trichloroethene	0.35	J B	5.0
Toluene	0.11	J B	5.0
Tetrachloroethene	5.0	U	5.0
Chlorobenzene	5.0	U	5.0
Ethylbenzene	0.099	J B	5.0
1,3-Dichlorobenzene	0.23	J B	5.0
1,4-Dichlorobenzene	5.0	U	5.0
1,2-Dichlorobenzene	5.0	U	5.0
1,2,4-Trichlorobenzene	0.38	J B	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	71		65 - 131
Chloroethane-d5	84		71 - 131
1,1-Dichloroethene-d2	58		55 - 104
2-Butanone-d5	75		49 - 155
Chloroform-d	88		78 - 121
1,2-Dichloroethane-d4	93		78 - 129
Benzene-d6	95		77 - 124
1,2-Dichloropropane-d6	85		79 - 124
Toluene-d8	91		77 - 121
trans-1,3-Dichloropropene-d4	93		73 - 121
2-Hexanone-d5	102		28 - 135
1,4-Dioxane-d8	101		50 - 150
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	88		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/SV Semivolatiles

Analysis Method: SOM01.2/SV	Analysis Batch: 200-35019	Instrument ID: R.i
Prep Method: CONT	Prep Batch: 200-34923	Lab File ID: rjslw12.d
Dilution: 1.0		Initial Weight/Volume: 980 mL
Analysis Date: 03/14/2012 1540		Final Weight/Volume: 1000 uL
Prep Date: 03/13/2012 1743		Injection Volume: 2 uL

Analyte	Result (ug/L)	Qualifier	RL
Phenol	5.1	U	5.1
2-Chlorophenol	5.1	U	5.1
2,4-Dimethylphenol	5.1	U	5.1
2,4-Dichlorophenol	5.1	U	5.1
Naphthalene	5.1	U	5.1
Hexachlorobutadiene	5.1	U	5.1
2,4,6-Trichlorophenol	5.1	U	5.1
Fluorene	5.1	U	5.1
Hexachlorobenzene	5.1	U	5.1
Pentachlorophenol	10	U	10
Phenanthrene	5.1	U	5.1
Anthracene	5.1	U	5.1
Di-n-butylphthalate	0.12	J	5.1
Fluoranthene	5.1	U	5.1
Pyrene	5.1	U	5.1
Butylbenzylphthalate	0.19	J B	5.1
Benzo(a)anthracene	5.1	U	5.1
Chrysene	5.1	U	5.1
Bis(2-ethylhexyl)phthalate	1.6	J B	5.1
Benzo(b)fluoranthene	5.1	U	5.1
Benzo(k)fluoranthene	5.1	U	5.1
Benzo(a)pyrene	5.1	U	5.1
Indeno(1,2,3-cd)pyrene	5.1	U	5.1
Dibenzo(a,h)anthracene	5.1	U	5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	91		39 - 106
Bis(2-chloroethyl)ether-d8	82		40 - 105
2-Chlorophenol-d4	87		41 - 106
4-Methylphenol-d8	94		25 - 111
Nitrobenzene-d5	88		43 - 108
2-Nitrophenol-d4	88		40 - 108
2,4-Dichlorophenol-d3	84		37 - 105
4-Chloroaniline-d4	87		1 - 145
Dimethylphthalate-d6	99		47 - 114
Acenaphthylene-d8	91		41 - 107
4-Nitrophenol-d4	72		33 - 116
Fluorene-d10	86		42 - 111
4,6-Dinitro-2-methylphenol-d2	89		22 - 104
Anthracene-d10	94		44 - 110
Pyrene-d10	107		52 - 119
Benzo(a)pyrene-d12	88		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/SV Semivolatiles

Analysis Method: SOM01.2/SV	Analysis Batch: 200-35019	Instrument ID: R.i
Prep Method: CONT	Prep Batch: 200-34923	Lab File ID: rjslw13.d
Dilution: 1.0		Initial Weight/Volume: 985 mL
Analysis Date: 03/14/2012 1616		Final Weight/Volume: 1000 uL
Prep Date: 03/13/2012 1743		Injection Volume: 2 uL

Analyte	Result (ug/L)	Qualifier	RL
Phenol	5.1	U	5.1
2-Chlorophenol	5.1	U	5.1
2,4-Dimethylphenol	5.1	U	5.1
2,4-Dichlorophenol	5.1	U	5.1
Naphthalene	5.1	U	5.1
Hexachlorobutadiene	5.1	U	5.1
2,4,6-Trichlorophenol	5.1	U	5.1
Fluorene	5.1	U	5.1
Hexachlorobenzene	5.1	U	5.1
Pentachlorophenol	10	U	10
Phenanthrene	5.1	U	5.1
Anthracene	5.1	U	5.1
Di-n-butylphthalate	0.15	J	5.1
Fluoranthene	5.1	U	5.1
Pyrene	5.1	U	5.1
Butylbenzylphthalate	0.21	J B	5.1
Benzo(a)anthracene	5.1	U	5.1
Chrysene	5.1	U	5.1
Bis(2-ethylhexyl)phthalate	1.6	J B	5.1
Benzo(b)fluoranthene	5.1	U	5.1
Benzo(k)fluoranthene	5.1	U	5.1
Benzo(a)pyrene	5.1	U	5.1
Indeno(1,2,3-cd)pyrene	5.1	U	5.1
Dibenzo(a,h)anthracene	5.1	U	5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	86		39 - 106
Bis(2-chloroethyl)ether-d8	77		40 - 105
2-Chlorophenol-d4	82		41 - 106
4-Methylphenol-d8	90		25 - 111
Nitrobenzene-d5	83		43 - 108
2-Nitrophenol-d4	82		40 - 108
2,4-Dichlorophenol-d3	71		37 - 105
4-Chloroaniline-d4	83		1 - 145
Dimethylphthalate-d6	92		47 - 114
Acenaphthylene-d8	87		41 - 107
4-Nitrophenol-d4	62		33 - 116
Fluorene-d10	81		42 - 111
4,6-Dinitro-2-methylphenol-d2	86		22 - 104
Anthracene-d10	88		44 - 110
Pyrene-d10	97		52 - 119
Benzo(a)pyrene-d12	84		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/SV Semivolatiles

Analysis Method: SOM01.2/SV	Analysis Batch: 200-35019	Instrument ID: R.i
Prep Method: CONT	Prep Batch: 200-34923	Lab File ID: rjslw14.d
Dilution: 1.0		Initial Weight/Volume: 940 mL
Analysis Date: 03/14/2012 1651		Final Weight/Volume: 1000 uL
Prep Date: 03/13/2012 1743		Injection Volume: 2 uL

Analyte	Result (ug/L)	Qualifier	RL
Phenol	5.3	U	5.3
2-Chlorophenol	5.3	U	5.3
2,4-Dimethylphenol	5.3	U	5.3
2,4-Dichlorophenol	5.3	U	5.3
Naphthalene	5.3	U	5.3
Hexachlorobutadiene	5.3	U	5.3
2,4,6-Trichlorophenol	5.3	U	5.3
Fluorene	5.3	U	5.3
Hexachlorobenzene	5.3	U	5.3
Pentachlorophenol	11	U	11
Phenanthrene	5.3	U	5.3
Anthracene	5.3	U	5.3
Di-n-butylphthalate	0.14	J	5.3
Fluoranthene	5.3	U	5.3
Pyrene	5.3	U	5.3
Butylbenzylphthalate	0.18	J B	5.3
Benzo(a)anthracene	5.3	U	5.3
Chrysene	5.3	U	5.3
Bis(2-ethylhexyl)phthalate	1.5	J B	5.3
Benzo(b)fluoranthene	5.3	U	5.3
Benzo(k)fluoranthene	5.3	U	5.3
Benzo(a)pyrene	5.3	U	5.3
Indeno(1,2,3-cd)pyrene	5.3	U	5.3
Dibenzo(a,h)anthracene	5.3	U	5.3

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	81		39 - 106
Bis(2-chloroethyl)ether-d8	76		40 - 105
2-Chlorophenol-d4	81		41 - 106
4-Methylphenol-d8	82		25 - 111
Nitrobenzene-d5	80		43 - 108
2-Nitrophenol-d4	81		40 - 108
2,4-Dichlorophenol-d3	79		37 - 105
4-Chloroaniline-d4	82		1 - 145
Dimethylphthalate-d6	92		47 - 114
Acenaphthylene-d8	85		41 - 107
4-Nitrophenol-d4	67		33 - 116
Fluorene-d10	79		42 - 111
4,6-Dinitro-2-methylphenol-d2	73		22 - 104
Anthracene-d10	84		44 - 110
Pyrene-d10	99		52 - 119
Benzo(a)pyrene-d12	78		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-34985	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-34926	Initial Weight/Volume:	870 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	03/14/2012 1056			Injection Volume:	1 uL
Prep Date:	03/13/2012 1843			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Aroclor-1016	1.1	U	1.1
Aroclor-1242	1.1	U	1.1
Aroclor-1254	1.1	U	1.1
Aroclor-1260	1.1	U	1.1

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	80		30 - 150
Decachlorobiphenyl	74		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/PCB Aroclors

Analysis Method: SOM01.2/PCB

Analysis Batch: 200-34985

Instrument ID: 5253.i

Prep Method: SEPF

Prep Batch: 200-34926

Initial Weight/Volume: 870 mL

Dilution: 1.0

Final Weight/Volume: 10000 uL

Analysis Date: 03/14/2012 1056

Injection Volume: 1 uL

Prep Date: 03/13/2012 1843

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	83		30 - 150
Decachlorobiphenyl	81		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-34985	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-34926	Initial Weight/Volume:	960 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	03/14/2012 1120			Injection Volume:	1 uL
Prep Date:	03/13/2012 1843			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Aroclor-1016	1.0	U	1.0
Aroclor-1242	1.0	U	1.0
Aroclor-1254	1.0	U	1.0
Aroclor-1260	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	87		30 - 150
Decachlorobiphenyl	69		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-34985	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-34926	Initial Weight/Volume:	960 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	03/14/2012 1120			Injection Volume:	1 uL
Prep Date:	03/13/2012 1843			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	89		30 - 150
Decachlorobiphenyl	74		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-34985	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-34926	Initial Weight/Volume:	1030 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	03/14/2012 1144			Injection Volume:	1 uL
Prep Date:	03/13/2012 1843			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Aroclor-1016	0.97	U	0.97
Aroclor-1242	0.97	U	0.97
Aroclor-1254	0.97	U	0.97
Aroclor-1260	0.97	U	0.97

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	83		30 - 150
Decachlorobiphenyl	60		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-34985	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-34926	Initial Weight/Volume:	1030 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	03/14/2012 1144			Injection Volume:	1 uL
Prep Date:	03/13/2012 1843			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	83		30 - 150
Decachlorobiphenyl	67		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-34995	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-34934	Initial Weight/Volume:	965 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	03/14/2012 1144			Injection Volume:	1 uL
Prep Date:	03/13/2012 2204			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.0028	J P	0.0052
beta-BHC	0.0052	U	0.0052
gamma-BHC (Lindane)	0.0052	U	0.0052
Heptachlor	0.0035	J P	0.0052
Aldrin	0.00099	J P	0.0052
Heptachlor epoxide	0.0052	U	0.0052
Endosulfan I	0.0032	J	0.0052
Dieldrin	0.0014	J P	0.010
4,4'-DDE	0.00098	J P	0.010
Endrin	0.0010	J P	0.010
Endosulfan II	0.010	U	0.010
4,4'-DDD	0.00056	J P	0.010
Endosulfan sulfate	0.010	U	0.010
4,4'-DDT	0.0012	J P	0.010
Endrin aldehyde	0.00093	J P	0.010
alpha-Chlordane	0.0052	U	0.0052
gamma-Chlordane	0.0052	P	0.0052

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	75		30 - 150
Decachlorobiphenyl	55		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest

Analysis Batch: 200-34995

Instrument ID: 0911.i

Prep Method: SEPF

Prep Batch: 200-34934

Initial Weight/Volume: 965 mL

Dilution: 1.0

Final Weight/Volume: 1000 uL

Analysis Date: 03/14/2012 1144

Injection Volume: 1 uL

Prep Date: 03/13/2012 2204

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	77		30 - 150
Decachlorobiphenyl	63		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-34995	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-34934	Initial Weight/Volume:	1015 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	03/14/2012 1207			Injection Volume:	1 uL
Prep Date:	03/13/2012 2204			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.00040	J	0.0049
beta-BHC	0.00096	J P B	0.0049
gamma-BHC (Lindane)	0.0049	U	0.0049
Heptachlor	0.00081	J P	0.0049
Aldrin	0.0049	U	0.0049
Heptachlor epoxide	0.0049	U	0.0049
Endosulfan I	0.0010	J	0.0049
Dieldrin	0.0099	U	0.0099
4,4'-DDE	0.00046	J P	0.0099
Endrin	0.0099	U	0.0099
Endosulfan II	0.0099	U	0.0099
4,4'-DDD	0.00044	J P	0.0099
Endosulfan sulfate	0.0099	U	0.0099
4,4'-DDT	0.0099	U	0.0099
Endrin aldehyde	0.0099	U	0.0099
alpha-Chlordane	0.0049	U	0.0049
gamma-Chlordane	0.00033	J P	0.0049

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	79		30 - 150
Decachlorobiphenyl	74		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest

Analysis Batch: 200-34995

Instrument ID: 0911.i

Prep Method: SEPF

Prep Batch: 200-34934

Initial Weight/Volume: 1015 mL

Dilution: 1.0

Final Weight/Volume: 1000 uL

Analysis Date: 03/14/2012 1207

Injection Volume: 1 uL

Prep Date: 03/13/2012 2204

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	80		30 - 150
Decachlorobiphenyl	75		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-34995	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-34934	Initial Weight/Volume:	1040 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	03/14/2012 1230			Injection Volume:	1 uL
Prep Date:	03/13/2012 2204			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.0048	U	0.0048
beta-BHC	0.00082	J P B	0.0048
gamma-BHC (Lindane)	0.0048	U	0.0048
Heptachlor	0.0048	U	0.0048
Aldrin	0.0048	U	0.0048
Heptachlor epoxide	0.0048	U	0.0048
Endosulfan I	0.0048	U	0.0048
Dieldrin	0.0096	U	0.0096
4,4'-DDE	0.00038	J P	0.0096
Endrin	0.0096	U	0.0096
Endosulfan II	0.0096	U	0.0096
4,4'-DDD	0.00038	J P	0.0096
Endosulfan sulfate	0.0096	U	0.0096
4,4'-DDT	0.0096	U	0.0096
Endrin aldehyde	0.0096	U	0.0096
alpha-Chlordane	0.0048	U	0.0048
gamma-Chlordane	0.0048	U	0.0048

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	73		30 - 150
Decachlorobiphenyl	66		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest

Analysis Batch: 200-34995

Instrument ID: 0911.i

Prep Method: SEPF

Prep Batch: 200-34934

Initial Weight/Volume: 1040 mL

Dilution: 1.0

Final Weight/Volume: 1000 uL

Analysis Date: 03/14/2012 1230

Injection Volume: 1 uL

Prep Date: 03/13/2012 2204

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	74		30 - 150
Decachlorobiphenyl	67		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

ISM01.2/HG ISM01.2 Mercury

Analysis Method: ISM01.2/HG Analysis Batch: 200-35039 Instrument ID: MEPCV3 II
Prep Method: 7470A Prep Batch: 200-34982 Lab File ID: 031512AA.PRN
Dilution: 1.0 Initial Weight/Volume: 50 mL
Analysis Date: 03/15/2012 0944 Final Weight/Volume: 50 mL
Prep Date: 03/14/2012 1152

Analyte	Result (ug/L)	Qualifier	MDLE	RL
Mercury	0.20	U	0.084	0.20

ISM01.2/ICPMS ISM01.2 Metals (ICPMS)

Analysis Method: ISM01.2/ICPMS Analysis Batch: 200-35030 Instrument ID: METICPMS2
Prep Method: 200.8 Prep Batch: 200-34936 Lab File ID: 031412-03ISM.xml
Dilution: 1.0 Initial Weight/Volume: 100 mL
Analysis Date: 03/14/2012 2338 Final Weight/Volume: 100 mL
Prep Date: 03/13/2012 2000

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	5.7		0.15	2.0
Arsenic	9.9	E	0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	2.1		0.21	2.0
Copper	1.7	J	0.60	2.0
Lead	0.96	J	0.10	1.0
Nickel	1.9		0.14	1.0
Selenium	18.7		0.15	5.0
Silver	1.0	U	0.028	1.0
Zinc	2.0	U	0.57	2.0

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

ISM01.2/HG ISM01.2 Mercury

Analysis Method:	ISM01.2/HG	Analysis Batch:	200-35039	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-34982	Lab File ID:	031512AA.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	03/15/2012 0948			Final Weight/Volume:	50 mL
Prep Date:	03/14/2012 1152				

Analyte	Result (ug/L)	Qualifier	MDLE	RL
Mercury	0.20	U	0.084	0.20

ISM01.2/ICPMS ISM01.2 Metals (ICPMS)

Analysis Method:	ISM01.2/ICPMS	Analysis Batch:	200-35030	Instrument ID:	METICPMS2
Prep Method:	200.8	Prep Batch:	200-34936	Lab File ID:	031412-03ISM.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	03/14/2012 2345			Final Weight/Volume:	100 mL
Prep Date:	03/13/2012 2000				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	5.7		0.15	2.0
Arsenic	10.2	E	0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	2.4		0.21	2.0
Copper	4.2		0.60	2.0
Lead	1.3		0.10	1.0
Nickel	1.8		0.14	1.0
Selenium	18.3		0.15	5.0
Silver	1.0	U	0.028	1.0
Zinc	2.0	U	0.57	2.0

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

ISM01.2/HG ISM01.2 Mercury

Analysis Method:	ISM01.2/HG	Analysis Batch:	200-35039	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-34982	Lab File ID:	031512AA.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	03/15/2012 0953			Final Weight/Volume:	50 mL
Prep Date:	03/14/2012 1152				

Analyte	Result (ug/L)	Qualifier	MDLE	RL
Mercury	0.20	U	0.084	0.20

ISM01.2/ICPMS ISM01.2 Metals (ICPMS)

Analysis Method:	ISM01.2/ICPMS	Analysis Batch:	200-35030	Instrument ID:	METICPMS2
Prep Method:	200.8	Prep Batch:	200-34936	Lab File ID:	031412-03ISM.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	03/14/2012 2354			Final Weight/Volume:	100 mL
Prep Date:	03/13/2012 2000				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	5.8		0.15	2.0
Arsenic	9.8	E	0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	2.3		0.21	2.0
Copper	2.8		0.60	2.0
Lead	1.0		0.10	1.0
Nickel	1.9		0.14	1.0
Selenium	17.6		0.15	5.0
Silver	1.0	U	0.028	1.0
Zinc	2.0	U	0.57	2.0

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide	10.0	U N	ug/L	1.0	10.0	1.0	ISM01.2/CN
	Analysis Batch: 200-35006	Analysis Date: 03/14/2012 1652					
	Prep Batch: 200-34994	Prep Date: 03/14/2012 1430					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide	10.0	U N	ug/L	1.0	10.0	1.0	ISM01.2/CN
	Analysis Batch: 200-35006	Analysis Date: 03/14/2012 1654					
	Prep Batch: 200-34994	Prep Date: 03/14/2012 1430					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide	10.0	U N	ug/L	1.0	10.0	1.0	ISM01.2/CN
	Analysis Batch: 200-35006	Analysis Date: 03/14/2012 1656					
	Prep Batch: 200-34994	Prep Date: 03/14/2012 1430					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	B	The analyte was found in an associated blank, as well as in the sample.
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	B	The analyte was found in an associated blank, as well as in the sample.
GC Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	P	The % Difference between columns is greater than 25%.
	B	The analyte was found in an associated blank, as well as in the sample.
Metals		
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL
	E	The reported value is estimated because of the presence of interference based on serial dilution analysis.
General Chemistry		
	U	Indicates analyzed for but not detected.
	N	PDS exceeds control limits
	N	Spiked sample recovery is not within control limits.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-35036					
MB 200-35036/4	Method Blank	T	Water	SOM01.2/VOA	
200-9783-2	PRR1WATSME-01	T	Water	SOM01.2/VOA	
200-9783-4	PRR1WATSME-02	T	Water	SOM01.2/VOA	
200-9783-6	PRR1WATSME-03	T	Water	SOM01.2/VOA	
200-9783-6MS	Matrix Spike	T	Water	SOM01.2/VOA	
200-9783-6MSD	Matrix Spike Duplicate	T	Water	SOM01.2/VOA	
200-9783-7TB	TB03132012	T	Water	SOM01.2/VOA	

Report Basis

T = Total

GC/MS Semi VOA

Prep Batch: 200-34923					
MB 200-34923/1-A	Method Blank	T	Water	CONT	
200-9783-2	PRR1WATSME-01	T	Water	CONT	
200-9783-4	PRR1WATSME-02	T	Water	CONT	
200-9783-6	PRR1WATSME-03	T	Water	CONT	
200-9783-6MS	Matrix Spike	T	Water	CONT	
200-9783-6MSD	Matrix Spike Duplicate	T	Water	CONT	
Analysis Batch:200-35019					
MB 200-34923/1-A	Method Blank	T	Water	SOM01.2/SV	200-34923
200-9783-2	PRR1WATSME-01	T	Water	SOM01.2/SV	200-34923
200-9783-4	PRR1WATSME-02	T	Water	SOM01.2/SV	200-34923
200-9783-6	PRR1WATSME-03	T	Water	SOM01.2/SV	200-34923
200-9783-6MS	Matrix Spike	T	Water	SOM01.2/SV	200-34923
200-9783-6MSD	Matrix Spike Duplicate	T	Water	SOM01.2/SV	200-34923

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-34926					
LCS 200-34926/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-34926/1-C	Method Blank	T	Water	SEPF	
200-9783-2	PRR1WATSME-01	T	Water	SEPF	
200-9783-4	PRR1WATSME-02	T	Water	SEPF	
200-9783-6	PRR1WATSME-03	T	Water	SEPF	
200-9783-6MS	Matrix Spike	T	Water	SEPF	
200-9783-6MSD	Matrix Spike Duplicate	T	Water	SEPF	
Prep Batch: 200-34934					
LCS 200-34934/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-34934/1-C	Method Blank	T	Water	SEPF	
200-9783-2	PRR1WATSME-01	T	Water	SEPF	
200-9783-4	PRR1WATSME-02	T	Water	SEPF	
200-9783-6	PRR1WATSME-03	T	Water	SEPF	
200-9783-6MS	Matrix Spike	T	Water	SEPF	
200-9783-6MSD	Matrix Spike Duplicate	T	Water	SEPF	
Analysis Batch:200-34985					
LCS 200-34926/2-C	Lab Control Sample	T	Water	SOM01.2/PCB	200-34926
MB 200-34926/1-C	Method Blank	T	Water	SOM01.2/PCB	200-34926
200-9783-2	PRR1WATSME-01	T	Water	SOM01.2/PCB	200-34926
200-9783-4	PRR1WATSME-02	T	Water	SOM01.2/PCB	200-34926
200-9783-6	PRR1WATSME-03	T	Water	SOM01.2/PCB	200-34926
200-9783-6MS	Matrix Spike	T	Water	SOM01.2/PCB	200-34926
200-9783-6MSD	Matrix Spike Duplicate	T	Water	SOM01.2/PCB	200-34926
Analysis Batch:200-34995					
LCS 200-34934/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-34934
MB 200-34934/1-C	Method Blank	T	Water	SOM01.2/Pest	200-34934
200-9783-2	PRR1WATSME-01	T	Water	SOM01.2/Pest	200-34934
200-9783-4	PRR1WATSME-02	T	Water	SOM01.2/Pest	200-34934
200-9783-6	PRR1WATSME-03	T	Water	SOM01.2/Pest	200-34934
200-9783-6MS	Matrix Spike	T	Water	SOM01.2/Pest	200-34934
200-9783-6MSD	Matrix Spike Duplicate	T	Water	SOM01.2/Pest	200-34934

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-34936					
LCS 200-34936/2-A	Lab Control Sample	T	Water	200.8	
MB 200-34936/1-A	Method Blank	T	Water	200.8	
200-9783-2	PRR1WATSME-01	T	Water	200.8	
200-9783-4	PRR1WATSME-02	T	Water	200.8	
200-9783-6	PRR1WATSME-03	T	Water	200.8	
200-9783-6DU	Duplicate	T	Water	200.8	
200-9783-6MS	Matrix Spike	T	Water	200.8	
200-9783-6MSDL	Matrix Spike	T	Water	200.8	
Prep Batch: 200-34982					
MB 200-34982/11-A	Method Blank	T	Water	7470A	
200-9783-2	PRR1WATSME-01	T	Water	7470A	
200-9783-4	PRR1WATSME-02	T	Water	7470A	
200-9783-6	PRR1WATSME-03	T	Water	7470A	
200-9783-6DU	Duplicate	T	Water	7470A	
200-9783-6MS	Matrix Spike	T	Water	7470A	
Analysis Batch:200-35030					
LCS 200-34936/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-34936
MB 200-34936/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-34936
200-9783-2	PRR1WATSME-01	T	Water	ISM01.2/ICPMS	200-34936
200-9783-4	PRR1WATSME-02	T	Water	ISM01.2/ICPMS	200-34936
200-9783-6	PRR1WATSME-03	T	Water	ISM01.2/ICPMS	200-34936
200-9783-6DU	Duplicate	T	Water	ISM01.2/ICPMS	200-34936
200-9783-6MS	Matrix Spike	T	Water	ISM01.2/ICPMS	200-34936
200-9783-6MSDL	Matrix Spike	T	Water	ISM01.2/ICPMS	200-34936
Analysis Batch:200-35039					
MB 200-34982/11-A	Method Blank	T	Water	ISM01.2/HG	200-34982
200-9783-2	PRR1WATSME-01	T	Water	ISM01.2/HG	200-34982
200-9783-4	PRR1WATSME-02	T	Water	ISM01.2/HG	200-34982
200-9783-6	PRR1WATSME-03	T	Water	ISM01.2/HG	200-34982
200-9783-6DU	Duplicate	T	Water	ISM01.2/HG	200-34982
200-9783-6MS	Matrix Spike	T	Water	ISM01.2/HG	200-34982

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 200-34994					
MB 200-34994/11-A	Method Blank	T	Water	Midi-Distillati	
200-9783-2	PRR1WATSME-01	T	Water	Midi-Distillati	
200-9783-4	PRR1WATSME-02	T	Water	Midi-Distillati	
200-9783-6	PRR1WATSME-03	T	Water	Midi-Distillati	
200-9783-6DUDU	Duplicate	T	Water	Midi-Distillati	
200-9783-6MS	Matrix Spike	T	Water	Midi-Distillati	
Analysis Batch:200-35006					
MB 200-34994/11-A	Method Blank	T	Water	ISM01.2/CN	200-34994
200-9783-2	PRR1WATSME-01	T	Water	ISM01.2/CN	200-34994
200-9783-4	PRR1WATSME-02	T	Water	ISM01.2/CN	200-34994
200-9783-6	PRR1WATSME-03	T	Water	ISM01.2/CN	200-34994
200-9783-6DUDU	Duplicate	T	Water	ISM01.2/CN	200-34994
200-9783-6MS	Matrix Spike	T	Water	ISM01.2/CN	200-34994

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Surrogate Recovery Report

SOM01.2/VOA Low/Medium Volatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-9783-2	PRR1WATSME-01	75	92	66	89	99	107	105	96
200-9783-4	PRR1WATSME-02	76	91	64	96	101	105	106	95
200-9783-6	PRR1WATSME-03	75	94	65	89	99	107	106	97
200-9783-7	TB03132012	71	84	58	75	88	93	95	85
MB 200-35036/4		76	95	66	82	96	103	105	94
200-9783-6 MS	PRR1WATSME-03 MS	77	82	83	92	103	108	109	91
200-9783-6 MSD	PRR1WATSME-03 MSD	79	83	88	87	101	110	108	89

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Surrogate Recovery Report

SOM01.2/VOA Low/Medium Volatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	DXE %Rec	TCA %Rec	DCZ %Rec
200-9783-2	PRR1WATSME-01	101	104	123	116	117	99
200-9783-4	PRR1WATSME-02	101	104	124	122	116	100
200-9783-6	PRR1WATSME-03	103	106	123	117	117	100
200-9783-7	TB03132012	91	93	102	101	100	88
MB 200-35036/4		100	102	115	117	114	98
200-9783-6 MS	PRR1WATSME-03 MS	102	99	122	110	119	99
200-9783-6 MSD	PRR1WATSME-03 MSD	101	98	121	116	119	99

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
DXE = 1,4-Dioxane-d8	50-150
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	PHL %Rec	BCE %Rec	2CP %Rec	4MP %Rec	NBZ %Rec	2NP %Rec	DCP %Rec	4CA %Rec
200-9783-2	PRR1WATSME-01	91	82	87	94	88	88	84	87
200-9783-4	PRR1WATSME-02	86	77	82	90	83	82	71	83
200-9783-6	PRR1WATSME-03	81	76	81	82	80	81	79	82
MB 200-34923/1-A		89	82	85	93	86	85	72	95
200-9783-6 MS	PRR1WATSME-03 MS	90	77	85	91	84	85	84	86
200-9783-6 MSD	PRR1WATSME-03 MSD	95	82	89	96	87	88	84	87

Surrogate	Acceptance Limits
PHL = Phenol-d5	39-106
BCE = Bis(2-chloroethyl)ether-d8	40-105
2CP = 2-Chlorophenol-d4	41-106
4MP = 4-Methylphenol-d8	25-111
NBZ = Nitrobenzene-d5	43-108
2NP = 2-Nitrophenol-d4	40-108
DCP = 2,4-Dichlorophenol-d3	37-105
4CA = 4-Chloroaniline-d4	1-145

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	DMP %Rec	ACY %Rec	4NP %Rec	FLR %Rec	NMP %Rec	ANC %Rec	PYR %Rec	BAP %Rec
200-9783-2	PRR1WATSME-01	99	91	72	86	89	94	107	88
200-9783-4	PRR1WATSME-02	92	87	62	81	86	88	97	84
200-9783-6	PRR1WATSME-03	92	85	67	79	73	84	99	78
MB 200-34923/1-A		96	88	58	84	54	90	91	78
200-9783-6 MS	PRR1WATSME-03 MS	99	90	78	87	88	91	104	89
200-9783-6 MSD	PRR1WATSME-03 MSD	99	90	74	87	91	91	105	90

Surrogate	Acceptance Limits
DMP = Dimethylphthalate-d6	47-114
ACY = Acenaphthylene-d8	41-107
4NP = 4-Nitrophenol-d4	33-116
FLR = Fluorene-d10	42-111
NMP = 4,6-Dinitro-2-methylphenol-d2	22-104
ANC = Anthracene-d10	44-110
PYR = Pyrene-d10	52-119
BAP = Benzo(a)pyrene-d12	32-121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Surrogate Recovery Report

SOM01.2/PCB Aroclors

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-9783-2	PRR1WATSME-01	80	83	81	74
200-9783-4	PRR1WATSME-02	87	89	74	69
200-9783-6	PRR1WATSME-03	83	83	67	60
MB 200-34926/1-C		82	85	92	85
LCS 200-34926/2-C		81	79	75	68
200-9783-6 MS	PRR1WATSME-03 MS	86	86	63	57
200-9783-6 MSD	PRR1WATSME-03 MSD	85	86	68	63

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Surrogate Recovery Report

SOM01.2/Pest Pesticides

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-9783-2	PRR1WATSME-01	75	77	55	63
200-9783-4	PRR1WATSME-02	79	80	75	74
200-9783-6	PRR1WATSME-03	74	73	67	66
MB 200-34934/1-C		77	78	90	91
LCS 200-34934/2-C		75	79	96	96
200-9783-6 MS	PRR1WATSME-03 MS	80	79	63	63
200-9783-6 MSD	PRR1WATSME-03 MSD	79	76	61	60

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Method Blank - Batch: 200-35036

**Method: SOM01.2/VOA
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-35036/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/14/2012 1138
 Prep Date: 03/14/2012 1138
 Leach Date: N/A

Analysis Batch: 200-35036
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: M.i
 Lab File ID: mjda04.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1,1-Dichloroethene	5.0	U	5.0
Methylene chloride	5.0	U	5.0
Chloroform	5.0	U	5.0
Benzene	5.0	U	5.0
Trichloroethene	0.23	J	5.0
Toluene	0.060	J	5.0
Tetrachloroethene	5.0	U	5.0
Chlorobenzene	0.11	J	5.0
Ethylbenzene	0.064	J	5.0
1,3-Dichlorobenzene	0.22	J	5.0
1,4-Dichlorobenzene	5.0	U	5.0
1,2-Dichlorobenzene	5.0	U	5.0
1,2,4-Trichlorobenzene	0.41	J	5.0

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	76	65 - 131
Chloroethane-d5	95	71 - 131
1,1-Dichloroethene-d2	66	55 - 104
2-Butanone-d5	82	49 - 155
Chloroform-d	96	78 - 121
1,2-Dichloroethane-d4	103	78 - 129
Benzene-d6	105	77 - 124
1,2-Dichloropropane-d6	94	79 - 124
Toluene-d8	100	77 - 121
trans-1,3-Dichloropropene-d4	102	73 - 121
2-Hexanone-d5	115	28 - 135
1,4-Dioxane-d8	117	50 - 150
1,1,2,2-Tetrachloroethane-d2	114	73 - 125
1,2-Dichlorobenzene-d4	98	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-35036**

**Method: SOM01.2/VOA
Preparation: SOM01.2/VOA_PR**

MS Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 2.0
Analysis Date: 03/14/2012 1853
Prep Date: 03/14/2012 1853
Leach Date: N/A

Analysis Batch: 200-35036
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: M.i
Lab File ID: mjda17.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL
5 mL

MSD Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 2.0
Analysis Date: 03/14/2012 1920
Prep Date: 03/14/2012 1920
Leach Date: N/A

Analysis Batch: 200-35036
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: M.i
Lab File ID: mjda18.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL
5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
1,1-Dichloroethene	73	89	61 - 145	20	14		
Benzene	92	108	76 - 127	16	11		
Trichloroethene	80	93	71 - 120	15	14	B	B
Toluene	87	101	76 - 125	15	13	B	B
Chlorobenzene	88	105	75 - 130	18	13	B	B
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
Vinyl chloride-d3	77		79	65 - 131			
Chloroethane-d5	82		83	71 - 131			
1,1-Dichloroethene-d2	83		88	55 - 104			
2-Butanone-d5	92		87	49 - 155			
Chloroform-d	103		101	78 - 121			
1,2-Dichloroethane-d4	108		110	78 - 129			
Benzene-d6	109		108	77 - 124			
1,2-Dichloropropane-d6	91		89	79 - 124			
Toluene-d8	102		101	77 - 121			
trans-1,3-Dichloropropene-d4	99		98	73 - 121			
2-Hexanone-d5	122		121	28 - 135			
1,4-Dioxane-d8	110		116	50 - 150			
1,1,2,2-Tetrachloroethane-d2	119		119	73 - 125			
1,2-Dichlorobenzene-d4	99		99	80 - 131			

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

Method Blank - Batch: 200-34923

Method: SOM01.2/SV

Preparation: CONT

Lab Sample ID: MB 200-34923/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/14/2012 1504
 Prep Date: 03/13/2012 1743
 Leach Date: N/A

Analysis Batch: 200-35019
 Prep Batch: 200-34923
 Leach Batch: N/A
 Units: ug/L

Instrument ID: R.i
 Lab File ID: rjslw11.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1000 uL
 Injection Volume: 2 uL

Analyte	Result	Qual	RL
Phenol	5.0	U	5.0
2-Chlorophenol	5.0	U	5.0
2,4-Dimethylphenol	5.0	U	5.0
2,4-Dichlorophenol	5.0	U	5.0
Naphthalene	5.0	U	5.0
Hexachlorobutadiene	5.0	U	5.0
2,4,6-Trichlorophenol	5.0	U	5.0
Fluorene	5.0	U	5.0
Hexachlorobenzene	5.0	U	5.0
Pentachlorophenol	10	U	10
Phenanthrene	5.0	U	5.0
Anthracene	5.0	U	5.0
Di-n-butylphthalate	5.0	U	5.0
Fluoranthene	5.0	U	5.0
Pyrene	5.0	U	5.0
Butylbenzylphthalate	0.11	J	5.0
Benzo(a)anthracene	5.0	U	5.0
Chrysene	5.0	U	5.0
Bis(2-ethylhexyl)phthalate	0.21	J	5.0
Benzo(b)fluoranthene	5.0	U	5.0
Benzo(k)fluoranthene	5.0	U	5.0
Benzo(a)pyrene	5.0	U	5.0
Indeno(1,2,3-cd)pyrene	5.0	U	5.0
Dibenzo(a,h)anthracene	5.0	U	5.0

Surrogate	% Rec	Acceptance Limits
Phenol-d5	89	39 - 106
Bis(2-chloroethyl)ether-d8	82	40 - 105
2-Chlorophenol-d4	85	41 - 106
4-Methylphenol-d8	93	25 - 111
Nitrobenzene-d5	86	43 - 108
2-Nitrophenol-d4	85	40 - 108
2,4-Dichlorophenol-d3	72	37 - 105
4-Chloroaniline-d4	95	1 - 145
Dimethylphthalate-d6	96	47 - 114
Acenaphthylene-d8	88	41 - 107
4-Nitrophenol-d4	58	33 - 116
Fluorene-d10	84	42 - 111
4,6-Dinitro-2-methylphenol-d2	54	22 - 104
Anthracene-d10	90	44 - 110
Pyrene-d10	91	52 - 119
Benzo(a)pyrene-d12	78	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

Sdg Number: PRR1152

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-34923**

**Method: SOM01.2/SV
Preparation: CONT**

MS Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 1727
Prep Date: 03/13/2012 1743
Leach Date: N/A

Analysis Batch: 200-35019
Prep Batch: 200-34923
Leach Batch: N/A

Instrument ID: R.i
Lab File ID: rjslw15.d
Initial Weight/Volume: 1005 mL
Final Weight/Volume: 1000 uL
Injection Volume: 2 uL

MSD Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 1802
Prep Date: 03/13/2012 1743
Leach Date: N/A

Analysis Batch: 200-35019
Prep Batch: 200-34923
Leach Batch: N/A

Instrument ID: R.i
Lab File ID: rjslw16.d
Initial Weight/Volume: 1025 mL
Final Weight/Volume: 1000 uL
Injection Volume: 2 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Phenol	71	80	12 - 110	12	42		
2-Chlorophenol	84	92	27 - 123	9	40		
Pentachlorophenol	75	81	9 - 103	6	50		
Pyrene	99	105	26 - 127	6	31		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Phenol-d5	90	95	39 - 106
Bis(2-chloroethyl)ether-d8	77	82	40 - 105
2-Chlorophenol-d4	85	89	41 - 106
4-Methylphenol-d8	91	96	25 - 111
Nitrobenzene-d5	84	87	43 - 108
2-Nitrophenol-d4	85	88	40 - 108
2,4-Dichlorophenol-d3	84	84	37 - 105
4-Chloroaniline-d4	86	87	1 - 145
Dimethylphthalate-d6	99	99	47 - 114
Acenaphthylene-d8	90	90	41 - 107
4-Nitrophenol-d4	78	74	33 - 116
Fluorene-d10	87	87	42 - 111
4,6-Dinitro-2-methylphenol-d2	88	91	22 - 104
Anthracene-d10	91	91	44 - 110
Pyrene-d10	104	105	52 - 119
Benzo(a)pyrene-d12	89	90	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

Method Blank - Batch: 200-34926

**Method: SOM01.2/PCB
Preparation: SEPF**

Lab Sample ID: MB 200-34926/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 1008
Prep Date: 03/13/2012 1843
Leach Date: N/A

Analysis Batch: 200-34985
Prep Batch: 200-34926
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 14ma120829-r051.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Aroclor-1016	1.0	U	1.0
Aroclor-1242	1.0	U	1.0
Aroclor-1254	1.0	U	1.0
Aroclor-1260	1.0	U	1.0
<hr/>			
Surrogate	% Rec	Acceptance Limits	
Tetrachloro-m-xylene	82	30 - 150	
Decachlorobiphenyl	85	30 - 150	
<hr/>			
Surrogate	% Rec	Acceptance Limits	
Tetrachloro-m-xylene	85	30 - 150	
Decachlorobiphenyl	92	30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

Lab Control Sample - Batch: 200-34926

Method: SOM01.2/PCB
Preparation: SEPF

Lab Sample ID: LCS 200-34926/2-C	Analysis Batch: 200-34985	Instrument ID: 5253.i
Client Matrix: Water	Prep Batch: 200-34926	Lab File ID: 14ma120829-r061.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/14/2012 1032	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 03/13/2012 1843		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.1	108	50 - 150	
Aroclor-1260	1.00	0.90	90	50 - 150	J
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		79		30 - 150	
Decachlorobiphenyl		68		30 - 150	

Lab Control Sample - Batch: 200-34926

Method: SOM01.2/PCB
Preparation: SEPF

Lab Sample ID: LCS 200-34926/2-C	Analysis Batch: 200-34985	Instrument ID: 5253.i
Client Matrix: Water	Prep Batch: 200-34926	Lab File ID: 14ma120829-r061.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/14/2012 1032	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 03/13/2012 1843		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.1	109	50 - 150	
Aroclor-1260	1.00	0.94	94	50 - 150	J
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		81		30 - 150	
Decachlorobiphenyl		75		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-34926**

**Method: SOM01.2/PCB
Preparation: SEPF**

MS Lab Sample ID: 200-9783-6	Analysis Batch: 200-34985	Instrument ID: 5253.i
Client Matrix: Water	Prep Batch: 200-34926	Lab File ID: 14ma120829-r111.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1055 mL
Analysis Date: 03/14/2012 1231		Final Weight/Volume: 10000 uL
Prep Date: 03/13/2012 1843		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

MSD Lab Sample ID: 200-9783-6	Analysis Batch: 200-34985	Instrument ID: 5253.i
Client Matrix: Water	Prep Batch: 200-34926	Lab File ID: 14ma120829-r101.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1015 mL
Analysis Date: 03/14/2012 1207		Final Weight/Volume: 10000 uL
Prep Date: 03/13/2012 1843		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Aroclor-1016	89	90	29 - 135	1	15		
Aroclor-1260	72	83	29 - 135	14	20		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
Tetrachloro-m-xylene	86		85	30 - 150			
Decachlorobiphenyl	57		63	30 - 150			

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-34926**

**Method: SOM01.2/PCB
Preparation: SEPF**

MS Lab Sample ID: 200-9783-6	Analysis Batch: 200-34985	Instrument ID: 5253.i
Client Matrix: Water	Prep Batch: 200-34926	Lab File ID: 14ma120829-r111.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1055 mL
Analysis Date: 03/14/2012 1231		Final Weight/Volume: 10000 uL
Prep Date: 03/13/2012 1843		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

MSD Lab Sample ID: 200-9783-6	Analysis Batch: 200-34985	Instrument ID: 5253.i
Client Matrix: Water	Prep Batch: 200-34926	Lab File ID: 14ma120829-r101.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1015 mL
Analysis Date: 03/14/2012 1207		Final Weight/Volume: 10000 uL
Prep Date: 03/13/2012 1843		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Aroclor-1016	90	91	29 - 135	1	15		
Aroclor-1260	75	85	29 - 135	13	20		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
Tetrachloro-m-xylene	86		86	30 - 150			
Decachlorobiphenyl	63		68	30 - 150			

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

Method Blank - Batch: 200-34934

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-34934/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 1058
Prep Date: 03/13/2012 2204
Leach Date: N/A

Analysis Batch: 200-34995
Prep Batch: 200-34934
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 14ma120949-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
alpha-BHC	0.0050	U	0.0050
beta-BHC	0.0017	J	0.0050
gamma-BHC (Lindane)	0.0050	U	0.0050
Heptachlor	0.0050	U	0.0050
Aldrin	0.0050	U	0.0050
Heptachlor epoxide	0.0050	U	0.0050
Endosulfan I	0.0050	U	0.0050
Dieldrin	0.010	U	0.010
4,4'-DDE	0.010	U	0.010
Endrin	0.010	U	0.010
Endosulfan II	0.010	U	0.010
4,4'-DDD	0.010	U	0.010
Endosulfan sulfate	0.010	U	0.010
4,4'-DDT	0.010	U	0.010
Endrin aldehyde	0.010	U	0.010
alpha-Chlordane	0.0050	U	0.0050
gamma-Chlordane	0.0050	U	0.0050

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	77	30 - 150
Decachlorobiphenyl	90	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	78	30 - 150
Decachlorobiphenyl	91	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

Lab Control Sample - Batch: 200-34934

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-34934/2-C	Analysis Batch: 200-34995	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-34934	Lab File ID: 14ma120949-r041.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/14/2012 1121	Units: ug/L	Final Weight/Volume: 1000 uL
Prep Date: 03/13/2012 2204		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0034	68	50 - 120	J
Heptachlor epoxide	0.00500	0.0040	80	50 - 150	J
Dieldrin	0.0100	0.0078	78	30 - 130	J
4,4'-DDE	0.0100	0.0075	75	50 - 150	J
Endrin	0.0100	0.0081	81	50 - 120	J
Endosulfan sulfate	0.0100	0.0054	54	50 - 120	J
gamma-Chlordane	0.00500	0.0038	75	30 - 130	J

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	75	30 - 150
Decachlorobiphenyl	96	30 - 150

Lab Control Sample - Batch: 200-34934

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-34934/2-C	Analysis Batch: 200-34995	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-34934	Lab File ID: 14ma120949-r041.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/14/2012 1121	Units: ug/L	Final Weight/Volume: 1000 uL
Prep Date: 03/13/2012 2204		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0037	74	50 - 120	J
Heptachlor epoxide	0.00500	0.0044	89	50 - 150	J
Dieldrin	0.0100	0.0081	81	30 - 130	J
4,4'-DDE	0.0100	0.0078	78	50 - 150	J
Endrin	0.0100	0.0085	85	50 - 120	J
Endosulfan sulfate	0.0100	0.0059	59	50 - 120	J
gamma-Chlordane	0.00500	0.0043	86	30 - 130	J

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	79	30 - 150
Decachlorobiphenyl	96	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-34934**

**Method: SOM01.2/Pest
Preparation: SEPF**

MS Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 1316
Prep Date: 03/13/2012 2204
Leach Date: N/A

Analysis Batch: 200-34995
Prep Batch: 200-34934
Leach Batch: N/A

Instrument ID: 0911.i
Lab File ID: 14ma120949-r091.d
Initial Weight/Volume: 1045 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 1253
Prep Date: 03/13/2012 2204
Leach Date: N/A

Analysis Batch: 200-34995
Prep Batch: 200-34934
Leach Batch: N/A

Instrument ID: 0911.i
Lab File ID: 14ma120949-r081.d
Initial Weight/Volume: 1055 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
gamma-BHC (Lindane)	85	81	56 - 123	4	15		
Heptachlor	81	77	40 - 131	5	20		
Aldrin	75	72	40 - 120	5	22		
Dieldrin	87	84	52 - 126	3	18		
Endrin	91	87	56 - 121	6	21		
4,4'-DDT	76	72	38 - 127	5	27		
Surrogate		MS % Rec	MSD % Rec			Acceptance Limits	
Tetrachloro-m-xylene		79	76			30 - 150	
Decachlorobiphenyl		63	60			30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-34934**

**Method: SOM01.2/Pest
Preparation: SEPF**

MS Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 1316
Prep Date: 03/13/2012 2204
Leach Date: N/A

Analysis Batch: 200-34995
Prep Batch: 200-34934
Leach Batch: N/A

Instrument ID: 0911.i
Lab File ID: 14ma120949-r091.d
Initial Weight/Volume: 1045 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

MSD Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 1253
Prep Date: 03/13/2012 2204
Leach Date: N/A

Analysis Batch: 200-34995
Prep Batch: 200-34934
Leach Batch: N/A

Instrument ID: 0911.i
Lab File ID: 14ma120949-r081.d
Initial Weight/Volume: 1055 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
gamma-BHC (Lindane)	85	82	56 - 123	4	15		
Heptachlor	84	80	40 - 131	5	20		
Aldrin	78	73	40 - 120	6	22		
Dieldrin	88	85	52 - 126	3	18		
Endrin	92	89	56 - 121	3	21		
4,4'-DDT	78	74	38 - 127	5	27		
Surrogate		MS % Rec	MSD % Rec			Acceptance Limits	
Tetrachloro-m-xylene		80	79			30 - 150	
Decachlorobiphenyl		63	61			30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

Method Blank - Batch: 200-34982

**Method: ISM01.2/HG
Preparation: 7470A**

Lab Sample ID: MB 200-34982/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 0940
Prep Date: 03/14/2012 1152
Leach Date: N/A

Analysis Batch: 200-35039
Prep Batch: 200-34982
Leach Batch: N/A
Units: ug/L

Instrument ID: MEPCV3 II
Lab File ID: 031512AA.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDLE	RL
Mercury	0.20	U	0.084	0.20

Matrix Spike - Batch: 200-34982

**Method: ISM01.2/HG
Preparation: 7470A**

Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 0958
Prep Date: 03/14/2012 1152
Leach Date: N/A

Analysis Batch: 200-35039
Prep Batch: 200-34982
Leach Batch: N/A
Units: ug/L

Instrument ID: MEPCV3 II
Lab File ID: 031512AA.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.20 U	1.00	1.1	106	75 - 125	

Duplicate - Batch: 200-34982

**Method: ISM01.2/HG
Preparation: 7470A**

Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 0955
Prep Date: 03/14/2012 1152
Leach Date: N/A

Analysis Batch: 200-35039
Prep Batch: 200-34982
Leach Batch: N/A
Units: ug/L

Instrument ID: MEPCV3 II
Lab File ID: 031512AA.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.20 U	0.20			U

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

Method Blank - Batch: 200-34936

Lab Sample ID: MB 200-34936/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 2325
Prep Date: 03/13/2012 2000
Leach Date: N/A

Analysis Batch: 200-35030
Prep Batch: 200-34936
Leach Batch: N/A
Units: ug/L

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Instrument ID: METICPMS2
Lab File ID: 031412-03ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Antimony	2.0	U	0.15	2.0
Arsenic	-0.31	J	0.16	1.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	-0.35	J	0.21	2.0
Copper	2.0	U	0.60	2.0
Lead	1.0	U	0.10	1.0
Nickel	-0.23	J	0.14	1.0
Selenium	-1.3	J	0.15	5.0
Silver	-0.42	J	0.028	1.0
Zinc	2.0	U	0.57	2.0

Lab Control Sample - Batch: 200-34936

Lab Sample ID: LCS 200-34936/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 2331
Prep Date: 03/13/2012 2000
Leach Date: N/A

Analysis Batch: 200-35030
Prep Batch: 200-34936
Leach Batch: N/A
Units: ug/L

**Method: ISM01.2/ICPMS
Preparation: 200.8**

Instrument ID: METICPMS2
Lab File ID: 031412-03ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	4.00	4.5	113	70 - 130	
Arsenic	2.00	1.8	89	70 - 130	
Beryllium	2.00	2.4	119	70 - 130	
Cadmium	2.00	2.2	111	70 - 130	
Chromium	4.00	3.8	94	70 - 130	
Copper	4.00	4.0	100	70 - 130	
Lead	2.00	2.1	106	70 - 130	
Nickel	2.00	1.9	95	70 - 130	
Selenium	10.0	11.0	110	70 - 130	
Silver	2.00	1.7	84	70 - 130	
Zinc	4.00	7.0	174	70 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

Matrix Spike - Batch: 200-34936

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 0023
Prep Date: 03/13/2012 2000
Leach Date: N/A

Analysis Batch: 200-35030
Prep Batch: 200-34936
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 031412-03ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	5.8	100	127	121	75 - 125	
Arsenic	9.8	40.0	50.5	102	75 - 125	
Beryllium	1.0 U	50.0	51.6	103	75 - 125	
Cadmium	1.0 U	50.0	39.6	79	75 - 125	
Lead	1.0	20.0	23.2	111	75 - 125	
Selenium	17.6	100	109	91	75 - 125	
Silver	1.0 U	50.0	39.1	78	75 - 125	

Matrix Spike - Batch: 200-34936

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID: 200-9783-6DL
Client Matrix: Water
Dilution: 10
Analysis Date: 03/15/2012 0030
Prep Date: 03/13/2012 2000
Leach Date: N/A

Analysis Batch: 200-35030
Prep Batch: 200-34936
Leach Batch: N/A
Units: ug/L
Run Type: DL

Instrument ID: METICPMS2
Lab File ID: 031412-03ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chromium	2.3	200	214	106	75 - 125	
Copper	2.8	250	268	106	75 - 125	
Nickel	1.9	500	532	106	75 - 125	
Zinc	2.0 U	500	484	97	75 - 125	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

Duplicate - Batch: 200-34936

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 0015
Prep Date: 03/13/2012 2000
Leach Date: N/A

Analysis Batch: 200-35030
Prep Batch: 200-34936
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 031412-03ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Antimony	5.8	6.1	5	2.0	
Arsenic	9.8	10.7	9		
Beryllium	1.0 U	1.0			U
Cadmium	1.0 U	1.0			U
Chromium	2.3	2.3	2	2.0	
Copper	2.8	1.9	37	2.0	J
Lead	1.0	1.1	10	1.0	
Nickel	1.9	1.9	4	1.0	
Selenium	17.6	19.4	10	5.0	
Silver	1.0 U	1.0			U
Zinc	2.0 U	2.0			U

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1
Sdg Number: PRR1152

Method Blank - Batch: 200-34994

Method: ISM01.2/CN
Preparation: Midi-Distillati

Lab Sample ID: MB 200-34994/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 1650
Prep Date: 03/14/2012 1430
Leach Date: N/A

Analysis Batch: 200-35006
Prep Batch: 200-34994
Leach Batch: N/A
Units: ug/L

Instrument ID: WCLachat
Lab File ID: OM_03-14-12_04-37-5
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Cyanide	10.0	U	1.0	10.0

Matrix Spike - Batch: 200-34994

Method: ISM01.2/CN
Preparation: Midi-Distillati

Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 1659
Prep Date: 03/14/2012 1430
Leach Date: N/A

Analysis Batch: 200-35006
Prep Batch: 200-34994
Leach Batch: N/A
Units: ug/L

Instrument ID: WCLachat
Lab File ID: OM_03-14-12_04-37-5
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide	10.0 U	100	20.7	21	75 - 125	N

Duplicate - Batch: 200-34994

Method: ISM01.2/CN
Preparation: Midi-Distillati

Lab Sample ID: 200-9783-6DU
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 1658
Prep Date: 03/14/2012 1430
Leach Date: N/A

Analysis Batch: 200-35006
Prep Batch: 200-34994
Leach Batch: N/A
Units: ug/L

Instrument ID: WCLachat
Lab File ID: OM_03-14-12_04-37-5
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Cyanide	10.0 U	10.0			U

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJ. NO.		PROJECT NAME		SDG NUMBER		COC Number																			
B0009964.0002.70004		Tierra Phase I Removal		PRR1152		PRR1152																			
SAMPLERS:		Requested Analyses																							
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks		
PRR1WATSMI-01	3/13/2012	4:00	water	Grab	15	X	H	H	H	H	H	H	H												
PRR1WATSMI-01	3/13/2012	4:10	water	Grab	15	X	X	X	X	X	X	X	X												
PRR1WATSMI-02	3/13/2012	4:20	water	Grab	15	X	H	H	H	H	H	H	H												
PRR1WATSMI-03	3/13/2012	4:30	water	Grab	15	X	X	X	X	X	X	X	X												
PRR1WATSMI-03	3/13/2012	4:45	water	Grab	15	X	H	H	H	H	H	H	H												
PRR1WATSMI-03	3/13/2012	5:00	water	Grab	45	X	X	X	X	X	X	X	X										MS and MSD		
TB03132012	3/13/2012	-	water	grab - QC	3					X															
Requested Analyses		Special Instructions/Comments:																							
1 TSS		48 hr TAT																							
2 TOC		X: Analyze Now H: Please HOLD sample																							
3 SVOCs (See Wlsht #15-2 in RAWP QAPP)		Laboratory Information and Receipt																							
4 VOCs (See Wlsht #15-2 in RAWP QAPP)		Lab Name: TestAmerica - Burlington, VT																							
7 Aroclor PCBs (See Wlsht #15-2 in RAWP QAPP)		Shipping Tracking #																							
5 Metals + Cyanide (See Wlsht #15-2 in RAWP QAPP)		Specify Turnaround Requirements: 48 hr TAT																							
6 Herbicides (See Wlsht #15-2 in RAWP QAPP)		Cooler packed with ice																							
7 Pesticides (See Wlsht #15-2 in RAWP QAPP)		Cooler custody seal intact																							
8		DATE	TIME	DATE	TIME	Relinquished by:	Relinquished by:	DATE	TIME	Relinquished by:	Relinquished by:	DATE	TIME	Relinquished by:	Relinquished by:	DATE	TIME	Relinquished by:	Relinquished by:	DATE	TIME	Relinquished by:	Relinquished by:	DATE	TIME
		3/13/2012		3/13/2012		Kavin Gandhi																			
9																									
10																									
11																									
12																									
13																									
14																									
15																									
16																									
17																									

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-9783-1

SDG Number: PRR1152

Login Number: 9783
List Number: 2
Creator: Matot, Wade M

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417419, 420, 428, 427, 425, 426, 418, 417, 414, 413, 429, 430, 416, 415, 424,423
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6, 4.8, 3.2, 4.4, 5.4, 2.2, 3.0, 2.8 °C, IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST

NEWARK, NJ 07105
USA

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

BURLINGTON, VT 05403
USA



Ship Date: 03/13/2012
ActWgt: 35 Dims: 24 * 14 * 15 IN

Delivery Address Barcode



FXF230850800000313124

Ref#
Invoice# 0
PO# 7284906
Dept#

0001 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403
VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST



Ship Date: 03/13/2012
ActWgt: 35

Dims: 24 * 14 * 15 IN

NEWARK, NJ 07105
USA

Delivery Address Barcode



EXF230850800000313124

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

Ref#
Invoice# 0
PO# 7284966
Dept#

BURLINGTON, VT 05403
USA

0002 of 0008

TUE - 13 MAR
FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403
VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST



Ship Date: 03/13/2012
ActWgt: 35 Dims: 24 * 14 * 15 IN

NEWARK, NJ 07105
USA

Delivery Address Barcode



FXF2308508000000313124

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

Ref#
Invoice# 0
PO# 7284906
Dept#

BURLINGTON, VT 05403
USA

0003 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403

VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST

NEWARK, NJ 07105
USA

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

BURLINGTON, VT 05403
USA



Ship Date: 03/13/2012
ActWgt: 35 Dims: 24 * 14 * 15 IN

Delivery Address Barcode



FXF230850800000313124

Ref#
Invoice# 0
PO# 7284906
Dept#

0004 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403
VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST

NEWARK, NJ 07105
USA

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

BURLINGTON, VT 05403
USA



Ship Date: 03/13/2012
ActWgt: 35

Dims: 24 * 14 * 15 IN

Delivery Address Barcode



FXF230850800000313124

Ref#
Invoice# 0
PO# 7284906
Dept#

0005 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403

VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST



Ship Date: 03/13/2012
ActWgt: 35 Dims: 24 * 14 * 15 IN

NEWARK, NJ 07105
USA

Delivery Address Barcode



FXF230850800000313124

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

Ref#
Invoice# 0
PO# 7284906
Dept#

BURLINGTON, VT 05403
USA

0006 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403
VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST



Ship Date: 03/13/2012
ActWgt: 35

Dims: 24 * 14 * 15 IN

NEWARK, NJ 07105
USA

Delivery Address Barcode



FXF230850800000313124

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

BURLINGTON, VT 05403
USA

Ref#
Invoice# 0
PO# 7284906
Dept#

0007 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403
VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST

NEWARK, NJ 07105
USA

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

BURLINGTON, VT 05403
USA



Shlp Date: 03/13/2012
ActWgt: 35 Dims: 24 * 14 * 15 IN

Delivery Address Barcode



FXF2308508000000313124

Ref#
Invoice# 0
PO# 7284906
Dept#

0008 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403

VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-9783-2

SDG Number: PRR1152

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
3/15/2012 3:05 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
03/15/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	20
QC Results	21
Qc Association Summary	22
Surrogate Recovery Report	24
Qc Reports	25
Client Chain of Custody	31
Sample Receipt Checklist	32

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1152 (200-9783-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met. Calibration and calibration verification were assessed on an analyte specific basis.

Calculations were performed before rounding to avoid round-off errors in calculated results.

Manual integration was employed in deriving certain of the analytical results.

For the Method 8151A analysis, positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

In performing the Method 8151A analysis, there was an acceptable recovery of the surrogate control in each of the analyses associated with the extraction set. There was an issue, however, with the recovery performance of dinoseb in the laboratory control sample analysis associated with the extraction set. In that analysis the recovery of dinoseb was 3 percent, while there was an acceptable recovery of the other target analytes. The matrix spike and matrix spike duplicate analyses exhibited a similar recovery performance of dinoseb, with the derived concentration in the matrix spike duplicate analysis falling below the established MDL value.

SW846 Method 8151A does formally identify the fact that dinoseb (specifically) may be lost in the alkaline hydrolysis clean-up step within the defined extraction process. Additionally, the Department of Defense (DoD), in its multi-laboratory assessments of method performance, did identify dinoseb in the SW846 Method 8151A analysis as a poor performing analyte, one that has a statistical lower control limit of 10 percent or less. In the DoD Quality Systems Manual, Version 3, relative to poor performing analytes, the following statement was made: "DoD does not feel it is appropriate to control batch acceptance on these compounds because there is a high level of uncertainty in their recovery."

Based on the SW846 Method 8151A reference, and the results/conclusions of the DoD multi-laboratory assessment of method performance, the laboratory did proceed with the analytical work, applying the QAPP control limits to all compounds, with the exception of dinoseb, in deciding batch acceptance and the need for re-extraction. This decision was coordinated with the project team.

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Herbicides (GC)	TAL BUR	SW846 8151A	
Extraction (Herbicides)	TAL BUR		SW846 8151A
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	
Organic Carbon, Total (TOC)	TAL BUR	SM SM 5310B	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Method	Analyst	Analyst ID
SW846 8151A	Malaspina, Richard R	RRM
SM SM 2540D	Tam, Michelle N	MNT
SM SM 5310B	Sutton, Zachariah M	ZMS

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-9783-1	PRR1WATSMI-01	Water	03/13/2012 0400	03/13/2012 1350
200-9783-2	PRR1WATSME-01	Water	03/13/2012 0410	03/13/2012 1350
200-9783-3	PRR1WATSMI-02	Water	03/13/2012 0420	03/13/2012 1350
200-9783-4	PRR1WATSME-02	Water	03/13/2012 0430	03/13/2012 1350
200-9783-5	PRR1WATSMI-03	Water	03/13/2012 0445	03/13/2012 1350
200-9783-6	PRR1WATSME-03	Water	03/13/2012 0500	03/13/2012 1350
200-9783-6MS	PRR1WATSME-03	Water	03/13/2012 0500	03/13/2012 1350
200-9783-6MSD	PRR1WATSME-03	Water	03/13/2012 0500	03/13/2012 1350
200-9783-6DU	PRR1WATSME-03	Water	03/13/2012 0500	03/13/2012 1350

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-35037	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-34965	Initial Weight/Volume: 985 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 03/14/2012 2338		Injection Volume: 1 uL
Prep Date: 03/14/2012 1030		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	1.9	U	0.66	1.9
2,4-DB	1.7	U	0.48	1.7
Dinoseb	0.96	U *	0.19	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	78		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A

Analysis Batch: 200-35037

Instrument ID: 5005.i

Prep Method: 8151A

Prep Batch: 200-34965

Initial Weight/Volume: 985 mL

Dilution: 1.0

Final Weight/Volume: 10000 uL

Analysis Date: 03/14/2012 2338

Injection Volume: 1 uL

Prep Date: 03/14/2012 1030

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	76		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-35037	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-34965	Initial Weight/Volume: 980 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 03/15/2012 0013		Injection Volume: 1 uL
Prep Date: 03/14/2012 1030		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	1.9	U	0.66	1.9
2,4-DB	1.7	U	0.48	1.7
Dinoseb	0.97	U *	0.19	0.97

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	92		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A

Analysis Batch: 200-35037

Instrument ID: 5005.i

Prep Method: 8151A

Prep Batch: 200-34965

Initial Weight/Volume: 980 mL

Dilution: 1.0

Final Weight/Volume: 10000 uL

Analysis Date: 03/15/2012 0013

Injection Volume: 1 uL

Prep Date: 03/14/2012 1030

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	91		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-35037	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-34965	Initial Weight/Volume: 945 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 03/15/2012 0047		Injection Volume: 1 uL
Prep Date: 03/14/2012 1030		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	2.0	U	0.69	2.0
2,4-DB	1.8	U	0.50	1.8
Dinoseb	1.0	U *	0.20	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	91		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A

Analysis Batch: 200-35037

Instrument ID: 5005.i

Prep Method: 8151A

Prep Batch: 200-34965

Initial Weight/Volume: 945 mL

Dilution: 1.0

Final Weight/Volume: 10000 uL

Analysis Date: 03/15/2012 0047

Injection Volume: 1 uL

Prep Date: 03/14/2012 1030

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	89		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSMI-01

Lab Sample ID: 200-9783-1

Date Sampled: 03/13/2012 0400

Client Matrix: Water

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	63.3		mg/L	8.3	8.3	1.0	SM 2540D
Analysis Batch: 200-34976		Analysis Date: 03/14/2012 1127					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	2.6	B	mg/L	0.14	1.0	1.0	SM 5310B
Analysis Batch: 200-35051		Analysis Date: 03/15/2012 0950					

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	15.5		mg/L	2.5	2.5	1.0	SM 2540D
Analysis Batch: 200-34976		Analysis Date: 03/14/2012 1127					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSMI-02

Lab Sample ID: 200-9783-3

Client Matrix: Water

Date Sampled: 03/13/2012 0420

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	60.0		mg/L	8.3	8.3	1.0	SM 2540D
Analysis Batch: 200-34976		Analysis Date: 03/14/2012 1127					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	2.5	B	mg/L	0.14	1.0	1.0	SM 5310B
Analysis Batch: 200-35051		Analysis Date: 03/15/2012 1023					

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	17.0		mg/L	2.5	2.5	1.0	SM 2540D
Analysis Batch: 200-34976		Analysis Date: 03/14/2012 1127					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSMI-03

Lab Sample ID: 200-9783-5

Date Sampled: 03/13/2012 0445

Client Matrix: Water

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	56.7		mg/L	8.3	8.3	1.0	SM 2540D
Analysis Batch: 200-34976		Analysis Date: 03/14/2012 1127					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	2.4	B	mg/L	0.14	1.0	1.0	SM 5310B
Analysis Batch: 200-35051		Analysis Date: 03/15/2012 1055					

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	15.6		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-34976		Analysis Date: 03/14/2012 1127					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Lab Section	Qualifier	Description
GC Semi VOA	U	Indicates the analyte was analyzed for but not detected.
	F	MS/MSD Recovery or RPD exceeds the control limits
	*	Recovery or RPD exceeds control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-34965					
LCS 200-34965/2-A	Lab Control Sample	T	Water	8151A	
MB 200-34965/1-A	Method Blank	T	Water	8151A	
200-9783-2	PRR1WATSME-01	T	Water	8151A	
200-9783-4	PRR1WATSME-02	T	Water	8151A	
200-9783-6	PRR1WATSME-03	T	Water	8151A	
200-9783-6MS	Matrix Spike	T	Water	8151A	
200-9783-6MSD	Matrix Spike Duplicate	T	Water	8151A	
Analysis Batch:200-35037					
LCS 200-34965/2-A	Lab Control Sample	T	Water	8151A	200-34965
MB 200-34965/1-A	Method Blank	T	Water	8151A	200-34965
200-9783-2	PRR1WATSME-01	T	Water	8151A	200-34965
200-9783-4	PRR1WATSME-02	T	Water	8151A	200-34965
200-9783-6	PRR1WATSME-03	T	Water	8151A	200-34965
200-9783-6MS	Matrix Spike	T	Water	8151A	200-34965
200-9783-6MSD	Matrix Spike Duplicate	T	Water	8151A	200-34965

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:200-34976					
LCS 200-34976/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-34976/1	Method Blank	T	Water	SM 2540D	
200-9783-1	PRR1WATSMI-01	T	Water	SM 2540D	
200-9783-2	PRR1WATSME-01	T	Water	SM 2540D	
200-9783-3	PRR1WATSMI-02	T	Water	SM 2540D	
200-9783-4	PRR1WATSME-02	T	Water	SM 2540D	
200-9783-5	PRR1WATSMI-03	T	Water	SM 2540D	
200-9783-6	PRR1WATSME-03	T	Water	SM 2540D	
200-9783-6DU	Duplicate	T	Water	SM 2540D	
Analysis Batch:200-35051					
LCS 200-35051/1	Lab Control Sample	T	Water	SM 5310B	
LCS 200-35051/11	Lab Control Sample	T	Water	SM 5310B	
MB 200-35051/12	Method Blank	T	Water	SM 5310B	
MB 200-35051/2	Method Blank	T	Water	SM 5310B	
200-9783-2	PRR1WATSME-01	T	Water	SM 5310B	
200-9783-4	PRR1WATSME-02	T	Water	SM 5310B	
200-9783-6	PRR1WATSME-03	T	Water	SM 5310B	
200-9783-6DU	Duplicate	T	Water	SM 5310B	
200-9783-6MS	Matrix Spike	T	Water	SM 5310B	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
200-9783-2	PRR1WATSME-01	76	78
200-9783-4	PRR1WATSME-02	91	92
200-9783-6	PRR1WATSME-03	91	89
MB 200-34965/1-A		73	73
LCS 200-34965/2-A		95	94
200-9783-6 MS	PRR1WATSME-03 MS	77	82
200-9783-6 MSD	PRR1WATSME-03 MSD	87	90

Surrogate

Acceptance Limits

DCPA = 2,4-Dichlorophenylacetic acid

60-130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

Method Blank - Batch: 200-34965

Method: 8151A
Preparation: 8151A

Lab Sample ID: MB 200-34965/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 2228
Prep Date: 03/14/2012 1030
Leach Date: N/A

Analysis Batch: 200-35037
Prep Batch: 200-34965
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 14ma121608-r011.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	73	60 - 130

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	73	60 - 130

Lab Control Sample - Batch: 200-34965

Method: 8151A
Preparation: 8151A

Lab Sample ID: LCS 200-34965/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 2303
Prep Date: 03/14/2012 1030
Leach Date: N/A

Analysis Batch: 200-35037
Prep Batch: 200-34965
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 14ma121608-r021.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	7.68	96	75 - 135	
2,4-DB	4.02	4.21	105	40 - 165	
Dinoseb	4.00	0.95	3	10 - 115	U *

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	95	60 - 130

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	94	60 - 130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-34965**

**Method: 8151A
Preparation: 8151A**

MS Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 0157
Prep Date: 03/14/2012 1030
Leach Date: N/A

Analysis Batch: 200-35037
Prep Batch: 200-34965
Leach Batch: N/A

Instrument ID: 5005.i
Lab File ID: 14ma121608-r071.d
Initial Weight/Volume: 1055 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 0122
Prep Date: 03/14/2012 1030
Leach Date: N/A

Analysis Batch: 200-35037
Prep Batch: 200-34965
Leach Batch: N/A

Instrument ID: 5005.i
Lab File ID: 14ma121608-r061.d
Initial Weight/Volume: 990 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
2,4-D	67	77	70 - 135	20	30	F	
2,4-DB	69	82	40 - 165	23	30		
Dinoseb	9	0	10 - 115	NC	30	J F	U F
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
2,4-Dichlorophenylacetic acid	82		90	60 - 130			
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
2,4-Dichlorophenylacetic acid	77		87	60 - 130			

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

Method Blank - Batch: 200-34976

Method: SM 2540D
Preparation: N/A

Lab Sample ID: MB 200-34976/1	Analysis Batch: 200-34976	Instrument ID: No Equipment
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/14/2012 1127	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-34976

Method: SM 2540D
Preparation: N/A

Lab Sample ID: LCS 200-34976/2	Analysis Batch: 200-34976	Instrument ID: No Equipment
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 50 mL
Analysis Date: 03/14/2012 1127	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	476.0	95	85 - 115	

Duplicate - Batch: 200-34976

Method: SM 2540D
Preparation: N/A

Lab Sample ID: 200-9783-6	Analysis Batch: 200-34976	Instrument ID: No Equipment
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 250 mL
Analysis Date: 03/14/2012 1127	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	15.6	15.20	3	5	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

Method Blank - Batch: 200-35051

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-35051/2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 0918
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-35051
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 031512A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.14	1.0

Method Blank - Batch: 200-35051

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-35051/12
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 1200
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-35051
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 031512A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	0.165	J	0.14	1.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Lab Control Sample - Batch: 200-35051

Method: SM 5310B

Preparation: N/A

Lab Sample ID: LCS 200-35051/1	Analysis Batch: 200-35051	Instrument ID: WCCH4
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 031512A.txt
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume:
Analysis Date: 03/15/2012 0901	Units: mg/L	Final Weight/Volume: 40 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	10.06	101	85 - 115	

Lab Control Sample - Batch: 200-35051

Method: SM 5310B

Preparation: N/A

Lab Sample ID: LCS 200-35051/11	Analysis Batch: 200-35051	Instrument ID: WCCH4
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 031512A.txt
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume:
Analysis Date: 03/15/2012 1144	Units: mg/L	Final Weight/Volume: 40 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.93	99	85 - 115	

Matrix Spike - Batch: 200-35051

Method: SM 5310B

Preparation: N/A

Lab Sample ID: 200-9783-6	Analysis Batch: 200-35051	Instrument ID: WCCH4
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 031512A.txt
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume:
Analysis Date: 03/15/2012 1126	Units: mg/L	Final Weight/Volume: 20 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	2.4	5.00	7.48	102	85 - 115	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

Duplicate - Batch: 200-35051

Method: SM 5310B
Preparation: N/A

Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 1111
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-35051
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 031512A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Organic Carbon	2.4	2.12	12	20	

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

PROJ. NO.		PROJECT NAME		SDG NUMBER		COC Number																			
80009964.0002.70004		Tierra Phase I Removal		PRR1152		PRR1152																			
SAMPLERS:		Requested Analyses																							
SAMPLE ID	DATE	TIME	MATRIX	Composite/Grab	# Containers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Remarks		
PRR1WATSMI-01	3/13/2012	4:00	water	Grab	15	X	H	H	H	H	H	H	H												
PRR1WATSMI-01	3/13/2012	4:10	water	Grab	15	X	X	X	X	X	X	X	X												
PRR1WATSMI-02	3/13/2012	4:20	water	Grab	15	X	H	H	H	H	H	H	H												
PRR1WATSMI-03	3/13/2012	4:30	water	Grab	15	X	X	X	X	X	X	X	X												
PRR1WATSMI-03	3/13/2012	4:45	water	Grab	15	X	H	H	H	H	H	H	H												
PRR1WATSMI-03	3/13/2012	5:00	water	Grab	45	X	X	X	X	X	X	X	X										MS and MSD		
TB03132012	3/13/2012	-	water	grab - QC	3					X															
Requested Analyses		Special Instructions/Comments:																							
1 TSS		48 hr TAT																							
2 TOC		X: Analyze Now H: Please HOLD sample																							
3 SVOCs (See Wksh #15-2 in RAWP QAPP)		Laboratory Information and Receipt																							
4 VOCs (See Wksh #15-2 in RAWP QAPP)		Lab Name: TestAmerica - Burlington, VT																							
7 Aroclor PCBs (See Wksh #15-2 in RAWP QAPP)		Shipping Tracking #																							
5 Metals + Cyanide (See Wksh #15-2 in RAWP QAPP)		Specify Turnaround Requirements: 48 hr TAT																							
6 Herbicides (See Wksh #15-2 in RAWP QAPP)		Relinquished by: Kavin Gandhi																							
7 Pesticides (See Wksh #15-2 in RAWP QAPP)		Relinquished by:																							
		DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME
		3/13/2012		3/13/2012																					
		Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:	Relinquished by:
		3/13/12 1350		3/13/12 1350																					

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

SDG Number: PRR1152

Login Number: 9783
List Number: 2
Creator: Matot, Wade M

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417419, 420, 428, 427, 425, 426, 418, 417, 414, 413, 429, 430, 416, 415, 424,423
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6, 4.8, 3.2, 4.4, 5.4, 2.2, 3.0, 2.8 °C, IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST

NEWARK, NJ 07105
USA

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

BURLINGTON, VT 05403
USA



Ship Date: 03/13/2012
ActWgt: 35

Dims: 24 * 14 * 15 IN

Delivery Address Barcode



FXF230850800000313124

Ref#
Invoice# 0
PO# 7284906
Dept#

0001 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403
VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST



Ship Date: 03/13/2012
ActWgt: 35

Dims: 24 * 14 * 15 IN

NEWARK, NJ 07105
USA

Delivery Address Barcode



FXF230850800000313124

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

Ref#
Invoice# 0
PO# 7284966
Dept#

BURLINGTON, VT 05403
USA

0002 of 0008

TUE - 13 MAR
FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403
VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST



Ship Date: 03/13/2012
ActWgt: 35 Dims: 24 * 14 * 15 IN

NEWARK, NJ 07105
USA

Delivery Address Barcode



FXF2308508000000313124

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

Ref#
Invoice# 0
PO# 7284906
Dept#

BURLINGTON, VT 05403
USA

0003 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403

VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST



Ship Date: 03/13/2012
ActWgt: 35 Dims: 24 * 14 * 15 IN

NEWARK, NJ 07105
USA

Delivery Address Barcode



FXF230850800000313124

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

Ref#
Invoice# 0
PO# 7284906
Dept#

BURLINGTON, VT 05403
USA

0004 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403
VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST

NEWARK, NJ 07105
USA

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

BURLINGTON, VT 05403
USA



Ship Date: 03/13/2012
ActWgt: 35

Dims: 24 * 14 * 15 IN

Delivery Address Barcode



FXF230850800000313124

Ref#
Invoice# 0
PO# 7284906
Dept#

0005 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403

VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST



Ship Date: 03/13/2012
ActWgt: 35 Dims: 24 * 14 * 15 IN

NEWARK, NJ 07105
USA

Delivery Address Barcode



FXF230850800000313124

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

Ref#
Invoice# 0
PO# 7284906
Dept#

BURLINGTON, VT 05403
USA

0006 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403

VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST



Ship Date: 03/13/2012
ActWgt: 35

Dims: 24 * 14 * 15 IN

NEWARK, NJ 07105
USA

Delivery Address Barcode



FXF230850800000313124

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

Ref#
Invoice# 0
PO# 7284906
Dept#

BURLINGTON, VT 05403
USA

0007 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403
VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST

NEWARK, NJ 07105
USA

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

BURLINGTON, VT 05403
USA



Shlp Date: 03/13/2012
ActWgt: 35 Dims: 24 * 14 * 15 IN

Delivery Address Barcode



FXF2308508000000313124

Ref#
Invoice# 0
PO# 7284906
Dept#

0008 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403

VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-9783-2

SDG Number: PRR1152

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
3/19/2012 1:20 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
03/19/2012
Revision: 1

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	23
QC Results	24
Qc Association Summary	25
Surrogate Recovery Report	27
Qc Reports	28
Client Chain of Custody	36
Sample Receipt Checklist	37

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1152 (200-9783-2) - Revision 1

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met. Calibration and calibration verification were assessed on an analyte specific basis.

Calculations were performed before rounding to avoid round-off errors in calculated results.

Manual integration was employed in deriving certain of the analytical results.

For the Method 8151A analysis, positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

In performing the Method 8151A analysis, there was an acceptable recovery of the surrogate control in each of the analyses associated with the extraction set. There was an issue, however, with the recovery performance of dinoseb in the laboratory control sample analysis associated with the extraction set. In that analysis the recovery of dinoseb was 3 percent, while there was an acceptable recovery of the other target analytes. The matrix spike and matrix spike duplicate analyses exhibited a similar recovery performance of dinoseb, with the derived concentration in the matrix spike duplicate analysis falling below the established MDL value.

Based on the direction that was received by the project team, the laboratory did extract and analyze the samples a second time for herbicides by Method 8151A. This data set incorporates the results of those analyses. There was an acceptable recovery of the surrogate control in each of the secondary analyses associated with the extraction set. The recovery performance of dinoseb in the laboratory control sample analysis associated with the secondary extraction set was relatively low. In that analysis the recovery of dinoseb was 42 percent. There was an acceptable recovery of the other target analytes in that analysis. The matrix spike and matrix spike duplicate analyses exhibited a similar recovery performance of dinoseb. The recovery of dinoseb in the matrix spike analysis was 40 percent, while the recovery in the matrix spike duplicate analysis was 25 percent. For each of the other target analytes there was an appreciably lower recovery in the matrix spike analysis than there was in the matrix spike duplicate analysis.

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Herbicides (GC)	TAL BUR	SW846 8151A	
Extraction (Herbicides)	TAL BUR		SW846 8151A
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	
Organic Carbon, Total (TOC)	TAL BUR	SM SM 5310B	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Method	Analyst	Analyst ID
SW846 8151A	Hammond, Ryan J	RJH
SW846 8151A	Malaspina, Richard R	RRM
SM SM 2540D	Tam, Michelle N	MNT
SM SM 5310B	Sutton, Zachariah M	ZMS

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-9783-1	PRR1WATSMI-01	Water	03/13/2012 0400	03/13/2012 1350
200-9783-2	PRR1WATSME-01	Water	03/13/2012 0410	03/13/2012 1350
200-9783-3	PRR1WATSMI-02	Water	03/13/2012 0420	03/13/2012 1350
200-9783-4	PRR1WATSME-02	Water	03/13/2012 0430	03/13/2012 1350
200-9783-5	PRR1WATSMI-03	Water	03/13/2012 0445	03/13/2012 1350
200-9783-6	PRR1WATSME-03	Water	03/13/2012 0500	03/13/2012 1350
200-9783-6MS	PRR1WATSME-03	Water	03/13/2012 0500	03/13/2012 1350
200-9783-6MSD	PRR1WATSME-03	Water	03/13/2012 0500	03/13/2012 1350
200-9783-6DU	PRR1WATSME-03	Water	03/13/2012 0500	03/13/2012 1350

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-35037	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-34965	Initial Weight/Volume: 985 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 03/14/2012 2338		Injection Volume: 1 uL
Prep Date: 03/14/2012 1030		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	1.9	U	0.66	1.9
2,4-DB	1.7	U	0.48	1.7
Dinoseb	0.96	U *	0.19	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	78		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A

Analysis Batch: 200-35037

Instrument ID: 5005.i

Prep Method: 8151A

Prep Batch: 200-34965

Initial Weight/Volume: 985 mL

Dilution: 1.0

Final Weight/Volume: 10000 uL

Analysis Date: 03/14/2012 2338

Injection Volume: 1 uL

Prep Date: 03/14/2012 1030

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	76		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-35148	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-35085	Initial Weight/Volume: 1035 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 03/16/2012 1347	Run Type: RA	Injection Volume: 1 uL
Prep Date: 03/15/2012 1809		Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	1.8	U	0.63	1.8
2,4-DB	1.6	U	0.45	1.6
Dinoseb	0.92	U	0.18	0.92

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	91		60 - 130
2,4-Dichlorophenylacetic acid	96		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-35037	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-34965	Initial Weight/Volume: 980 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 03/15/2012 0013		Injection Volume: 1 uL
Prep Date: 03/14/2012 1030		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	1.9	U	0.66	1.9
2,4-DB	1.7	U	0.48	1.7
Dinoseb	0.97	U *	0.19	0.97

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	92		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A

Analysis Batch: 200-35037

Instrument ID: 5005.i

Prep Method: 8151A

Prep Batch: 200-34965

Initial Weight/Volume: 980 mL

Dilution: 1.0

Final Weight/Volume: 10000 uL

Analysis Date: 03/15/2012 0013

Injection Volume: 1 uL

Prep Date: 03/14/2012 1030

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	91		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-35148	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-35085	Initial Weight/Volume: 1015 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 03/16/2012 1423	Run Type: RA	Injection Volume: 1 uL
Prep Date: 03/15/2012 1809		Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	1.9	U	0.64	1.9
2,4-DB	1.7	U	0.46	1.7
Dinoseb	0.94	U	0.19	0.94

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	88		60 - 130
2,4-Dichlorophenylacetic acid	93		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-35037	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-34965	Initial Weight/Volume: 945 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 03/15/2012 0047		Injection Volume: 1 uL
Prep Date: 03/14/2012 1030		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	2.0	U	0.69	2.0
2,4-DB	1.8	U	0.50	1.8
Dinoseb	1.0	U *	0.20	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	91		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A

Analysis Batch: 200-35037

Instrument ID: 5005.i

Prep Method: 8151A

Prep Batch: 200-34965

Initial Weight/Volume: 945 mL

Dilution: 1.0

Final Weight/Volume: 10000 uL

Analysis Date: 03/15/2012 0047

Injection Volume: 1 uL

Prep Date: 03/14/2012 1030

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	89		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-35148	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-35085	Initial Weight/Volume: 1055 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 03/16/2012 1458	Run Type: RA	Injection Volume: 1 uL
Prep Date: 03/15/2012 1809		Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	1.8	U	0.62	1.8
2,4-DB	1.6	U	0.45	1.6
Dinoseb	0.90	U	0.18	0.90

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	67		60 - 130
2,4-Dichlorophenylacetic acid	70		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSMI-01

Lab Sample ID: 200-9783-1

Client Matrix: Water

Date Sampled: 03/13/2012 0400

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	63.3		mg/L	8.3	8.3	1.0	SM 2540D
Analysis Batch: 200-34976		Analysis Date: 03/14/2012 1127					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSME-01

Lab Sample ID: 200-9783-2

Date Sampled: 03/13/2012 0410

Client Matrix: Water

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	2.6	B	mg/L	0.14	1.0	1.0	SM 5310B
Analysis Batch: 200-35051		Analysis Date: 03/15/2012 0950					

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	15.5		mg/L	2.5	2.5	1.0	SM 2540D
Analysis Batch: 200-34976		Analysis Date: 03/14/2012 1127					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSMI-02

Lab Sample ID: 200-9783-3

Client Matrix: Water

Date Sampled: 03/13/2012 0420

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	60.0		mg/L	8.3	8.3	1.0	SM 2540D

Analysis Batch: 200-34976 Analysis Date: 03/14/2012 1127

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSME-02

Lab Sample ID: 200-9783-4

Date Sampled: 03/13/2012 0430

Client Matrix: Water

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	2.5	B	mg/L	0.14	1.0	1.0	SM 5310B
Analysis Batch: 200-35051		Analysis Date: 03/15/2012 1023					

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	17.0		mg/L	2.5	2.5	1.0	SM 2540D
Analysis Batch: 200-34976		Analysis Date: 03/14/2012 1127					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSMI-03

Lab Sample ID: 200-9783-5

Date Sampled: 03/13/2012 0445

Client Matrix: Water

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	56.7		mg/L	8.3	8.3	1.0	SM 2540D
Analysis Batch: 200-34976		Analysis Date: 03/14/2012 1127					

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

General Chemistry

Client Sample ID: PRR1WATSME-03

Lab Sample ID: 200-9783-6

Date Sampled: 03/13/2012 0500

Client Matrix: Water

Date Received: 03/13/2012 1350

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	2.4	B	mg/L	0.14	1.0	1.0	SM 5310B
Analysis Batch: 200-35051		Analysis Date: 03/15/2012 1055					

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Total Suspended Solids	15.6		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 200-34976		Analysis Date: 03/14/2012 1127					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Lab Section	Qualifier	Description
GC Semi VOA	U	Indicates the analyte was analyzed for but not detected.
	F	MS/MSD Recovery or RPD exceeds the control limits
	*	Recovery or RPD exceeds control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-34965					
LCS 200-34965/2-A	Lab Control Sample	T	Water	8151A	
MB 200-34965/1-A	Method Blank	T	Water	8151A	
200-9783-2	PRR1WATSME-01	T	Water	8151A	
200-9783-4	PRR1WATSME-02	T	Water	8151A	
200-9783-6	PRR1WATSME-03	T	Water	8151A	
200-9783-6MS	Matrix Spike	T	Water	8151A	
200-9783-6MSD	Matrix Spike Duplicate	T	Water	8151A	
Analysis Batch:200-35037					
LCS 200-34965/2-A	Lab Control Sample	T	Water	8151A	200-34965
MB 200-34965/1-A	Method Blank	T	Water	8151A	200-34965
200-9783-2	PRR1WATSME-01	T	Water	8151A	200-34965
200-9783-4	PRR1WATSME-02	T	Water	8151A	200-34965
200-9783-6	PRR1WATSME-03	T	Water	8151A	200-34965
200-9783-6MS	Matrix Spike	T	Water	8151A	200-34965
200-9783-6MSD	Matrix Spike Duplicate	T	Water	8151A	200-34965
Prep Batch: 200-35085					
LCS 200-35085/2-ARA	Lab Control Sample	T	Water	8151A	
MB 200-35085/1-ARA	Method Blank	T	Water	8151A	
200-9783-2RA	PRR1WATSME-01	T	Water	8151A	
200-9783-4RA	PRR1WATSME-02	T	Water	8151A	
200-9783-6RA	PRR1WATSME-03	T	Water	8151A	
200-9783-6MSRA	Matrix Spike	T	Water	8151A	
200-9783-6MSDRA	Matrix Spike Duplicate	T	Water	8151A	
Analysis Batch:200-35148					
LCS 200-35085/2-ARA	Lab Control Sample	T	Water	8151A	200-35085
MB 200-35085/1-ARA	Method Blank	T	Water	8151A	200-35085
200-9783-2RA	PRR1WATSME-01	T	Water	8151A	200-35085
200-9783-4RA	PRR1WATSME-02	T	Water	8151A	200-35085
200-9783-6RA	PRR1WATSME-03	T	Water	8151A	200-35085
200-9783-6MSRA	Matrix Spike	T	Water	8151A	200-35085
200-9783-6MSDRA	Matrix Spike Duplicate	T	Water	8151A	200-35085

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:200-34976					
LCS 200-34976/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-34976/1	Method Blank	T	Water	SM 2540D	
200-9783-1	PRR1WATSMI-01	T	Water	SM 2540D	
200-9783-2	PRR1WATSME-01	T	Water	SM 2540D	
200-9783-3	PRR1WATSMI-02	T	Water	SM 2540D	
200-9783-4	PRR1WATSME-02	T	Water	SM 2540D	
200-9783-5	PRR1WATSMI-03	T	Water	SM 2540D	
200-9783-6	PRR1WATSME-03	T	Water	SM 2540D	
200-9783-6DU	Duplicate	T	Water	SM 2540D	
Analysis Batch:200-35051					
LCS 200-35051/1	Lab Control Sample	T	Water	SM 5310B	
LCS 200-35051/11	Lab Control Sample	T	Water	SM 5310B	
MB 200-35051/12	Method Blank	T	Water	SM 5310B	
MB 200-35051/2	Method Blank	T	Water	SM 5310B	
200-9783-2	PRR1WATSME-01	T	Water	SM 5310B	
200-9783-4	PRR1WATSME-02	T	Water	SM 5310B	
200-9783-6	PRR1WATSME-03	T	Water	SM 5310B	
200-9783-6DU	Duplicate	T	Water	SM 5310B	
200-9783-6MS	Matrix Spike	T	Water	SM 5310B	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

Sdg Number: PRR1152

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
200-9783-2	PRR1WATSME-01	76	78
200-9783-2 RA	PRR1WATSME-01 RA	91	96
200-9783-4	PRR1WATSME-02	91	92
200-9783-4 RA	PRR1WATSME-02 RA	88	93
200-9783-6	PRR1WATSME-03	91	89
200-9783-6 RA	PRR1WATSME-03 RA	67	70
MB 200-34965/1-A		73	73
MB 200-35085/1-A RA		98	103
LCS 200-34965/2-A		95	94
LCS 200-35085/2-A RA		113	116
200-9783-6 MS	PRR1WATSME-03 MS	77	82
200-9783-6 MS RA	PRR1WATSME-03 MS RA	69	76
200-9783-6 MSD	PRR1WATSME-03 MSD	87	90
200-9783-6 MSD RA	PRR1WATSME-03 MSD RA	90	98

Surrogate

Acceptance Limits

DCPA = 2,4-Dichlorophenylacetic acid

60-130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

Method Blank - Batch: 200-34965

Method: 8151A
Preparation: 8151A

Lab Sample ID: MB 200-34965/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 2228
Prep Date: 03/14/2012 1030
Leach Date: N/A

Analysis Batch: 200-35037
Prep Batch: 200-34965
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 14ma121608-r011.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	73		60 - 130	
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	73		60 - 130	

Lab Control Sample - Batch: 200-34965

Method: 8151A
Preparation: 8151A

Lab Sample ID: LCS 200-34965/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/14/2012 2303
Prep Date: 03/14/2012 1030
Leach Date: N/A

Analysis Batch: 200-35037
Prep Batch: 200-34965
Leach Batch: N/A
Units: ug/L

Instrument ID: 5005.i
Lab File ID: 14ma121608-r021.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	7.68	96	75 - 135	
2,4-DB	4.02	4.21	105	40 - 165	
Dinoseb	4.00	0.95	3	10 - 115	U *
Surrogate		% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid		95		60 - 130	
Surrogate		% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid		94		60 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-34965**

**Method: 8151A
Preparation: 8151A**

MS Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 0157
Prep Date: 03/14/2012 1030
Leach Date: N/A

Analysis Batch: 200-35037
Prep Batch: 200-34965
Leach Batch: N/A

Instrument ID: 5005.i
Lab File ID: 14ma121608-r071.d
Initial Weight/Volume: 1055 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 0122
Prep Date: 03/14/2012 1030
Leach Date: N/A

Analysis Batch: 200-35037
Prep Batch: 200-34965
Leach Batch: N/A

Instrument ID: 5005.i
Lab File ID: 14ma121608-r061.d
Initial Weight/Volume: 990 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
2,4-D	67	77	70 - 135	20	30	F	
2,4-DB	69	82	40 - 165	23	30		
Dinoseb	9	0	10 - 115	NC	30	J F	U F
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
2,4-Dichlorophenylacetic acid	82		90	60 - 130			
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
2,4-Dichlorophenylacetic acid	77		87	60 - 130			

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

Method Blank - Batch: 200-35085

**Method: 8151A
Preparation: 8151A**

Lab Sample ID: MB 200-35085/1-ARA	Analysis Batch: 200-35148	Instrument ID: 5005.i
Client Matrix: Water	Prep Batch: 200-35085	Lab File ID: 16ma120750-r081.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/16/2012 1201	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 03/15/2012 1809	Run Type: RA	Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	103	60 - 130
2,4-Dichlorophenylacetic acid	98	60 - 130

Lab Control Sample - Batch: 200-35085

**Method: 8151A
Preparation: 8151A**

Lab Sample ID: LCS 200-35085/2-ARA	Analysis Batch: 200-35148	Instrument ID: 5005.i
Client Matrix: Water	Prep Batch: 200-35085	Lab File ID: 16ma120750-r091.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/16/2012 1236	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 03/15/2012 1809	Run Type: RA	Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	8.35	104	75 - 135	
2,4-DB	4.02	4.41	110	40 - 165	
Dinoseb	4.00	1.70	42	10 - 115	

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	113	60 - 130
2,4-Dichlorophenylacetic acid	116	60 - 130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-35085**

**Method: 8151A
Preparation: 8151A**

MS Lab Sample ID: 200-9783-6RA
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/16/2012 1534
Prep Date: 03/15/2012 1809
Leach Date: N/A

Analysis Batch: 200-35148
Prep Batch: 200-35085
Leach Batch: N/A
Run Type: RA

Instrument ID: 5005.i
Lab File ID: 16ma120750-r141.d
Initial Weight/Volume: 1010 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

MSD Lab Sample ID: 200-9783-6RA
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/16/2012 1609
Prep Date: 03/15/2012 1809
Leach Date: N/A

Analysis Batch: 200-35148
Prep Batch: 200-35085
Leach Batch: N/A
Run Type: RA

Instrument ID: 5005.i
Lab File ID: 16ma120750-r151.d
Initial Weight/Volume: 910 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
2,4-D	54	78	70 - 135	46	30	F	F
2,4-DB	51	74	40 - 165	47	30		F
Dinoseb	40	25	10 - 115	35	30		F
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
2,4-Dichlorophenylacetic acid	69		98	60 - 130			
2,4-Dichlorophenylacetic acid	69		90	60 - 130			
2,4-Dichlorophenylacetic acid	76		98	60 - 130			
2,4-Dichlorophenylacetic acid	76		90	60 - 130			

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

Method Blank - Batch: 200-34976

Method: SM 2540D
Preparation: N/A

Lab Sample ID: MB 200-34976/1	Analysis Batch: 200-34976	Instrument ID: No Equipment
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/14/2012 1127	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Result	Qual	RL	RL
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-34976

Method: SM 2540D
Preparation: N/A

Lab Sample ID: LCS 200-34976/2	Analysis Batch: 200-34976	Instrument ID: No Equipment
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 50 mL
Analysis Date: 03/14/2012 1127	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	476.0	95	85 - 115	

Duplicate - Batch: 200-34976

Method: SM 2540D
Preparation: N/A

Lab Sample ID: 200-9783-6	Analysis Batch: 200-34976	Instrument ID: No Equipment
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 250 mL
Analysis Date: 03/14/2012 1127	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	15.6	15.20	3	5	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

Method Blank - Batch: 200-35051

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-35051/2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 0918
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-35051
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 031512A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.14	1.0

Method Blank - Batch: 200-35051

Method: SM 5310B
Preparation: N/A

Lab Sample ID: MB 200-35051/12
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 1200
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-35051
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 031512A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	0.165	J	0.14	1.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

Lab Control Sample - Batch: 200-35051

Method: SM 5310B
Preparation: N/A

Lab Sample ID: LCS 200-35051/1	Analysis Batch: 200-35051	Instrument ID: WCCH4
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 031512A.txt
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume:
Analysis Date: 03/15/2012 0901	Units: mg/L	Final Weight/Volume: 40 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	10.06	101	85 - 115	

Lab Control Sample - Batch: 200-35051

Method: SM 5310B
Preparation: N/A

Lab Sample ID: LCS 200-35051/11	Analysis Batch: 200-35051	Instrument ID: WCCH4
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 031512A.txt
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume:
Analysis Date: 03/15/2012 1144	Units: mg/L	Final Weight/Volume: 40 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.93	99	85 - 115	

Matrix Spike - Batch: 200-35051

Method: SM 5310B
Preparation: N/A

Lab Sample ID: 200-9783-6	Analysis Batch: 200-35051	Instrument ID: WCCH4
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 031512A.txt
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume:
Analysis Date: 03/15/2012 1126	Units: mg/L	Final Weight/Volume: 20 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	2.4	5.00	7.48	102	85 - 115	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2
Sdg Number: PRR1152

Duplicate - Batch: 200-35051

Method: SM 5310B
Preparation: N/A

Lab Sample ID: 200-9783-6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/15/2012 1111
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-35051
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 031512A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Organic Carbon	2.4	2.12	12	20	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-9783-2

SDG Number: PRR1152

Login Number: 9783

List Source: TestAmerica Burlington

List Number: 2

Creator: Matot, Wade M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417419, 420, 428, 427, 425, 426, 418, 417, 414, 413, 429, 430, 416, 415, 424,423
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6, 4.8, 3.2, 4.4, 5.4, 2.2, 3.0, 2.8 °C, IR gun ID 154, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST

NEWARK, NJ 07105
USA

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

BURLINGTON, VT 05403
USA



Ship Date: 03/13/2012
ActWgt: 35

Dims: 24 * 14 * 15 IN

Delivery Address Barcode



FXF230850800000313124

Ref#
Invoice# 0
PO# 7284906
Dept#

0001 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403
VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST



Ship Date: 03/13/2012
ActWgt: 35

Dims: 24 * 14 * 15 IN

NEWARK, NJ 07105
USA

Delivery Address Barcode



EXF230850800000313124

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

Ref#
Invoice# 0
PO# 7284966
Dept#

BURLINGTON, VT 05403
USA

0002 of 0008

TUE - 13 MAR
FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403
VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST



Ship Date: 03/13/2012
ActWgt: 35 Dims: 24 * 14 * 15 IN

NEWARK, NJ 07105
USA

Delivery Address Barcode



FXF2308508000000313124

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

Ref#
Invoice# 0
PO# 7284906
Dept#

BURLINGTON, VT 05403
USA

0003 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403

VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST

NEWARK, NJ 07105
USA

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

BURLINGTON, VT 05403
USA



Ship Date: 03/13/2012
ActWgt: 35 Dims: 24 * 14 * 15 IN

Delivery Address Barcode



FXF230850800000313124

Ref#
Invoice# 0
PO# 7284906
Dept#

0004 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403
VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST

NEWARK, NJ 07105
USA

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

BURLINGTON, VT 05403
USA



Ship Date: 03/13/2012
ActWgt: 35

Dims: 24 * 14 * 15 IN

Delivery Address Barcode



FXF230850800000313124

Ref#
Invoice# 0
PO# 7284906
Dept#

0005 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403

VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST



Ship Date: 03/13/2012
ActWgt: 35 Dims: 24 * 14 * 15 IN

NEWARK, NJ 07105
USA

Delivery Address Barcode



FXF230850800000313124

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

Ref#
Invoice# 0
PO# 7284906
Dept#

BURLINGTON, VT 05403
USA

0006 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403
VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST



Ship Date: 03/13/2012
ActWgt: 35

Dims: 24 * 14 * 15 IN

NEWARK, NJ 07105
USA

Delivery Address Barcode



FXF230850800000313124

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

Ref#
Invoice# 0
PO# 7284906
Dept#

BURLINGTON, VT 05403
USA

0007 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403
VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (315) 439-2198
THOMAS OROURKE
ARCADIS
117 BLANCHARD ST

NEWARK, NJ 07105
USA

SHIP TO: (802) 92-3 1
KIRK YOUNG
TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11

BURLINGTON, VT 05403
USA



Shlp Date: 03/13/2012
ActWgt: 35 Dims: 24 * 14 * 15 IN

Delivery Address Barcode



FXF2308508000000313124

Ref#
Invoice# 0
PO# 7284906
Dept#

0008 of 0008

TUE - 13 MAR

FedEx SameDay Freight 3:20PM

TRK#

Mstr# 230850800000

05403

VT-US

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ANALYTICAL REPORT

Job Number: 200-9935-1

SDG Number: PRR1165

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
3/22/2012 12:05 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
03/22/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	14
QC Results	15
Qc Association Summary	16
Surrogate Recovery Report	17
Qc Reports	19
Client Chain of Custody	20
Sample Receipt Checklist	21

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1165 (200- 9935-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 03/21/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 4.0 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set. A trace concentration of chlorobenzene was identified in the analysis of the instrument blank that followed the more concentrated analysis of sample PRR1WATGACI-01. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9935-1

Sdg Number: PRR1165

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Trace Water	TAL BUR	SOM01.2	SOM01.2/VOA_Tr
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9935-1
Sdg Number: PRR1165

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9935-1

Sdg Number: PRR1165

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-9935-1	PRR1WATGACI-01	Water	03/20/2012 1655	03/21/2012 0910
200-9935-2	PRR1WATGACE-01	Water	03/20/2012 1705	03/21/2012 0910
200-9935-3	TB3202012	Water	03/20/2012 1710	03/21/2012 0910
200-9935-4STOBLK	VHBLK01	Water	03/21/2012 0935	03/21/2012 0910

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9935-1

Sdg Number: PRR1165

Client Sample ID: PRR1WATGACI-01

Lab Sample ID: 200-9935-1

Date Sampled: 03/20/2012 1655

Client Matrix: Water

Date Received: 03/21/2012 0910

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jddh09.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/21/2012 1507			Final Weight/Volume:	25 mL
Prep Date:	03/21/2012 1507				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	4.5	J	10
Chlorobenzene	50	E B	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	107		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	110		49 - 155
Chloroform-d	97		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	91		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	101		73 - 121
2-Hexanone-d5	104		28 - 135
1,1,2,2-Tetrachloroethane-d2	105		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9935-1

Sdg Number: PRR1165

Client Sample ID: PRR1WATGACI-01

Lab Sample ID: 200-9935-1

Date Sampled: 03/20/2012 1655

Client Matrix: Water

Date Received: 03/21/2012 0910

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jddh05.d
Dilution:	4.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/21/2012 1331	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	03/21/2012 1331				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	20	U	20
Chlorobenzene	54	D	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	110		65 - 131
Chloroethane-d5	106		71 - 131
1,1-Dichloroethene-d2	84		55 - 104
2-Butanone-d5	93		49 - 155
Chloroform-d	98		78 - 121
1,2-Dichloroethane-d4	101		78 - 129
Benzene-d6	105		77 - 124
1,2-Dichloropropane-d6	90		79 - 124
Toluene-d8	105		77 - 121
trans-1,3-Dichloropropene-d4	100		73 - 121
2-Hexanone-d5	79		28 - 135
1,1,2,2-Tetrachloroethane-d2	96		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9935-1

Sdg Number: PRR1165

Client Sample ID: PRR1WATGACE-01

Lab Sample ID: 200-9935-2

Date Sampled: 03/20/2012 1705

Client Matrix: Water

Date Received: 03/21/2012 0910

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jddh06.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/21/2012 1355			Final Weight/Volume:	25 mL
Prep Date:	03/21/2012 1355				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	112		65 - 131
Chloroethane-d5	108		71 - 131
1,1-Dichloroethene-d2	84		55 - 104
2-Butanone-d5	115		49 - 155
Chloroform-d	104		78 - 121
1,2-Dichloroethane-d4	112		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121
2-Hexanone-d5	112		28 - 135
1,1,2,2-Tetrachloroethane-d2	110		73 - 125
1,2-Dichlorobenzene-d4	106		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9935-1

Sdg Number: PRR1165

Client Sample ID: TB3202012

Lab Sample ID: 200-9935-3

Date Sampled: 03/20/2012 1710

Client Matrix: Water

Date Received: 03/21/2012 0910

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jddh07.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/21/2012 1419			Final Weight/Volume:	25 mL
Prep Date:	03/21/2012 1419				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	115		65 - 131
Chloroethane-d5	109		71 - 131
1,1-Dichloroethene-d2	85		55 - 104
2-Butanone-d5	108		49 - 155
Chloroform-d	103		78 - 121
1,2-Dichloroethane-d4	107		78 - 129
Benzene-d6	104		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	104		77 - 121
trans-1,3-Dichloropropene-d4	103		73 - 121
2-Hexanone-d5	99		28 - 135
1,1,2,2-Tetrachloroethane-d2	103		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9935-1

Sdg Number: PRR1165

Client Sample ID: VHBLK01

Lab Sample ID: 200-9935-4STOBLK

Date Sampled: 03/21/2012 0935

Client Matrix: Water

Date Received: 03/21/2012 0910

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35417	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jddh11.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/21/2012 1556			Final Weight/Volume:	25 mL
Prep Date:	03/21/2012 1556				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	114		65 - 131
Chloroethane-d5	111		71 - 131
1,1-Dichloroethene-d2	85		55 - 104
2-Butanone-d5	102		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	104		78 - 129
Benzene-d6	105		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	106		77 - 121
trans-1,3-Dichloropropene-d4	101		73 - 121
2-Hexanone-d5	87		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	105		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-9935-1

Sdg Number: PRR1165

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	B	The analyte was found in an associated blank, as well as in the sample.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9935-1

Sdg Number: PRR1165

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-35417					
MB 200-35417/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-9935-1	PRR1WATGACI-01	T	Water	SOM01.2/VOA_T	
200-9935-1DL	PRR1WATGACI-01	T	Water	SOM01.2/VOA_T	
200-9935-2	PRR1WATGACE-01	T	Water	SOM01.2/VOA_T	
200-9935-3	TB3202012	T	Water	SOM01.2/VOA_T	
200-9935-4STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9935-1
Sdg Number: PRR1165

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-9935-1 DL	PRR1WATGACI-01 DL	110	106	84	93	98	101	105	90
200-9935-1	PRR1WATGACI-01	107	103	80	110	97	104	100	91
200-9935-2	PRR1WATGACE-01	112	108	84	115	104	112	102	92
200-9935-3	TB3202012	115	109	85	108	103	107	104	92
200-9935-4	VHBLK01	114	111	85	102	102	104	105	92
MB 200-35417/4		110	108	83	104	101	106	104	90

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9935-1

Sdg Number: PRR1165

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-9935-1 DL	PRR1WATGACI-01 DL	105	100	79	96	100
200-9935-1	PRR1WATGACI-01	101	101	104	105	103
200-9935-2	PRR1WATGACE-01	101	104	112	110	106
200-9935-3	TB3202012	104	103	99	103	105
200-9935-4	VHBLK01	106	101	87	99	105
MB 200-35417/4		102	102	93	99	104

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9935-1

Sdg Number: PRR1165

Method Blank - Batch: 200-35417

Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR

Lab Sample ID: MB 200-35417/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/21/2012 1235
Prep Date: 03/21/2012 1235
Leach Date: N/A

Analysis Batch: 200-35417
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jddh04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	110	65 - 131
Chloroethane-d5	108	71 - 131
1,1-Dichloroethene-d2	83	55 - 104
2-Butanone-d5	104	49 - 155
Chloroform-d	101	78 - 121
1,2-Dichloroethane-d4	106	78 - 129
Benzene-d6	104	77 - 124
1,2-Dichloropropane-d6	90	79 - 124
Toluene-d8	102	77 - 121
trans-1,3-Dichloropropene-d4	102	73 - 121
2-Hexanone-d5	93	28 - 135
1,1,2,2-Tetrachloroethane-d2	99	73 - 125
1,2-Dichlorobenzene-d4	104	80 - 131

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-9935-1

SDG Number: PRR1165

Login Number: 9935

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417839, 840
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.0°C, IR GUN ID 154, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

FedEx Express **NEW Package US Airbill**

FedEx Tracking Number

8769 0286 0398

0200 Form 9 No.

FedEx Retrieval Copy

1 From
 Date 3/20/12 Sender's FedEx Account Number 301995327
 Sender's Name MIKE PELENGRI Phone 732 575-1275
 Company ARRADIS
 Address 117 BLANCHARD ST
 City NEWARK State NJ ZIP 07105

2 Your Internal Billing Reference 800 968 0002 70004

3 To
 Recipient's Name KIRK YOUNG Phone _____
 Company TEST AMERICA
 Address 30 COMMUNITY AVE SUITE 11
 We cannot deliver to P.O. boxes or P.O. ZIP codes.
 City SOUTH BURLINGTON State VT ZIP 05402

01 HOLD Weekday
 For locations address REUSE: NOT available for FedEx First Overnight.
31 HOLD Saturday
 For locations address REUSE: Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

4 Express Package Service *To most locations. NOTE: Service order has changed. Please select carefully. Packages up to 150 lb. For packages over 150 lbs, use the FedEx Express Fragile US Airbill.

Next Business Day **2nd Business Day**

06 **FedEx First Overnight**
 Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

01 **FedEx Priority Overnight**
 Next business morning. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

05 **FedEx Standard Overnight**
 Next business afternoon. Saturday Delivery NOT available.

49 **NEW FedEx 2Day A.M.**
 Second business morning. Saturday Delivery NOT available.

03 **FedEx 2Day**
 Second business afternoon. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

20 **FedEx Express Saver**
 Third business day. Saturday Delivery NOT available.

5 Packaging *Declared value limit \$500.

06 FedEx Envelope* **02** FedEx Pak* **03** FedEx Box **04** FedEx Tube **01** Other

6 Special Handling and Delivery Signature Options

03 **SATURDAY DELIVERY**

No Signature Required
 Package may be left without obtaining a signature for delivery.

10 **Direct Signature**
 Someone at recipient's address may sign for delivery. Fee applies.

34 **Indirect Signature**
 Someone at a business address, someone at a shipping address, or someone at a delivery address may sign for delivery. Fee applies.

Does this shipment contain dangerous goods?
 One box must be checked.
 No **04** **Yes** As per required Shipping Declaration **Yes** Shipper's Declaration **06** **Dry Ice** Dry Ice, AUN155
 Dangerous goods (including dry ice) can only be shipped in FedEx packaging or placed in a FedEx Express Drop Box. **Cargo Aircraft Only**

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below. Other in receipt. Acct. No. _____

1 **Sender** Acct. No. in Section 109 to be billed. **2** **Recipient** **3** **Third Party** **4** **Credit Card** **5** **Cash/Check**

Total Packages _____ Total Weight _____ Credit Card Acct. _____



8769 0286 0398

Rev. Date 11/10 • Part #163138 • ©1994-2010 FedEx • PRINTED IN U.S.A. SRY



ANALYTICAL REPORT

Job Number: 200-9960-1

SDG Number: PRR1168

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
3/29/2012 2:26 PM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
03/29/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	31
QC Results	32
Qc Association Summary	33
Surrogate Recovery Report	37
Qc Reports	43
Client Chain of Custody	60
Sample Receipt Checklist	62

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1168 (200-9960-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis.

Manual integration was employed in deriving certain of the analytical results.

Positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1
Sdg Number: PRR1168

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Trace Water	TAL BUR	SOM01.2 SOM01.2/VOA_Tr	
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR
Semivolatiles	TAL BUR	SOM01.2 SOM01.2/SV	
Extraction of Water Samples	TAL BUR		SOM01.2 CONT
Aroclors	TAL BUR	SOM01.2 SOM01.2/PCB	
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Sulfuric Acid/Permanganate Cleanup	TAL BUR		SOM01.2 SOM01.2/SO4CU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Extraction of Low level Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
Pesticides	TAL BUR	SOM01.2 SOM01.2/Pest	
Extraction of Water Samples	TAL BUR		SOM01.2 SEPF
Florisil Cleanup	TAL BUR		SOM01.2 SOM01.2/FLCU
ISM01.2 Mercury	TAL BUR	ISM01.2 ISM01.2/HG	
7470A	TAL BUR		SW846 7470A
ISM01.2 Metals (ICPMS)	TAL BUR	ISM01.2 ISM01.2/ICPMS	
200.8	TAL BUR		EPA 200.8
ISM01.2 Cyanide	TAL BUR	ISM01.2 ISM01.2/CN	
Midi-distillation	TAL BUR		ISM01.1 Midi-Distillati

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

ISM01.1 = U.S. Environmental Protection Agency

ISM01.2 = U.S. Environmental Protection Agency

SOM01.2 = U.S. Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP
SOM01.2 SOM01.2/SV	Bissonette, Donald J	DJB
SOM01.2 SOM01.2/PCB	Duncan, Stacey L	SLD
SOM01.2 SOM01.2/Pest	Malaspina, Richard R	RRM
SOM01.2 SOM01.2/Pest	Toomey, Lisa M	LMT
ISM01.2 ISM01.2/HG	Pham, Vu T	VTP
ISM01.2 ISM01.2/ICPMS	Lyons, Benjamin	BL
ISM01.2 ISM01.2/CN	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-9960-1	PRR1WATCME-03	Water	03/21/2012 1030	03/22/2012 0900
200-9960-2	TB03212012	Water	03/21/2012 0000	03/22/2012 0900
200-9960-3STOBLK	VHBLK01	Water	03/22/2012 1037	03/22/2012 0900
200-9964-1	PRR1WATCMI-03	Water	03/22/2012 1040	03/22/2012 0900
200-9964-2	VHBLK02	Water	03/22/2012 0000	03/22/2012 0900

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-35585	Instrument ID: J.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: jdea12.d
Dilution: 2.0		Initial Weight/Volume: 25 mL
Analysis Date: 03/23/2012 1607		Final Weight/Volume: 25 mL
Prep Date: 03/23/2012 1607		

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	1.0	U	1.0
Vinyl chloride	1.0	U	1.0
Bromomethane	1.0	U	1.0
Chloroethane	1.0	U	1.0
Acrolein	10	U	10
1,1-Dichloroethene	1.0	U	1.0
Methylene chloride	1.0	U	1.0
Acrylonitrile	10	U	10
trans-1,2-Dichloroethene	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
2-Butanone	10	U	10
Chloroform	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
Carbon tetrachloride	1.0	U	1.0
Benzene	1.0	U	1.0
1,2-Dichloroethane	1.0	U	1.0
Trichloroethene	1.0	U	1.0
1,2-Dichloropropane	1.0	U	1.0
Bromodichloromethane	1.0	U	1.0
cis-1,3-Dichloropropene	1.0	U	1.0
Toluene	1.0	U	1.0
trans-1,3-Dichloropropene	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0
Tetrachloroethene	1.0	U	1.0
Dibromochloromethane	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Ethylbenzene	1.0	U	1.0
Bromoform	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
1,2,3-Trichlorobenzene	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	103		65 - 131
Chloroethane-d5	106		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	111		49 - 155
Chloroform-d	103		78 - 121
1,2-Dichloroethane-d4	108		78 - 129
Benzene-d6	105		77 - 124
1,2-Dichloropropane-d6	97		79 - 124
Toluene-d8	107		77 - 121
trans-1,3-Dichloropropene-d4	105		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35585	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdea12.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/23/2012 1607			Final Weight/Volume:	25 mL
Prep Date:	03/23/2012 1607				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	125		28 - 135
1,1,2,2-Tetrachloroethane-d2	103		73 - 125
1,2-Dichlorobenzene-d4	104		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: TB03212012

Lab Sample ID: 200-9960-2

Date Sampled: 03/21/2012 0000

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-35585	Instrument ID: J.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: jdea13.d
Dilution: 1.0		Initial Weight/Volume: 25 mL
Analysis Date: 03/23/2012 1631		Final Weight/Volume: 25 mL
Prep Date: 03/23/2012 1631		

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	5.0	U	5.0
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	5.0	U	5.0
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	95		65 - 131
Chloroethane-d5	96		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	97		49 - 155
Chloroform-d	94		78 - 121
1,2-Dichloroethane-d4	96		78 - 129
Benzene-d6	96		77 - 124
1,2-Dichloropropane-d6	87		79 - 124
Toluene-d8	95		77 - 121
trans-1,3-Dichloropropene-d4	93		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: TB03212012

Lab Sample ID: 200-9960-2

Date Sampled: 03/21/2012 0000

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr
Prep Method: SOM01.2/VOA_PR
Dilution: 1.0
Analysis Date: 03/23/2012 1631
Prep Date: 03/23/2012 1631

Analysis Batch: 200-35585
Prep Batch: N/A

Instrument ID: J.i
Lab File ID: jdea13.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	106		28 - 135
1,1,2,2-Tetrachloroethane-d2	92		73 - 125
1,2-Dichlorobenzene-d4	94		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: VHBLK01

Lab Sample ID: 200-9960-3STOBLK

Date Sampled: 03/22/2012 1037

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method: SOM01.2/VOA_Tr	Analysis Batch: 200-35585	Instrument ID: J.i
Prep Method: SOM01.2/VOA_PR	Prep Batch: N/A	Lab File ID: jdea14.d
Dilution: 1.0		Initial Weight/Volume: 25 mL
Analysis Date: 03/23/2012 1656		Final Weight/Volume: 25 mL
Prep Date: 03/23/2012 1656		

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	5.0	U	5.0
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	5.0	U	5.0
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	103		65 - 131
Chloroethane-d5	105		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	104		49 - 155
Chloroform-d	102		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	106		77 - 124
1,2-Dichloropropane-d6	94		79 - 124
Toluene-d8	106		77 - 121
trans-1,3-Dichloropropene-d4	101		73 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: VHBLK01

Lab Sample ID: 200-9960-3STOBLK

Date Sampled: 03/22/2012 1037

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35585	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdea14.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/23/2012 1656			Final Weight/Volume:	25 mL
Prep Date:	03/23/2012 1656				

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Hexanone-d5	108		28 - 135
1,1,2,2-Tetrachloroethane-d2	99		73 - 125
1,2-Dichlorobenzene-d4	103		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCMI-03

Lab Sample ID: 200-9964-1

Date Sampled: 03/22/2012 1040

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35585	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdea15.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/23/2012 1720			Final Weight/Volume:	25 mL
Prep Date:	03/23/2012 1720				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	8.4	J	10
1,2,3-Trichlorobenzene	0.65	J	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	95		65 - 131
Chloroethane-d5	99		71 - 131
1,1-Dichloroethene-d2	75		55 - 104
2-Butanone-d5	104		49 - 155
Chloroform-d	95		78 - 121
1,2-Dichloroethane-d4	103		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	101		77 - 121
trans-1,3-Dichloropropene-d4	99		73 - 121
2-Hexanone-d5	122		28 - 135
1,1,2,2-Tetrachloroethane-d2	104		73 - 125
1,2-Dichlorobenzene-d4	99		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: VHBLK02

Lab Sample ID: 200-9964-2

Date Sampled: 03/22/2012 0000

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35585	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdea17.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/23/2012 1808			Final Weight/Volume:	25 mL
Prep Date:	03/23/2012 1808				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	97		65 - 131
Chloroethane-d5	99		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	100		49 - 155
Chloroform-d	97		78 - 121
1,2-Dichloroethane-d4	102		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	97		73 - 121
2-Hexanone-d5	108		28 - 135
1,1,2,2-Tetrachloroethane-d2	93		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/SV Semivolatiles

Analysis Method: SOM01.2/SV	Analysis Batch: 200-35753	Instrument ID: R.i
Prep Method: CONT	Prep Batch: 200-35510	Lab File ID: rjtnl06.d
Dilution: 1.0		Initial Weight/Volume: 1055 mL
Analysis Date: 03/27/2012 0803		Final Weight/Volume: 1000 uL
Prep Date: 03/23/2012 1051		Injection Volume: 2 uL

Analyte	Result (ug/L)	Qualifier	RL
N-Nitrosodimethylamine	9.5	U	9.5
Phenol	4.7	U	4.7
Bis(2-chloroethyl)ether	4.7	U	4.7
2-Chlorophenol	4.7	U	4.7
2,2'-Oxybis(1-chloropropane)	4.7	U	4.7
Hexachloroethane	4.7	U	4.7
Nitrobenzene	4.7	U	4.7
Isophorone	4.7	U	4.7
2-Nitrophenol	4.7	U	4.7
2,4-Dimethylphenol	4.7	U	4.7
2,4-Dichlorophenol	4.7	U	4.7
Naphthalene	4.7	U	4.7
Hexachlorobutadiene	4.7	U	4.7
Hexachlorocyclopentadiene	4.7	U	4.7
2,4,6-Trichlorophenol	4.7	U	4.7
2,4,5-Trichlorophenol	4.7	U	4.7
Dimethylphthalate	4.7	U	4.7
2,6-Dinitrotoluene	4.7	U	4.7
2,4-Dinitrophenol	9.5	U	9.5
4-Nitrophenol	9.5	U	9.5
2,4-Dinitrotoluene	4.7	U	4.7
Diethylphthalate	4.7	U	4.7
Fluorene	4.7	U	4.7
4,6-Dinitro-2-methylphenol	9.5	U	9.5
N-Nitrosodiphenylamine	4.7	U	4.7
Hexachlorobenzene	4.7	U	4.7
Pentachlorophenol	9.5	U	9.5
Phenanthrene	4.7	U	4.7
Anthracene	4.7	U	4.7
Di-n-butylphthalate	4.7	U	4.7
Fluoranthene	4.7	U	4.7
Benzidine	9.5	U	9.5
Pyrene	4.7	U	4.7
Butylbenzylphthalate	0.23	J B	4.7
3,3'-Dichlorobenzidine	4.7	U	4.7
Benzo(a)anthracene	4.7	U	4.7
Chrysene	4.7	U	4.7
Bis(2-ethylhexyl)phthalate	0.98	J	4.7
Benzo(b)fluoranthene	4.7	U	4.7
Benzo(k)fluoranthene	4.7	U	4.7
Benzo(a)pyrene	4.7	U	4.7
Indeno(1,2,3-cd)pyrene	4.7	U	4.7
Dibenzo(a,h)anthracene	4.7	U	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	93		39 - 106

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/SV Semivolatiles

Analysis Method: SOM01.2/SV	Analysis Batch: 200-35753	Instrument ID: R.i
Prep Method: CONT	Prep Batch: 200-35510	Lab File ID: rjtnl06.d
Dilution: 1.0		Initial Weight/Volume: 1055 mL
Analysis Date: 03/27/2012 0803		Final Weight/Volume: 1000 uL
Prep Date: 03/23/2012 1051		Injection Volume: 2 uL

Surrogate	%Rec	Qualifier	Acceptance Limits
Bis(2-chloroethyl)ether-d8	85		40 - 105
2-Chlorophenol-d4	83		41 - 106
4-Methylphenol-d8	107		25 - 111
Nitrobenzene-d5	92		43 - 108
2-Nitrophenol-d4	89		40 - 108
2,4-Dichlorophenol-d3	85		37 - 105
4-Chloroaniline-d4	91		1 - 145
Dimethylphthalate-d6	93		47 - 114
Acenaphthylene-d8	99		41 - 107
4-Nitrophenol-d4	67		33 - 116
Fluorene-d10	85		42 - 111
4,6-Dinitro-2-methylphenol-d2	77		22 - 104
Anthracene-d10	101		44 - 110
Pyrene-d10	106		52 - 119
Benzo(a)pyrene-d12	98		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCMI-03

Lab Sample ID: 200-9964-1

Date Sampled: 03/22/2012 1040

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/SV Semivolatiles

Analysis Method:	SOM01.2/SV	Analysis Batch:	200-35753	Instrument ID:	R.i
Prep Method:	CONT	Prep Batch:	200-35511	Lab File ID:	rjtnl10.d
Dilution:	14.3			Initial Weight/Volume:	1050 mL
Analysis Date:	03/27/2012 1031			Final Weight/Volume:	1000 uL
Prep Date:	03/23/2012 1053			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	RL
2,4,5-Trichlorophenol	180		68
4,6-Dinitro-2-methylphenol	140	U	140

Surrogate	%Rec	Qualifier	Acceptance Limits
Phenol-d5	98		39 - 106
Bis(2-chloroethyl)ether-d8	86		40 - 105
2-Chlorophenol-d4	90		41 - 106
4-Methylphenol-d8	111		25 - 111
Nitrobenzene-d5	95		43 - 108
2-Nitrophenol-d4	95		40 - 108
2,4-Dichlorophenol-d3	179	*	37 - 105
4-Chloroaniline-d4	16		1 - 145
Dimethylphthalate-d6	100		47 - 114
Acenaphthylene-d8	101		41 - 107
4-Nitrophenol-d4	57		33 - 116
Fluorene-d10	92		42 - 111
4,6-Dinitro-2-methylphenol-d2	47		22 - 104
Anthracene-d10	110		44 - 110
Pyrene-d10	135	*	52 - 119
Benzo(a)pyrene-d12	73		32 - 121

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/PCB Aroclors

Analysis Method:	SOM01.2/PCB	Analysis Batch:	200-35642	Instrument ID:	5253.i
Prep Method:	SEPF	Prep Batch:	200-35482	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	03/26/2012 1058			Injection Volume:	1 uL
Prep Date:	03/23/2012 0015			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Aroclor-1016	0.94	U	0.94
Aroclor-1221	0.94	U	0.94
Aroclor-1232	0.94	U	0.94
Aroclor-1242	0.94	U	0.94
Aroclor-1248	0.94	U	0.94
Aroclor-1254	0.94	U	0.94
Aroclor-1260	0.94	U	0.94

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	79		30 - 150
Decachlorobiphenyl	44		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/PCB Aroclors

Analysis Method: SOM01.2/PCB

Analysis Batch: 200-35642

Instrument ID: 5253.i

Prep Method: SEPF

Prep Batch: 200-35482

Initial Weight/Volume: 1060 mL

Dilution: 1.0

Final Weight/Volume: 10000 uL

Analysis Date: 03/26/2012 1058

Injection Volume: 1 uL

Prep Date: 03/23/2012 0015

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	80		30 - 150
Decachlorobiphenyl	47		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-35726	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-35549	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	03/24/2012 0819			Injection Volume:	1 uL
Prep Date:	03/23/2012 1830			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	0.0010	J P	0.0094
2,4'-DDT	0.00071	J P	0.0094
2,4'-DDD	0.0034	J P	0.0094

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	67		30 - 150
Decachlorobiphenyl	43		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest

Analysis Batch: 200-35726

Instrument ID: 0911.i

Prep Method: SEPF

Prep Batch: 200-35549

Initial Weight/Volume: 1060 mL

Dilution: 1.0

Final Weight/Volume: 1000 uL

Analysis Date: 03/24/2012 0819

Injection Volume: 1 uL

Prep Date: 03/23/2012 1830

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	72		30 - 150
Decachlorobiphenyl	44		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-35719	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-35675	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	03/26/2012 2328			Injection Volume:	1 uL
Prep Date:	03/26/2012 1914			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
alpha-BHC	0.000061	J P B	0.0047
beta-BHC	0.0017	J P B	0.0047
delta-BHC	0.00012	J P B	0.0047
gamma-BHC (Lindane)	0.0047	U	0.0047
Heptachlor	0.00049	J P	0.0047
Aldrin	0.00015	J P	0.0047
Heptachlor epoxide	0.00017	J P	0.0047
Endosulfan I	0.00017	J P	0.0047
Dieldrin	0.00014	J P	0.0094
4,4'-DDE	0.0013	J P	0.0094
Endrin	0.0094	U	0.0094
Endosulfan II	0.0094	U	0.0094
4,4'-DDD	0.0061	J	0.0094
Endosulfan sulfate	0.0094	U	0.0094
4,4'-DDT	0.0016	J P	0.0094
Endrin aldehyde	0.0094	U	0.0094
alpha-Chlordane	0.0047	U	0.0047
gamma-Chlordane	0.00026	J P	0.0047
Toxaphene	0.47	U	0.47

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	82		30 - 150
Decachlorobiphenyl	55		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-35719	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-35675	Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	1000 uL
Analysis Date:	03/26/2012 2328			Injection Volume:	1 uL
Prep Date:	03/26/2012 1914			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	84		30 - 150
Decachlorobiphenyl	57		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCHMI-03

Lab Sample ID: 200-9964-1

Date Sampled: 03/22/2012 1040

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/Pest Pesticides

Analysis Method:	SOM01.2/Pest	Analysis Batch:	200-35726	Instrument ID:	0911.i
Prep Method:	SEPF	Prep Batch:	200-35555	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	03/24/2012 0949			Injection Volume:	1 uL
Prep Date:	03/23/2012 1915			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
2,4'-DDE	0.025	J P	0.095
2,4'-DDD	0.17	P	0.095
2,4'-DDT	0.022	J P	0.095

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	93		30 - 150
Decachlorobiphenyl	47		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCHMI-03

Lab Sample ID: 200-9964-1

Date Sampled: 03/22/2012 1040

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest

Analysis Batch: 200-35726

Instrument ID: 0911.i

Prep Method: SEPF

Prep Batch: 200-35555

Initial Weight/Volume: 1050 mL

Dilution: 1.0

Final Weight/Volume: 10000 uL

Analysis Date: 03/24/2012 0949

Injection Volume: 1 uL

Prep Date: 03/23/2012 1915

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	118		30 - 150
Decachlorobiphenyl	48		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCHMI-03

Lab Sample ID: 200-9964-1

Date Sampled: 03/22/2012 1040

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest	Analysis Batch: 200-35616	Instrument ID: 0911.i
Prep Method: SEPF	Prep Batch: 200-35555	Initial Weight/Volume: 1050 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 03/24/2012 0040		Injection Volume: 1 uL
Prep Date: 03/23/2012 1915		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
delta-BHC	0.0052	J P	0.048

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	86		30 - 150
Decachlorobiphenyl	45		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCHMI-03

Lab Sample ID: 200-9964-1

Date Sampled: 03/22/2012 1040

Client Matrix: Water

Date Received: 03/22/2012 0900

SOM01.2/Pest Pesticides

Analysis Method: SOM01.2/Pest

Analysis Batch: 200-35616

Instrument ID: 0911.i

Prep Method: SEPF

Prep Batch: 200-35555

Initial Weight/Volume: 1050 mL

Dilution: 1.0

Final Weight/Volume: 10000 uL

Analysis Date: 03/24/2012 0040

Injection Volume: 1 uL

Prep Date: 03/23/2012 1915

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	96		30 - 150
Decachlorobiphenyl	46		30 - 150

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

ISM01.2/HG ISM01.2 Mercury

Analysis Method: ISM01.2/HG Analysis Batch: 200-35741 Instrument ID: MEPCV3 II
Prep Method: 7470A Prep Batch: 200-35655 Lab File ID: 032712AA.PRN
Dilution: 1.0 Initial Weight/Volume: 50 mL
Analysis Date: 03/27/2012 1348 Final Weight/Volume: 50 mL
Prep Date: 03/26/2012 1400

Analyte	Result (ug/L)	Qualifier	MDLE	RL
Mercury	0.20	U	0.084	0.20

ISM01.2/ICPMS ISM01.2 Metals (ICPMS)

Analysis Method: ISM01.2/ICPMS Analysis Batch: 200-35688 Instrument ID: METICPMS2
Prep Method: 200.8 Prep Batch: 200-35518 Lab File ID: 032512-07ISM.xml
Dilution: 1.0 Initial Weight/Volume: 100 mL
Analysis Date: 03/25/2012 2323 Final Weight/Volume: 100 mL
Prep Date: 03/23/2012 1250

Analyte	Result (ug/L)	Qualifier	MDL	RL
Arsenic	7.2		0.16	1.0
Lead	0.89	J	0.10	1.0
Silver	0.033	J	0.028	1.0

Analysis Method: ISM01.2/ICPMS Analysis Batch: 200-35690 Instrument ID: METICPMS2
Prep Method: 200.8 Prep Batch: 200-35518 Lab File ID: 032512-08ISM.xml
Dilution: 1.0 Initial Weight/Volume: 100 mL
Analysis Date: 03/26/2012 0243 Final Weight/Volume: 100 mL
Prep Date: 03/23/2012 1250

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	6.1		0.15	2.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	2.0	J	0.21	2.0
Copper	4.8		0.60	2.0
Nickel	23.2	E	0.14	1.0
Selenium	12.2		0.15	5.0

Analysis Method: ISM01.2/ICPMS Analysis Batch: 200-35727 Instrument ID: METICPMS2
Prep Method: 200.8 Prep Batch: 200-35518 Lab File ID: 032612-07ISM.xml
Dilution: 1.0 Initial Weight/Volume: 100 mL
Analysis Date: 03/27/2012 0931 Final Weight/Volume: 100 mL
Prep Date: 03/23/2012 1250

Analyte	Result (ug/L)	Qualifier	MDL	RL
Zinc	1.4	J	0.57	2.0

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1
Sdg Number: PRR1168

General Chemistry

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide	10.0	U	ug/L	1.0	10.0	1.0	ISM01.2/CN
	Analysis Batch: 200-35740	Analysis Date: 03/27/2012 1353					
	Prep Batch: 200-35736	Prep Date: 03/27/2012 1130					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	*	Surrogate exceeds the control limit
	B	The analyte was found in an associated blank, as well as in the sample.
GC Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	P	The % Difference between columns is greater than 25%.
	B	The analyte was found in an associated blank, as well as in the sample.
Metals		
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL
	E	The reported value is estimated because of the presence of interference based on serial dilution analysis.
General Chemistry		
	U	Indicates analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-35585					
MB 200-35585/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-9960-1	PRR1WATCME-03	T	Water	SOM01.2/VOA_T	
200-9960-2	TB03212012	T	Water	SOM01.2/VOA_T	
200-9960-3STOBLK	VHBLK01	T	Water	SOM01.2/VOA_T	
200-9964-1	PRR1WATCMI-03	T	Water	SOM01.2/VOA_T	
200-9964-2	VHBLK02	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

GC/MS Semi VOA

Prep Batch: 200-35510					
MB 200-35510/1-A	Method Blank	T	Water	CONT	
200-9960-1	PRR1WATCME-03	T	Water	CONT	
Prep Batch: 200-35511					
MB 200-35511/1-A	Method Blank	T	Water	CONT	
200-9964-1	PRR1WATCMI-03	T	Water	CONT	
Analysis Batch:200-35753					
MB 200-35510/1-A	Method Blank	T	Water	SOM01.2/SV	200-35510
MB 200-35511/1-A	Method Blank	T	Water	SOM01.2/SV	200-35511
200-9960-1	PRR1WATCME-03	T	Water	SOM01.2/SV	200-35510
200-9964-1	PRR1WATCMI-03	T	Water	SOM01.2/SV	200-35511

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-35482					
LCS 200-35482/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-35482/1-C	Method Blank	T	Water	SEPF	
200-9960-1	PRR1WATCME-03	T	Water	SEPF	
Prep Batch: 200-35549					
LCS 200-35549/3-C	Lab Control Sample	T	Water	SEPF	
MB 200-35549/1-C	Method Blank	T	Water	SEPF	
200-9960-1	PRR1WATCME-03	T	Water	SEPF	
Prep Batch: 200-35555					
LCS 200-35555/2-C	Lab Control Sample	T	Water	SEPF	
LCS 200-35555/3-C	Lab Control Sample	T	Water	SEPF	
MB 200-35555/1-C	Method Blank	T	Water	SEPF	
200-9964-1	PRR1WATCMI-03	T	Water	SEPF	
Analysis Batch:200-35616					
LCS 200-35555/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-35555
MB 200-35555/1-C	Method Blank	T	Water	SOM01.2/Pest	200-35555
200-9964-1	PRR1WATCMI-03	T	Water	SOM01.2/Pest	200-35555
Analysis Batch:200-35642					
LCS 200-35482/2-C	Lab Control Sample	T	Water	SOM01.2/PCB	200-35482
MB 200-35482/1-C	Method Blank	T	Water	SOM01.2/PCB	200-35482
200-9960-1	PRR1WATCME-03	T	Water	SOM01.2/PCB	200-35482
Prep Batch: 200-35675					
LCS 200-35675/2-C	Lab Control Sample	T	Water	SEPF	
MB 200-35675/1-C	Method Blank	T	Water	SEPF	
200-9960-1	PRR1WATCME-03	T	Water	SEPF	
Analysis Batch:200-35719					
LCS 200-35675/2-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-35675
MB 200-35675/1-C	Method Blank	T	Water	SOM01.2/Pest	200-35675
200-9960-1	PRR1WATCME-03	T	Water	SOM01.2/Pest	200-35675
Analysis Batch:200-35726					
LCS 200-35549/3-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-35549
MB 200-35549/1-C	Method Blank	T	Water	SOM01.2/Pest	200-35549
LCS 200-35555/3-C	Lab Control Sample	T	Water	SOM01.2/Pest	200-35555
MB 200-35555/1-C	Method Blank	T	Water	SOM01.2/Pest	200-35555
200-9960-1	PRR1WATCME-03	T	Water	SOM01.2/Pest	200-35549
200-9964-1	PRR1WATCMI-03	T	Water	SOM01.2/Pest	200-35555

TestAmerica Burlington

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Report Basis					
T = Total					
Metals					
Prep Batch: 200-35518					
LCS 200-35518/2-A	Lab Control Sample	T	Water	200.8	
MB 200-35518/1-A	Method Blank	T	Water	200.8	
200-9960-1	PRR1WATCME-03	T	Water	200.8	
Prep Batch: 200-35655					
MB 200-35655/11-A	Method Blank	T	Water	7470A	
200-9960-1	PRR1WATCME-03	T	Water	7470A	
Analysis Batch:200-35688					
LCS 200-35518/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-35518
MB 200-35518/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-35518
200-9960-1	PRR1WATCME-03	T	Water	ISM01.2/ICPMS	200-35518
Analysis Batch:200-35690					
LCS 200-35518/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-35518
MB 200-35518/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-35518
200-9960-1	PRR1WATCME-03	T	Water	ISM01.2/ICPMS	200-35518
Analysis Batch:200-35727					
LCS 200-35518/2-A	Lab Control Sample	T	Water	ISM01.2/ICPMS	200-35518
MB 200-35518/1-A	Method Blank	T	Water	ISM01.2/ICPMS	200-35518
200-9960-1	PRR1WATCME-03	T	Water	ISM01.2/ICPMS	200-35518
Analysis Batch:200-35741					
MB 200-35655/11-A	Method Blank	T	Water	ISM01.2/HG	200-35655
200-9960-1	PRR1WATCME-03	T	Water	ISM01.2/HG	200-35655

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 200-35736					
MB 200-35736/11-A	Method Blank	T	Water	Midi-Distillati	
200-9960-1	PRR1WATCME-03	T	Water	Midi-Distillati	
Analysis Batch:200-35740					
MB 200-35736/11-A	Method Blank	T	Water	ISM01.2/CN	200-35736
200-9960-1	PRR1WATCME-03	T	Water	ISM01.2/CN	200-35736

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1
Sdg Number: PRR1168

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-9960-1	PRR1WATCME-03	103	106	80	111	103	108	105	97
200-9960-2	TB03212012	95	96	74	97	94	96	96	87
200-9960-3	VHBLK01	103	105	80	104	102	105	106	94
200-9964-1	PRR1WATCMI-03	95	99	75	104	95	103	100	92
200-9964-2	VHBLK02	97	99	77	100	97	102	101	92
MB 200-35585/4		101	102	79	106	101	107	100	93

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-9960-1	PRR1WATCME-03	107	105	125	103	104
200-9960-2	TB03212012	95	93	106	92	94
200-9960-3	VHBLK01	106	101	108	99	103
200-9964-1	PRR1WATCMI-03	101	99	122	104	99
200-9964-2	VHBLK02	102	97	108	93	100
MB 200-35585/4		101	102	110	99	102

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	PHL %Rec	BCE %Rec	2CP %Rec	4MP %Rec	NBZ %Rec	2NP %Rec	DCP %Rec	4CA %Rec
200-9960-1	PRR1WATCME-03	93	85	83	107	92	89	85	91
200-9964-1	PRR1WATCMI-03	98	86	90	111	95	95	179*	16
MB 200-35510/1-A		75	80	71	92	89	86	80	89
MB 200-35511/1-A		73	66	70	81	75	75	70	74

Surrogate	Acceptance Limits
PHL = Phenol-d5	39-106
BCE = Bis(2-chloroethyl)ether-d8	40-105
2CP = 2-Chlorophenol-d4	41-106
4MP = 4-Methylphenol-d8	25-111
NBZ = Nitrobenzene-d5	43-108
2NP = 2-Nitrophenol-d4	40-108
DCP = 2,4-Dichlorophenol-d3	37-105
4CA = 4-Chloroaniline-d4	1-145

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Surrogate Recovery Report

SOM01.2/SV Semivolatiles

Client Matrix: Water

Lab Sample ID	Client Sample ID	DMP %Rec	ACY %Rec	4NP %Rec	FLR %Rec	NMP %Rec	ANC %Rec	PYR %Rec	BAP %Rec
200-9960-1	PRR1WATCME-03	93	99	67	85	77	101	106	98
200-9964-1	PRR1WATCMI-03	100	101	57	92	47	110	135*	73
MB 200-35510/1-A		91	97	56	81	70	95	97	88
MB 200-35511/1-A		82	83	51	71	58	85	94	81

Surrogate	Acceptance Limits
DMP = Dimethylphthalate-d6	47-114
ACY = Acenaphthylene-d8	41-107
4NP = 4-Nitrophenol-d4	33-116
FLR = Fluorene-d10	42-111
NMP = 4,6-Dinitro-2-methylphenol-d2	22-104
ANC = Anthracene-d10	44-110
PYR = Pyrene-d10	52-119
BAP = Benzo(a)pyrene-d12	32-121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Surrogate Recovery Report

SOM01.2/PCB Aroclors

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-9960-1	PRR1WATCME-03	79	80	47	44
MB 200-35482/1-C		83	82	90	79
LCS 200-35482/2-C		79	79	93	84

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Surrogate Recovery Report

SOM01.2/Pest Pesticides

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-9960-1	PRR1WATCME-03	67	72	43	44
200-9960-1	PRR1WATCME-03	82	84	55	57
200-9964-1	PRR1WATCMI-03	96	86	45	46
200-9964-1	PRR1WATCMI-03	118	93	47	48
MB 200-35549/1-C		64	69	93	93
MB 200-35555/1-C		103	109	123	124
MB 200-35555/1-C		99	109	122	124
MB 200-35675/1-C		78	81	92	96
LCS 200-35549/3-C		60	64	79	80
LCS 200-35555/2-C		96	101	113	113
LCS 200-35555/3-C		96	104	111	112
LCS 200-35675/2-C		75	80	81	92

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = Decachlorobiphenyl	30-150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Method Blank - Batch: 200-35585

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-35585/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/23/2012 1132
 Prep Date: 03/23/2012 1132
 Leach Date: N/A

Analysis Batch: 200-35585
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: J.i
 Lab File ID: jdea04.d
 Initial Weight/Volume: 25 mL
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Chloromethane	0.50	U	0.50
Vinyl chloride	0.50	U	0.50
Bromomethane	0.50	U	0.50
Chloroethane	0.50	U	0.50
Acrolein	5.0	U	5.0
1,1-Dichloroethene	0.50	U	0.50
Methylene chloride	0.50	U	0.50
Acrylonitrile	5.0	U	5.0
trans-1,2-Dichloroethene	0.50	U	0.50
1,1-Dichloroethane	0.50	U	0.50
2-Butanone	5.0	U	5.0
Chloroform	0.50	U	0.50
1,1,1-Trichloroethane	0.50	U	0.50
Carbon tetrachloride	0.50	U	0.50
Benzene	0.50	U	0.50
1,2-Dichloroethane	0.50	U	0.50
Trichloroethene	0.50	U	0.50
1,2-Dichloropropane	0.50	U	0.50
Bromodichloromethane	0.50	U	0.50
cis-1,3-Dichloropropene	0.50	U	0.50
Toluene	0.50	U	0.50
trans-1,3-Dichloropropene	0.50	U	0.50
1,1,2-Trichloroethane	0.50	U	0.50
Tetrachloroethene	0.50	U	0.50
Dibromochloromethane	0.50	U	0.50
Chlorobenzene	0.50	U	0.50
Ethylbenzene	0.50	U	0.50
Bromoform	0.50	U	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.50
1,3-Dichlorobenzene	0.50	U	0.50
1,4-Dichlorobenzene	0.50	U	0.50
1,2-Dichlorobenzene	0.50	U	0.50
1,2,4-Trichlorobenzene	0.50	U	0.50
1,2,3-Trichlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	101	65 - 131
Chloroethane-d5	102	71 - 131
1,1-Dichloroethene-d2	79	55 - 104
2-Butanone-d5	106	49 - 155
Chloroform-d	101	78 - 121
1,2-Dichloroethane-d4	107	78 - 129
Benzene-d6	100	77 - 124
1,2-Dichloropropane-d6	93	79 - 124
Toluene-d8	101	77 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1
Sdg Number: PRR1168

Surrogate	% Rec	Acceptance Limits
trans-1,3-Dichloropropene-d4	102	73 - 121
2-Hexanone-d5	110	28 - 135
1,1,2,2-Tetrachloroethane-d2	99	73 - 125
1,2-Dichlorobenzene-d4	102	80 - 131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Method Blank - Batch: 200-35510

Method: SOM01.2/SV

Preparation: CONT

Lab Sample ID: MB 200-35510/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/27/2012 0727
 Prep Date: 03/23/2012 1051
 Leach Date: N/A

Analysis Batch: 200-35753
 Prep Batch: 200-35510
 Leach Batch: N/A
 Units: ug/L

Instrument ID: R.i
 Lab File ID: rjtnl05.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1000 uL
 Injection Volume: 2 uL

Analyte	Result	Qual	RL
N-Nitrosodimethylamine	10	U	10
Phenol	5.0	U	5.0
Bis(2-chloroethyl)ether	5.0	U	5.0
2-Chlorophenol	5.0	U	5.0
2,2'-Oxybis(1-chloropropane)	5.0	U	5.0
Hexachloroethane	5.0	U	5.0
Nitrobenzene	5.0	U	5.0
Isophorone	5.0	U	5.0
2-Nitrophenol	5.0	U	5.0
2,4-Dimethylphenol	5.0	U	5.0
2,4-Dichlorophenol	5.0	U	5.0
Naphthalene	5.0	U	5.0
Hexachlorobutadiene	5.0	U	5.0
Hexachlorocyclopentadiene	5.0	U	5.0
2,4,6-Trichlorophenol	5.0	U	5.0
2,4,5-Trichlorophenol	5.0	U	5.0
Dimethylphthalate	5.0	U	5.0
2,6-Dinitrotoluene	5.0	U	5.0
2,4-Dinitrophenol	10	U	10
4-Nitrophenol	10	U	10
2,4-Dinitrotoluene	5.0	U	5.0
Diethylphthalate	5.0	U	5.0
Fluorene	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10
N-Nitrosodiphenylamine	5.0	U	5.0
Hexachlorobenzene	5.0	U	5.0
Pentachlorophenol	10	U	10
Phenanthrene	5.0	U	5.0
Anthracene	5.0	U	5.0
Di-n-butylphthalate	5.0	U	5.0
Fluoranthene	5.0	U	5.0
Benzidine	10	U	10
Pyrene	5.0	U	5.0
Butylbenzylphthalate	0.28	J	5.0
3,3'-Dichlorobenzidine	5.0	U	5.0
Benzo(a)anthracene	5.0	U	5.0
Chrysene	5.0	U	5.0
Bis(2-ethylhexyl)phthalate	5.0	U	5.0
Benzo(b)fluoranthene	5.0	U	5.0
Benzo(k)fluoranthene	5.0	U	5.0
Benzo(a)pyrene	5.0	U	5.0
Indeno(1,2,3-cd)pyrene	5.0	U	5.0
Dibenzo(a,h)anthracene	5.0	U	5.0

Surrogate

% Rec

Acceptance Limits

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Surrogate	% Rec	Acceptance Limits
Phenol-d5	75	39 - 106
Bis(2-chloroethyl)ether-d8	80	40 - 105
2-Chlorophenol-d4	71	41 - 106
4-Methylphenol-d8	92	25 - 111
Nitrobenzene-d5	89	43 - 108
2-Nitrophenol-d4	86	40 - 108
2,4-Dichlorophenol-d3	80	37 - 105
4-Chloroaniline-d4	89	1 - 145
Dimethylphthalate-d6	91	47 - 114
Acenaphthylene-d8	97	41 - 107
4-Nitrophenol-d4	56	33 - 116
Fluorene-d10	81	42 - 111
4,6-Dinitro-2-methylphenol-d2	70	22 - 104
Anthracene-d10	95	44 - 110
Pyrene-d10	97	52 - 119
Benzo(a)pyrene-d12	88	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1
Sdg Number: PRR1168

Method Blank - Batch: 200-35511

Method: SOM01.2/SV
Preparation: CONT

Lab Sample ID: MB 200-35511/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/27/2012 0838
Prep Date: 03/23/2012 1053
Leach Date: N/A

Analysis Batch: 200-35753
Prep Batch: 200-35511
Leach Batch: N/A
Units: ug/L

Instrument ID: R.i
Lab File ID: rjtnl07.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 2 uL

Analyte	Result	Qual	RL
2,4,5-Trichlorophenol	5.0	U	5.0
4,6-Dinitro-2-methylphenol	10	U	10

Surrogate	% Rec	Acceptance Limits
Phenol-d5	73	39 - 106
Bis(2-chloroethyl)ether-d8	66	40 - 105
2-Chlorophenol-d4	70	41 - 106
4-Methylphenol-d8	81	25 - 111
Nitrobenzene-d5	75	43 - 108
2-Nitrophenol-d4	75	40 - 108
2,4-Dichlorophenol-d3	70	37 - 105
4-Chloroaniline-d4	74	1 - 145
Dimethylphthalate-d6	82	47 - 114
Acenaphthylene-d8	83	41 - 107
4-Nitrophenol-d4	51	33 - 116
Fluorene-d10	71	42 - 111
4,6-Dinitro-2-methylphenol-d2	58	22 - 104
Anthracene-d10	85	44 - 110
Pyrene-d10	94	52 - 119
Benzo(a)pyrene-d12	81	32 - 121

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Method Blank - Batch: 200-35482

Method: SOM01.2/PCB

Preparation: SEPF

Lab Sample ID: MB 200-35482/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/26/2012 1010
Prep Date: 03/23/2012 0015
Leach Date: N/A

Analysis Batch: 200-35642
Prep Batch: 200-35482
Leach Batch: N/A
Units: ug/L

Instrument ID: 5253.i
Lab File ID: 26ma120845-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Aroclor-1016	1.0	U	1.0
Aroclor-1221	1.0	U	1.0
Aroclor-1232	1.0	U	1.0
Aroclor-1242	1.0	U	1.0
Aroclor-1248	1.0	U	1.0
Aroclor-1254	1.0	U	1.0
Aroclor-1260	1.0	U	1.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	82	30 - 150
Decachlorobiphenyl	79	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	83	30 - 150
Decachlorobiphenyl	90	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1
Sdg Number: PRR1168

Lab Control Sample - Batch: 200-35482

Method: SOM01.2/PCB
Preparation: SEPF

Lab Sample ID: LCS 200-35482/2-C	Analysis Batch: 200-35642	Instrument ID: 5253.i
Client Matrix: Water	Prep Batch: 200-35482	Lab File ID: 26ma120845-r051.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/26/2012 1034	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 03/23/2012 0015		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.1	110	50 - 150	
Aroclor-1260	1.00	0.98	98	50 - 150	J
Surrogate		% Rec	Acceptance Limits		
Tetrachloro-m-xylene		79	30 - 150		
Decachlorobiphenyl		84	30 - 150		

Lab Control Sample - Batch: 200-35482

Method: SOM01.2/PCB
Preparation: SEPF

Lab Sample ID: LCS 200-35482/2-C	Analysis Batch: 200-35642	Instrument ID: 5253.i
Client Matrix: Water	Prep Batch: 200-35482	Lab File ID: 26ma120845-r051.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/26/2012 1034	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 03/23/2012 0015		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	1.00	1.2	115	50 - 150	
Aroclor-1260	1.00	1.1	106	50 - 150	
Surrogate		% Rec	Acceptance Limits		
Tetrachloro-m-xylene		79	30 - 150		
Decachlorobiphenyl		93	30 - 150		

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1
Sdg Number: PRR1168

Method Blank - Batch: 200-35549

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-35549/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/24/2012 0719
Prep Date: 03/23/2012 1830
Leach Date: N/A

Analysis Batch: 200-35726
Prep Batch: 200-35549
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 23ma122213-r011.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
2,4'-DDE	0.010	U	0.010
2,4'-DDT	0.010	U	0.010
2,4'-DDD	0.010	U	0.010

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	64	30 - 150
Decachlorobiphenyl	93	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	69	30 - 150
Decachlorobiphenyl	93	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1
Sdg Number: PRR1168

Lab Control Sample - Batch: 200-35549

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-35549/3-C	Analysis Batch: 200-35726	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-35549	Lab File ID: 23ma122213-r021.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/24/2012 0749	Units: ug/L	Final Weight/Volume: 1000 uL
Prep Date: 03/23/2012 1830		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.0085	85	50 - 150	J
Surrogate		% Rec	Acceptance Limits		
Tetrachloro-m-xylene		60	30 - 150		
Decachlorobiphenyl		79	30 - 150		

Lab Control Sample - Batch: 200-35549

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-35549/3-C	Analysis Batch: 200-35726	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-35549	Lab File ID: 23ma122213-r021.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/24/2012 0749	Units: ug/L	Final Weight/Volume: 1000 uL
Prep Date: 03/23/2012 1830		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.0100	0.0090	90	50 - 150	J
Surrogate		% Rec	Acceptance Limits		
Tetrachloro-m-xylene		64	30 - 150		
Decachlorobiphenyl		80	30 - 150		

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1
Sdg Number: PRR1168

Method Blank - Batch: 200-35555

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-35555/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/23/2012 2354
Prep Date: 03/23/2012 1915
Leach Date: N/A

Analysis Batch: 200-35616
Prep Batch: 200-35555
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 23ma122153-r061.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
delta-BHC	0.050	U	0.050
Surrogate	% Rec		Acceptance Limits
Tetrachloro-m-xylene	103		30 - 150
Decachlorobiphenyl	123		30 - 150
Surrogate	% Rec		Acceptance Limits
Tetrachloro-m-xylene	109		30 - 150
Decachlorobiphenyl	124		30 - 150

Method Blank - Batch: 200-35555

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-35555/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/24/2012 0849
Prep Date: 03/23/2012 1915
Leach Date: N/A

Analysis Batch: 200-35726
Prep Batch: 200-35555
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 23ma122213-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
2,4'-DDE	0.10	U	0.10
2,4'-DDT	0.10	U	0.10
2,4'-DDD	0.10	U	0.10
Surrogate	% Rec		Acceptance Limits
Tetrachloro-m-xylene	99		30 - 150
Decachlorobiphenyl	122		30 - 150
Surrogate	% Rec		Acceptance Limits
Tetrachloro-m-xylene	109		30 - 150
Decachlorobiphenyl	124		30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	96	30 - 150
Decachlorobiphenyl	113	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	101	30 - 150
Decachlorobiphenyl	113	30 - 150

Lab Control Sample - Batch: 200-35555

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-35555/3-C	Analysis Batch: 200-35726	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-35555	Lab File ID: 23ma122213-r051.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/24/2012 0919	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 03/23/2012 1915		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.100	0.11	111	50 - 150	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	96	30 - 150
Decachlorobiphenyl	111	30 - 150

Lab Control Sample - Batch: 200-35555

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-35555/3-C	Analysis Batch: 200-35726	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-35555	Lab File ID: 23ma122213-r051.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/24/2012 0919	Units: ug/L	Final Weight/Volume: 10000 uL
Prep Date: 03/23/2012 1915		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4'-DDE	0.100	0.12	122	50 - 150	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	104	30 - 150
Decachlorobiphenyl	112	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1
Sdg Number: PRR1168

Method Blank - Batch: 200-35675

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: MB 200-35675/1-C
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/26/2012 2242
Prep Date: 03/26/2012 1914
Leach Date: N/A

Analysis Batch: 200-35719
Prep Batch: 200-35675
Leach Batch: N/A
Units: ug/L

Instrument ID: 0911.i
Lab File ID: 26ma122151-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
alpha-BHC	0.00045	J	0.0050
beta-BHC	0.0025	J	0.0050
delta-BHC	0.00013	J	0.0050
Heptachlor	0.0050	U	0.0050
Aldrin	0.0050	U	0.0050
gamma-BHC (Lindane)	0.0050	U	0.0050
Heptachlor epoxide	0.0050	U	0.0050
Endosulfan I	0.0050	U	0.0050
Dieldrin	0.010	U	0.010
4,4'-DDE	0.010	U	0.010
Endrin	0.010	U	0.010
Endosulfan II	0.010	U	0.010
4,4'-DDD	0.010	U	0.010
Endosulfan sulfate	0.010	U	0.010
4,4'-DDT	0.010	U	0.010
Endrin aldehyde	0.010	U	0.010
alpha-Chlordane	0.0050	U	0.0050
gamma-Chlordane	0.0050	U	0.0050
Toxaphene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	78	30 - 150
Decachlorobiphenyl	92	30 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	81	30 - 150
Decachlorobiphenyl	96	30 - 150

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1
Sdg Number: PRR1168

Lab Control Sample - Batch: 200-35675

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-35675/2-C	Analysis Batch: 200-35719	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-35675	Lab File ID: 26ma122151-r041.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/26/2012 2305	Units: ug/L	Final Weight/Volume: 1000 uL
Prep Date: 03/26/2012 1914		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0043	85	50 - 120	J
Heptachlor epoxide	0.00500	0.0049	97	50 - 150	J
Dieldrin	0.0100	0.0091	91	30 - 130	J
4,4'-DDE	0.0100	0.0091	91	50 - 150	J
Endrin	0.0100	0.0096	96	50 - 120	J
Endosulfan sulfate	0.0100	0.0079	79	50 - 120	J
gamma-Chlordane	0.00500	0.0045	90	30 - 130	J
<hr/>					
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		75		30 - 150	
Decachlorobiphenyl		81		30 - 150	

Lab Control Sample - Batch: 200-35675

**Method: SOM01.2/Pest
Preparation: SEPF**

Lab Sample ID: LCS 200-35675/2-C	Analysis Batch: 200-35719	Instrument ID: 0911.i
Client Matrix: Water	Prep Batch: 200-35675	Lab File ID: 26ma122151-r041.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 03/26/2012 2305	Units: ug/L	Final Weight/Volume: 1000 uL
Prep Date: 03/26/2012 1914		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
gamma-BHC (Lindane)	0.00500	0.0046	93	50 - 120	J
Heptachlor epoxide	0.00500	0.0050	100	50 - 150	
Dieldrin	0.0100	0.0094	94	30 - 130	J
4,4'-DDE	0.0100	0.0094	94	50 - 150	J
Endrin	0.0100	0.010	103	50 - 120	
Endosulfan sulfate	0.0100	0.0086	86	50 - 120	J
gamma-Chlordane	0.00500	0.0053	107	30 - 130	
<hr/>					
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		80		30 - 150	
Decachlorobiphenyl		92		30 - 150	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1
Sdg Number: PRR1168

Method Blank - Batch: 200-35655

Method: ISM01.2/HG Preparation: 7470A

Lab Sample ID: MB 200-35655/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/27/2012 1333
Prep Date: 03/26/2012 1400
Leach Date: N/A

Analysis Batch: 200-35741
Prep Batch: 200-35655
Leach Batch: N/A
Units: ug/L

Instrument ID: MEPCV3 II
Lab File ID: 032712AA.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDLE	RL
Mercury	0.20	U	0.084	0.20

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1
Sdg Number: PRR1168

Method Blank - Batch: 200-35518

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID: MB 200-35518/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/25/2012 2310
Prep Date: 03/23/2012 1250
Leach Date: N/A

Analysis Batch: 200-35688
Prep Batch: 200-35518
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 032512-07ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Arsenic	-0.31	J	0.16	1.0
Lead	0.18	J	0.10	1.0
Silver	-0.057	J	0.028	1.0

Method Blank - Batch: 200-35518

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID: MB 200-35518/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/26/2012 0230
Prep Date: 03/23/2012 1250
Leach Date: N/A

Analysis Batch: 200-35690
Prep Batch: 200-35518
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 032512-08ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Antimony	0.56	J	0.15	2.0
Beryllium	1.0	U	0.12	1.0
Cadmium	1.0	U	0.11	1.0
Chromium	2.0	U	0.21	2.0
Copper	2.0	U	0.60	2.0
Nickel	1.0	U	0.14	1.0
Selenium	-0.45	J	0.15	5.0

Method Blank - Batch: 200-35518

Method: ISM01.2/ICPMS
Preparation: 200.8

Lab Sample ID: MB 200-35518/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/27/2012 0917
Prep Date: 03/23/2012 1250
Leach Date: N/A

Analysis Batch: 200-35727
Prep Batch: 200-35518
Leach Batch: N/A
Units: ug/L

Instrument ID: METICPMS2
Lab File ID: 032612-07ISM.xml
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Zinc	2.0	U	0.57	2.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

Sdg Number: PRR1168

Lab Control Sample - Batch: 200-35518

Method: ISM01.2/ICPMS

Preparation: 200.8

Lab Sample ID: LCS 200-35518/2-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/25/2012 2316
 Prep Date: 03/23/2012 1250
 Leach Date: N/A

Analysis Batch: 200-35688
 Prep Batch: 200-35518
 Leach Batch: N/A
 Units: ug/L

Instrument ID: METICPMS2
 Lab File ID: 032512-07ISM.xml
 Initial Weight/Volume: 100 mL
 Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	2.00	1.7	87	70 - 130	
Lead	2.00	2.2	108	70 - 130	
Silver	2.00	2.1	106	70 - 130	

Lab Control Sample - Batch: 200-35518

Method: ISM01.2/ICPMS

Preparation: 200.8

Lab Sample ID: LCS 200-35518/2-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/26/2012 0236
 Prep Date: 03/23/2012 1250
 Leach Date: N/A

Analysis Batch: 200-35690
 Prep Batch: 200-35518
 Leach Batch: N/A
 Units: ug/L

Instrument ID: METICPMS2
 Lab File ID: 032512-08ISM.xml
 Initial Weight/Volume: 100 mL
 Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	4.00	4.5	113	70 - 130	
Beryllium	2.00	2.1	107	70 - 130	
Cadmium	2.00	2.1	107	70 - 130	
Chromium	4.00	3.9	97	70 - 130	
Copper	4.00	4.0	101	70 - 130	
Nickel	2.00	2.0	99	70 - 130	
Selenium	10.0	10.5	105	70 - 130	

Lab Control Sample - Batch: 200-35518

Method: ISM01.2/ICPMS

Preparation: 200.8

Lab Sample ID: LCS 200-35518/2-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/27/2012 0924
 Prep Date: 03/23/2012 1250
 Leach Date: N/A

Analysis Batch: 200-35727
 Prep Batch: 200-35518
 Leach Batch: N/A
 Units: ug/L

Instrument ID: METICPMS2
 Lab File ID: 032612-07ISM.xml
 Initial Weight/Volume: 100 mL
 Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Zinc	4.00	4.0	101	70 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1
Sdg Number: PRR1168

Method Blank - Batch: 200-35736

Method: ISM01.2/CN
Preparation: Midi-Distillati

Lab Sample ID: MB 200-35736/11-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/27/2012 1352
Prep Date: 03/27/2012 1130
Leach Date: N/A

Analysis Batch: 200-35740
Prep Batch: 200-35736
Leach Batch: N/A
Units: ug/L

Instrument ID: WCLachat
Lab File ID: OM_03-27-12_01-40-1
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Cyanide	10.0	U	1.0	10.0

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

SDG Number: PRR1168

Login Number: 9960

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417821, 822, 823, 824
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.4°C, 3.0°C; IR GUN ID 154, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-9960-1

SDG Number: PRR1168

Login Number: 9964

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417821, 822, 823, 824
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.4°C, 3.0°C; IR GUN ID 154, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

FedEx US Airbill
Express

FedEx
Tracking
Number

8737 8942 2978

0200 Form
ID No.

FedEx Copy

1 From
Date 3/21/2012 Sender's FedEx Account Number 304995327
Sender's Name TOM O'ROURKE Phone 315 439-2198

Company AREADIS
Address 6723 TOWPATH RD
City SYRACUSE State NY ZIP 13214

Your Internal Billing Reference 80009966000270004-11128

To Recipient's Name KIRIL YOUNG Phone 802 660-1990

Company TEST AMERICA

Address 30 COMMUNITY DR ST. 11
We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address _____
Use this line for the HOLD location address or for continuation of your shipping address.
City BURLINGTON State VT ZIP 05403

01 HOLD Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.
02 HOLD Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.

4a Express Package Service *To most locations. Packages up to 150 lbs.
01 FedEx Priority Overnight Next business morning. *Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
05 FedEx Standard Overnight Next business afternoon. Saturday Delivery NOT available.
06 FedEx First Overnight Earliest next business morning delivery to select locations.
03 FedEx 2Day Second business day. *Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
20 FedEx Express Saver Third business day. Saturday Delivery NOT available.

4b Express Freight Service **To most locations. Packages over 150 lbs.
70 FedEx 1Day Freight Next business day. *Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 1Day Freight Booking Fee.
80 FedEx 2Day Freight Second business day. *Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
83 FedEx 3Day Freight Third business day. ** Saturday Delivery NOT available.

5 Packaging *Declare value limit \$500.
06 FedEx Envelope* 02 FedEx Pak* Includes FedEx Smart Pak and FedEx Large Pak. 03 FedEx Box 04 FedEx Tube 01 Other

6 Special Handling and Delivery Signature Options
03 SATURDAY DELIVERY

No Signature Required Package may be left without obtaining a signature for delivery.
 Direct Signature Someone at recipient's address may sign for delivery. Fee applies.
 Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.
Does this shipment contain dangerous goods?
One box must be checked.
 No 04 Yes As per attached Shipper's Declaration. Yes Shipper's Declaration not required. 06 Dry Ice Dry Ice, S, UN 1845 _____ kg
Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. Cargo Aircraft Only

7 Payment Bill to:
1 Sender Acct. No. in Section 1 will be billed. 2 Recipient 3 Third Party 4 Credit Card 5 Cash/Check
Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No.
FedEx Acct. No. _____ Exp. Date _____
Credit Card No. _____

Total Packages 2 Total Weight 600 Total Declared Value* _____ Credit Card Auth. 10F2
Dollars \$ _____

*Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details. **606**



8737 8942 2978

FedEx US Airbill
Express

FedEx
Tracking
Number

8737 8942 2978

0200

Form
ID No.

FedEx Copy

1 From
Date 3/21/2012 Sender's FedEx Account Number 304995327
Sender's Name TOM O'ROURKE Phone 315 439-2198
Company ARCADIS
Address 6723 TOWPATH RD
City SYRACUSE State NY ZIP 13214

2 Your Internal Billing Reference 800099661000270004-11128

3 To
Recipient's Name KIRK YOUND Phone 802 660-1990
Company TEST AMERICA
Address 30 COMMUNITY DR ST. 11
City BURLINGTON State VT ZIP 05403

HOLD Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.

HOLD Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.

4a Express Package Service * To most locations. Packages up to 150 lbs.

FedEx Priority Overnight Next business morning. * Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx Standard Overnight Next business afternoon. Saturday Delivery NOT available.

FedEx First Overnight Earliest next business morning delivery to select locations.*

FedEx 2Day Second business day. * Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx Express Saver Third business day. Saturday Delivery NOT available.

4b Express Freight Service ** To most locations. Packages over 150 lbs.

FedEx 1Day Freight Next business day. ** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx 2Day Freight Second business day. ** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx 3Day Freight Third business day. ** Saturday Delivery NOT available.

5 Packaging * Declared value limit \$500.

FedEx Envelope* **FedEx Pak*** Includes FedEx Small Pak and FedEx Large Pak. **FedEx Box** **FedEx Tube** **Other**

6 Special Handling and Delivery Signature Options

SATURDAY DELIVERY

No Signature Required Package may be left without obtaining a signature for delivery.

Direct Signature Someone at recipient's address may sign for delivery. Fee applies.

Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?
One box must be checked.
 No **Yes** As per attached Shipper's Declaration. **Yes** Shipper's Declaration not required.

Dry Ice Dry Ice, 9, ICA 1845 _____ kg
 Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No.

Sender Acct. No. in Section 1 will be billed. **Recipient** **Third Party** **Credit Card** **Cash/Check**

FedEx Acct. No. _____ Exp. Date _____
Credit Card No. _____

Total Packages 2 Total Weight 60 Total Declared Value* _____ Credit Card Acct. 10F2

D.S. \$ _____ 00

*Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

606



8737 8942 2978

ANALYTICAL REPORT

Job Number: 200-9960-2

SDG Number: PRR1168

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
3/29/2012 10:31 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
03/29/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	4
Method / Analyst Summary	5
Sample Summary	6
Sample Results	7
Sample Datasheets	8
Data Qualifiers	14
QC Results	15
Qc Association Summary	16
Surrogate Recovery Report	17
Qc Reports	18
Client Chain of Custody	21
Sample Receipt Checklist	23

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1168 (200-9960-2)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met. Calibration and calibration verification were assessed on an analyte specific basis.

Calculations were performed before rounding to avoid round-off errors in calculated results.

Manual integration was employed in deriving certain of the analytical results.

For the Method 8151A analysis, positive instrument responses in the analysis of samples and quality controls were evaluated to the established method detection limit (MDL).

In performing the Method 8151A analysis, there was an acceptable recovery of the surrogate control in each of the analyses associated with the extraction set . There was an issue, however, with the recovery performance of dinoseb in the laboratory control sample analysis associated with the extraction set. In that analysis the recovery of dinoseb was 15 percent, while there was an acceptable recovery of the other target analytes.

SW846 Method 8151A does formally identify the fact that dinoseb (specifically) may be lost in the alkaline hydrolysis clean-up step within the defined extraction process.

This is an abbreviated report. A more formal report will be issued in a CLP-like format, with supportive documentation and further narrative discussion.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

Sdg Number: PRR1168

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Herbicides (GC)	TAL BUR	SW846 8151A	
Extraction (Herbicides)	TAL BUR		SW846 8151A
Organic Carbon, Total (TOC)	TAL BUR	SM SM 5310B	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

Sdg Number: PRR1168

Method	Analyst	Analyst ID
SW846 8151A	Malaspina, Richard R	RRM
SM SM 5310B	Sutton, Zachariah M	ZMS

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

Sdg Number: PRR1168

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-9960-1	PRR1WATCME-03	Water	03/21/2012 1030	03/22/2012 0900
200-9964-1	PRR1WATCMI-03	Water	03/22/2012 1040	03/22/2012 0900

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

Sdg Number: PRR1168

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-35618	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-35506	Initial Weight/Volume: 1055 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 03/23/2012 1947		Injection Volume: 1 uL
Prep Date: 03/23/2012 1021		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-D	1.8	U	0.62	1.8
2,4-DB	1.6	U	0.45	1.6
Dinoseb	0.90	U	0.18	0.90
2,4,5-T	0.45	U	0.12	0.45

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	90		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

Sdg Number: PRR1168

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

8151A Herbicides (GC)

Analysis Method: 8151A

Analysis Batch: 200-35618

Instrument ID: 5005.i

Prep Method: 8151A

Prep Batch: 200-35506

Initial Weight/Volume: 1055 mL

Dilution: 1.0

Final Weight/Volume: 10000 uL

Analysis Date: 03/23/2012 1947

Injection Volume: 1 uL

Prep Date: 03/23/2012 1021

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	87		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

Sdg Number: PRR1168

Client Sample ID: PRR1WATCHMI-03

Lab Sample ID: 200-9964-1

Date Sampled: 03/22/2012 1040

Client Matrix: Water

Date Received: 03/22/2012 0900

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-35618	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-35506	Initial Weight/Volume: 1050 mL
Dilution: 1.0		Final Weight/Volume: 10000 uL
Analysis Date: 03/23/2012 2022		Injection Volume: 1 uL
Prep Date: 03/23/2012 1021		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4,5-T	21	E p	0.12	0.45
Surrogate	%Rec	Qualifier	Acceptance Limits	
2,4-Dichlorophenylacetic acid	118		60 - 130	

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

Sdg Number: PRR1168

Client Sample ID: PRR1WATCHMI-03

Lab Sample ID: 200-9964-1

Date Sampled: 03/22/2012 1040

Client Matrix: Water

Date Received: 03/22/2012 0900

8151A Herbicides (GC)

Analysis Method: 8151A

Analysis Batch: 200-35618

Instrument ID: 5005.i

Prep Method: 8151A

Prep Batch: 200-35506

Initial Weight/Volume: 1050 mL

Dilution: 1.0

Final Weight/Volume: 10000 uL

Analysis Date: 03/23/2012 2022

Injection Volume: 1 uL

Prep Date: 03/23/2012 1021

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	97		60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

Sdg Number: PRR1168

Client Sample ID: PRR1WATCHMI-03

Lab Sample ID: 200-9964-1

Date Sampled: 03/22/2012 1040

Client Matrix: Water

Date Received: 03/22/2012 0900

8151A Herbicides (GC)

Analysis Method: 8151A	Analysis Batch: 200-35619	Instrument ID: 5005.i
Prep Method: 8151A	Prep Batch: 200-35506	Initial Weight/Volume: 1050 mL
Dilution: 100		Final Weight/Volume: 10000 uL
Analysis Date: 03/25/2012 1345	Run Type: DL	Injection Volume: 1 uL
Prep Date: 03/23/2012 1021		Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4,5-T	480	D	12	45

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	0	D X	60 - 130
2,4-Dichlorophenylacetic acid	0	D X	60 - 130

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

Sdg Number: PRR1168

General Chemistry

Client Sample ID: PRR1WATCME-03

Lab Sample ID: 200-9960-1

Date Sampled: 03/21/2012 1030

Client Matrix: Water

Date Received: 03/22/2012 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Organic Carbon	4.0		mg/L	0.14	1.0	1.0	SM 5310B
Analysis Batch: 200-35780		Analysis Date: 03/27/2012 1123					

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

Sdg Number: PRR1168

Lab Section	Qualifier	Description
GC Semi VOA	U	Indicates the analyte was analyzed for but not detected.
	E	Result exceeded calibration range.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
	X	Surrogate is outside control limits
	p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
General Chemistry	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

Sdg Number: PRR1168

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-35506					
LCS 200-35506/2-A	Lab Control Sample	T	Water	8151A	
MB 200-35506/1-A	Method Blank	T	Water	8151A	
200-9960-1	PRR1WATCME-03	T	Water	8151A	
200-9964-1	PRR1WATCMI-03	T	Water	8151A	
200-9964-1DL	PRR1WATCMI-03	T	Water	8151A	
Analysis Batch:200-35618					
LCS 200-35506/2-A	Lab Control Sample	T	Water	8151A	200-35506
MB 200-35506/1-A	Method Blank	T	Water	8151A	200-35506
200-9960-1	PRR1WATCME-03	T	Water	8151A	200-35506
200-9964-1	PRR1WATCMI-03	T	Water	8151A	200-35506
Analysis Batch:200-35619					
200-9964-1DL	PRR1WATCMI-03	T	Water	8151A	200-35506

Report Basis

T = Total

General Chemistry

Analysis Batch:200-35780					
LCS 200-35780/1	Lab Control Sample	T	Water	SM 5310B	
LCS 200-35780/5	Lab Control Sample	T	Water	SM 5310B	
MB 200-35780/2	Method Blank	T	Water	SM 5310B	
MB 200-35780/6	Method Blank	T	Water	SM 5310B	
200-9960-1	PRR1WATCME-03	T	Water	SM 5310B	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

Sdg Number: PRR1168

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
200-9960-1	PRR1WATCME-03	90	87
200-9964-1	PRR1WATCMI-03	97	118
200-9964-1 DL	PRR1WATCMI-03 DL	0D X	0D X
MB 200-35506/1-A		94	104
LCS 200-35506/2-A		85	95

Surrogate

DCPA = 2,4-Dichlorophenylacetic acid

Acceptance Limits

60-130

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2
Sdg Number: PRR1168

Method Blank - Batch: 200-35506

Lab Sample ID: MB 200-35506/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/23/2012 1837
Prep Date: 03/23/2012 1021
Leach Date: N/A

Analysis Batch: 200-35618
Prep Batch: 200-35506
Leach Batch: N/A
Units: ug/L

**Method: 8151A
Preparation: 8151A**

Instrument ID: 5005.i
Lab File ID: 23ma121709-r031.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	1.9	U	0.65	1.9
2,4-DB	1.7	U	0.47	1.7
Dinoseb	0.95	U	0.19	0.95
2,4,5-T	0.47	U	0.13	0.47
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	104		60 - 130	
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	94		60 - 130	

Lab Control Sample - Batch: 200-35506

Lab Sample ID: LCS 200-35506/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/23/2012 1912
Prep Date: 03/23/2012 1021
Leach Date: N/A

Analysis Batch: 200-35618
Prep Batch: 200-35506
Leach Batch: N/A
Units: ug/L

**Method: 8151A
Preparation: 8151A**

Instrument ID: 5005.i
Lab File ID: 23ma121709-r041.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	8.00	6.30	79	75 - 135	
2,4-DB	4.02	3.36	83	40 - 165	
Dinoseb	4.00	0.609	15	10 - 115	J
2,4,5-T	2.00	1.84	92	60 - 155	
Surrogate	% Rec			Acceptance Limits	
2,4-Dichlorophenylacetic acid	95			60 - 130	
Surrogate	% Rec			Acceptance Limits	
2,4-Dichlorophenylacetic acid	85			60 - 130	

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

Sdg Number: PRR1168

Method Blank - Batch: 200-35780

Method: SM 5310B

Preparation: N/A

Lab Sample ID: MB 200-35780/2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/27/2012 1052
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-35780
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 032712A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.14	1.0

Method Blank - Batch: 200-35780

Method: SM 5310B

Preparation: N/A

Lab Sample ID: MB 200-35780/6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/27/2012 1156
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 200-35780
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WCCH4
Lab File ID: 032712A.txt
Initial Weight/Volume:
Final Weight/Volume: 40 mL

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.14	1.0

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

Sdg Number: PRR1168

Lab Control Sample - Batch: 200-35780

Method: SM 5310B

Preparation: N/A

Lab Sample ID:	LCS 200-35780/1	Analysis Batch:	200-35780	Instrument ID:	WCCH4
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	032712A.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	03/27/2012 1036	Units:	mg/L	Final Weight/Volume:	40 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.92	99	85 - 115	

Lab Control Sample - Batch: 200-35780

Method: SM 5310B

Preparation: N/A

Lab Sample ID:	LCS 200-35780/5	Analysis Batch:	200-35780	Instrument ID:	WCCH4
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	032712A.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	03/27/2012 1140	Units:	mg/L	Final Weight/Volume:	40 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	10.0	9.88	99	85 - 115	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

SDG Number: PRR1168

Login Number: 9960

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417821, 822, 823, 824
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.4°C, 3.0°C; IR GUN ID 154, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-9960-2

SDG Number: PRR1168

Login Number: 9964

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	417821, 822, 823, 824
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.4°C, 3.0°C; IR GUN ID 154, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

FedEx US Airbill
Express

FedEx
Tracking
Number

8737 8942 2978

0200 Form
ID No.

FedEx Copy

1 From
Date 3/21/2012 Sender's FedEx Account Number 304995327
Sender's Name TOM O'ROURKE Phone 315 439-2198

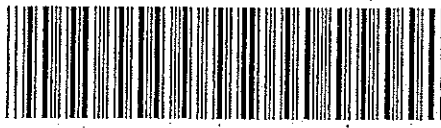
Company AREADIS
Address 6723 TOWPATH RD
City SYRACUSE State NY ZIP 13214

Your Internal Billing Reference 80009966000270004-11128

To Recipient's Name KIRIL YOUNG Phone 802 660-1990

Company TEST AMERICA
Address 30 COMMUNITY DR ST. 11
City BURLINGTON State VT ZIP 05403

Address BURLINGTON State VT ZIP 05403



8737 8942 2978

4a Express Package Service *To most locations. Packages up to 150 lbs.
01 FedEx Priority Overnight Next business morning. *Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
05 FedEx Standard Overnight Next business afternoon. Saturday Delivery NOT available.
06 FedEx First Overnight Earliest next business morning delivery to select locations.
03 FedEx 2Day Second business day. *Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
20 FedEx Express Saver Third business day. Saturday Delivery NOT available.

4b Express Freight Service **To most locations. Packages over 150 lbs.
70 FedEx 1Day Freight Next business day. *Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
80 FedEx 2Day Freight Second business day. *Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
83 FedEx 3Day Freight Third business day. ** Saturday Delivery NOT available.

5 Packaging *Declare value limit \$500.
06 FedEx Envelope* 02 FedEx Pak* Includes FedEx Smart Pak and FedEx Large Pak. 03 FedEx Box 04 FedEx Tube 01 Other

6 Special Handling and Delivery Signature Options
03 SATURDAY DELIVERY

No Signature Required Package may be left without obtaining a signature for delivery.
 Direct Signature Someone at recipient's address may sign for delivery. Fee applies.
 Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.
Does this shipment contain dangerous goods?
One box must be checked.
 No 04 Yes As per attached Shipper's Declaration. Yes Shipper's Declaration not required. 06 Dry Ice Dry Ice, S, UN 1845 _____ kg
Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. Cargo Aircraft Only

7 Payment Bill to:
1 Sender Acct. No. in Section 1 will be billed. 2 Recipient 3 Third Party 4 Credit Card 5 Cash/Check
Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No.
FedEx Acct. No. _____ Exp. Date _____
Credit Card No. _____

Total Packages 2 Total Weight 600 Total Declared Value* 10F2
Credit Card Auth. _____
*Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

606

Rev. Date 2/10 • Part #152281 • ©1994-2010 FedEx • PRINTED IN U.S.A. • 000

FedEx Express US Airbill

FedEx Tracking Number

8737 8942 2978

0200

Form ID No.

FedEx Copy

1 From
 Date 3/21/2012 Sender's FedEx Account Number 304995327
 Sender's Name TOM O'ROURKE Phone 315 439-2198
 Company ARCADIS
 Address 6723 TOWPATH RD
 City SYRACUSE State NY ZIP 13214

2 Your Internal Billing Reference B00099661000270004-11128

3 To
 Recipient's Name KIRK YOUND Phone 802 660-1990
 Company TEST AMERICA
 Address 30 COMMUNITY DR ST. 11
 City BURLINGTON State VT ZIP 05403

HOLD Weekday
 FedEx location address REQUIRED. NOT available for FedEx First Overnight.
 HOLD Saturday
 FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

4a Express Package Service * To most locations. Packages up to 150 lbs.

FedEx Priority Overnight Next business morning. * Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
 FedEx Standard Overnight Next business afternoon. Saturday Delivery NOT available.
 FedEx First Overnight Earliest next business morning delivery to select locations.
 FedEx 2Day Second business day. * Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
 FedEx Express Saver Third business day. Saturday Delivery NOT available.

4b Express Freight Service ** To most locations. Packages over 150 lbs.

FedEx 1Day Freight Next business day. ** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 1Day Freight Booking No.
 FedEx 2Day Freight Second business day. ** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
 FedEx 3Day Freight Third business day. ** Saturday Delivery NOT available.

5 Packaging * Declared value limit \$500.

FedEx Envelope* **FedEx Pak*** Includes FedEx Small Pak and FedEx Large Pak. **FedEx Box** **FedEx Tube** **Other**

6 Special Handling and Delivery Signature Options

SATURDAY DELIVERY

No Signature Required Package may be left without obtaining a signature for delivery.
 Direct Signature Someone at recipient's address may sign for delivery. Fee applies.
 Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?
 One box must be checked.
 No **Yes** As per attached Shipper's Declaration. **Yes** Shipper's Declaration not required. **Dry Ice** Dry Ice, 9, UN 1845 _____ kg
 Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. **Cargo Aircraft Only**

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No.

Sender Acct. No. in Section 1 will be billed. **Recipient** **Third Party** **Credit Card** **Cash/Check**

FedEx Acct. No. _____ Exp. Date _____
 Credit Card No. _____

Total Packages 2 Total Weight 60 Total Declared Value* _____ Credit Card Acct. No. 10F2

D.S. \$ _____ 00

*Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

606



8737 8942 2978

ANALYTICAL REPORT

Job Number: 200-9981-1

SDG Number: PRR1171

Job Description: LPRSA - Phase I Removal Action

For:

ARCADIS U.S. Inc
2300 Eastlake Avenue, East
Suite 140
Seattle, WA 98102

Attention: Ms. Shannon Dunn



Approved for release.
Kirk F Young
Project Manager I
3/26/2012 8:10 AM

Kirk F Young
Project Manager I
kirk.young@testamericainc.com
03/26/2012

cc: Mr. Joe Houser
Mr. Don Reed
Mr. Ryan Shatt

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Method Summary	5
Method / Analyst Summary	6
Sample Summary	7
Sample Results	8
Sample Datasheets	9
Data Qualifiers	14
QC Results	15
Qc Association Summary	16
Surrogate Recovery Report	17
Qc Reports	19
Client Chain of Custody	20
Sample Receipt Checklist	21

CASE NARRATIVE

Client: ARCADIS U.S. Inc

Project: LPRSA - Phase I Removal Action

Report Number: PRR1171 (200- 9981-1)

Enclosed is the data set for the referenced project work. With the exceptions noted as flags or footnotes, standard analytical protocols were followed in performing the analytical work and the applied control limits were met.

Calculations were performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods of analysis, unless otherwise detailed in the individual sections below.

Included at the end of this submittal is an itemized listing of the standards that were used in performing the analytical work.

Receipt

The samples in this sample set were received on 03/23/2012. Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Shipping and Receiving section of this submittal. The samples were received in one cooler. The temperature of the contents of the cooler was determined at the time of receipt. The temperature was 4.0 °C.

SOM01.2 Volatile Organics (Trace)

The samples in this sample set were analyzed by the referenced method. A storage blank was prepared for volatile organics analysis, and stored in association with the storage of the samples. That storage blank, identified as VHBLK01, was carried through the holding period and analyzed with the samples.

The laboratory did execute the analytical work as a modification to the cited method. The target analytes under evaluation represent a subset of the full target analyte list. Additionally, the assessment of tentatively identified compounds (TICs) was not a consideration in the evaluation of the acquired data.

Each of the analyses associated with the sample set exhibited an acceptable internal standard performance, and there was an acceptable recovery of each deuterated monitoring compound (DMC) in each analysis. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the method blank associated with the analytical work was free of analyte contamination, as was the analysis of the storage blank associated with the sample set. A trace concentration of chlorobenzene was identified in the analysis of the instrument blank that followed the more concentrated analysis of sample PRR1WATGACI-02. The concentration of chlorobenzene in that analysis was below the established reporting limit, and the analysis did meet the technical acceptance criteria for a compliant instrument blank analysis.

The responses for each target analyte met the relative standard deviation criterion in the initial calibration. The response for each target analyte met the percent difference criterion in the opening/continuing calibration check acquisition. The response for each target analyte met the 50.0 percent difference criterion in each closing calibration check acquisition.

The following details the column type and trap design that were used in the performance of the analytical work for the sample in this sample set:

Manufacturer	J&W
Column Type	DB-624
Length	25m
Inner Dia.	0.20mm
Film Thickness	1.12um

Manufacturer	EST Analytical
Trap Type	K Type - VOCARB 3000
Length	29.0cm

Consistent with the method, the laboratory did evaluate instrument response below the established reporting limit, and has reported spectrally supported responses below the reporting limit with a "J" qualifier.

METHOD SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9981-1
Sdg Number: PRR1171

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Trace Water	TAL BUR	SOM01.2	SOM01.2/VOA_Tr
Volatile sample preservation, Field Preserved Water	TAL BUR		SOM01.2 SOM01.2/VOA_PR

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SOM01.2 = U.S. Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9981-1

Sdg Number: PRR1171

Method	Analyst	Analyst ID
SOM01.2 SOM01.2/VOA_Tr	Phillips, Mark T	MTP

SAMPLE SUMMARY

Client: ARCADIS U.S. Inc

Job Number: 200-9981-1
Sdg Number: PRR1171

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-9981-1	PRR1WATGACI-02	Water	03/22/2012 1500	03/23/2012 0900
200-9981-2	PRR1WATGACE-02	Water	03/22/2012 1510	03/23/2012 0900
200-9981-3	TB03222012	Water	03/22/2012 0000	03/23/2012 0900
200-9981-4	VHBLK01	Water	03/23/2012 0925	03/23/2012 0900

SAMPLE RESULTS

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9981-1

Sdg Number: PRR1171

Client Sample ID: PRR1WATGACI-02

Lab Sample ID: 200-9981-1

Date Sampled: 03/22/2012 1500

Client Matrix: Water

Date Received: 03/23/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35585	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdea09.d
Dilution:	5.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/23/2012 1455			Final Weight/Volume:	25 mL
Prep Date:	03/23/2012 1455				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	140		25
Chlorobenzene	690	E B	2.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	93		65 - 131
Chloroethane-d5	97		71 - 131
1,1-Dichloroethene-d2	74		55 - 104
2-Butanone-d5	100		49 - 155
Chloroform-d	94		78 - 121
1,2-Dichloroethane-d4	98		78 - 129
Benzene-d6	97		77 - 124
1,2-Dichloropropane-d6	87		79 - 124
Toluene-d8	97		77 - 121
trans-1,3-Dichloropropene-d4	96		73 - 121
2-Hexanone-d5	111		28 - 135
1,1,2,2-Tetrachloroethane-d2	94		73 - 125
1,2-Dichlorobenzene-d4	97		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9981-1

Sdg Number: PRR1171

Client Sample ID: PRR1WATGACI-02

Lab Sample ID: 200-9981-1

Date Sampled: 03/22/2012 1500

Client Matrix: Water

Date Received: 03/23/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35585	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdea06.d
Dilution:	40			Initial Weight/Volume:	25 mL
Analysis Date:	03/23/2012 1343	Run Type:	DL	Final Weight/Volume:	25 mL
Prep Date:	03/23/2012 1343				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	140	J D	200
Chlorobenzene	670	D	20

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	95		65 - 131
Chloroethane-d5	96		71 - 131
1,1-Dichloroethene-d2	77		55 - 104
2-Butanone-d5	84		49 - 155
Chloroform-d	93		78 - 121
1,2-Dichloroethane-d4	94		78 - 129
Benzene-d6	100		77 - 124
1,2-Dichloropropane-d6	87		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	95		73 - 121
2-Hexanone-d5	80		28 - 135
1,1,2,2-Tetrachloroethane-d2	85		73 - 125
1,2-Dichlorobenzene-d4	98		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9981-1

Sdg Number: PRR1171

Client Sample ID: PRR1WATGACE-02

Lab Sample ID: 200-9981-2

Date Sampled: 03/22/2012 1510

Client Matrix: Water

Date Received: 03/23/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35585	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdea07.d
Dilution:	2.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/23/2012 1407			Final Weight/Volume:	25 mL
Prep Date:	03/23/2012 1407				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	10	U	10
Chlorobenzene	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	100		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	78		55 - 104
2-Butanone-d5	104		49 - 155
Chloroform-d	100		78 - 121
1,2-Dichloroethane-d4	106		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	104		73 - 121
2-Hexanone-d5	112		28 - 135
1,1,2,2-Tetrachloroethane-d2	100		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9981-1

Sdg Number: PRR1171

Client Sample ID: TB03222012

Lab Sample ID: 200-9981-3

Date Sampled: 03/22/2012 0000

Client Matrix: Water

Date Received: 03/23/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35585	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdea08.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/23/2012 1431			Final Weight/Volume:	25 mL
Prep Date:	03/23/2012 1431				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	101		65 - 131
Chloroethane-d5	102		71 - 131
1,1-Dichloroethene-d2	80		55 - 104
2-Butanone-d5	102		49 - 155
Chloroform-d	100		78 - 121
1,2-Dichloroethane-d4	105		78 - 129
Benzene-d6	102		77 - 124
1,2-Dichloropropane-d6	92		79 - 124
Toluene-d8	103		77 - 121
trans-1,3-Dichloropropene-d4	100		73 - 121
2-Hexanone-d5	109		28 - 135
1,1,2,2-Tetrachloroethane-d2	101		73 - 125
1,2-Dichlorobenzene-d4	100		80 - 131

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 200-9981-1

Sdg Number: PRR1171

Client Sample ID: VHBLK01

Lab Sample ID: 200-9981-4

Date Sampled: 03/23/2012 0925

Client Matrix: Water

Date Received: 03/23/2012 0900

SOM01.2/VOA_Tr Trace Water

Analysis Method:	SOM01.2/VOA_Tr	Analysis Batch:	200-35585	Instrument ID:	J.i
Prep Method:	SOM01.2/VOA_PR	Prep Batch:	N/A	Lab File ID:	jdea11.d
Dilution:	1.0			Initial Weight/Volume:	25 mL
Analysis Date:	03/23/2012 1543			Final Weight/Volume:	25 mL
Prep Date:	03/23/2012 1543				

Analyte	Result (ug/L)	Qualifier	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Vinyl chloride-d3	102		65 - 131
Chloroethane-d5	103		71 - 131
1,1-Dichloroethene-d2	79		55 - 104
2-Butanone-d5	102		49 - 155
Chloroform-d	101		78 - 121
1,2-Dichloroethane-d4	106		78 - 129
Benzene-d6	101		77 - 124
1,2-Dichloropropane-d6	93		79 - 124
Toluene-d8	102		77 - 121
trans-1,3-Dichloropropene-d4	102		73 - 121
2-Hexanone-d5	114		28 - 135
1,1,2,2-Tetrachloroethane-d2	98		73 - 125
1,2-Dichlorobenzene-d4	101		80 - 131

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S. Inc

Job Number: 200-9981-1

Sdg Number: PRR1171

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	D	Sample was analyzed at a higher dilution factor.
	B	The analyte was found in an associated blank, as well as in the sample.

QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9981-1

Sdg Number: PRR1171

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:200-35585					
MB 200-35585/4	Method Blank	T	Water	SOM01.2/VOA_T	
200-9981-1	PRR1WATGACI-02	T	Water	SOM01.2/VOA_T	
200-9981-1DL	PRR1WATGACI-02	T	Water	SOM01.2/VOA_T	
200-9981-2	PRR1WATGACE-02	T	Water	SOM01.2/VOA_T	
200-9981-3	TB03222012	T	Water	SOM01.2/VOA_T	
200-9981-4	VHBLK01	T	Water	SOM01.2/VOA_T	

Report Basis

T = Total

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9981-1

Sdg Number: PRR1171

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	VCL %Rec	CLA %Rec	DCE %Rec	BUT %Rec	CLF %Rec	DCA %Rec	BEN %Rec	DPA %Rec
200-9981-1 DL	PRR1WATGACI-02 DL	95	96	77	84	93	94	100	87
200-9981-1	PRR1WATGACI-02	93	97	74	100	94	98	97	87
200-9981-2	PRR1WATGACE-02	100	102	78	104	100	106	101	93
200-9981-3	TB03222012	101	102	80	102	100	105	102	92
200-9981-4	VHBLK01	102	103	79	102	101	106	101	93
MB 200-35585/4		101	102	79	106	101	107	100	93

Surrogate	Acceptance Limits
VCL = Vinyl chloride-d3	65-131
CLA = Chloroethane-d5	71-131
DCE = 1,1-Dichloroethene-d2	55-104
BUT = 2-Butanone-d5	49-155
CLF = Chloroform-d	78-121
DCA = 1,2-Dichloroethane-d4	78-129
BEN = Benzene-d6	77-124
DPA = 1,2-Dichloropropane-d6	79-124

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9981-1

Sdg Number: PRR1171

Surrogate Recovery Report

SOM01.2/VOA Tr Trace Water

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	TDP %Rec	HEX %Rec	TCA %Rec	DCZ %Rec
200-9981-1 DL	PRR1WATGACI-02 DL	102	95	80	85	98
200-9981-1	PRR1WATGACI-02	97	96	111	94	97
200-9981-2	PRR1WATGACE-02	102	104	112	100	101
200-9981-3	TB03222012	103	100	109	101	100
200-9981-4	VHBLK01	102	102	114	98	101
MB 200-35585/4		101	102	110	99	102

Surrogate	Acceptance Limits
TOL = Toluene-d8	77-121
TDP = trans-1,3-Dichloropropene-d4	73-121
HEX = 2-Hexanone-d5	28-135
TCA = 1,1,2,2-Tetrachloroethane-d2	73-125
DCZ = 1,2-Dichlorobenzene-d4	80-131

Quality Control Results

Client: ARCADIS U.S. Inc

Job Number: 200-9981-1
Sdg Number: PRR1171

Method Blank - Batch: 200-35585

**Method: SOM01.2/VOA_Tr
Preparation: SOM01.2/VOA_PR**

Lab Sample ID: MB 200-35585/4
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/23/2012 1132
Prep Date: 03/23/2012 1132
Leach Date: N/A

Analysis Batch: 200-35585
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: J.i
Lab File ID: jdea04.d
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
2-Butanone	5.0	U	5.0
Chlorobenzene	0.50	U	0.50

Surrogate	% Rec	Acceptance Limits
Vinyl chloride-d3	101	65 - 131
Chloroethane-d5	102	71 - 131
1,1-Dichloroethene-d2	79	55 - 104
2-Butanone-d5	106	49 - 155
Chloroform-d	101	78 - 121
1,2-Dichloroethane-d4	107	78 - 129
Benzene-d6	100	77 - 124
1,2-Dichloropropane-d6	93	79 - 124
Toluene-d8	101	77 - 121
trans-1,3-Dichloropropene-d4	102	73 - 121
2-Hexanone-d5	110	28 - 135
1,1,2,2-Tetrachloroethane-d2	99	73 - 125
1,2-Dichlorobenzene-d4	102	80 - 131

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 200-9981-1

SDG Number: PRR1171

Login Number: 9981

List Source: TestAmerica Burlington

List Number: 1

Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8°C, IR GUN ID 154, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

FedEx Express **NEW Package US Airbill**

FedEx Tracking Number

8769 0286 0413

0200

Form 1070

FedEx Retrieval Copy

1 From
 Date 3/22/12 Sender's FedEx Account Number 1129-1616-4
 Name TOM O'ROURKE Phone 315 459-2198
 Company ARCADIS
 Address 6733 TOW PATH RD
 City SYRACUSE State NY ZIP 13214

Your Internal Billing Reference BO009764-0002.70004-11128

To Recipient's Name KIRK YOUNG Phone 802 660-1990

Company TEST AMERICA
 Address 30 COMMUNITY DR SUITE 11
 We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Room/Sum./Room

Address S. BURLINGTON State VT ZIP 05403
 Use this line for the HOLD location address or for continuation of your shipping address. Dept./Room/Sum./Room

01 **HOLD Weekday**
 FedEx location address REQUIRED. NOT available for FedEx First Overnight.
31 **HOLD Saturday**
 FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

4 Express Package Service *To most locations. NOTE: Service order has changed. Please select carefully. Packages up to 150 lbs. For packages over 150 lbs, use the new FedEx Express Freight US Airbill.

Next Business Day
06 **FedEx First Overnight**
 Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
01 **FedEx Priority Overnight**
 Next business morning. *Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
05 **FedEx Standard Overnight**
 Next business afternoon. *Saturday Delivery NOT available.

2 or 3 Business Days
49 **NEW FedEx 2Day A.M.**
 Second business morning. *Saturday Delivery NOT available.
03 **FedEx 2Day**
 Second business afternoon. *Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
20 **FedEx Express Saver**
 Third business day. *Saturday Delivery NOT available.

5 Packaging *Declared value limit \$500.
06 FedEx Envelope* **02** FedEx Pak* **03** FedEx Box **04** FedEx Tube **01** Other

6 Special Handling and Delivery Signature Options

03 **SATURDAY DELIVERY**

No Signature Required
 Packages that do not require obtaining a signature for delivery.
 10 **Direct Signature**
 Someone at recipient's address may sign for delivery. Few applies.
 34 **Indirect Signature**
 If no one is available at recipient's address, someone at a neighboring address may sign for delivery for residential deliveries only. Few applies.

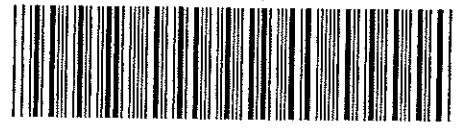
Does this shipment contain dangerous goods?
 One box must be checked.
 No **04** **Yes** As per attached Shipper's Declaration. **Yes** Shipper's Declaration not required. **06** **Dry Ice** Dry Ice, 3, UN1845 x _____ kg
 Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. **Cargo Aircraft Only**

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No.

1 **Sender** Acct. No. in Section 2 **2** **Recipient** **3** **Third Party** **4** **Credit Card** **5** **Cash/Check**

Total Packages 1 Total Weight 10 lbs. Credit Card Acct. 612

Total liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.



8769 0286 0413