

118A

RECEIVED
FEB 20 1979
INTERSTATE SANITATION
COMMISSION

ANNUAL REPORT
OF THE
PASSAIC VALLEY
SEWERAGE COMMISSIONERS
FOR THE YEAR
1978

violations and eliminations continued:

Sub Stop, River Dr. Passaic
 PVSC, Wood St. Paterson
 City of Paterson, Hillcrest Storm Sewer
 Traffic accident, Rt. 17, Maywood
 Brown Chemical, 115 Keen St. Paterson
 City of Passaic, 18" storm out let to Weasel Brook
 Do Rite Mfg., 379 Market St. Elmwood Park
 Sherwin Williams, Lister Ave. Newark
 Farruggio Constr. Union Ave. Bridge, Rutherford
 Sun Oil, 436 Doremus Ave. Newark
 R. H. Trucking, 184 Doremus Av. Newark
 City of Newark at Sun Chemical - Arkansas Chemical
 Arrow Plastics, 1-21 Mattimore St. Passaic
 City of Clifton- open channel off Colfax
 Dayton Ave. Associates, Dayton Ave. Passaic
 Eastern of N.J., Garden State Plaza, Paramus
 Calgon Corp., 200 Wagaraw Rd. Hawthorne
 Minwax, 72 Oak, Clifton
 3-M Co. 20-01 Pollitt Dr. Fair Lawn
 Stanley Tools, 140 Chapel St. Newark
 Boro of Lodi, Richmond St. Pump Station
 City of Newark, Delavan Ave. storm sewer
 A T & P Processors, 1 Van Houten St. Paterson
 Witco Chemical, 2 Wood St. Paterson
 Dynamic Chemical Prod. Emmet St. Newark
 Silvey Refrigerated Co., 11th Ave. Paterson
 Garden St. Paper, Garfield
 Bonded Oil Co. Paramus
 Chemionics Corp. 20-21 Wagaraw Rd. Fair Lawn
 L. Pucillo and Sons, Rt. 46, Lodi
 Rex Vin-gar Co., 828 Raymond Blvd. Newark
 Seepage into Molly Anns Brook Prospect Park
 Stamato & Co., Rt. 46 West, Lodi
 Universal Metal Chain, 2 Ackerman Ave. Clifton
 East Rutherford, Carlton Ave. and Brook Terrace (Locust Lane
 Storm Sewer)
 Globe Products, 55 Webro Road. Clifton
 Washington St. Storm Sewer, Paterson
 Sun Oil Co. Doremus Ave. Newark
 Sandoz Inc., Fair Lawn Ave. and 3rd St., Fair Lawn
 Benjamin Moore, 134 Lister Ave. Newark
 Jersey Petroleum Co., 6 Sheridan Av. Roselle
 Sandoz Colors & Chemical, Fair Lawn
 Boro of No. Arlington, River Rd. & Baltimore
 Fair Lawn Industries, 20-21 Wagaraw Rd. Fair Lawn
 Keep On Trucking, 1 Madison St. East Rutherford
 City of Clifton, E 6th & Louise
 Ryco Line, 10 Roberts St., Clifton
 Unifoil Corp. 20-21 Wagaraw Rd. Fair Lawn
 Renco Finishing, 20-21 Wagaraw Rd., Fair Lawn
 Atlantic Chemical, 10 Kingsland Rd., Nutley
 City of Clifton, 51 Brighton Rd. (Fire Co. #5)
 Boro of Elmwood Park, Boulevard at Van Riper
 Town of Nutley, City garage
 Witco Chemical, 2 Wood St. Paterson

KCS-NJ County - Municipality Listing (2001 Edition)

County and Municipality: ESSEX

NEWARK CITY

A SITES WITH ON-SITE SOURCE(S) OF CONTAMINATION

Site Name Contact	Case Number	Site Address Case Status	Site Identifier - Status Date Control/Remedial Action Type
SUN REFINING & MARKETING COMPANY BFO-N	921230SP04M	436 DOREMUS AVE ACTIVE	NJD001722511 - 8/16/93
SUNOCO SERVICE STATION NEWARK CITY BUST	0164342	421 LYONS AVE & SCHLEY ST ACTIVE	NJD000697334 - 1/12/95
SUNOCO SERVICE STATION NEWARK CITY BUST	0169626	315 BLOOMFIELD AVE ACTIVE	NJL600203913 - 8/11/93
SYNFAX MANUFACTURING INCORPORATED BFO-N	990211005752	441-459 AVENUE P ACTIVE	NJD064269400 - 2/23/99
T FIORE DEMOLITION CONTRACTORS BCM	940281	152 RUTHERFORD ST PENDING	NJD980769475 - 7/1/94
T&J GULF SERVICE STATION NEWARK CITY BUST	0036713	272 HILLSIDE AVE ACTIVE	NJL800472219 - 8/19/99
TENAX FINISHING PRODUCTS COMPANY BUST	0001766	390 ADAMS ST ACTIVE	NJD002141596 - 9/14/90
TENNECO OIL COMPANY NEWARK TERMINAL BEECRA	E89020	678 DOREMUS AVE ACTIVE	NJD085661999 - 11/12/92
TEXACO SERVICE STATION NEWARK CITY BFO-N	931003	OLIVER & PULASKI STS PENDING	NJL000068528 - 10/5/93
TEXTRON INCORPORATED BEECRA BEECRA BER-I	E85403 E89281 200101126	400 DOREMUS AVE ACTIVE ACTIVE PENDING	NJD092217892 - 2/7/91 - 2/7/91 - 1/16/01
THEURER HOLDINGS INCORPORATED BEECRA	E88A61	193-203 CLIFFORD ST ACTIVE	NJC876021478 - 3/19/90
THEURER HOLDINGS INCORPORATED BEECRA BEECRA	E88A62 E87861	303 SOUTH ST ACTIVE ACTIVE	NJL500031869 - 3/19/90 - 1/31/91
THEURER INCORPORATED BEECRA	E87862	174 CLIFFORD ST ACTIVE	NJL500031877 - 11/16/92
THOMAS POPOLA & SON INCORPORATED BUST	0181208	68 TO 92 DELANCEY ST ACTIVE	NJL600212013 - 11/14/95
TIDEWATER BALING CORPORATION BCM	NJD011534708	26 SAINT CHARLES ST ACTIVE	NJD011534708 - 4/1/92
TNT RED STAR EXPRESS BUST	0072669	400 DELANCEY ST ACTIVE	NJL600243984 - 9/15/94

BAB000006



POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT

<u>Sun Refining and Marketing Co.</u>	<u>60</u>
Site Name	Site ID Number
<u>436 Doremus Ave.</u>	<u>Newark, Essex Co., NJ</u>
Address	City, State

Date of Off-Site Reconnaissance March 5, 1985

SITE DESCRIPTION

Sun operates a fuel terminal for storage and distribution of fuel oil and gasoline. During plant operations various gasoline/fuel oil spills have occurred on-site, resulting in contamination of the Passaic River. The company reportedly took all necessary actions to clean up the spill. New York Coast Guard was monitoring the cleanup operations associated with another spill. Recently, the company has had some problems complying with NPDES permit limitations for oil and grease discharges. The company reported that it took all appropriate measures to prevent a recurrence of this noncompliance. Status of progress, if any, is unknown.

PRIORITY FOR FURTHER ACTION: High ☐ Medium ☐ Low ☒ None ☐

RECOMMENDATIONS

Due to the potential for soil, ground water and surface water contamination in the Passaic River, on-site inspection is recommended on a time-available basis to determine the level of safety measures taken to prevent spills and to assess remedial actions. The DPCC/DCR plan should be reviewed to ascertain whether it adequately addresses spills or seepages from the storage tanks.

Prepared by: Soterios Stavrou Date: March 8, 1985
Of: JRB Associates

BAB000020

TIERRA-D-020558



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART I - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION
01 STATE NJ 02 SITE NUMBER 60

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Sun Refining and Marketing Company		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 436 Doremus Ave.			
03 CITY Newark	04 STATE NJ	05 ZIP CODE 07105	06 COUNTY Essex	07 COUNTY CODE	08 CONG. DIST.
09 COORDINATES LATITUDE 40 43 02.0 LONGITUDE 74 07 33.0		BLOCK 5070 LOT 15			

10 DIRECTIONS TO SITE (Starting from nearest public road) New Jersey Turnpike to Exit 14, then follow signs for Doremus Ave. Take Doremus Ave. South to number 436.

III. RESPONSIBLE PARTIES

01 OWNER (If known) Sun Refining and Marketing Co.		02 STREET (Business, mailing, residential) Ten Penn Center, 1801 Market Street			
03 CITY Philadelphia	04 STATE PA	05 ZIP CODE 19103	06 TELEPHONE NUMBER (215) 9776202		
07 OPERATOR (If known and different from owner) Joe Flint		08 STREET (Business, mailing, residential) 436 Doremus Ave			
09 CITY Newark	10 STATE NJ	11 ZIP CODE 07105	12 TELEPHONE NUMBER (201) 4653200		
13 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER <input type="checkbox"/> G. UNKNOWN (Specify)					

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☐ A. RCRA 3001 DATE RECEIVED: MONTH DAY YEAR ☐ B. UNCONTROLLED WASTE (CERCLA 103c) DATE RECEIVED: MONTH DAY YEAR ☒ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION <input type="checkbox"/> YES DATE MONTH DAY YEAR <input checked="" type="checkbox"/> NO CONTRACTOR NAME (S)		BY (Check all that apply) <input checked="" type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER (Specify)			
02 SITE STATUS (Check one) <input type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION BEGINNING YEAR ENDING YEAR <input checked="" type="checkbox"/> UNKNOWN			

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Sun Refining and Marketing is a fuel storage and distribution terminal. Various types of fuel oil and gasoline may be present at this facility. (Attachments A thru E)

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Several spills of gasoline and oil products have been reported at this site. Remedial actions appear to have been taken to contain spills. (Attachments A thru E)

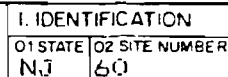
V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste information and Part 3 - Description of Hazardous Conditions and Incidents)

☐ A. HIGH (inspection required promptly) ☐ B. MEDIUM (inspection required) ☒ C. LOW (inspection on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT Fred Schmitt	02 OF (Agency/Organization) NJDEF/BEERA	03 TELEPHONE NUMBER (609) 2921215			
04 PERSON RESPONSIBLE FOR ASSESSMENT Soterious Stavrou	05 AGENCY	06 ORGANIZATION JRB Assoc.	07 TELEPHONE NUMBER (201) 5990100	08 DATE 3/8/85 MONTH DAY YEAR	

☐ M.NCT APPLICABLE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE	unknown		
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	unknown		
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

[illegible]

CATEGORY	O1 FEEDSTOCK NAME	O2 CAS NUMBER	CATEGORY	O1 FEEDSTOCK NAME	O2 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE NJ 02 SITE NUMBER 60

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

A potential for ground water contamination exists from spill of petroleum products. (Attachments A thru E)

01 ☒ B. SURFACE WATER CONTAMINATION 02 ☒ OBSERVED (DATE: 3/7/84) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Spills or seepage have occurred at the site, resulting in the discharge of petroleum to the Passaic River. (Attachments A thru E)

01 ☐ C. CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

01 ☒ D. FIRE/EXPLOSIVE CONDITIONS 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Potential exists for fire or explosions from gasoline spills. (Attachments A thru E)

01 ☐ E. DIRECT CONTACT 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

01 ☒ F. CONTAMINATION OF SOIL 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

A potential for soil ^(area) contamination exists from petroleum spills. (Attachments A thru E)

01 ☐ G. DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

01 ☐ H. WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

01 ☐ I. POPULATION EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3-DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE NJ 02 SITE NUMBER 60

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA 02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION:

Potential exists for damage to aquatic flora due to oil/gasoline spills into the Passaic River. (Attachments A thru E)

01 ☒ K. DAMAGE TO FAUNA 02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (include name(s) of species):

Oil spills to the Passaic River pose a threat to aquatic fauna in the river. (Attachments A through E)

01 ☒ L. CONTAMINATION OF FOOD CHAIN 02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION:

Potential exists for bioconcentration/accumulation of petroleum products released into the Passaic River.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES 02 ☒ OBSERVED (DATE: 7/23/83) ☐ POTENTIAL ☐ ALLEGED
(Spills/runoff/standing liquids/leaking drums)
03 POPULATION POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION:

Due to overfill in a storage tank, approximately 52 bbls of economy gasoline were spilled. (Attachments B,C,D)

01 ☐ N. DAMAGE TO OFFSITE PROPERTY 02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION:

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION:

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING 02 ☒ OBSERVED (DATE: 3/7/84) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION:

Spills of petroleum products into the Passaic River caused by poor storage or transfer operations have been reported several times. (Attachments A thru E)

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

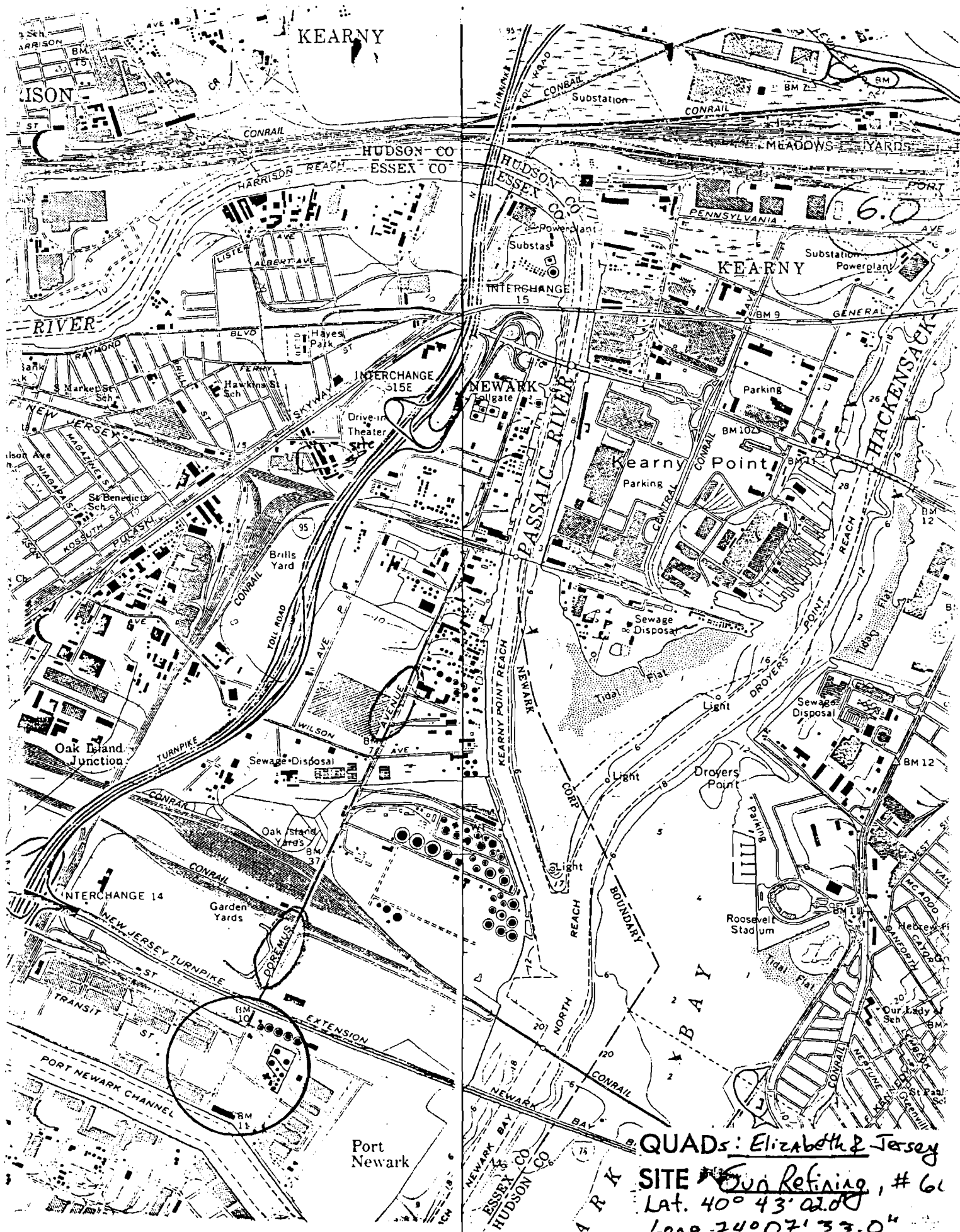
III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

Sun reportedly took all necessary actions to clean up the gasoline spills that have occurred on-site. Recently, NJPDES violations were reported for oil and grease discharge. (Attachment E)

V. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

NJDEP/DWR Newark Files: Attachments A thru E



QUADS: Elizabeth & Jersey
 SITE # Sun Refining, # 61
 Lat. 40° 43' 02.00"
 Long. 74° 07' 33.04"

USCG GROUP NEW YORK COMMS

84 JAN 24 23 25

GREENWICH MEAN TIME

GROUP NEW YORK COMMUNICATIONS			
GROUP	COTP	SLOT	
COR/REP	COXO	1	VTS NY
PERS	WFO	1	ANT NY
SUPP	HMO		SAUK
ELEC	SMD		PARITAN
ENG	WPG		MEYBORG
A - ACTION OFFICE			11'S
I - INFO OFFICE			WIDE
			HAWSER
000			

84-1-24-02C SP 7-14 NFA

EDISON
YARDVILLE
23002
WB

ZCZC

NC M9

NC M9 DE N9

ISN-N9/28

P 242226Z JAN 84

- FM COGARD COTP NEW YORK NY
- TO COGDIHPEE NEW YORK NY
- COGARD MIC NEW YORK NY
- ZEN/EPA REGION TWO EDISON NJ
- ZEN/NEW JERSEY STATE DEP YARDVILLE NJ

BT

UNCLAS //A18465//
SUBJ: POLREP ONE /AND FINAL/ NR2 OIL MINOR DISCHARGE 1/F NATHAN
BERMAN. SUN OIL, NEWARK. NEW JERSEY PASSAIC RIVER PIV 84-21-24/4/2047

1. SITUATION:

- A. 241200R JAN 84 RECEIVED REPORT OF OIL SPILL FROM MR. CURTIS BROWN, OPERATIONS SUPERVISOR OF SUN OIL CO, NEWARK, NJ.
- B. 1252R JAN 84 PRIOR TO INVESTIGATORS ARRIVAL IT WAS DISCOVERED THAT THE T/F NATHAN BERMAN HAD OIL BUBBLING UP FROM BELOW ITS STERN AND CLEAN VENTURE WAS CONTRACTED FOR CLEAN-UP. T/F WAS DISCHARGED TO FACILITY.

C. WX: TEMP 35 DEG F. WINDS CALM, SEAS CALM.

D. 1400R CLEAN-UP COMPLETED.

2. ACTION TAKEN:

- A. 241432R JAN 84 NOTIFIED ADJEF.
- B. 1115R INVESTIGATORS PARKES AND POWELL ARRIVED O/S AND WERE INFORMED THAT THE T/F NATHAN BERMAN WAS THE PROBABLE SOURCE. CLEAN VENTURE CLEAN-UP PERSONNEL WERE O/S. INVESTIGATORS OBSERVED OIL BUBBLING UP FROM BELOW THE STERN OF THE T/F NATHAN BERMAN
- C. 1130R NOTIFIED MIC NEW YORK.
- D. 1205R DIVER O/S AND IN WATER.
- E. 1212R DIVER DISCOVERED A 4 INCH OVERBOARD DISCHARGE PIPE 7 FT BELOW THE WATER LINE LEAKING OIL.
- F. 1215R DIVER PLUGGED DISCHARGE PORT OF LINE LEAKING OUT OIL.
- G. 1230R INVESTIGATORS ISSUED FORMS COGDI3-13 AND COGDI3 13 RECOMMENDING SCREENS BE DEPLOYED, AND TO INSURE PLUG WAS HOLDING PRIOR TO T/F DEPARTURE FOR YARDS.
- H. 1400R ISSUED FORM COGDI3-13. SCREENS REMOVED. CLEAN UP COMPLETE. VESSEL FREE TO SAIL.
- I. 1415R INVESTIGATORS DEPARTED SCENE.

3. CASE CLOSED.

BT

NNNN

8 DE NC & AR 10R-21:24:23:25:32

NNNN

Attachment A

POLREP FOR CONTINUING SEEPAGE CASES

Instructions: This form will be used in lieu of the normal polrep for ongoing seepage case follow-ups. This form is only to be used after the major events of the initial incident have occurred.

Reporting Unit: Captain of the Port, New York.
Bldg. 109, Governors Island
New York, N. Y. 10004
(212) 668-7920 (days)
(212) 668-7936 (nights/24 hrs.)

DATE: 7 MARCH 84

POLREP NO.: SEVENTEEN ON GOING CASE

IN: 81-07-0914/0445 REC:

SOURCE: SUN OIL COMPANY OF PENNSYLVANIA

LOCATION: DOREMUS AVE. NEWARK NEW JERSEY

AMOUNT RECOVERED TO DATE: UNKNOWN

WATERBODY: PASSAIC RIVER NEWARK BAY

SITUATION: (A) 07 1100R MAR 84 SEEPAGE CONTINUES, CLEANUP CONTINUES.

(B) WX: TEHP: 38 DEG F, WINDS 2 KTS NW, TIDE HIGH

ION TAKEN: 07 1030R MAR 84 INVESTIGATORS CAMACHO, MAAS, AND GRAZIAN ARRIVED O/S: OBSERVED SATURATED SWEEP DEPLOYED ALONG SHORELINE.

(B) BROWN OIL AND SHEED BEING CONTAINED BY SWEEP. OBSERVED OIL IN CONTAINMENT AREA AROUND TANKS.

(C) 1045R SPOKE TO MR. BROWN WHO STATED THAT WITHIN A WEEK ALL THE TANKS ON THE NORTH SIDE OF THE TERMINAL WOULD BE PERMANENTLY SHUT DOWN, ALL OILS WILL BE PUMPED OUT.

(D) 1050R ISSUED FORM CCGD 3-15 TO MR BROWN RECOMMENDING SWEEP BE REMOVED AND REPLACED.

(E) 1100R INVESTIGATORS DEPARTED SCENE.

FUTURE PLANS: COAST GUARD TO CONTINUE MONITORING CLEANUP.

(signature) *[Signature]*

Copy to: NRC _____ EPA REGION II XX NJDEP XX NYDEC _____ AIRSTA BKLYN: _____
OTHER _____

POLREP FOR CONTINUING SEEPAGE CASES

Scott

Instructions: This form will be used in lieu of the normal polrep for ongoing seepage case follow-ups. This form is only to be used after the major events of the initial incident have occurred.

Reporting Unit: Captain of the Port, New York.
Bldg. 109, Governors Island
New York, N. Y. 10004
(212) 668-7920 (days)
(212) 668-7936 (nights/24 hrs.)

DATE: 20 JAN. 84

POLREP NO.: SIXTEEN (16)

PIN: 81-07-09/4/0445

SOURCE: SUN OIL COMPANY OF PENNSYLVANIA

LOCATION: DOREMUS AVE. NEWARK NEW JERSEY

AMOUNT RECOVERED TO DATE: UNKNOWN

WATERBODY: PASSAIC RIVER NEWARK BAY

SITUATION: 20 1145R JAN 84 NO SEEPAGE OBSERVED AT LOW TIDE
CLEANUP CONTINUES USING SORBENT MATERIALS.

B. WX: TEMP 15 DEG. F, WINDS CALM, TIDE LOW

ACTION TAKEN: 20 1115R JAN 84 INVESTIGATORS SCOTT, BROWN AND HANKINS
ARRIVED ON SCENE. OBSERVED SORBENT SWEEP DEPLOYED AND
FROZEN IN ICE. NO OIL OR SEEPAGE OBSERVED.
D. 1145R ISSUED FORM CCGD3-15 TO MR. C. BROWN, MANAGER,
RECOMMENDING TO DEPLOY AND MAINTAIN SORBENTS AS WEATHER
PERMITS.
E. 1150R INVESTIGATORS DEPARTED SCENE.

FUTURE PLANS: COAST GUARD TO CONTINUE MONITORING CLEANUP

(signature) *JP [unclear], LTJG, USCG*

Copy to: NRC _____ EPA REGION II XX NJDEP XX NYDEC _____ AIRSTA BKLYN: _____
OTHER _____

A-3

MEMO

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO KARL DELANEY
FROM FREDERICK A. SICKELS DATE APRIL 5, 1983
SUBJECT SUNOCO TERMINAL - 436 DOREMUS AVE. - NEWARK - DWM #82-09-24-01

CONCLUSION: Due to overfill in Tank #42, approximately 52 bbls of economy gasoline were spilled. The spill was contained in the tank area. The site was cleaned up by Elmwood Tank Cleaning. The DPCC/DCR plan for the subject company has not been approved by this Department. The plan was submitted on April 15, 1982.

RECOMMENDATION: Because the spill remained in the dike area around the affected tank, there was no threat to waters of the State. This writer recommends that no further action be taken on this case.

dlr

Attachment B

82-09-24-01



Sun Refining and
Marketing Company
Ten Penn Center
1801 Market Street
Philadelphia PA 19103-169

March 14, 1983

Mr. Fred Sickles
New Jersey Dept. of Environ-
mental Protection
Division of Hazardous Mgmt.
120 Route 156
Yardville, NJ 08620

SUBJECT: Sun Refining and Marketing Co.
Incident Occurring on 9/23/83 at
Newark, New Jersey Terminal

Dear Mr. Sickles:

As per your telephone conversation of 3/4/83 with
Mr. Kevin Brennan, Terminal Manager, and in accordance
with Section 7:1E-2.2 of the DPCC Plans, Sun is required
to submit a status report on the subject incident. Upon
filling tank #42 on 9/23/83 at our Newark, NJ Terminal, an
overfill occurred which resulted in a spill of approx. 52 bbls.
of economy gasoline. The New Jersey D.E.P. was notified
of this incident the following morning.

The spill was contained within the tank area. Clean-up of
the area was performed by Elmwood Tank Cleaning with the
use of a vacuum truck. To prevent a recurrence of this
incident, repairs were made to a motor operated valve which
was the most probable cause of this overfill.

Even though our DPCC Plans were submitted on 4/15/82 and
still have not been approved as of this date, this letter
will conform to Chapter 1E - Discharges of Petroleum and
Other Hazardous Substances.

If you have any further questions regarding this matter, you
can contact me at (215) 977-6202 or Kevin Brennan at
(201) 589-8300.

Very truly yours,

Tina M. Smith
Environmental Specialist

TMS:sc

Attachment C



TIERRA-D-020568

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

INCIDENT REPORT

D.W.M. ASSIGNED CASE NUMBER	82-19-24-001	HOT LINE <input type="checkbox"/>	INDEXED <input type="checkbox"/>
DATE	19-24-82	TIME (Military)	0915
D.W.M. ID NO.		11250	

INCIDENT REPORTED BY:		PHONE	
NAME	Kevin Brennan	201-589-8300	
AFFILIATION	SUNCO	CODE	
STREET			
CITY	Newark	STATE	NJ
		ZIP CODE	

INCIDENT LOCATION:		PHONE	
NAME	SUN TERMINAL	UTM VERT	UTM HORIZ
STREET	436 JORAMIS AVE	STATE	NJ
CITY	NEWARK	COUNTY	7
		ZIP CODE	

SOURCE OF SPILLED AND/OR DISCHARGED SUBSTANCE:		Confirmed <input type="checkbox"/>	Alleged <input type="checkbox"/>	More Than 1 Source <input type="checkbox"/>
COMPANY NAME	TANK 42 - (1100 storage tank)	PHONE		
CONTACT		TITLE		
STREET	Sun Terminal	DEF COMPANY NO.		
CITY	Newark	COUNTY	STATE	NJ
		ZIP CODE		

SUSPECTED SPILLED AND/OR DISCHARGED SUBSTANCE:		Confirmed <input type="checkbox"/>	Alleged <input type="checkbox"/>	More Than 2 Substances <input type="checkbox"/>
Economy GASOLINE - UNLEADED				
AMOUNT SPILLED	100-150 GALS	UNITS	GALS	A/P/E
		E		
		SUBSTANCE NO.		
		S/L/G/M		
		SUBSTANCE NO.		
		S/L/G/M		

TIME OF INCIDENT	9-29-82	TIME (Military)	1600	TEMP.		WEATHER		WIND (Dir. & Vel.)	
LOCATION	Storage Tank							CODE	
USE	overflow of tank							CODE	
OTHER BODY AFFECTED	N/A							CODE	
INDICATED FIRE AND/OR HAZARDS	explosive / flammable								

AGENCY REFERRED TO:		PHONE	
AGENCY		AGENCY CODE	

BY D.W.M. INVESTIGATOR	SICKLES	FOLLOWUP	
OTHER ACTION		DATE	

REMARKS:

In inspections like - most material evaporated at this time -
Notification one day late.

4-10-82 ACT
SPILL VIOLATIONS

ATTACHMENT



RECEIVED
DIVISION OF WATER RESOURCES
ENFORCEMENT ELEMENT

JUN 19 9 57 AM '84

60

Sun Refining and
Marketing Company
Ten Penn Center
1801 Market Street
Philadelphia PA 19103-1699

May 25, 1984

Regional Administrator, Region II
U. S. Environmental Protection Agency
26 Federal Plaza
New York, NY 10278
Attn: Permits Administration Branch

Subject: NPDES Permit NJ0002771, Sun Refining & Marketing Company
436 Doremus Avenue, Newark, NJ 07105

Dear Sir:

This is to inform you of the following noncompliance of the above referenced
NPDES Permit limitations:

<u>PSD No.</u>	<u>Date of Samples</u>	<u>Sample Type</u>	<u>Oil & Grease</u>	<u>Permit Limitations</u>
001	5/3/84	3 grabs 30 Min.	23.3 mg/l	15 mg/l

There does not seem to be any apparent reason for this noncompliance. The oil
water separator will be checked and skimmed. All of the appropriate people
have been notified to prevent a recurrence of this noncompliance. As an added
measure we notified the State Emergency Spill, Mr. Cabiella 201-548-8730.

If you should have any questions or require any additional information, please
contact me at (201) 465-3200.

Very truly yours,

Joe Flint

Joe Flint
Terminal Manager

cc: Assistant Director - Operations & Enforcement
Division of Water Resources
NJ Dept. of Environmental Protection
P. O. Box CN029
Trenton, NJ 08625

RECEIVED

JUN 22 1984

DEPT. OF ENVIRONMENTAL PROTECTION
NEWARK OFFICE

Attachment E

RMJS 1

TIERRA-D-020570

MALCOLM
PIRNIE

OFF - SITE RECONNAISSANCE

Date: 3/5/85Time In 11:15 AM Out 11:45 AMSite ID No. 60Site Name: Sun Ren. + Man. Co.

Location: _____

Address: 136 Doremus Ave.City, County Newark, NJZip: 07105Personnel: Joseph ZalloSOTERIOS STAVROUTitle: Environmental EngineerAss Environmental EngineerConditions: Sunny to Partly CloudyTemperature: 50°FAny evidence of imminent hazard? NoIllegal Dumping? NoUncapped Monitoring Wells? No

If Yes, Notify NJDEP

Signature: [Signature]Date: 3/5/85Witness: Soterios StavrouDate: 3/5/85

Site: Sun. Ref. + Mark. Co.

Site ID No. 60

Date: 3/5/85

- Large Pt. Refinery Port New York Bay
- Area appears to have good grounds & housekeeping
- Saw down street at various locations around the site
- Tanks all have ~10' concrete catwalks
- Construction cranes noticed near dock side on north end of facility

Signature:



Date:

3/5/85

Witness:

Jeffrey Stammen

Date:

3/5/85

Subject: San Ramon + Mar. Co.Site ID No. 60Date: 3/5/85

Page No.

ASA: 100

Frame No: * Object photographed: * Location of photographer: * Compass heading:

Frame No.	Object photographed	Location of photographer	Compass heading
17	Main Entrance Area	Doreans Ave	NE
18	"	"	NE
19	Southern end of facility	"	N
20	Northern end of facility	"	NE
21	"	"	NE

*Indicate on sketch or map if possible

Signature:

Soterio Stamos

Date:

3/5/85

Witness:

Date:

3/5/85

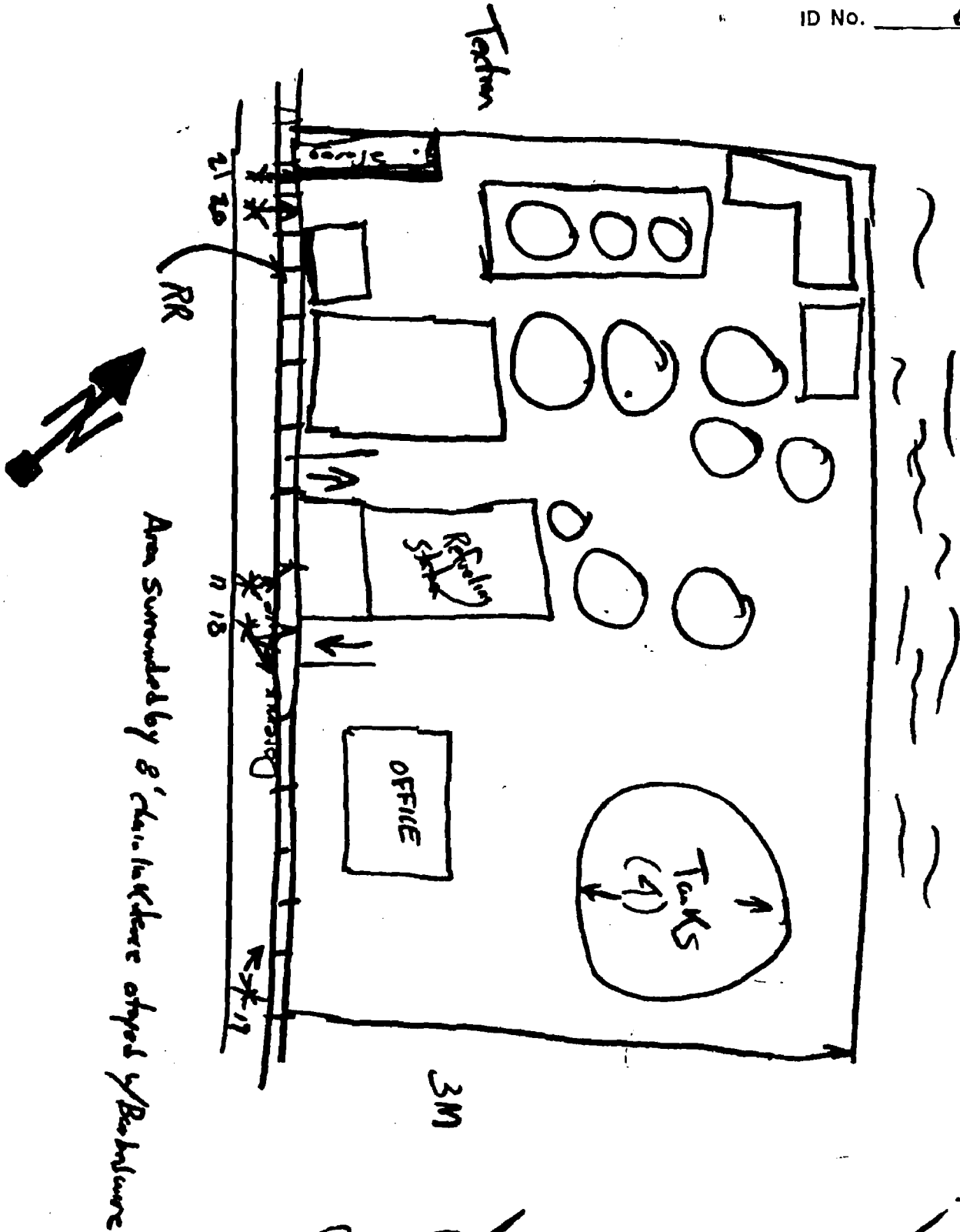
MALCOLM
PIRNIE

MAPS AND SKETCHES

Page 4 of 4

Site: San Ra. + M. Co.

ID No. 60



Signature: _____

Witness: _____

Date: _____

Date: _____

MALCOLM
PIRNIE

SITE NAME: Sun Mark Industries

FILE	SEARCH DATE	REVIEWER	RCRA 300I FORM	CERCLA 103C FORM	PRELIMINARY INSP. REPORT	FIELD INSPECTION REPORT	AGENCY INTERNAL REPORTS	RESP. PARTY CORRESPONDENCE	FORMAL REPORTING DOCUMENTS	SITE SKETCHES	ANALYTICAL DATA	SECOND SEARCH DATE	REMARKS	QA CHECK
DWR Newark													NPDES Permit NJ0002771 Sun Refining + Marketing Co. owns Sun Mark Industries	

ID NO: 60
Newark City
LOCATION: Essex
County

CODES:

- ✓ REVIEWED AND COPIED
X REVIEWED BUT NOT COPIED

MALCOLM
PIRNIE

SITE NAME: Sun Chemical
or Sun Refining & Marketing Co.

ID NO: 60

LOCATION: Newark
Essex

FILE	SEARCH DATE	REVIEWER	RCRA 300I FORM	CERCLA 103C FORM	PRELIMINARY INSP. REPORT	FIELD INSPECTION REPORTS	AGENCY INTERNAL REPORTS	RESP. PARTY MEMOS	FORMAL REPORTING CORRESPONDENCE	SITE SKETCHES	ANALYTICAL DATA	SECOND SEARCH DATE	REMARKS	QA CHECK
DWM	1-29-85	CH			✓								Thanks for Sun Chemical 185 Broadway Street	

CODES:

- ✓ REVIEWED AND COPIED
X REVIEWED BUT NOT COPIED

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

07-14 -340

INSPECTION REPORT

REPORT PREPARED FOR:

- ☒ Generator
☐ Transporter
☐ HWM (TSD) Facility

also has ID # of NJD 001722511

FACILITY INFORMATION

Name: SUN OIL COMPANY, INC.
Address: 436 DURENAS AVE
NEWARK, NJ 07105
Lot: 15 Block: 5070
County: ESSEX
Phone: 201-465-3200
EPA ID #: NJD 980650154, N.J.D. 001722511
Date of Inspection: 10/30/86

PARTICIPATING PERSONNEL

State or EPA Personnel: JEFFREY A. STERLING

Facility Personnel: JOSEPH T. FLINT, operation mgr.
CURTIS BROWN, operation supervisor

Report Prepared by Name: JEFFREY A. STERLING
Region: Metro
Telephone #: 201-669-3960
Reviewed by: Yank Smith Yank
Date of Review: 11-18-87

BAB000021

FACILITY NAME: Sun Oil Co. Inc.

ADDRESS: 436 Doemens Ave
Verant, NJ 07105

TIME IN: 1130

COUNTY: Essex

TIME OUT: 1430

EPA ID : NJD980650154

DATE OF INSPECTION: 10/30/87

PHOTOS TAKEN

☐ YES

☒ NO

If yes, how many? _____

SAMPLE TAKEN

☐ YES

☒ NO

NO. OF SAMPLES _____

NJDEP ID # _____

MANIFESTS REVIEWED

☒ YES

~~☐ NO~~

Number of manifests in compliance 9

Number of manifests not in compliance 4

List manifest document numbers of those manifests not in compliance.

PAB2084983 (6/3/86)

NYA3960713 (2/20/86)

NYA6213447 (4/10/87)

NJA0014462 (1/10/85)

SUMMARY OF FINDINGS

FACILITY DESCRIPTION AND OPERATIONS

The Bureau of Hazardous Waste Engineering (BHWEE), in a letter dated 6/18/87, asked Sun Oil Company to submit a Part A application. The company, in 1983, had notified the USEPA that it was a transporter, storer, or disposer of hazardous wastes but they didn't follow up by submitting a Part A application. The ID # of NJD001722511 was issued as result of their 1983 notification to the EPA.

In a memo to the Bureau of Field Operations, dated 7/17/87, the BHWEE requested that a site inspection be conducted to verify the regulatory status of Sun Oil Company.

The subject was visited on 10/30/87. The contacts at the site were Messrs. Joe Flint, operation manager and Curtis Brown, operation supervisor. They indicated that Sun Oil Company, located at 436 Doremus Avenue, Newark, NJ, was headquartered in Philadelphia, PA. The subject facility was a petroleum distribution terminal. They receive finished petroleum products from their offsite refinery which is located in Pennsylvania. This terminal receives the petroleum products in bulk quantities through pipelines or via barges. These products are stored in very large above ground tanks. The tank storage capacity of this terminal puts it into the category of a major facility as defined in NJAC 7:1E-1.3.

This facility repackages the petroleum products it

-A-

SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS

and hedges. Examples of the materials handled onsite are fuel oils, gasoline and jet turbine fuel.

The facility indicates that the only hazardous waste produced onsite are tank bottoms (sludges), and waste crankcase oil (X721). The storage tanks are cleaned out by a tank cleaning outfit about two times per year. The tank bottoms (^{DOO1}X722) are promptly manifested offsite and are not stored onsite. Waste crankcase oil is generated in their onsite garage and it is not manifested offsite. (receipts are used). The company indicated that less than 1001 gallons of crankcase oil was generated per month. They were advised about the manifest rules pertaining to waste oil shipments of quantities greater than 1000 gallons (NTAC 7.26-7.7(D)).

The loading ^{vents} dock at this facility ^{are} are encircled by floor drains which lead to an oil/water separator. Stormwater runoff also goes to the oil/water separator. Petroleum products are removed from the oil/water separator and are stored in tanks onsite. They call the skimmed product "slop oil." This is sent back to the refinery for reprocessing. Hazardous waste manifests are not used for shipping the slop oil as the company doesn't consider the slop oil to be a

-A-

SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS

used instead.

The tank bottoms (X222 or D001) are sent either to their refinery for reprocessing/treatment or to other offsite TSD facilities. The company manages the tank bottom (sludge) as hazardous waste.

The discharge from the oil/water separator goes ~~directly~~ directly to the Passaic river and the company possesses a NJPDES Permit from the Division of Water Resources. The permit number is NJ0002771. The company also has a DPCC/DCR permit from the Div. of Water Resources that bears the same number.

The company has three EPA ID numbers. They are NJD980650154, NJD001722.511, and NJT350010674. The company officials stated that since 1980 the processes have not changed at this location. In other words, since 1980 this site has been solely engaged in the redistribution of petroleum products. Hence, according to the company, this location ~~never~~ never conducted TSD activities.

NJD980650154 was issued in 1980 and it identifies Sun Oil Company as a generator of hazardous waste. (In the EPA Printout, NJD980650154 identifies "Sun Petroleum Products Company"). The second EPA ID number NJD001722.511 was issued in 1983

-A-

SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS

tentatively identified Sun Oil Co as a TSD. (No part A was ever submitted) The third number was a temporary number issued by the EPA in 1980 and has since been deactivated. NTD 001722511 lists R.F. Keefe (301-982-7385) as the contact. Messrs Flint and Brown of the subject facility denied any knowledge of such an individual. A phone call to the above phone number revealed that it doesn't belong to Sun Oil Co. (Phone call was made on 11/17/87).

A manual review revealed the following:

- (1) 2 shipments of waste flammable liquids (tint bottom) were shipped in 1987 on 4/14/87 & 4/11/87 (5000 gal & 3750 gal, respectively)

- (2) 3 shipments occurred in 1986 on ~~2/22/86~~ ^{2/20/86} (5000 gal), 2/24/86 (5000 gal), and 6/3/86 (1772 gal). All 3 shipments consisted of bottom from gasoline tanks.

- (3) 4 shipments took place in 1985 on 1/10/85 (1600 gal - X722) - liquid
1/16/85 (1600 gal - X722) liquid
3/9/85 (1513 gal - ^{D008}D001) solid
3/8/85 (1574 gal - D001/D008) solid

-A-

SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS

The annual report for 1985 did not accurately reflect the manifest activities for 1985. The 1985 manifests ~~show~~^{stated} that the waste were sent to two (2) offsite TSD Facilities:

a) Cocos International, Buffalo, NY (NYD080336241)

b) Sun Refining & Marketing, Marcus Hook, PA (PAD980550594)

The annual report for 1985, however, stated that waste was only shipped to Sun Refining and Marketing.

The EPA ID # of NJD001722511 was used on the 1985 manifests. It was used on two (2) of the 1986 manifests and NJD980650154 was used on the third 1986 manifest. In 1987 up to the time of this site visit, only NJD980650154 was used.

The company acknowledged on their 1985 & 1986 annual reports that they were given three EPA ID #s and that they ~~is~~ would only use NJD980650154 on future manifests. They requested on the annual reports mentioned above that NJD001722511 and NJT350010674 be deleted.

Based on this inspection, their request to have ~~NJD001722511~~ NJD001722511 and NJT350010674 ^{deactivated} appears to be valid.

NOTE: NJD001722511 → Sun Oil Co., Inc.

NJD980650154 - Sun Petroleum Products Company

* Both identify the same facility.

-B-

Describe the activities that result in the generation of hazardous waste.

- ① Engine oil changes - X721
- ② storage tank cleanouts → D001, D008, X722 (solid/liquid)

Identify the hazardous waste located on site, and estimate the approximate quantities of each.
(Identify Waste Codes)

none - The tank cleanout sludges are promptly manifested offsite after the tanks are cleaned by outside contractor

- waste oil storage < 1001 gal. (exempt)
(But company was informed ahead)
(< 1001 exemption)

GENERATOR INSPECTION CHECKLIST

		YES	NO	N/A
7:26-8.5	<u>Hazardous waste determination</u>			
	(a) Did the generator test its waste to determine whether it is hazardous?	—	✓	—
	Is the waste hazardous?	✓	—	—
7:26-8.5(b)2	Is the generator determining that its waste exhibits a hazardous waste characteristic(s) based on its knowledge of the material(s) or processes used?	✓	—	—
	Has hazardous waste been shipped off site since November 19, 1980?	✓	—	—
	If yes, how many shipments, off site, have been made and describe the approximate size of an average shipment made on a monthly basis. If facility is a small quantity generator, please explain.			
	<p>1985 - 4 manifests</p> <p>1986 - 3 manifests</p> <p>1987 - 2 manifests thru 10/30/87</p>			<p>waste oil shipments not manifested (< 100 gal)</p> <p>(Tank bottom are manifested offsite when tanks are cleaned ~ 2 times per year.)</p>
7:26-7.4(a)1	Does the generator have an EPA ID #?	✓	—	—
7:26-7.4(a)4	Does each manifest have the following information? Please circle the elements missing and obtain a copy of the incomplete manifests. (List those manifests that are deficient)	—	—	—
7:26-7.4(a)4i	The generator's name, address and phone number?	✓	—	—
7:26-7.4(a)4ii	The generator's EPA ID number?	✓	—	—
7:26-7.4(a)4iii	The transporter(s) name, address and phone number?	✓	—	—
7:26-7.4(a)4iv	The transporter(s) EPA ID number?	✓	—	—
7:26-7.4(a)4v	The name, address and phone number of the designated TSD facility?	✓	—	—
7:26-7.4(a)4vi	The TSDF's EPA ID number?	✓	—	—
7:26-7.4(a)4vii	The name, type and quantity of hazardous waste being shipped, including such particulars as may be required regarding same?	✓	—	—

		YES	NO	N/A
7:26-7.4(a)4viii	Special handling instructions and any other information required on the form to be shipped by the generator?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5	Before allowing the manifested waste to leave the generator's property, did the generator:			
7:26-7.4(a)5i	Sign the manifest certification by hand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5ii	Obtain the handwritten signature of the initial transporter and <u>date of acceptance</u> on the manifest? <i>NJA 0014460 (1/16/85)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5iii	Retain one copy and forward one copy to the state of origin and one copy to the state of destination?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5iv	Give remaining copies of the manifest form to the transporter?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(f)1	Has the generator maintained facility records for three (3) years? (Manifest(s), exception report(s) and waste analysis)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(h)1	Has the generator received signed copies of portion B (from the TSD facility) of all manifests for waste shipped off site more than 35 days ago?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(h)2	If not:			
	1. Did the generator contact the hauler and/or the owner or operator of the TSDF and the NJDEP at 609-292-9877 to inform the NJDEP of the situation, and	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	2. Have exception reports been submitted to the Department covering any of these shipments made more than 45 days ago?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Before transporting or offering hazardous waste for transportation off site, does the generator?			
7:26-7.2(a)	Conspicuously label appropriate manifest numbers on all hazardous waste containers that are intended for shipment? <i>bulk shipments</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-7.2(b)	Insure that all containers used to transport hazardous waste off site are in conformance with applicable DOT regulations (i.e., 49 CFR 171 - 49 CFR 179)? <i>bulk shipments</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

YES NO N/A

7:26-9.3

Accumulation time

How is waste accumulated on site?

☐ Containers

☒ Tanks (complete HWMF checklist) 1000 gal above ground tank

☐ Aboveground ☐ Below ground

☐ Surface impoundments (complete HWMF checklist)

☐ Piles (complete HWMF checklist)

waste oil (oil) ←

7:26-9.3(a)3

Is each container clearly dated with each period of accumulation so as to be visible for inspection?

— — ✓

7:26-9.3(a)1

Is waste accumulated for more than 90 days?

— ✓ —

If yes, complete HWMF checklist.

STOP HERE IF THE HAZARDOUS WASTE MANAGEMENT FACILITY (TSD) CHECKLIST IS FILLED OUT.

The company stores waste oil in 1000 gal tank.
This is < 1001 gallons, so no permit is needed,
no manifests. (NJAC 7:26-2.7(d), 9.1(c)8, 12.1(b)5)

The company was made aware of the above
(Mr. Flint).

X (He was verbally informed on 11/17/87 and during
the 10/30/87 inspection.)

SHORT TERM ACCUMULATION STANDARDS (FOR GENERATORS WHO ACCUMULATE WASTE IN CONTAINERS FOR 90 DAYS OR LESS)

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.4	<u>Containers</u>			
	What type of containers are used for storage. Describe the size, type and quantity and nature of waste (e.g., 12 fifty five gallon drums of waste acetone).			
7:26-9.4(d)1i	Do the containers appear to be in good condition, not in danger of leaking?	—	— <i>✓</i>	— <i>✓</i>
	If no, please describe the type, condition and number of leaking or corroded containers. Be detailed and specific.			
7:26-9.4(d)4i	Are all containers securely closed except those in use?	—	—	—
7:26-9.4(d)4iii	Do containers appear to be properly handled or stored in a manner which will minimize the risk of the container rupturing or leaking?	—	—	—
7:26-9.4(d)4iv	Are containerized hazardous waste segregated in storage by waste type?	—	—	—
7:26-9.4(d)4v	Is every container arranged so that its identification label is visible?	—	—	—
7:26-9.4(d)5	Is the storage area inspected at least daily?	—	—	—
7:26-9.4(d)6	Are containers holding ignitable and reactive wastes located at least 50 feet (15 meters) from the facility's property line?	—	—	—
7:26-11.2	<u>Tanks</u>			
7:26-12.1(a)	Does the generator store hazardous waste in tanks?	—	—	— <i>✓</i>
	If yes, what are the approximate number and size of tanks containing hazardous waste?			

Identify the waste treated/stored in each tank.

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
<u>General Operating Requirements</u>				
7:26-11.2(a)2	Are the tanks maintained so that there is no evidence of past, present, or risk of future leaks?	---	---	4
	If no, please explain.			
	Are there leaking tanks?	---	---	---
7:26-11.2(a)2	Are all hazardous wastes or treatment reagents being placed in tanks compatible with the tank material so that there is no danger or ruptures, corrosion, leaks or other failures?	---	---	---
7:26-11.2(3)	Do uncovered tanks have at least 2 feet of freeboard or an adequate containment structure?	---	---	---
7:26-11.2(a)4	If waste is continuously fed into a tank, is the tank equipped with a means to stop the inflow from the tank, e.g., bypass system to a standby tank?	---	---	---
7:26-11.2(d)	<u>Inspections</u>			
	Is the tank(s) inspected each operating day for:			
	1. Discharge control equipment	---	---	---
	2. Monitoring equipment	---	---	---
	3. Level of waste in tank	---	---	---
	4. Construction of materials of the tank	---	---	---
	5. Are the tanks and surrounding areas (e.g., dike) inspected weekly for leaks, corrosion or other failures?	---	---	---
7:26-9.2(b)	Are there underground tanks used to store hazardous waste?	---	---	---
	If yes, how many and can they be entered for inspection?	---	---	---
7:26-11.2(e)	Are ignitable or reactive wastes stored in a manner which protects them from a source of ignition or reaction?	---	---	5
	If no, please explain.			

		YES	NO	N/A
7:26-11.2(f)	Does it appear that incompatible wastes are being stored separate from each other?	<u> </u>	<u> </u>	<u> ✓ </u>
7:26-9.4(g)4	<u>Personnel training</u> Have facility personnel successfully completed a program of classroom instruction or on-the-job training since six months after the date of their employment or assignment to the facility or to a new position at the facility? <i>no haz. wastes stored except < 100 gal waste all used.</i>	<u> </u>	<u> </u>	<u> ✓ </u>
7:26-9.4(g)2	Is the program directed by a person trained in hazardous waste management procedures and does it include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed?	<u> </u>	<u> </u>	<u> </u>
7:26-9.4(g)5	If yes, have facility personnel taken part in an annual review of the initial training?	<u> </u>	<u> </u>	<u> </u>
	Is there written documentation of the following:			
7:26-9.4(g)6i	Job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job?	<u> </u>	<u> </u>	<u> </u>
7:26-9.4(g)6ii	A written job description for each position related to hazardous waste management?	<u> </u>	<u> </u>	<u> </u>
7:26-9.4(g)6iii	A written description of the type and amount of both introductory and continuing training that has been and will be given to personnel in jobs related to hazardous waste management?	<u> </u>	<u> </u>	<u> </u>
7:26-9.4(g)6iv	Documentation of actual training or experience received by personnel?	<u> </u>	<u> </u>	<u> </u>
7:26-9.4(g)7	Are training records kept on all current employees until closure of the facility and training records kept on former employees for three years from their last date of employment?	<u> </u>	<u> </u>	<u> </u>
7:26-9.4(g)8	Are semi-annual drills conducted involving all employees and appropriate local authorities to test emergency response capabilities at the facility in accordance with the contingency plan and emergency procedures development pursuant to NJAC 7:26-9.7?	<u> </u>	<u> </u>	<u> ✓ </u>

facility has DPCC permit

YES NO N/A

7:26-9.6

Preparedness and prevention

Does the facility comply with preparedness
and prevention requirements including
maintaining:

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.6(b)1	An internal communications or alarm system?	<u> </u>	<u> </u>	<u> ✓ </u>
7:26-9.6(b)2	A telephone or other device to summon emergency assistance from local authorities?	<u> </u>	<u> </u>	<u> </u>
7:26-9.6(b)3	Portable fire equipment, spill control equipment, and decontamination equipment?	<u> </u>	<u> </u>	<u> </u>
7:26-9.6(b)4	Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems?	<u> </u>	<u> </u>	<u> </u>
7:26-9.6(c)	Is equipment tested and maintained?	<u> </u>	<u> </u>	<u> </u>
7:26-9.6(d)1	Is there immediate access to communications or alarm systems during handling of hazardous waste?	<u> </u>	<u> </u>	<u> </u>
7:26-9.6(e)	Adequate aisle space to allow unobstructed movement of personnel fire protection equipment, spill control equipment and decontamination equipment?	<u> </u>	<u> </u>	<u> ✓ </u>

If no, please explain.

In your opinion, do the types of waste on site require all of the above procedures, or are some not required?

Explain. *no waste on site*

7:26-9.6(f)	Has the facility made the following arrangements, as appropriate for the type of waste handled on site:	<u> </u>	<u> </u>	<u> ✓ </u>
7:26-9.6(f)1	Familiarize police, fire departments and emergency response teams with the layout of the facility and hazardous waste handled?	<u> </u>	<u> </u>	<u> </u>
7:26-9.6(f)2	Where more than one police and fire department might respond to an emergency, is there an agreement designating primary emergency authority to a specific police or fire department, and agreements with any others to provide support to the primary emergency authority?	<u> </u>	<u> </u>	<u> </u>

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.6(f)3	Agreements with emergency response contractors, and equipment suppliers?	___	___	___
7:26-9.6(f)4	Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or discharges at the facility?	___	___	___
7:26-9.6(f)5	Arrangements with local fire departments to inspect the facility on a regular basis with at least two (2) inspections annually?	___	___	___
7:26-9.7	<u>Contingency plan and emergency procedures</u>			
7:26-9.7(a)	Does the facility have a written contingency plan for emergency procedures designed to deal with fires, explosions, hazards to human health or environment, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water? <i>part of SPCC DCP</i> <i>Plan</i>	<input checked="" type="checkbox"/>	___	___
7:26-9.7(b)	Are provisions of the plan carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment?	___	___	___
7:26-9.7(c)	Does the contingency plan describe the actions facility personnel shall take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility?	<input checked="" type="checkbox"/>	___	___
7:26-9.7(d)	Did the owner or operator prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112 or 151 or a Discharge Prevention, Containment and Countermeasure (DPCC) Plan in accordance with N.J.A.C. 7:1E-4.1 <u>et seq.</u> ?	<input checked="" type="checkbox"/>	___	___
	If yes, did the owner or operator amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this section?	<input checked="" type="checkbox"/>	___	___
7:26-9.7(e)	Does the plan describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services?	<input checked="" type="checkbox"/>	___	___

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.7(f)	Does the plan list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator and is this list kept up to date? Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates.	—	—	✓
7:26-9.7(g)	Does the plan include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required? Is the list kept up-to-date? In addition, does the plan include the location and a physical description of each item on the list, and a brief outline of its capabilities?	—	—	—
7:26-9.7(h)	Does the plan include an evacuation procedure for facility personnel where there is a possibility that evacuation could be necessary? Does this plan describe signal(s) to be used to begin evacuation, evacuation routes, and alternative evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires)?	—	—	—
7:26-9.7(i)	Is a copy of the contingency plan and all revisions to the plan:			
	1. Maintained at the facility; and	—	—	—
	2. Has the contingency plan been submitted to local authorities (police fire departments, emergency response teams)?	—	—	—

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State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

John J. Trela, Ph.D., Acting Director
401 East State St.
CN 028
Trenton, N.J. 08625
609 - 633 - 1408

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
P-592 171 812

R. F. Keefe, Assistant Manager
Sun Oil Company Inc.
436 Doremus Avenue
Newark, NJ 07105

JUN 18 1987

Dear Mr. Keefe:

RE: Delinquent Part A Permit Application, EPA ID NO. NJD 001 722 511

Pursuant to the Resources Conservation and Recovery Act (RCRA), 42 U.S.C. §6901, the United States Environmental Protection Agency (EPA) is charged with the regulation of hazardous wastes. On February 2, 1983, the State of New Jersey was granted interim authorization in accordance with Section 3006(c) of RCRA to operate its hazardous waste program in lieu of Phase I of the Federal hazardous waste program. The effect of this change was that generators, transporters, and owners and operators of hazardous waste management facilities in New Jersey will be subject to the State of New Jersey hazardous waste regulations (N.J.A.C. 7:26-1 et seq.) in lieu of the Federal hazardous waste program (40 CFR Part 260-263 and 265). N.J.A.C. 7:26-12.3 required all parties handling certain quantities of hazardous wastes to notify USEPA of their activity by August 18, 1980 as required by Section 3010 of RCRA. Pursuant to that requirement, you submitted to the EPA a notification as a hazardous waste treatment, storage and disposal (TSD) facility.

N.J.A.C. 7:26-12.3 required that all existing facilities file a Part A application for the facility in accordance with 40 CFR 122.22 by November 19, 1980. Compliance with the notification and application requirements is mandatory before a facility can achieve interim status hazardous waste authority. A facility which has not achieved interim status is not eligible to treat, store or dispose of hazardous waste. As of the date of this letter, information available to the New Jersey Department of Environmental Protection (NJDEP) indicates that no Part A application has been filed for the above referenced site and that no request for revision or withdrawal of your submittal notification as a TSD facility has been received by the NJDEP.

BAB000022

TIERRA-D-020595

4. 10. 1987

I am requesting that you respond within twenty (20) days of the date of this letter and indicate your company's present status with regard to the treatment, storage and disposal of hazardous waste. If your company does not carry out the aforementioned activities, your response should include the rationale for why your company previously notified EPA that it was a TSD facility and why you now believe that your company does not treat, store or dispose of hazardous waste. Your response should be sent to the following address:

New Jersey Department of Environmental Protection
Division of Hazardous Waste Management
Bureau of Hazardous Waste Engineering
401 East State Street
Trenton, New Jersey 08625

Should you wish to discuss the status of your facility further, or the scope of activities regulated as hazardous waste TSD facilities under New Jersey regulations, you may contact my office at (609) 292-9880.

Very truly yours,



Ernest J. Kuhlwein, Jr.
Acting Chief
Bureau of Hazardous Waste Engineering

EP48/slw

cc: Barry Tornick, USEPA

Let's protect our earth



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

John J. Trela, Ph.D., Acting Director
401 East State St.
CN 028
Trenton, N.J. 08625
609 - 633 - 1408

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
P-592 171 812

R. F. Keefe, Assistant Manager
Sun Oil Company Inc.
436 Doremus Avenue
Newark, NJ 07105

JUN 18 1987

Dear Mr. Keefe:

RE: Delinquent Part A Permit Application, EPA ID NO. NJD 001 722 511

Pursuant to the Resources Conservation and Recovery Act (RCRA), 42 U.S.C. §6901, the United States Environmental Protection Agency (EPA) is charged with the regulation of hazardous wastes. On February 2, 1983, the State of New Jersey was granted interim authorization in accordance with Section 3006(c) of RCRA to operate its hazardous waste program in lieu of Phase I of the Federal hazardous waste program. The effect of this change was that generators, transporters, and owners and operators of hazardous waste management facilities in New Jersey will be subject to the State of New Jersey hazardous waste regulations (N.J.A.C. 7:26-1 et seq.) in lieu of the Federal hazardous waste program (40 CFR Part 260-263 and 265). N.J.A.C. 7:26-12.3 required all parties handling certain quantities of hazardous wastes to notify USEPA of their activity by August 18, 1980 as required by Section 3010 of RCRA. Pursuant to that requirement, you submitted to the EPA a notification as a hazardous waste treatment, storage and disposal (TSD) facility. (X)

N.J.A.C. 7:26-12.3 required that all existing facilities file a Part A application for the facility in accordance with 40 CFR 122.22 by November 19, 1980. Compliance with the notification and application requirements is mandatory before a facility can achieve interim status hazardous waste authority. A facility which has not achieved interim status is not eligible to treat, store or dispose of hazardous waste. As of the date of this letter, information available to the New Jersey Department of Environmental Protection (NJDEP) indicates that no Part A application has been filed for the above referenced site and that no request for revision or withdrawal of your submittal notification as a TSD facility has been received by the NJDEP. (X)

BAB000023

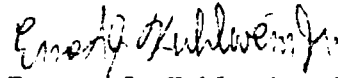
TIERRA-D-020597

I am requesting that you respond within twenty (20) days of the date of this letter and indicate your company's present status with regard to the treatment, storage and disposal of hazardous waste. If your company does not carry out the aforementioned activities, your response should include the rationale for why your company previously notified EPA that it was a TSD facility and why you now believe that your company does not treat, store or dispose of hazardous waste. Your response should be sent to the following address:

New Jersey Department of Environmental Protection
Division of Hazardous Waste Management
Bureau of Hazardous Waste Engineering
401 East State Street
Trenton, New Jersey 08625

Should you wish to discuss the status of your facility further, or the scope of activities regulated as hazardous waste TSD facilities under New Jersey regulations, you may contact my office at (609) 292-9880.

Very truly yours,



Ernest J. Kuhlwein, Jr.
Acting Chief
Bureau of Hazardous Waste Engineering

EP48/slw

cc: Barry Tornick, USEPA

Let's protect our earth



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

Michele M. Putnam
Deputy Director

John J. Trela, Ph.D., Director
401 East State St.
CN 028
Trenton, N.J. 08625
(609) 633-1408

Lance R. Miller
Deputy Director

Hazardous Waste Operations

Responsible Party Remedial Action

April 29, 1988

Sun Oil Co
436 Doremus Ave
Newark, NJ 07105

Dear Sir/Madam:

On April 22, 1988 you were forwarded an Administrative Order/Notice of Civil Administrative Penalty Assessment. It has come to my attention that a Verification of Compliance form was not included with the aforementioned document. I have enclosed a copy of the form with this letter. Please complete the form when compliance is attained, and return it to our Department.

We are sorry for any inconvenience this error may have caused. If you have any questions or need further information, contact me at (609) 633-0708.

Thank you for your time and attention.

Sincerely,

John Skoviak
Section Chief
Program Oversight, Tracking
and Reporting

BR/dom
attachment

MEMO

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO Yacoub E. Yacoub Y.Y. DATE 1/7/88
FROM J. Sterling JAS
SUBJECT Sun Oil Company, NJD 980650154,
436 Doremus Avenue, Newark, NJ 07105

On 10/30/87 the subject facility was issued a Notice of Violation. The citation indicated that the subject had to respond by 11/30/87. To date, no response has been received from the company.

cc: File #07-14-340

EPA ID # NJD 980650154

DWM # _____

VIOLATOR INFORMATION

Name Sun Oil Company
Address Newark NJ
Violation Date 10/30/87
Follow up Date _____

LOCATION OF VIOLATION

Block 5070 Lot 15
Other Same
Cnty/ Mncp Code 0714

KIND OF EVALUATION

- ☒
1. Evaluation Insp.
-
- ☐
2. Sampling Insp.
-
- ☐
3. Record Review
-
- ☐
4. GW Monitoring Insp.
-
- ☐
5. Follow Up Insp.
-
- ☐
6. Other-Citizen Compl.
-
- ☐
7. Other-Part B Call-in
-
- ☐
8. Other-Withdrawal Candi.
-
- ☐
9. Other-Closed Facility
-
- ☐
10. Other-General Insp.
-
- ☐
11. Other-Case Development

TYPE OF EVALUATION

- ☒
1. Generator Insp.
-
- ☐
2. TSD Insp.
-
- ☐
3. Gen-TSD Insp.
-
- ☐
4. Transporter Insp.
-
- ☐
5. Gen-Trans Insp.
-
- ☐
6. Trans-TSD Insp.
-
- ☐
7. Gen-Trans-TSD Insp.
-
- ☐
8. GW Monitoring Insp.
-
- ☐
9. ---
-
- ☐
10. ---
-
- ☐
11. Delisting Insp.
-
- ☐
12. Other _____

TYPE OF RECORD REVIEW

- ☐
1. Closure Plan
-
- ☐
2. Post/Closure
-
- ☐
3. Financial
-
- ☐
4. GW Monitoring
-
- ☐
5. Man. Discrep.
-
- ☐
6. Biennial Rep.
-
- ☐
7. Annual Report
-
- ☐
8. GW Assessment
-
- ☐
9. Part B Review
-
- ☐
10. Contingency Pl
-
- ☐
11. Delisting
-
- ☐
12. Other _____

REQUESTING AGENCY

BFO ☒ BHWE _____ ECRA _____ Reg. & Per. _____ HSMA _____
Spec. Oper. _____ M&IS _____ EPA _____ DWR _____ Joint State & EPA _____

ENFORCEMENT ACTION

- ☒
- Haz. Waste
-
- ☐
- Spill Fund
-
- ☐
- ECRA
-
- ☐
- Water

- ☒
- New
-
- ☐
- Amended
-
- ☐
- Rescinded

- ☐
- AO
-
- ☒
- AO/NCAPA
-
- ☐
- NCAPA
-
- ☐
- ACO
-
- ☐
- Directive
-
- ☐
- NOV/OOS
-
- ☐
- AO (DWR)
-
- ☐
- AO/NCAPA (DWR)
-
- ☐
- NCAPA (DWR)
-
- ☐
- OTHER

ACTION # HM 015-88
Action Date 22 APR 1988
Comp. Due Date _____
Actual Comp. Date _____Penalty \$2,000
Date Collected _____
Amount Collected _____

REFERRALS

ORS _____ CJ ☒ DWR ☒ HSMA ☒
Law (AG) _____ BHWE ☒ Other _____

REQUESTED ACTION

Review _____ Penalty collection _____
Inj. Relief _____ Other _____

HAZ. WASTE VIOL. SUMMARY

Regulation			Date of Request		VIOLATIONS (All)	
Class	I	II	Regulation	Class	Regulation	Class
GWM			<u>7.4(a)(4)(iii)</u>	<u>I</u>		
C/Pl			<u>7.4(a)(5)(i)</u>	<u>I</u>		
FR			<u>7.4(g)(1)</u>	<u>II</u>		
Pt.B						
C/S						
Man.						
Other	<u>2</u>	<u>1</u>				

Case Coordinator Amel Hasty
Date 03/10/88Supervisor _____
Date _____

COMMENTS

TIERRA-D-020601

HM 015-84

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State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

John J. Trela, Ph.D., Acting Director
2 Babcock Place
West Orange, N.J. 07052
201 - 669 - 3960

22 APR 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

SUN OIL COMPANY
436 Doremus Avenue
Newark NJ 07105

RE: ADMINISTRATIVE ORDER AND NOTICE OF CIVIL ADMINISTRATIVE PENALTY ASSESSMENT

Dear Sir/Madam:

There is enclosed for service upon you, an Administrative Order and Notice of Civil Administrative Penalty Assessment issued by the New Jersey Department of Environmental Protection pursuant to the provisions of the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq.

The Department is available to meet with the principals of the case to discuss the enclosed enforcement document. Should you desire such a meeting please contact Michael Hastry within 20 days of receipt of this letter. This does not affect the time frame within which you may request an administrative hearing under the Notice Of Right To Hearing provision of the enclosed document, nor does this affect the time frame within which you must verify compliance under the Verification Of Compliance section of the enclosed.

If you have any questions concerning this Administrative Order and Notice of Civil Administrative Penalty Assessment, please contact Michael Hastry at (201) 669-3960.

Sincerely,

Ronald T. Corcoran, Assistant Director
Enforcement Element

Enclosure(s)

cc. Bureau of Compliance and Technical Services
Division of Water Resources Enforcement
Metro Region Field Office
Bureau of Hazardous Waste Engineering
Bureau of Manifest & Information Systems
Mayor
Health Department
County Solid Waste Coordinator
Central File

HM 015-88



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

John J. Trela, Ph.D., Acting Director
2 Babcock Place
West Orange, N.J. 07052
201 - 669 - 3960

22 APR 1988

IN THE MATTER OF
SUN OIL COMPANY
436 Doremus Avenue
Newark NJ 07105

: ADMINISTRATIVE ORDER
: AND
: NOTICE OF CIVIL ADMINISTRATIVE
: PENALTY ASSESSMENT

This Administrative Order and Notice of Civil Administrative Penalty Assessment is issued pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (hereinafter "NJDEP" or the "Department") by N.J.S.A. 13:1D-1 et seq. and the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., and duly delegated to the Assistant Director for Enforcement of the Division of Hazardous Waste Management pursuant to N.J.S.A. 13:1B-4.

FINDINGS

- 1) The New Jersey Department of Environmental Protection has determined that Sun Oil Company (hereinafter "Sun Oil") is a generator of hazardous waste (EPA ID# NJD 980650154) as defined by N.J.A.C. 7:26-1.4, located at Block 5070, Lot 15, 436 Doremus Avenue, City of Newark, County of Essex, State of New Jersey.
- 2) On October 30, 1987, a Departmental representative conducted an inspection of the aforementioned facility and observed the following:
 - a) Sun Oil failed to include the haulers New Jersey registration number on Uniform Hazardous Waste manifest numbers PAB2084983, NYA3960213, NYA6213447, NJA0014462, in violation of N.J.A.C. 7:26-7.4(a)4iii.
 - b) Sun Oil failed to include the transporters date of acceptance on Uniform Hazardous Waste manifest number NJA0014462, in violation of N.J.A.C. 7:26-7.4(a)5ii.
 - c) Sun Oil failed to provided a complete Generator Annual Report for the year of 1985, in violation of N.J.A.C. 7:26-7.4(g)1. (Specifically, the 1985 Report failed to include a hazardous waste shipment to Cecos International(Buffalo NY).
- 3) Based on the facts set forth in these FINDINGS, the Department has determined that Sun Oil has violated the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. and the regulations promulgated pursuant thereto, N.J.A.C. 7:26-1 et seq., specifically N.J.A.C. 7:26-7.4(a)4iii. 7.4(a)5ii, 7.4(g)1

ORDER

NOW, THEREFORE IT IS HEREBY ORDERED THAT SUN OIL SHALL:

- 4) Within twenty (20) days of receipt of this order submit to the Department corrected copies of manifest number PAB2084983, NYA3960213, NYA6213447, and NJA0014462, so as to comply with N.J.A.C. 7:26-7.4(a)4iii.
- 5) Within twenty (20) days of receipt of this order submit to the Department corrected copy of manifest NJA0014462, so as to comply with N.J.A.C. 7:26-7.4(a)5ii.
- 6) Within twenty (20) days of receipt of this order submit to the Department a corrected copy of the 1985 Annual Report, so as to comply with N.J.A.C. 7:26-7.4(g)1
- 7) All submittals as mentioned above shall be sent to:

Jeffrey Sterling
NJDEP DHWM
2 Babcock Place
West Orange NJ 07052

- 8) Within twenty (20) calendar days upon receipt of this Order, submit the enclosed VERIFICATION OF COMPLIANCE by certified mail, return receipt requested, or by hand delivery to:

New Jersey Department of Environmental Protection
Division of Hazardous Waste Management
Bureau of Compliance & Technical Services
CN 028
Trenton, NJ 08625
ATTENTION: Michael Hastry

NOTICE OF CIVIL ADMINISTRATIVE PENALTY ASSESSMENT

- 9) Pursuant to N.J.S.A. 13:1E-9e and base upon the above FINDINGS, the Department has determined that a civil administrative penalty should be assessed against Sun Oil in the amount of \$2,000.00.
- 10) Payment of the penalty is due when a final order is issued by the Commissioner subsequent to a hearing, if any, or when this Administrative Order and Notice of Civil Administrative Penalty Assessment becomes a final order (see following paragraph). Payment shall be made by certified check payable to "Treasure, State of New Jersey," and shall be submitted to:

New Jersey Department of Environmental Protection
Bureau of Collections, Licensing and Management
Services - FMPGS
CN 402
Trenton, NJ 08625

- 11) If no request for a hearing is received within twenty (20) calendar days from receipt of this Administrative Order and Notice of Civil Administrative Penalty Assessment, it shall become a final order upon the twenty-first calendar day following its receipt and the penalty shall be due and payable.

NOTICE OF RIGHT TO A HEARING

- 12) Pursuant to N.J.S.A. 52:14B-1 et seq. and N.J.S.A. 13:1E-9, Sun Oil is entitled to an administrative hearing. Any hearing request shall be delivered to the address below within twenty (20) calendar days from receipt of this Administrative Order and Notice of Civil Administrative Penalty Assessment.

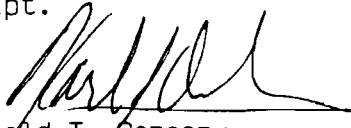
New Jersey Department of Environmental Protection
Division of Hazardous Waste Management
CN 028
Trenton, NJ 08625
ATTENTION: Assistant Director for Enforcement

- 13) Sun Oil shall, in its request for a hearing, furnish NJDEP with the following:
- a. A statement of the legal authority and jurisdiction under which the hearing or action to be taken is to be held;
 - b. A reference to the particular sections of the statutes and rules involved;
 - c. A short and plain statement of the matters of fact and law asserted;
 - d. The provisions of this Administrative Order and Notice of Civil Administrative Penalty Assessment to which Sun Oil objects, the reasons for such objections, and any alternative provisions proposed.

GENERAL PROVISIONS

- 14) This Administrative Order and Notice of Civil Administrative Penalty Assessment is binding on Sun Oil its principals, directors, officers, agents, successors, assigns, and any trustee in bankruptcy or other trustee, and any receiver appointed pursuant to a proceeding in law or equity.
- 15) Notice is given that violations of any statutes, rules or permits other than those herein cited may be cause for additional enforcement actions, either administrative or judicial. By issuing this Administrative Order and Notice of Civil Administrative Penalty Assessment the Department does not waive its rights to initiate additional enforcement actions.

- 16) No obligations imposed by this Administrative Order and Notice of Civil Administrative Penalty Assessment (with the exception of paragraph 9 above) are intended to constitute a debt, damage claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations are imposed pursuant to the police powers of the State of New Jersey, intended to protect the public health, safety, welfare and environment.
- 17) Notice is given that pursuant to N.J.S.A. 13:1E-9e, the Department is authorized to assess a civil administrative penalty of not more than \$25,000.00 for each violation and additional penalties of not more than \$2,500.00 for each day during which the violations continues after receipt of an administrative order from the Department.
- 18) Notice is further given that pursuant to N.J.S.A. 13:1E-9f, any person who violates N.J.S.A. 13:1E-1 et seq, or any code, rule or regulation promulgated thereunder shall be liable to a penalty of not more than \$25,000.00 per day of such violation, and each day's continuance of the violation shall constitute a separate violation.
- 19) Notice is further given that pursuant to N.J.S.A. 13:1E-9f, any person who violates an administrative order issued pursuant to N.J.S.A.13:1E-9c, or a court order issued pursuant to N.J.S.A. 13:1E-9d, or who fails to pay a civil administrative penalty in full after it is due shall be subject upon order of a court to a civil penalty not to exceed \$50,000.00 per day of such violation and each day's continuance of the violation shall constitute a separate violation.
- 20) Except as provided above in the Notice of a Right to a Hearing Section, this Administrative Order and Notice of Civil Administrative Penalty Assessment shall be effective upon receipt.



Ronald T. Corcory
Assistant Director - Enforcement
Division of Hazardous Waste Management

RTC:MH:elc



HAZARDOUS WASTE MANAGEMENT



BUREAU OF COMPLIANCE AND TECHNICAL SERVICES ENFORCEMENT DOCUMENT TRANSMITTAL SHEET

"BUCK SLIP"

IN THE MATTER OF: Sun Oil Company

	<u>INITIALS</u>	<u>REVIEW DATE</u>	<u>APPROVAL DATE</u>	<u>COMMENTS</u>
ASST. DIRECTOR FOR ENFORCEMENT		4/2/88	→	
CLEARED C.J. REVIEW (HAZ. ONLY)				
CHIEF, BUREAU OF CASE MANAGEMENT *				
CHIEF, BUREAU OF FIELD OPERATIONS		4-5-88	4-5-88	
REGION CHIEF		4-4-88	—	
ORS REVIEW		3/24/88	3/24/88	
SECRETARY				
DOCUMENT PROCESSOR		03/10/88		

COMMENTS: _____

PENALTY ASSESSMENT WORKSHEET

NAME Sun Oil Company LOCATION 4360 Poremos Ave, Newark NJ ID # NJD980050154
 DATE OF INSPECTION OR INVESTIGATION 10/30/87 INSPECTOR J. Sterling

REGULATION VIOLATED	7.4(a) 4(i)		7.4(a) 5(ii)		7.4(g) 1					
REGULATION CLASS	I		I		II					
CONDUCT CATEGORY	moderate		moderate		NO					
DAMAGE CATEGORY	minor		minor		penalty					
MATRIX CELL RANGE	500 - 1500		500 - 1500		assessed					
MIDPOINT OF RANGE	1000		1000							
NO. OF DAYS OF VIOLATION	1		1							
BASE PENALTY	1,000		1,000							
PENALTY ADJUSTMENT	PERCENT CHANGE	DOLLAR CHANGE	PERCENT CHANGE	DOLLAR CHANGE	PERCENT CHANGE	DOLLAR CHANGE	PERCENT CHANGE	DOLLAR CHANGE	PERCENT CHANGE	DOLLAR CHANGE
COOPERATION: EXTRAORDINARY EFFORT	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
RECALCITRANCE										
REFUSAL										
INTENT: LACK OF CONTROL	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
INTENTIONAL										
ENFORCEMENT HISTORY:	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
SAME REGULATIONS:	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
RECENT: NO. X 100%										
PAST: NO. X 50%										
OTHER REGULATIONS:	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
RECENT: NO. X 50%										
PAST: NO. X 25%										
ECONOMIC BENEFIT:										
ADJUSTED PENALTY										
ABILITY TO PAY ADJUSTMENT										
PENALTY ASSESSMENT	1,000		1,000							

WORKSHEET PREPARED BY:

Robert J. Sterling
Inspector

DATE:

03/10/88

TIERRA-D-020608

moderate conduct - the functioning of the regulation is impaired but some of its important requirements are complied with.

MINOR DAMAGE - the likelihood of harm and the degree of Potential harm are considered low.

7.4(a) 5ii - ~~the~~

moderate conduct - the functioning of the regulation is impaired but some of its important requirements are complied with.

minor damage - the likelihood of harm and the degree of Potential harm are considered low.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
BUREAU OF FIELD OPERATIONS

67-14-340

ENFORCEMENT REFERRAL

TO: Anthony J. Cavalier DATE: 11/17/87
FROM: J. Sterling thru Y.E. Yacoub REGION: M
RE: Sun Oil Company NJD 980650154 436 Doremus Ave
Lot 15 Block 5070 Newark ESSAY
436 Doremus Ave, Newark, NJ 07105 Joseph Z. Flint
Mailing Address Responsible Party

The attached inspection/investigation report(s) dated 10/30/87 is being referred and it is recommended a NO/PSO be issued for violations of:

NJAC 7:26- 7.4(a)(4)(iii) no NJ-hamber registration # on manifest
7.4(a)(5)(i) no transporter date of acceptance on
NJA 0014462 (1/16/85)
7.4(a)(7)(iv) inaccurate annual report for 1985

NJSA 58:10-

Suggested penalty: _____

ADDITIONAL COMMENTS:

Penalty assessment recommended
due to nature of violation.

Dec'd
13 JAN 1988

REVIEWED AND APPROVED BY:

Anthony J. Cavalier 11-19-87
1-4-88

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

5th Fl., 401 E. State St., TRENTON, N.J. 08621

2 Babcock Place, West Orange, NJ 07052

NOTICE OF VIOLATION

ID NO. NJD 980650154

DATE 10/30/87

NAME OF FACILITY Sun Refining & Marketing Company

LOCATION OF FACILITY 436 Dorcas Ave, Newark, NJ 07103

NAME OF OPERATOR JOSEPH T. Flint, Operations Manager

You are hereby NOTIFIED that during my inspection of your facility on the above date, the following violation(s) of the Solid Waste Management Act, (N.J.S.A. 13:1E-1 et seq.) and Regulations (N.J.A.C. 7:26-1 et seq.) promulgated thereunder and/or the Spill Compensation and Control Act, (N.J.S.A. 58:10-23.11 et seq.) and Regulations (N.J.A.C. 7:1E-1 et seq.) promulgated thereunder were observed. These violation(s) have been recorded as part of the permanent enforcement history of your facility.

DESCRIPTION OF VIOLATION NJAC 7:26-7.4(a)(2) ii each
manifest does not have the NJ ^{hazard} registration # *
NJAC 7:26-7.4(a)(5) ii failing to obtain the date of
acceptance by initial transporter or manifest #
NJAD014462 (dated 1/16/85), NJAC 7:26-7.4(g)(1) v
annual report for 1985 does not describe the TOTAL annual
amount of solid waste (578)

Remedial action to correct these violations must be initiated immediately and be completed by

11/30/87. Within fifteen (15) days of receipt of this Notice of Violation, you shall submit in writing, to the investigator issuing this notice at the above address, the corrective measures you have taken to attain compliance. The issuance of this document serves as notice to you that a violation has occurred and does not preclude the State of New Jersey, or any of its agencies from initiating further administrative or legal action, or from assessing penalties, with respect to this or other violations. Violations of these regulations are punishable by penalties of \$25,000 per violation.

* See Pennsylvania manifests, NY
manifests, section C

g. PAB 2084783 (6/3/86)
NYA 3960213 (2/20/86)
NYA 6213447 (4/10/87)

H. Sterling
Investigator, Division of Waste Management
Department of Environmental Protection

JAFFREY A. STERLING

201-669-3981

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
5th Fl., 401 E. State St., Trenton, N.J. 08625

NOTICE OF VIOLATION

ID NO. 15016450134 DATE 10/30/87
NAME OF FACILITY San Remigio Metal Co
LOCATION OF FACILITY 3300 N. 2nd Ave, Newark, NJ 07105
NAME OF OPERATOR Joseph T. Elia

You are hereby NOTIFIED that during my inspection of your facility on the above date, the following violation(s) of the Solid Waste Management Act, (N.J.S.A. 13:1E-1 et seq.) and Regulations (N.J.A.C. 7:26-1 et seq.) promulgated thereunder and/or the Spill Compensation and Control Act, (N.J.S.A. 58:10-23.11 et seq.) and Regulations (N.J.A.C. 7:1E-1 et seq.) promulgated thereunder were observed. These violation(s) have been recorded as part of the permanent enforcement history of your facility.

DESCRIPTION OF VIOLATION N.J.A.C. 7:26-2.1(a)(1) failing to submit
a (complete) report of manifest activities for 1985 to the
Department

Remedial action to correct these violations must be initiated immediately and be completed by

11/30/87. Within fifteen (15) days of receipt of this Notice of Violation, you shall submit in writing, to the investigator issuing this notice at the above address, the corrective measures you have taken to attain compliance. The issuance of this document serves as notice to you that a violation has occurred and does not preclude the State of New Jersey, or any of its agencies from initiating further administrative or legal action, or from assessing penalties, with respect to this or other violations. Violations of these regulations are punishable by penalties of \$25,000 per violation.

H. T. Elia
Investigator, Division of Waste Management
Department of Environmental Protection



STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE
HAZARDOUS WASTE MANIFEST
P.O. Box 12820, Albany, New York 12212

Please print or type.

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal Law.
3. Generator's Name and Mailing Address		436 DOREMUS AVE NEWARK, N.J. 07105		A. State Manifest Document No. 621344	
4. Generator's Phone (201) 465-3200		6. US EPA ID Number MYD043815703		C. State Transporter's ID R60920	
5. Transporter 1 (Company Name) FRONTIER CHEMICAL		8. US EPA ID Number		E. State Transporter's ID	
7. Transporter 2 (Company Name)		10. US EPA ID Number		G. State Facility's ID	
9. Designated Facility Name and Site Address FRONTIER CHEMICAL WASTE PROCESSING INC 4626 ROYAL AVE MAGARAH FALLS, N.Y. 14303		12. Containers No. Type		13. Total Quantity	
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) WASTE - FLAMMABLE LIQUID 1993		14. Unit WT/Vol		15. Waste No. D001	
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.		17. Transporter 1 (Acknowledgement of Receipt of Materials)		18. Transporter 2 (Acknowledgement or Receipt of Materials)	
19. Discrepancy Indication Space		20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.		21. Facility's Phone	

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE
HAZARDOUS WASTE MANIFEST
P.O. Box 12820, Albany, New York 12212

Form Approved. OMB No. 2050-0039. Expires 9-30-88

Please print or type.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA No. NYD 980654154 00007		Manifest Document No. 1		2. Page 1 of 1		Information in the shaded areas is not required by Federal Law.	
3. Generator's Name and Mailing Address SUN REFINING & MKTG. CO. 436 DOVERMAN AVE NEWARK, N.J. 07105				State Manifest Document No. NYA 621353 7					
4. Generator's Phone (201) 465-3200				Facility Name SAME					
5. Transporter 1 (Company Name) Buffalo Fuel Corp				6. US EPA ID Number NYD0051909952		State Transporter's ID NY 773A			
7. Transporter 2 (Company Name)				8. US EPA ID Number		State Transporter's Phone 716 7731921			
9. Designated Facility Name and Site Address FRONTIER CHEMICAL WASTE PROCESSING INC 4626 ROYAL AVE NIAGARA FALLS, N.Y. 14303				10. US EPA ID Number NYD043815703		State Facility's ID NY 285-8208			
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)						12. Containers		13. Total Quantity	
a. WASTE FLAMMABLE LIQUID UN NOS 1993						No. Type		Unit	
						001 TT		3250 G	
b.									
c.									
d.									
14. Additional Descriptions for Materials Listed Above						15. Handling Codes for Wastes Listed Above			
						<input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E			
15. Special Handling Instructions and Additional Information EPA HAZ CODE "I" = INSTABLE EPA WASTE TYPE "D001" = UN-LEAD BATTERIES									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations. If I am a large quantity generator, I certify that I have program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.									
Printed/Typed Name Curtis Brown				Signature <i>Curtis Brown</i>		Mo. Day Year 09 11 87			
17. Transporter 1 (Acknowledgement of Receipt of Materials)				Printed/Typed Name Brett Barnett		Signature <i>Brett Barnett</i>		Mo. Day Year 09 11 87	
18. Transporter 2 (Acknowledgement or Receipt of Materials)				Printed/Typed Name		Signature		Mo. Day Year	
19. Discrepancy Indication Space									
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.				Printed/Typed Name M. K. McConnack		Signature <i>M. K. McConnack</i>		Mo. Day Year 09 11 87	

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1985
- CERTIFICATION FORM -

I. EPA ID Number: NJD980650154
II. Generator Name: Sun Refining and Marketing Newark Terminal
III. Contact Person: Marsha S. Weiss
IV. Phone Number: 215-977-6398

V. Certification:

I certify that the information given in this annual report is true,
accurate and complete.

Marsha S. Weiss
(Print or type name)

Marsha S. Weiss
(Signature)

4/30/86
(Date)

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1986
- CERTIFICATION FORM -

- I. EPA ID Number: NJD980650154
- II. Generator Name: Sun Refining and Marketing Newark Terminal
- III. Contact Person: Marsha S. Weiss
- IV. Phone Number: 215-977-6398
- V. Certification:

I certify that the information given in this annual report is true, accurate and complete.

Marsha S. Weiss
(Print or type name)

Marsha S. Weiss
(Signature)

2/24/87
(Date)

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1986
- REPORT FORM -

1. Generator Name: Sun R&M Newark Terminal EPA ID No.: NJD980650154
Site Address: 436 Doremus Avenue, Newark, NJ 07105
2. Transporter Name: Elmwood Tank & Piping EPA ID No.: NYD041037441
3. TSD Facility Name: Sun R&M Marcus Hook Ref. EPA ID No.: PAD980550594
TSD Address: 2nd & Green Streets, Marcus Hook, PA 19061

A.) <u>Waste</u> <u>Number</u>	B.) <u>Waste</u> <u>Description</u>	C.) <u>DOT Haz</u> <u>Class</u>	D.) <u>Total</u> <u>Quantity</u>	E.) <u>Units</u>
D001	Waste Flammable Liquid, NOS Leaded gasoline sludge	Liquid	17,720	P

* Please note this facility was given three (3) EPA I.D. numbers

NJD980650154
NJD001722511
NJT350010674

In 1985, the NJD001722511 number was used on manifests. In 1986, the NJD001722511 number was inadvertently used on two manifests. In the future, only NJD980650154 will be used. Please delete the other numbers for your file.

NOTE: For each combination of transporter and TSD facility, list the total quantity manifested for each waste type.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1986
- REPORT FORM -

1. Generator Name: Sun R&M Newark Terminal EPA ID No.: NJD980650154
Site Address: 436 Doremus Avenue, Newark, NJ 07105
2. Transporter Name: Frontier Chemical EPA ID No.: NYD043815703
3. TSD Facility Name: Frontier Chemical EPA ID No.: NYD043815703
TSD Address: 4626 Royal Avenue, Niagara Falls, NY 14303

Waste A.) <u>Number</u>	Waste B.) <u>Description</u>	DOT Haz C.) <u>Class</u>	Total D.) <u>Quantity</u>	E.) <u>Units</u>
D008	Waste	Flammable	70,000	P
D001	Gasoline	Liquid		

NOTE: For each combination of transporter and TSD facility, list the total quantity manifested for each waste type.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1986
- WASTE SUMMARY FORM -

Generator Name: Sun Refining and Marketing Newark Terminal

EPA ID No.: NJD980650154

Please indicate below the total quantity of hazardous waste manifested during the 1985 report year for each unit of measure:

0 G - Gallons (liquids only)

87,720 P - Pounds

0 T - Tons (2,000 lbs.)

0 Y - Cubic Yards

0 L - Liters (liquids only)

0 K - Kilograms

0 M - Metric Tons (1,000 kg)

0 N - Cubic Meters

*Enter zero (0) for units of measure which were not utilized.

W.J.L.

WM. J. LAUER PETROLEUM
USED OIL COLLECTORS - RECOVERY TANK CLEANING
WASTE OIL - SLUDGE - WATER REMOVED
DISPOSAL - TRANSPORTER
D.E.P. - E.P.A. APPROVED
FED ID. NO. NJ D980525786
NJ D.E.P. 58219
319 - 68th Street, Guttenberg, N.J. 07093
(201) 662-1008

SOLD
TO

SUN OIL COMPANY
436 DOREMUS AVE.
NEWARK, N.J.

INVOICE
NO.

6164

INVOICE
DATE

MAR. 24, 1987

OUR ORDER NO.	YOUR ORDER NO.	TERMS	REC. OF INV. NET ON BILLING	GALLONS	PPD. OR COLL.
QUANTITY	DESCRIPTION			PRICE	AMOUNT
960 Gals	CRANKCASE OIL X 721 TICKET No. 6164 3/24/87 REMOVED			\$ 0.10	\$ 96.00
<div>DATE <u>3-26-87</u></div> <div>W. ORDER # <u>NEA-44</u></div> <div>SUB. & DTL. <u>231-0</u></div> <div>APPROVAL <u><i>Frank J. Jent</i></u></div>					

w/011373

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Form Approved OMB No. 2000-0404 Expires 7-31-88

Please print or type.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA No. NY0001172251100001		Manifest Document No. 11		2. Page 1 of 1		Information in the shaded areas is not required by Federal Law.			
3. Generator's Name and Mailing Address SUN DEFENDING AND MANUFACTURING COMPANY 436 DOLEMAN AVENUE NEWARK N.J. 07105											
4. Generator's Phone (201) 465-3200											
5. Transporter 1 (Company Name) FRONTIER CHEMICAL WASTE PROCESS					6. US EPA ID Number NY0043815703						
7. Transporter 2 (Company Name)					8. US EPA ID Number						
9. Designated Facility Name and Site Address FRONTIER CHEMICAL WASTE PROCESS 4626 ROYAL AVENUE NIAGARA FALLS, N.Y. 14303					10. US EPA ID Number NY0043815703						
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)						12. Containers		13. Total Quantity		14. Unit	
a. UN 1203 WASTE GASOLINE FLAMMABLE LIQUID NOS001TT05000G						No. Type					
b.											
c.											
d.											
15. Special Handling Instructions and Additional Information COOK 126-04											
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002 (b) of RCRA, I also certify that I have a program in place to reduce volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.											
Printed/Typed Name Joseph T. Flint						Signature Joseph T. Flint					
17. Transporter 1 (Acknowledgement of Receipt of Materials) Printed/Typed Name Bart Hayes											
Signature Bart Hayes						Mo. Day Year 02 20 86					
18. Transporter 2 (Acknowledgement or Receipt of Materials) Printed/Typed Name											
Signature						Mo. Day Year					
19. Discrepancy Indication Space											
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name Mike McLaughlin											
Signature Mike McLaughlin						Mo. Day Year 02 20 86					

NYA 396021 3

TIERRA-D-020621

4011390

STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF SOLID AND HAZARDOUS WASTE

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Form Approved OMB No. 2000-0406 Expires 3-31-89

UNIFORM HAZARDOUS
WASTE MANIFEST

1. Generator's US EPA No.

Manifest

Document No.

2. Page 1

of

Information in the shaded areas
is not required by Federal Law.

3. Generator's Name and Mailing Address

Sun Refining & Marketing Co.
436 Doremus Ave Newark, N.J. 07105

4. Generator's Phone

201-465-3200

5. Transporter 1 (Company Name)

6. US EPA ID Number

Frontier Chemical Waste Process NY ID 0438157013

7. Transporter 2 (Company Name)

8. US EPA ID Number

9. Designated Facility Name and Site Address

10. US EPA ID Number

Frontier Chemical Waste Process
4626 Royal Ave
Niagara Falls N.Y. 14303

NY ID 0438157013

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)

12. Containers

13. Total

14. Unit

a. UN1203
Waste Gasoline Flammable Liquid N.O.S.

No.

Type

Quantity

Unit

0

0

0

G

b.

c.

d.

15. Special Handling Instructions and Additional Information

CODE 126-04

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above for transport by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and state laws and regulations.

Printed/Typed Name

Signature

Joseph T. Flinn

Joseph T. Flinn

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name

Signature

Bill Greco

Bill Greco

18. Transporter 2 (Acknowledgement or Receipt of Materials)

Printed/Typed Name

Signature

19. Discrepancy Indication Space

Actual volume received was 1155 gallons.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

Frontier Chemical

Frontier Chemical

TIERRA-D-020622

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES
Bureau of Waste Management
P. O. Box 2063
Harrisburg, PA 17120

REV. 10/84

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)
Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NJ098065015400431		2. Page 1 of 1		Information in the shaded areas is not required by Federal law but is required by State law.			
3. Generator's Name and Mailing Address SUN REFINING & MARKETING CO. 436 DORE MUS DR. NEWARK NJ 07105				A. State Manifest Document Number PAB 2084983					
4. Generator's Phone (201) 465-3200				B. State Gen. ID NJ0980650154					
5. Transporter 1 Company Name ELWOOD TANK CLEANING				C. State Trans. ID PA-AH-13590 RP					
6. US EPA ID Number NYD041037441				D. Transporter's Phone (716) 694-0106					
7. Transporter 2 Company Name				E. State Trans. ID PA-AH					
8. US EPA ID Number				F. Transporter's Phone ()					
9. Designated Facility Name and Site Address SUN OIL CO. REFINERY MARCUS Hook, PA.				G. State Facility's ID Not Required					
10. US EPA ID Number LPD980550594				H. Facility's Phone ()					
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) WASTE FLAM. LIQUID - N.O.S. LEADED GAS SLUDGE				12. Containers No. Type 001 03		13. Total Quantity 1.7726		14. Unit Wt/Vol 600 L	
a. UN1203				b. NACTT		c. 1.7726		d. 600 L	
b.				c.		d.		e.	
c.				d.		e.		f.	
d.				e.		f.		g.	
J. Additional Descriptions for Materials Listed Above (Include physical state and hazard code) Haz. Code Physical State 1 54				K. Handling Codes for Wastes Listed Above a. b. c. d.					
15. Special Handling Instructions and Additional Information EPA WASTE TYPE "D001" - LEADED BOTTOMS (SLUDGE)									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002 (b) of RCRA, I also certify that I have a program in place to reduce volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.				Printed/Typed Name FRANK JENCISIA		Signature <i>Frank Jencisia</i>		Month Day Year 06 03 86	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name ELWOOD TANK CLEANING				Signature <i>X [Signature]</i>		Month Day Year 06 03 86			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year			
19. Discrepancy Indication Space									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name TIERRA-D-020623									

PAB 2084983

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1985
- REPORT FORM -

1. Generator Name: Sun R&M Newark Terminal EPA ID No.: NJD980650154
Site Address: 436 Doremus Avenue, Newark, NJ 07105
2. Transporter Name: Elmwood Tank & Piping EPA ID No.: NYD041037441
3. TSD Facility Name: Sun R&M Marcus Hook Ref. EPA ID No.: PAD980550594
TSD Address: 2nd & Green Sts., Marcus Hook, PA 19061

Waste A.) <u>Number</u>	Waste B.) <u>Description</u>	DOT Haz C.) <u>Class</u>	Total D.) <u>Quantity</u>	E.) <u>Units</u>
D001	Hazardous	Flammable	30870	P
D008	Waste Solids NOS (gasoline tank bottoms)	Solid		

* Please note this facility was given three (3) EPA i.d. numbers

NJD980650154

NJD001722511

NJT350010674

In 1985, the NJD001722511 number was used on manifests.

In the future, only NJD980650154 will be used. Please delete the other numbers from your file.

NOTE: For each combination of transporter and TSD facility, list the total quantity manifested for each waste type.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1985
- WASTE SUMMARY FORM -

Generator Name: Sun Refining and Marketing Newark Terminal

EPA ID No.: NJD980650154

Please indicate below the total quantity of hazardous waste manifested during the 1985 report year for each unit of measure:

0 G - Gallons (liquids only)

30870 P - Pounds

0 T - Tons (2,000 lbs.)

0 Y - Cubic Yards

0 L - Liters (liquids only)

0 K - Kilograms

0 M - Metric Tons (1,000 kg)

0 N - Cubic Meters

*Enter zero (0) for units of measure which were not utilized.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
HAZARDOUS WASTE MINIMIZATION SURVEY

HAZARDOUS WASTE GENERATOR WASTE REDUCTION PROGRAM, FY 1985

- Please complete both sides -

Company: Sun Refining and Marketing Newark Terminal NJD980650154
(Name) (EPA ID Number)

Mailing Address: 1801 Market Street, 15th Floor, Philadelphia, PA 19103
(Street) (City) (Zip Code)

Location of Generator Site: 436 Doremus Avenue, Newark, NJ 07105
(if different from mailing address)

Contact Person: Marsha S. Weiss 215-977-6398
(Name) (Telephone Number)

Marsha S Weiss Sr. Environmental Specialist
(Signature) (Title)

Please provide information about your company's hazardous waste minimization program. (If more space is needed, please answer on a separate sheet of paper and attach it to the questionnaire.)

1. Separation

Is your company's waste collection system designed to decrease the volume of hazardous waste by keeping hazardous waste separate from non-hazardous waste?

Yes No

If yes, has the system been improved in the past year to further reduce the amount of hazardous waste?

Yes No

What reduction in volume was achieved in the last year? N/A

2. Substitution

Has your company substituted a hazardous material with a non-hazardous or less hazardous material to reduce either the amount or toxicity of hazardous waste generated by your operation?

Yes No

If yes, when was the substitute introduced, and to what extent has it reduced the toxicity or amount of hazardous waste generated in the last year?

Efficiency

Has your company improved the efficiency of operations so as to reduce the amount of hazardous waste generated?

Yes

☒ No

If yes, please describe it briefly and state when it was instituted.

What amount of waste reduction was achieved in the last year?

4. Recycling on-site

Does your company's waste reduction program include a hazardous waste recycling operation on-site?

Yes

☒ No

If yes, please briefly describe the recycling operation and state when it was instituted.

What amount of waste reduction was achieved in the last year?

5. Treatment on-site

Does your company's hazardous waste reduction program include on-site waste treatment which minimizes the toxicity or amount of hazardous waste generated?

Yes

☒ No

If yes, please briefly describe the treatment operation and state when it was instituted.

To what extent has the treatment operation reduced toxicity or reduced the amount of hazardous waste generated in the past year?



**State of New Jersey
Department of Environmental Protection
Division of Waste Management
CN 028, Trenton, NJ 08626**

Form Approved OMB No. 2000-0401 Expires 7-31-86

lease print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N ED000V 7 2B15/11 120090		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address SUN R.M. 436 DOLEMAN AVE NEWARK, NJ 07105		4. Generator's Phone 201 465 3215		5. Transporter 1 Company Name EIRWOOD TANK & PIPE		6. US EPA ID Number NYD 0K4110171414V	
7. Transporter 2 Company Name		8. US EPA ID Number		9. State Transporter's ID NYD 0K4110171414V		10. State Transporter's Phone 716-853-5960	
9. Designated Facility Name and Site Address CECOS INTERNATIONAL 2321 KENMORE BLVD. BUFFALO NY		10. US EPA ID Number NYD 0K8D3BK24V		11. State Facility's ID		12. Facility's Phone	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers		13. Total Quantity	
a. WASTE F/O - NON HAZARDOUS WASTE				No. 1 Type TT Total Quantity 11600 G		Waste No. X722	
b. ALPHA-LIBRO (T)				c. NO HAZARD		d. NO HAZARD	
15. Special Handling Instructions and Additional Information IN N.J. THIS MATERIAL MIGHT BE CONSIDERED HAZARDOUS WASTE UNDER N.J. CODE Y722 - PLACED IN 1993				16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations, and all applicable State laws and regulations.			
Printed/Typed Name Joseph T. Flint		Signature <i>Joseph T. Flint</i>		Month Day Year 10/10/85			
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature <i>Joseph A. Bawn</i>		Month Day Year 10/10/85			
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Month Day Year			
19. Discrepancy Indication Space							
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.							
Printed/Typed Name D. N. THOMPSON		Signature <i>D. N. Thompson</i>		Month Day Year 10/10/85			

NJ0014461



State of New Jersey
Department of Environmental Protection
Division of Waste Management
CN 028, Trenton, NJ 08625

Form Approved OMB No. 2000-0404 Expires 7-31-88

Use print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NJ000017215111010101		2. - Page 1 of 1	
3. Generator's Name and Mailing Address SUN REFINING & MARKETING 436 DOUGLASS AVE NEWARK, NJ 07102		6. US EPA ID Number NY0001410371411		A. State Document Number NJA0014462	
4. Generator's Phone (201) 465-3215		7. Transporter 1 Company Name ELMWOOD TANK & PIPING		C. State Transporter's ID S-8423-AD	
5. Transporter 1 Company Name ELMWOOD TANK & PIPING		8. US EPA ID Number 1111111111111111		D. Transporter's Phone 716-833-5960	
9. Designated Facility Name and Site Address CECOS INTERNATIONAL 2321 KENMORE BLVD BUFFALO, N.Y.		10. US EPA ID Number WY000108013362141		E. State Transporter's ID 1111111111111111	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers		13. Total Quantity	
a. WASTE C/O (NON HAZARDOUS)		No. 11 Type DRUM		Total Quantity 11	
b. WASTE C/O (NON HAZARDOUS)		No. 11 Type DRUM		Total Quantity 11	
c. WASTE C/O (NON HAZARDOUS)		No. 11 Type DRUM		Total Quantity 11	
d. WASTE C/O (NON HAZARDOUS)		No. 11 Type DRUM		Total Quantity 11	
14. Additional Descriptions for Materials Listed Above		15. Special Handling Instructions and Additional Information		16. GENERATOR'S CERTIFICATION	
a. ALPHA LIQUID (T)		b. IN N.J. THIS MATERIAL MIGHT BE CONSIDERED HAZARDOUS WASTE		I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations, and all applicable State laws and regulations.	
17. Transporter 1 Acknowledgement of Receipt of Materials		18. Transporter 2 Acknowledgement of Receipt of Materials		19. Discrepancy Indication	
Printed/Typed Name Joseph T. Flint		Printed/Typed Name James G. Pruchman		20. Facility Owner or Operator Certification	
Signature Joseph T. Flint		Signature James G. Pruchman		Printed/Typed Name DAVID P. JAROSZEWSKI	
Month Day Year 08/17/85		Month Day Year 08/17/85		Date 08/17/85	
21. Facility Owner or Operator Certification		22. Facility Owner or Operator Certification		23. Facility Owner or Operator Certification	
Printed/Typed Name DAVID P. JAROSZEWSKI		Printed/Typed Name DAVID P. JAROSZEWSKI		Printed/Typed Name DAVID P. JAROSZEWSKI	
Signature DAVID P. JAROSZEWSKI		Signature DAVID P. JAROSZEWSKI		Signature DAVID P. JAROSZEWSKI	
Month Day Year 08/17/85		Month Day Year 08/17/85		Month Day Year 08/17/85	

NJA0014462

TIERRA-D-020629



PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES

Division of Hazardous Waste Management

P. O. Box 2063
Harrisburg, PA 17120

NOT A PERMIT REQUIRED

ER-SWM-51:Rev.5/84

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2000-0404. Expires 7-31-88

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. PA 50-001-72251-1	Manifest Document No. 000000	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address SUN REFINING & MARKETING CO 436 DOLEMUS AVE. NEWARK N.J. 07105				A. State Manifest Document Number PAB 00194740	
4. Generator's Phone ()				B. State Gen. ID	
5. Transporter 1: Company Name ELWOOD TANK & PAIL				C. State Trans. ID: PA-AH 0094	
6. US EPA ID Number NYD-041037441				D. Transporter's Phone: 76853-5400	
7. Transporter 2: Company Name				E. State Trans. ID	
8. US EPA ID Number				PA-AH	
9. Designated Facility Name and Site Address SUN REFINING & MARKETING 2ND & GREEN ST MARION HAZEL PA				F. Transporter's Phone ()	
10. US EPA ID Number PA 980550594				G. State Facility's ID: Not Required	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers	13. Total Quantity
a. HAZARDOUS WASTE, SOLID N.O.S. NA-789 OLM-E				No. Type	Wt/Vol
				1513	0-001
				0-01 RT	6 0-008
b.					
c.					
d.					
J. Additional Descriptions for Materials Listed Above (Include physical state and hazard code)				K. Handling Codes for Wastes Listed Above	
SOLID LIQUID					
15. Special Handling Instructions and Additional Information					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations, and all applicable State laws/regulations.					
Printed/Typed Name Joseph T. Flinn				Signature [Signature]	
17. Transporter 1 Acknowledgement of Receipt of Materials				Date 03-18-85	
Printed/Typed Name Elwood Clement				Signature [Signature]	
18. Transporter 2 Acknowledgement of Receipt of Materials				Date 03-09-85	
Printed/Typed Name				Signature	
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
Printed/Typed Name Gardner Anderson				Signature [Signature]	
Operator				Date	

GENERATOR

TRANSPORTER

FACILITY

PAB 00194740



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Hazardous Waste Management
P. O. Box 2063
Harrisburg, PA 17120

GENERAL INFORMATION

ER-SWM-51:Rev.5/84 Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved: OMB No. 2000-0404. Expires 7-31-88

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. W 3000172351100000		Manifest Document No.		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address SUN REFINING & MARKETING CO. 436 DOLEMAN AVE NEWARK, N.J. 07105				A. State Manifest Document Number PAB 00194751		B. State Gen. ID#			
4. Generator's Phone (201) 465-5200				6. US EPA ID Number WY0041039441		C. State Trans. ID# PA-AH-000000			
5. Transporter 1: Company Name ELMWOOD TANK & PIPING				8. US EPA ID Number PA		D. Transporter's Phone (716) 553-5960			
7. Transporter 2: Company Name				10. US EPA ID Number		E. State Trans. ID# PA-AH			
9. Designated Facility Name and Site Address SUN REFINING & MARKETING 2ND GLEN ST MARION HOOK PA				10. US EPA ID Number PA0980550594		F. Transporter's Phone			
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) "HAZARDOUS WASTE, Solid N.O.S. NA-9189 ORM-E				12. Containers No. Type 001 T.T.		13. Total Quantity 1579		14. Unit Wt/Vol 0008	
b.									
c.									
d.									
J. Additional Descriptions for Materials Listed Above (include physical state and hazard code) Solid - F+ E-EP				K. Handling Codes for Wastes Listed Above					
15. Special Handling Instructions and Additional Information									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations, and all applicable State laws and regulations.				Date 03/08/95					
Printed/Typed Name Joseph T. Flint				Signature <i>[Signature]</i>		Date 03/08/95			
17. Transporter 1 Acknowledgement of Receipt of Materials				Date					
Printed/Typed Name Elwood Clement				Signature <i>[Signature]</i>		Date 03/08/95			
18. Transporter 2 Acknowledgement of Receipt of Materials				Date					
Printed/Typed Name				Signature		Date			
19. Discrepancy Indication Space									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.				Date					
Printed/Typed Name <i>[Signature]</i>				Signature <i>[Signature]</i>		Date 03/08/95			

GENERATOR

TRANSPORTER

FACILITY

PAB00194751

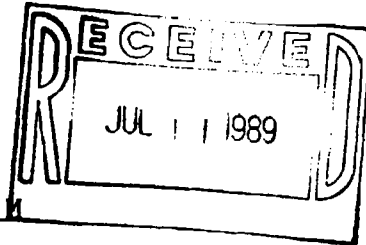
Let's protect our earth



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL QUALITY
CN 027, TRENTON, N.J. 08625-0027

Anthony J. McMahon
Acting Director

(609) 292-5383
Fax # (609) 292-1074



MEMORANDUM

July 11, 1989

TO: Yacoub E. Yacoub
Department of Hazardous Waste Management

FROM: Stanley Delikat, Chief
Bureau of Emergency Response

SUBJECT: Bureau of Emergency Response Referral
Case No. 89-05-03-0721

Please find enclosed a referral from the Bureau of Emergency Response for enforcement and/or other followup. The contact person is G.Olds/R.Dabal who can be reached at (201) 669-3955, for any additional information you may require. At your convenience, please sign and return the enclosed Acknowledgement of Receipt to indicate same.

cc: CHIEF CHARLIE KRAUSS

89 05 03

CASE NO. 125-202-8 . 90721
(Pl) (Def) (Pl) (Def)

COPIES: White - Lead Agency Yellow - BC & SS Pink - Other

DUTY OFFICER UPDATE LOG

89 05 03

CASE NO. 85-20-1 - 80721
(Mr) (Mrs) (Child) (Time)

[illegible]

COPIES:

White - Lead Agency

Yellow - BC & SS

Pink - Other

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DUTY OFFICER NOTIFICATION REPORT

PAGE 1 OF _____

CASE NO. 89-05-03-0721
(W) (Mo) (Day) (Time)DATE 05-03-89 REC'D BY A 16
(Mo) (Day) (Yr)1306 TIME 0728

INCIDENT REPORT BY:

Name Joe Flint Phone 1-201-465-3215
Street _____
City _____ State _____
Affiliation/Title Sun Oil Corp. mgr.

INCIDENT LOCATION:

Name (Site): Sun Oil Phone _____
Street 436 Doremus Ave
City Newark County Essex State _____ Zip Code _____
Date of Incident: 05-03-89 Time: 0600
(Mo) (Day) (Yr)

IDENTITY OF SUBSTANCE(S) SPILLED, RELEASED, ETC.:

____ Suspected ____ Unknown

Name of Substance(s) (Gas, Liquid, Solid): gasoline
Amount Released/Spilled 200 gal Actual ____ Potential ____ Estimated ____ Substance Contained ☒ N ☐ U
Type of Release/Spill: ☒ Terminated ____ Continuous ____ Intermittent ____ Hazardous Material ☒ N ☐ U

INCIDENT DESCRIPTION:

____ Fire ____ Explosion ____ Air Rel ☒ Spill ____ MVA ____ Derailment ____ Smoke/Dust
____ Odors ____ Sewage ____ NJPDES ____ Noise ____ Wildlife ____ Illegal Dumping ____ Drums
☒ Equip Start-Up/Shutdown, Equip Fail/Upset, etc. Flex hose ruptured.
____ Other (specify) _____Injuries ☒ Y ☐ U Public Exposure ☐ Y ☒ U
Facility Evacuation ☐ Y ☒ U Fire Department at Scene ☐ Y ☒ U
Population Evacuation ☐ Y ☒ U Police at Scene ☐ Y ☒ U
Potable Water Source ☐ Y ☒ U Assistance Requested ☐ Y ☒ U
Contamination of ____ Air ____ Land ____ Water Precipitation ☐ Y ☒ U
Receiving Water ____ Wind Direction/Speed _____Location Type: ____ Residential ☒ Industrial ____ Commercial ____ Rural ____ Sensitive Population (Hosp., School, Nurs. Home)STATUS AT INCIDENT SCENE Spill contained on site. Cleanup to be done
By Company & Clean Venture & ECU

RESPONSIBLE PARTY:

____ Suspected ____ Unknown

Company Name TL Phone _____
Contact _____ Title _____
Street _____
City _____ County _____ State _____ Zip Code _____

OFFICIALS NOTIFIED (Name/Title):

NJSP: _____ / _____ Phone _____ Date/Time _____ / _____ (T/M)
Local Health: _____ / _____ Phone _____ Date/Time _____ / _____ (T/M)
Local Munic: _____ / _____ Phone _____ Date/Time _____ / _____ (T/M)
USEPA: _____ / _____ Phone _____ Date/Time _____ / _____ (T/M)

INCIDENT REFERRED TO:

____ DEQ ____ DWR ____ DSWM ____ DHSM ☒ DHWM ____ DOH ____ DFG ____ DPF ____ DCJ ____ DCR
Region: ____ Northern ☒ Metro ____ Central ____ Southern ____ ER1 ____ ER2 ____ BUST
1. Name/Affil 16 / _____ Phone _____ Date/Time _____ / _____ (T/M)
2. Name/Affil 12 / _____ Phone _____ Date/Time _____ / _____ (T/M)
3. Name/Affil _____ / _____ Phone _____ Date/Time _____ / _____ (T/M)

DEP RESPONSE

Emergency ____ Immediate ____ Priority ☒ No Response NFA By BER

COMMENTS

0730 16 TIT Joe Flint said line ruptured 0430-0450 hrs 200 gal est.
Spilled workers pumping gas line into oil/water separator nothing got off site
gasoline in puddles on pavement & dirt C U I to do cleanup 0945 TIT
another DEP. 1000 gal line separator emptying. Newark PD notified

COPIES: White - Lead Agency Yellow - Other Pink - Other

New Jersey Department of Environmental Protection
Division of Environmental Quality
Bureau of Emergency Response
Region I

INVESTIGATION

Case #: 89-05-03-0721

File #: 0714

Date: 5/3/89

Investigator: Gregory Olds/
R. Dabal

Time Arrived: 1000

Time Departed: 1130

Location: Sun Oil Company
Address: 436 Doremus Ave
Newark, Essex Co.
Joe Flint- Terminal Manager
Location Phone #: 465-3215

Responsible Party: same as IL
Mailing Address:

Health Dept. Rep:

Phone # :

Origin of Complaint: Joe Flint

Phone # : 465-3215

Nature of Complaint: Responded to a reported spill of 2000 gallons of gasoline.

Findings: Met R. Swales of Newark OEM at site. 8" flexible steel transfer hose ruptured. Product spilled from ruptured line which was connected to a hundred thousand gallon tank. The actual amount lost was 21,000 gallons. All material was contained on the soil of the site. Most of the material was recovered by on site sewage system and sent to a holding tank for recovery/disposal. Clean Venture was hired and on site, completing the recovery of free liquid, upon our arrival. Soil contamination is to be addressed by D.H.W.M.. There was no off site impact.

Conclusions: Responded to a 2000 gallon spill of gasoline which turned out to be 21,000 gallons. All material was contained on site. The material was transferred to an on site holding tank for subsequent recovery. Clean Venture performed the clean up of freestanding liquid.

Recommendations: NEA by BER I, refer case to DHWM-M for follow up.

Gregory Olds
Investigator

5/13/89
Date

Richard Dabal
Investigator

Date

Justin H Jones
Supervisor

Date

COMMUNICATIONS CENTER NOTIFICATION REPORT

CASE NO. 89-05-03-0721
(YY) (MM) (DD) (TIME)DATE 05-03-89
(YY) (MM) (DD)REC'D BY HART 19H
(TIME)REVIEWED BY JI
(TIME)

INCIDENT REPORT BY:	
Name	Joe Eliot
Street	436 DORRIS AVE
City	NEWARK
Affiliation/Title	Sun Oil / Manager
Phone	201-465-3215
INCIDENT LOCATION:	
Name (Site)	Sun Oil
Street	436 DORRIS AVE
City	NEWARK
County	ESSEX
State	NJ
Zip Code	
Date of Incident	05-03-89
Time	0600
IDENTITY OF SUBSTANCES SPILLED, RELEASED, ETC.:	
Name of Substance(s) (Gas, Liquid, Solid)	X Known Gasoline
CAS Number	
Amount Released/Spilled	2000 GALLONS
Substance Contained	(Y/N/U)
Type of Release/Spill	X Terminated
Hazardous Material	(Y/N)
NATURE OF INCIDENT:	
Complaint	
Misc. Notification	
Emergency	
X Facility Notification	
INCIDENT DESCRIPTION:	
Fire	
Explosion	
Air Mtl	X Spill
MVA	
Derailment	
Smoke/Dust	
Odors	
Seepage	
NIPDES	
Major	
Illegal Dumping	
Wildlife	
Equip Start-up/Shutdown, Equip Fail/Upset, etc.	
Other (Specify)	
Injuries (Y/N/U)	
Facility Evacuation (Y/N/U)	
Public Evacuation (Y/N/U)	
Contamination of	Air X Land Water
Potable Water Source (Y/N/U)	
Receiving Water	
Location Type	Residential X Industrial Rural
Public Exposure (Y/N/U)	
Police at Scene (Y/N/U)	
Fireman at Scene (Y/N/U)	
Audience Requested (Y/N/U)	
Wind Direction/Speed	
Precipitation (rain/snow)	
Sensitive Population (Nurs. Home, School, etc.)	
STATUS AT INCIDENT SCENE	
FLEX HOSE ON BACK PUMP REPTURED CAUSING SPILLAGE ON GROUND. CLEAN UP VENTURE IS EN ROUTE.	
RESPONSIBLE PARTY:	
Company Name	Sun Oil Co.
Contact	Joe Eliot
Street	436 DORRIS AVE
City	NEWARK
County	ESSEX
State	NJ
Zip Code	
OFFICIALS NOTIFIED (Name/Title):	
NJP	JPR Mishak / DEPT
Local Health	
Local Munic.	OPPR # 102 / NEWARK
USEPA	
Phone	OFFICE
Date/Time	5-3 / 0729
Phone	
Date/Time	5-3 / 0734
Phone	
Date/Time	
INCIDENT REFERRED TO:	
X DEQ	OWR DSWM DHSM DHWM DOW DFG OFF DCJ OCR
Region	Northern Metro Central Southern X ER1 ER2
1. Name/Title	R. DARR / ERI
2. Name/Title	
3. Name/Title	
Phone	RADIO
Phone	
Phone	
Date/Time	5-3 / 0726
Date/Time	
Date/Time	
IMMEDIATE DEP RESPONSE (Y/N)	
Emergency (Y/N)	
Enforcement (Y/N)	
COMMENTS	

COPIES: White - Lead Agency Yellow - Comm. Center Pink - ASIO Goldenrod - Other

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DUTY OFFICER NOTIFICATION REPORT

PAGE 1 OF

CASE NO. 89 - 05 - 03 - 0721
(Yr) (Mo) (Day) (Time)DATE 05 - 03 - 89 REC'D BY R 16 TIME 0728
(Mo) (Day) (Yr)

INCIDENT REPORT BY:

Name Joe Flint Phone 1-201-465-3215

Street

City

State

Affiliation/Title Sun Oil Corp mgr.

INCIDENT LOCATION:

Transportation Facility Other:

Name (Site): Sunoil Phone

Street 436 Doremus Ave

City Newark County Essex State Zip Code

Date of Incident: 05 - 03 - 89 Time: 0600
(Mo) (Day) (Yr)

IDENTITY OF SUBSTANCE(S) SPILLED, RELEASED, ETC.:

Suspected Unknown

Name of Substance(s) (Gas, Liquid, Solid): Gasoline

Amount Released/Spilled 200 gal Actual Potential Estimated Substance Contained ☒ N UType of Release/Spill: ☒ Terminated Continuous Intermittent Hazardous Material ☒ N U

INCIDENT DESCRIPTION:

☐ Fire ☐ Explosion ☐ Air Rel ☒ Spill ☐ MVA ☐ Derailment ☐ Smoke/Dust☐ Odors ☐ Sewage ☐ NJPDES ☐ Noise ☐ Wildlife ☐ Illegal Dumping ☐ Drums☒ Equip Start-Up/Shutdown, Equip Fail/Upset, etc. Flex hose ruptured.

Other (specify)

Injuries Y ☒ UPublic Exposure Y ☒ UFacility Evacuation Y ☒ UFire Department at Scene Y ☒ UPopulation Evacuation Y ☒ UPolice at Scene Y ☒ UPotable Water Source Y ☒ UAssistance Requested Y ☒ U

Contamination of Air Land Water

Precipitation Y ☒ U

Receiving Water

Wind Direction/Speed

Location Type: Residential ☒ Industrial Commercial Rural Sensitive Population (Hosp., School, Nurs. Home)

STATUS AT INCIDENT SCENE Spill contained on site. Cleanup to be done

By Company & Clean Venture I LLC

RESPONSIBLE PARTY:

Suspected Unknown

Company Name I L Phone

Contact Title

Street

City County State Zip Code

OFFICIALS NOTIFIED (Name/Title):

NJSP: / Phone / Date/Time / (T/M)

Local Health: / Phone / Date/Time / (T/M)

Local Munic: / Phone / Date/Time / (T/M)

USEPA: / Phone / Date/Time / (T/M)

INCIDENT REFERRED TO:

☐ DEQ ☐ DWR ☐ DSWM ☐ DHSM ☒ DHWM ☐ DOH ☐ DFG ☐ DPF ☐ DCJ ☐ DCRRegion: Northern ☒ Metro Central Southern ER1 ER2 BUST

1. Name/Affil 16 / Phone / Date/Time / (T/M)

2. Name/Affil 12 / Phone / Date/Time / (T/M)

3. Name/Affil / Phone / Date/Time / (T/M)

DEP RESPONSE Emergency Immediate Priority No Response NFA By BER

COMMENTS: 16 TIT Joe Flint said line ruptured 0430-0450 hrs 200 gal est spilled. Workers pumping gas line into oil/water separator nothing got offsite. Gasoline in puddles on pavement dirt. CUL to do cleanup 0945 TIT. Called NED. 1000 gallons broken coupling. Newark PD notified.

COPIES: White - Lead Agency Yellow - Other Pink - Other

Form DEQ-023A
10/87NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIV. OF ENVIRONMENTAL QUALITY - BUR. OF COMMUNICATIONS AND SUPPORT SERVICES
Phone: 609-292-7172

TO LOG# 4224

07-14-340

COMMUNICATIONS CENTER NOTIFICATION REPORT

CASE NO. 89-05-03-0721
(Yr) (Mo) (Day) (Time)

DATE 05-03-89 (Mo) (Day) (Yr) REC'D BY HART (Initials) 19H (Initials) REVIEWED BY J. H. (Initials)

INCIDENT REPORT BY:	
Name <u>JOE ELIOT</u>	Phone <u>201-465-3215</u>
Street <u>436 DAREMUS AVE</u>	
City <u>NEWARK</u>	State <u>NJ</u>
Affiliation/Title <u>SUN OIL / MANAGER</u>	
INCIDENT LOCATION:	
Name (Site): <u>SUN OIL</u>	Phone <u>201-465-3215</u>
Street <u>436 DAREMUS AVE</u>	
City <u>NEWARK</u>	County <u>ESSEX</u> State <u>NJ</u> Zip Code <u></u>
Date of Incident: <u>05-03-89</u>	Time: <u>0600</u>
IDENTITY OF SUBSTANCE(S) SPILLED, RELEASED, ETC.:	
Name of Substance(s) (Gas, Liquid, Solid): <u>GASOLINE</u>	<input checked="" type="checkbox"/> Known <input type="checkbox"/> Suspected <input type="checkbox"/> Unknown
CAS Number: <u></u>	
Amount Released/Spilled <u>2000 GALLON</u>	Actual <input type="checkbox"/> Potential <input checked="" type="checkbox"/> Estimated
Substance Contained <input checked="" type="checkbox"/> (N/U)	
Type of Release/Spill: <input checked="" type="checkbox"/> Terminated <input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	
Hazardous Material <input checked="" type="checkbox"/> (N)	
NATURE OF INCIDENT:	
<input type="checkbox"/> Complaint <input type="checkbox"/> Music Notification <input type="checkbox"/> Emergency <input checked="" type="checkbox"/> Facility Notification	
INCIDENT DESCRIPTION:	
<input type="checkbox"/> Fire <input type="checkbox"/> Explosion <input type="checkbox"/> Air Rel <input checked="" type="checkbox"/> Spill <input type="checkbox"/> MVA <input type="checkbox"/> Derailment <input type="checkbox"/> Smoke/Dust	
<input type="checkbox"/> Odors <input type="checkbox"/> Sewage <input type="checkbox"/> NJPDES <input type="checkbox"/> Noise <input type="checkbox"/> Illegal Dumping <input type="checkbox"/> Wildlife	
<input type="checkbox"/> Equip Start-up/shutdown, Equip Fail/Upset, etc.	
Other (specify) <u></u>	
Injuries (Y/N) <input checked="" type="checkbox"/> (U)	Public Exposure (Y/N) <input checked="" type="checkbox"/> (U)
Facility Evacuation (Y/N) <input checked="" type="checkbox"/> (U)	Police at Scene (Y/N) <input checked="" type="checkbox"/> (U)
Public Evacuation (Y/N) <input checked="" type="checkbox"/> (U)	Fireman at Scene (Y/N) <input checked="" type="checkbox"/> (U)
Contamination of <input checked="" type="checkbox"/> Air <input checked="" type="checkbox"/> Land <input type="checkbox"/> Water	Assistance Requested (Y/N) <input checked="" type="checkbox"/> (U)
Potable Water Source (Y/N) <input checked="" type="checkbox"/> (U)	Wind Direction/Speed <u>1</u>
Receiving Water <u></u>	Precipitation (rain/snow) <u></u>
Location Type: <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Rural	Sensitive Population (Hosp, School, Nurs. Home)
STATUS AT INCIDENT SCENE <u>FLUX HOSE ON BACK PUMP REPTURED CAUSING SPILLAGE ON GROUND. CLEAN VENTURE IS EN ROUTE.</u>	
RESPONSIBLE PARTY:	
<input checked="" type="checkbox"/> Known <input type="checkbox"/> Suspected <input type="checkbox"/> Unknown	
Company Name <u>SUN OIL CO.</u>	Phone <u>201-465-3215</u>
Contact <u>JOE ELIOT</u>	Title <u>MANAGER</u>
Street <u>436 DAREMUS AVE</u>	
City <u>NEWARK</u>	County <u>ESSEX</u> State <u>NJ</u> Zip Code <u></u>
OFFICIALS NOTIFIED (Name/Title):	
NJSP: <u>TPR MISBAK</u>	Phone <u>OFFICE</u> Date/Time <u>5-3 / 0229</u> (T/M)
Local Health: <u></u>	Phone <u></u> Date/Time <u></u> (T/M)
Local Munic: <u>OPER # 102</u>	Phone <u>733-6000</u> Date/Time <u>5-3 / 0234</u> (T/M)
USEPA: <u></u>	Phone <u></u> Date/Time <u></u> (T/M)
INCIDENT REFERRED TO:	
<input checked="" type="checkbox"/> DEQ <input type="checkbox"/> DWR <input type="checkbox"/> DSWM <input type="checkbox"/> DHSM <input type="checkbox"/> DHWM <input type="checkbox"/> DOM <input type="checkbox"/> DFG <input type="checkbox"/> OPF <input type="checkbox"/> DCJ <input type="checkbox"/> DCR	
Region: <input type="checkbox"/> Northern <input type="checkbox"/> Metro <input type="checkbox"/> Central <input type="checkbox"/> Southern <input checked="" type="checkbox"/> ER1 <input type="checkbox"/> ER2	
1. Name/Affil <u>R. Debat</u>	Phone <u>RADIO</u> Date/Time <u>5-3 / 0226</u> (T/M)
2. Name/Affil <u></u>	Phone <u></u> Date/Time <u></u> (T/M)
3. Name/Affil <u></u>	Phone <u></u> Date/Time <u></u> (T/M)
IMMEDIATE DEP RESPONSE (Y/N) <input type="checkbox"/> (Emergency (Y/N)) <input type="checkbox"/> Enforcement (Y/N) <input type="checkbox"/>	
COMMENTS	

COPIES: White - Lead Agency Yellow - Comm. Center Pink - A310 Goldenrod - Other

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DUTY OFFICER NOTIFICATION REPORT

CASE NO. 89 - 05 - 03 - 0721
(Yr.) (Mo) (Day) (Time)

DATE 05 - 03 - 89 REC'D BY A 16 TIME 0728
(Mo) (Day) (Yr)

INCIDENT REPORT BY:

Name Joe Flint Phone 1-201-465-3215

Street

City State

Affiliation/Title Sun Oil Corp. Mgr.

INCIDENT LOCATION: Transportation Facility Other:

Name (Site): Sunoil Phone

Street 436 Raritan Ave

City Newark County Essex State Zip Code

Date of Incident: 05 - 03 - 89 Time: 0600
(Mo) (Day) (Yr)

IDENTITY OF SUBSTANCE(S) SPILLED, RELEASED, ETC.:

Suspected Unknown

Name of Substance(s) [Gas, Liquid, Solid]: Gasoline

Amount Released/Spilled 200 gal Actual Potential Estimated Substance Contained N U

Type of Release/Spill: X Terminated Continuous Intermittent Hazardous Material N U

INCIDENT DESCRIPTION:

Fire Explosion Air Rel X Spill MVA Derailment Smoke/Dust

Odors Sewage NJPDES Noise Wildlife Illegal Dumping Drums

X Equip Start-Up/Shutdown, Equip Fail/Upset, etc. Flex hose ruptured.

Other (specify)

Injuries Y N U Public Exposure Y N U

Facility Evacuation Y N U Fire Department at Scene Y N U

Population Evacuation Y N U Police at Scene Y N U

Potable Water Source Y N U Assistance Requested Y N U

Contamination of Air Land Water Precipitation Y N U

Receiving Water Wind Direction/Speed

Location Type: Residential X Industrial Commercial Rural Sensitive Population (Hosp., School, Nurs. Home)

STATUS AT INCIDENT SCENE Spill contained on site. Cleanup to be done

By Company & Clean Venture I LLC

RESPONSIBLE PARTY:

Suspected Unknown

Company Name DL Phone

Contact Title

Street

City County State Zip Code

OFFICIALS NOTIFIED (Name/Title):

NJSP: / Phone Date/Time / (T/M)

Local Health: / Phone Date/Time / (T/M)

Local Munic: / Phone Date/Time / (T/M)

USEPA: / Phone Date/Time / (T/M)

INCIDENT REFERRED TO:

DEQ DWR DSWM DHSM X OHWM DOH DFG OPF DCJ DCR

Region: Northern X Metro Central Southern ER1 ER2 BUST

1. Name/Affil 16 / Phone Date/Time / (T/M)

2. Name/Affil 12 / Phone Date/Time / (T/M)

3. Name/Affil / Phone Date/Time / (T/M)

DEP RESPONSE Emergency Immediate Priority No Response NFA By BER

COMMENTS PR 16 TIT Joe Flint said line ruptured 0430-0450 hrs 200 gal. est

filled. workers pumping gas line into oil/water separator nothing got off site

gasoline in puddles on pavement & dirt CUL to do cleanup 0945 TIT

notified NFA. 1000 gal. loss. broken coupling. N.J. PD notified



State of New Jersey
Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation
Metro Regional Office
2 Babcock Place
West Orange, NJ 07052

Scott A. Weiner
Commissioner

Karl J. Delaney
Director

IN THE MATTER OF : MEMORANDUM
THE SUN-NEWARK TERMINAL SITE : OF
: AGREEMENT

This Memorandum of Agreement is issued pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection and Energy (hereinafter "the Department" or "NJDEPE") by N.J.A.S. 13:1D-1 et seq. and the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq. and the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq. and duly delegated to the Assistant Director, Division of Responsible Party Site Remediation pursuant to N.J.S.A. 13:1B-4.

FINDINGS

1. The property that is the subject of this Memorandum of Agreement is owned by Sun Company, Inc. (R&M) and is located at 436 Doremus Avenue and is designated as Block 5070, Lot(s) 13, 13A, 15, 15A, 20, 20A, 22, 22A on the tax maps of the City of Newark, Essex County, New Jersey (hereinafter the "Site"). The Site encompasses 20 acres and is bounded generally by Doremus Avenue to the West and the Passaic River to the East.
2. Sun Company, Inc. (R&M), incorporated in the State of Pennsylvania, with principal offices at 11 Penn Center, 1835 Market Street, Philadelphia, PA, is the party executing this Memorandum of Agreement.
3. The intent of this Memorandum of Agreement is to allow Sun Company, Inc. (R&M) to conduct any of the remedial activities outlined herein with oversight from the Department. Sun Company, Inc. (R&M) has indicated to the Department that it wishes to conduct the following activities at the site with the Department's oversight:
 - a. Feasibility Study
4. By entering into this Memorandum of Agreement, Sun Company, Inc. (R&M) does not admit to any fact, fault or liability under any statute or regulation for conditions which existed before, during, or after Sun Refining's execution of this Memorandum of Agreement.

Sun Company, Inc. (R&M) agrees to pay, in accordance with paragraph 10, only the prior costs associated with the current Project Activity Code (PAC) for soil reuse at the site.

AGREEMENT

I. Remediation

5. Sun Company, Inc. (R&M) agrees to submit the following documents and the Department agrees to review and comment on documents submitted.

- a. Feasibility Study
 - i. Workplan
 - ii. Report

Sun Company, Inc. (R&M) agrees to conduct all activities agreed to in this Memorandum of Agreement in accordance with the Department's prevailing technical standards and applicable Administrative Codes.

6. Within ten (10) calendar days after the Department receipt of any submission pursuant to this Memorandum of Agreement, the Department will inform in writing of any administrative deficiencies in the submission that will prevent the Department from conducting its review. When the Department determines that the submission is administratively complete, the Department will notify Sun Company, Inc. (R&M) in writing of the timeframe required for the Department to complete the review.

7. Within seven (7) days after the effective date of this Memorandum of Agreement, Sun Company, Inc. (R&M) will submit to the Department: a) the name, address and telephone number of the individual who will be the contact for Sun Company, Inc. (R&M) regarding technical matters concerning this Memorandum of Agreement and b) the name and address of the designated agent for Sun Company, Inc. (R&M) for the purpose of service for all matters concerning this Memorandum of Agreement.

8. Sun Company, Inc. (R&M) may terminate this Memorandum of Agreement if it is determined that is no longer feasible or desirable to continue with this Memorandum of Agreement, when Sun Company, Inc. (R&M):

- a. Submits full payment to the Department for any Department oversight costs the Department incurred pursuant to this Memorandum of Agreement which Sun Company, Inc. (R&M) has not paid;
- b. Notifies the Department in writing of its intentions to terminate this Memorandum of Agreement;
- c. Submits all data generated pursuant to this Memorandum of Agreement; and
- d. Ensures that no environmental hazards exist at the Site as a result of Sun Refining's actions pursuant to this Memorandum of Agreement.

II. Project Coordination

9. Unless otherwise directed by the Department, Sun Company, Inc. (R&M) shall submit two (2) copies of all documents required by this Memorandum of Agreement to the person identified below, who shall be the Department's contact for Sun Company, Inc. (R&M) for all matters concerning this Memorandum of Agreement.

New Jersey Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation
Bureau of Field Operations - Metro Regional Office
2 Babcock Place
West Orange, NJ 07052
Attention: Arnold Schiff

III. Financial Obligation

10. Upon receipt of a summary of the Department's costs incurred in connection with its oversight functions of this Memorandum of Agreement and for all prior costs associated with the Site, Sun Company, Inc. (R&M) shall submit to the Department a cashier's or certified check payable to the "Treasurer, State of New Jersey" with NJDEPE Form 062A for the full amount of the Department's oversight costs. Sun Company, Inc. (R&M) cannot be released from its obligations under this Memorandum of Agreement, until all oversight costs for work performed by the Department, are paid.

11. Beginning three hundred sixty-five (365) calendar days after the effective date of this Memorandum of Agreement, and annually thereafter on that same calendar day, Sun Company, Inc. (R&M) shall submit to the Department a detailed summary of all monies spent to date pursuant to this Memorandum of Agreement, the estimated costs of all future expenditures required to comply with this Memorandum of Agreement (including any operation and maintenance costs), and the reason for any changes from the previous cost review Sun Company, Inc. (R&M) submitted.

IV. Reservation of Rights

12. The Department reserves the right to unilaterally terminate this Memorandum of Agreement in the event that Sun Company, Inc. (R&M) violates any terms or fails to meet the obligations of this Memorandum of Agreement or in the event that the Site becomes a high priority for the Department.

13. Nothing herein, including any document the Department issues as agreed to above, shall be interpreted to constitute a release or waiver of liability for any of the conditions which existed before, during or after the Department's execution of this Memorandum of Agreement.

V. General Conditions

14. Sun Company, Inc. (R&M) shall, in addition to any other obligation required by law, notify the Department contact immediately upon knowledge of any condition posing an immediate threat to human health and/or the environment.

15. Sun Company, Inc. (R&M) shall perform all work conducted pursuant to this Memorandum of Agreement in accordance with prevailing professional standards.

16. Sun Company, Inc. (R&M) shall conform all actions required by this Memorandum of Agreement with all applicable federal, State and local laws and regulations.

17. Nothing in this Memorandum of Agreement shall relieve Sun Company, Inc. (R&M) from complying with all other applicable laws and regulations.

18. Sun Company, Inc. (R&M) shall preserve all potential evidentiary documentation found at the Site, including without limitation, documents, labels, drums, bottles, boxes or other containers, and/or other physical materials that could lead to the establishment of the identity of any person which generated, treated, transported, stored or disposed of contaminants at the Site, until written approval is received from the Department to do otherwise.

19. Upon receipt of a written request from the Department, Sun Company, Inc. (R&M) shall submit to the Department all data and information concerning contamination at the Site, including technical records and contractual documents, and raw sampling and monitoring data, whether or not such data and information was developed pursuant to this Memorandum of Agreement.

20. This Memorandum of Agreement shall be governed and interpreted under the laws of the State of New Jersey.

21. This Memorandum of Agreement shall be binding, jointly and severally, on each signatory, its successors and assignees. No change in the ownership or corporate or business status of any signatory, or of the facility or Site shall alter any signatory's responsibilities under this Memorandum of Agreement.

22. This Memorandum of Agreement shall become effective upon execution hereof by all parties.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY

Date: 1/25/93

BY:

Wayne C. Howitz
Wayne C. Howitz, Assistant Director
Discharge Response Element

Sun Company, Inc. (R&M)

Date: JAN. 18, 1993

BY:

Carl G. Bookland
Signature

Carl G. Bookland
Print Full Name Signed Above

Senior Geologist
Title

D. Current Business Owner(s) (if different than question Part I B. or C.)

Name(s) same as Part I B and C

Firm _____ Telephone # _____

Street Address _____

State _____ Zip Code _____

Municipality _____

- E. Current Property Use: Residential _____ Agricultural _____
 Industrial X Undeveloped _____
 Commercial _____ Other _____

F. Provide the information requested below on the previous owners of the site and the entities who operated at the site.

Name	Owner or Operator	From	To
*Newark Bay Smelting & Refining		?	1916
*Continental Oil Company		?	1936
*Balback Smelting & Refining		?	1945

*Sun has operated at the site since the 1920's. These companies operated on portions of the site which were purchased by Sun in the year indicated.

- G. For these former Owner(s) and/or Operator(s) identified above (in paragraph PART I F.), give a brief discussion of all operations at the site, including but not limited to types of operations, materials used, waste generated, and waste disposal techniques.

Newark Bay Smelting & Refining - processing of raw ores - slag waste generated & disposed of onsite (as fill).

Continental Oil Company - storage & distribution of gasoline/oil - unknown what waste was generated and how it was disposed of.

Balback Smelting & Refining - processing of raw ores - slag waste generated & disposed of onsite (as fill).

- H. Are there currently, or have there ever been any hazardous substances as defined by N.J.A.C. 7:1E-1 et seq. used, generated, treated, stored, disposed or discharged at the site?

Yes X No _____

- I. Are there currently, or have there ever been any hazardous wastes as defined by N.J.A.C. 7:26-8 et seq. used, generated, treated, stored, disposed or discharged at the site?

Yes X No _____

- J. Are there currently, or have there ever been, any above or below ground storage tanks at the site?

Yes X No _____

MEMORANDUM OF AGREEMENT APPLICATION
PART II

Please answer all the following site specific questions completely and accurately. Attach separate paper if necessary and refer to corresponding numbers below. Please type or print all information clearly.

A. Who is requesting this MOA?

Name Mr. Carl G. Borkland
Affiliation Geologist, Sun Refining & Marketing, Risk Management
Address Twin Oaks Terminal, 4041 Market Street
City/Town Aston
State Pennsylvania Zip Code 19014-3197
State of Incorporation Pennsylvania

B. Who will be executing this MOA? (If different than PART II A.)

Name same as Part II A
Affiliation _____
Address _____
City/Town _____
State _____ Zip Code _____
State of Incorporation _____ Corp. status _____

C. Select which phase(s) of the remediation process are to be performed pursuant to the MOA being requested.

<input type="checkbox"/> PA/SI	<input type="checkbox"/> Remedial Design Workplan
<input type="checkbox"/> RI Work Plan	<input type="checkbox"/> Remedial Design Report
<input type="checkbox"/> RI Report	<input type="checkbox"/> Operational/Maint. Work Plan
<input type="checkbox"/> FS Work Plan	<input checked="" type="checkbox"/> Other <u>Review of Soil Reuse Plan</u>
<input type="checkbox"/> FS Report	_____

D. Who will be the contact for all matters of this application?

Name Carl G. Borkland Title Geologist
Affiliation Sun Refining & Marketing, Risk Management
Address Twin Oaks Terminal, 4041 Market Street
City/Town Aston
State Pennsylvania Zip Code 19014-3197
Phone 1-215-499-5718

E. What are the current operations at the site?

The site is a bulk petroleum storage and distribution facility.

- F. What are the intended future uses of the site?

The site is to remain in use as a bulk petroleum distribution
and storage facility.

- G. Describe briefly the major types of contaminants found at the site and what media they affect.

Lead - present in both soil and groundwater

Petroleum Hydrocarbons - present in both soil and groundwater

- H. Describe in detail how the contamination came to exist at the site. For example, were there past spills, landfill operations, industrial septic systems, USTs, deposition of fill material, etc.?

Lead - slag generated from past metals processing activities at the site
has been placed as fill across a large portion of the site.

Petroleum Hydrocarbons - generated from past spills.

- I. List any civil/criminal actions taken against the owner/operator, managers or officials associated with the site for violations of any environmental laws or statutes.

Check here if no violations or alleged violation ☒ [X]

Date of action _____

Section of law or statute violated _____

Type of enforcement action _____

Description of the violation _____

How was the violation or alleged violation resolved?

- J. List all permits currently held by the applicant for the site. (NJDES, RCRA, etc.)

NJDES Permit #NJ0002771 - storm water collection

NJDES Category KR Authorization #NJ0087475 (dewatering work completed)

(1/92)



State of New Jersey
Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation
CN 028
Trenton, NJ 08625-0028

07-14-340
RECEIVED

001 - 1993

Karl J. Delaney
Director

Scott A. Weiner
Commissioner

MEMORANDUM

TO: Yacoub Yacoub, Section Chief
Bureau of Field Operations - Metro

FROM: Linda Range, Section Supervisor *UR*
Bureau of Field Operations - Site Assessment

DATE: September 21, 1993

SUBJECT: Sun Refining & Marketing Company - Newark Terminal

The attached reports, memorandum, or data packages are for your information and/or action. Available information indicates that this case is being addressed by your bureau. The supplemental information originated in: Bureau of Field Operations - Site Assessment.

Please be advised that the complete report package may not be attached; thus, it may be necessary for you to contact the above-listed originator for the file. A case transfer form is not required for this case since it is already being addressed by your bureau.

Should you have any questions, please call Janet Smolenski at 6-4280.

Attachments

c: Janet Smolenski

Note: This case file was originally sent to the Bureau of Aquifer Restoration (BAR). Due to the reorganization of the DEPE, BAR recently returned the file, therefore, Site Assessment is forwarding the file to your office since you are the current remedial lead.

CASE TRANSFER REPORT

920546

The following case is being considered for possible reassignment of lead. See Instructions on back.

ORIGINATING PROGRAM REPORT		IEC <input checked="" type="checkbox"/> (Yes/No) Prox. Risk <input checked="" type="checkbox"/> (Yes/No) If Yes, complete Form DEPE-081B.
1. Bureau/ Division <u>Division of Facility Wide Enforcement, NJDEP</u>	Name of Person Reporting <u>Carol Grant</u>	Tele # <u>6-4280</u>
2. SITE INFORMATION		
A. Name of Site <u>Sun Refining and Marketing Company, Newark Terminal</u>		
Operator <u>Joseph E. Grant</u>	Owner <u>Sun Refining and Marketing Co.</u>	
AKA(s) <u>Sun Oil, Sun Mark Industries</u>	EPA ID # <u>MS0001722511</u>	
Address <u>436 Foreman Avenue</u>	Case ID #	
Municipality <u>Newark</u>	Lot <u>15</u>	Block <u>5070</u> County <u>Essex</u>
Type of Business or Operation <u>Petroleum Bulk Refining</u>	SIC Code <u>5171</u>	Approx. Acreage <u>18 acres</u>
Hazardous Waste Quantity (tons)	LAT: <u>40°43'05"</u>	LONG: <u>74°07'34"</u>
B. Environmental Concerns (Check as many as apply, include number of units)		
Asbestos <input type="checkbox"/>	Dumpster <input type="checkbox"/>	Surface Spill <input checked="" type="checkbox"/>
AGST <input type="checkbox"/>	Floor Drain <input type="checkbox"/>	Roof Drain <input type="checkbox"/>
Bldg. Decont. <input type="checkbox"/>	Lagoon <input type="checkbox"/>	Tank Farm <input checked="" type="checkbox"/>
Discharge <input type="checkbox"/>	Seepage Pit <input type="checkbox"/>	Transformer <input type="checkbox"/>
Drum Storage <input type="checkbox"/>	Septic System <input type="checkbox"/>	MVA <input type="checkbox"/>
Monitoring Well(s) <u>2</u>	Potable Well(s) <input type="checkbox"/>	Other (specify) <input type="checkbox"/>
If "B" is checked, complete and attach Form DEPE-081A on contaminants or to detail other comments.		
3. A. Project Activity Code Used <u>Not Specified</u>	B. Was an RP Search Done? <input checked="" type="checkbox"/> (Yes/No)	
4. Other NJDEP Programs Involved in this Case are: <u>EAP, GGDW</u>		
5. Were Local Officials notified? <input type="checkbox"/> Yes <input type="checkbox"/> No Date _____ Organization _____		
ORIGINATING PROGRAM APPROVALS		
<u>Stephenson</u> 11/24/92 Inspector/Date	<u>Plinto</u> Section Chief/Date	<u> </u> Bureau Chief/Date

SITE ASSESSMENT GROUP REVIEW		IEC <input checked="" type="checkbox"/> (Yes/No) Prox. Risk <input checked="" type="checkbox"/> (Yes/No) If Yes, complete Form DEPE-081B.
1. Case Received: (Date) <u>4/24/92</u>	Project Activity Code: <u>NOT SPECIFIED</u>	
Assigned to: <u>J. STEPHENSON</u>	(Date) <u>4/24/92</u>	<u>SIN 14.04</u>
2. Reviewer's Evaluation		(Circle One) SIN <u>18.54</u> RPS Score <u>18.54</u>
A. Remedial Level Determination <u>C-3</u> (B-D) Public <input type="checkbox"/> Private <input checked="" type="checkbox"/>	Transfer Sequence # _____	
Reason for Determination <u>NO REMEDIAL ACTION REQUIRED</u>		

RECEIVING PROGRAM DESIGNATIONS	
Per the Case Management Strategy, this case is being:	
(1) Transferred to: <u>FFSR - BAP</u> as the Lead Program	<u>Ted HAYES is CASE MANAGER</u>
Contact <u>STEVEN SPAYD</u> Tele # <u>2-0424</u>	
(2) Referred to:	
Div./Bureau _____ Name _____ Action Required _____	
Div./Bureau _____ Name _____ Action Required _____	

SITE ASSESSMENT APPROVALS	RECEIVING PROGRAM APPROVAL
<u>Plinto</u> for BVP 5/18/92 Bureau Chief/Date	"This is to acknowledge that case lead assignment has been approved by this Bureau." <u>Steve Spayd</u> 11/24/92 Bureau Chief/Date
<u>Plinto</u> Section Chief/Date	
<u> </u> 11/24/92 Reviewer/Date	

John R. [Signature]



SUPPLEMENTAL CASE TRANSFER REPORT

KNOWN OR POTENTIAL SOURCES OF RELEASE

Page 1 of 1

LOCATION OF CONCERN AND MEDIA AFFECTED	POLLUTANTS	ACTIONS TAKEN
GROUND WATER <i>Free product present in groundwater in southeastern portion of site. Likely due to spill (see below).</i>	<u>SAMPLING FINDINGS</u> <i>RTX (Total)</i>	<u>CONCENTRATION</u> <i>1370 ppb (highest)</i>
		<u>ACTION LEVEL</u>
SURFACE WATER	<u>SAMPLING FINDINGS</u>	<u>CONCENTRATION</u>
		<u>ACTION LEVEL</u>
SOILS <i>In May 1989, approx 42,000 gallons of gasoline spilled in the tank farm area. Of this, 22,000 gallons was recovered.</i>	<u>SAMPLING FINDINGS</u> <i>TPH</i>	<u>CONCENTRATION</u> <i>42,000 ppm</i>
		<u>ACTION LEVEL</u> <i>1000 ppm</i>
AIR	<u>SAMPLING FINDINGS</u>	<u>CONCENTRATION</u>
		<u>ACTION LEVEL</u>
OTHER	<u>SAMPLING FINDINGS</u>	<u>CONCENTRATION</u>
		<u>ACTION LEVEL</u>



07-14-340

HANDEX OF NEW JERSEY, INC., 500 Campus Drive, P.O. Box 451, Morganville, New Jersey 07751-0451 Fax (908) 538-7761 (908) 538-8500

April 5, 1994

Mr. Arnold Schiff
NJDEPE
Division of Responsible Party Site Remediation
Metro Regional Office
2 Babcock Place
West Orange, New Jersey 07052

Subject: Declaration of Environmental Restrictions
Proposed Soil Reuse Plan
Sun Newark Terminal

Dear Arnold:

As per our previous telephone conversations, Sun Company, Inc. is in the process of preparing a Declaration of Environmental Restrictions as part of the proposed soil reuse plan at the above-referenced facility. As part of the Declaration, a date of approval of the Soil Reuse Plan is required. To date we have had no response on the status of the proposed plan. You indicated that a written approval of the plan will be generated after review of the Declaration of Environmental Restrictions. I have enclosed a draft copy of the Declaration for your review. The final version (with signatures) will be submitted to the appropriate agencies as soon as possible, however, completion of the document can not be accomplished without a written approval of the project from the NJDEPE. Any help that you can give with respect to obtaining this approval would be greatly appreciated. Please review the attached and get back to me with comments and thank you for your consideration in this matter.

Sincerely,

Jonathan McCollom
Senior Hydrogeologist

A SUBSURFACE RECOVERY COMPANY

BAB000030
TIERRA-D-020653

DECLARATION OF ENVIRONMENTAL RESTRICTIONS

Prepared by:

[Signature]Jonathan McCollom[Print name below signature]

This Declaration of Environmental Restrictions, made as of the 4th day of March, 1994, by Sun Company, Inc., 1835 Market St., Philadelphia, PA (together with its successors and assigns, collectively "Owner").

W I T N E S S E T H:

WHEREAS, Owner is the owner in fee simple of certain real property (the "Property") designated as Lot 15, Block 5070, on the tax map of the City of Newark, Essex County, more particularly described on Exhibit A attached hereto and made a part hereof; and

WHEREAS, the New Jersey Department of Environmental Protection and Energy ("Department") has issued a remedial approval on -----, 19--, in Case #/Case Name ----- concerning the Property in which the Department has approved the use of non-residential soil standards, institutional controls, and/or engineering controls in accordance with P. L. 1993 c. 139 (S-1070); and

WHEREAS, this Declaration itself is not intended to create any interest in real estate in favor of the Department, nor to create a lien or encumbrance against the Property, but merely is intended to reflect the regulatory and statutory obligations imposed as a condition of using non residential standards; and

WHEREAS, the areas described on Exhibit B attached hereto and made a part hereof (the "Affected Areas") contain contaminants;

WHEREAS, the type, concentration and specific location of the contaminants are described on one or more diagrams, maps and/or tables on Exhibit B attached hereto and made a part hereof; and

[Other WHEREAS clauses may be added to provide notice of additional site-specific concerns, such as:

WHEREAS, to prevent the potential for migration of the contaminants and unacceptable risk of exposure to the contamination to humans or the environment, an impermeable surface cover is to be placed at Property, at the location shown on Exhibit B; and]

WHEREAS, in accordance with the remedial approval, and in consideration of the terms and conditions of the remedial approval, and other good and valuable consideration Owner has agreed to subject the property to certain statutory and regulatory requirements which impose restrictions upon the use of the Property, and to restrict certain activities at the Property, as set forth below; and

WHEREAS, Owner intends to notify all interested parties that such regulatory and statutory restrictions shall be binding upon and enforceable against Owner and Owner's successors and assigns while such own and/or operate at the Property.

NOW, THEREFORE, Owner agrees to be subject to the regulatory and statutory requirements applicable to those who seek to remediate property to non-residential standards and hereby notifies all interested parties, Owners, and operators that the applicable regulations and statutes require of Owner and operators while owning or operating the Property as follows:

1. Restricted Uses. Owner, and all Operators of such portions of the Property, shall not allow any of the following uses of the following portions of the Property:

Portion of the Property

Restricted Use

The Affected Areas as identified in Exhibit B.

The use shall be restricted pursuant to Paragraphs 2 and 3.

2. Emergencies. In the event of an emergency which presents a significant risk to human health, safety, or the environment, the application of Paragraph 1 above may be unilaterally suspended, by Owner, provided the Owner:

- i. Immediately notifies the Department of the emergency;
- ii. Limits both the actual disturbance and the time needed for the disturbance to the minimum reasonably necessary to adequately respond to the emergency;
- iii. Implements all measures necessary to limit actual or potential, present or future risk of exposure to the residual contamination to humans or the environment; and
- iv. Implements restoration of the Affected Areas to the pre-emergency conditions to the extent reasonably possible, and provides a report to the Department of such emergency efforts.

3. Alterations, Improvements, and Disturbances. Owner and operators shall not make, nor allow to be made, any alteration, improvement, or disturbance in, to, or about the Affected Areas which creates an unacceptable risk of exposure to contamination in the Affected Areas to humans or the environment, or results in a disturbance of any engineering control designed to contain or reduce exposure to the contaminants, without first obtaining the express written consent of the Department, which consent shall be given or withheld at the reasonable discretion of Department. Nothing herein shall constitute a waiver of the Owner's obligation to comply with all applicable laws and regulations.

Express written consent of the Department is not required for Alteration, improvement, or disturbance that meets the following:

- provides for restoration of any disturbance of an engineering control to pre disturbance conditions within sixty days,
- does not allow an exposure level above those noted under Restricted Uses, provided that all applicable worker health and safety laws and regulations are followed during the alteration, improvement, or disturbance

4. Notice to Lessees and Other Holders of Property Interests.

(a) Owner shall cause all leases, grants, and other written transfers of interest by the Owner in the Affected Areas and adjacent to the Affected Areas to contain a provision expressly requiring all holders thereof to take the property subject to the use restriction and not to violate any of the conditions of this Declaration of Environmental Restrictions.

(b) Nothing contained in this paragraph 4 shall be construed as limiting any obligation of Owner to provide any notice required by any law, regulation, or order of any governmental authority.

5. Enforcement of violations. The restrictions provided herein are for the benefit of, and shall be enforceable against any person who knowingly violates this Declaration, solely by the Department. A violation of this Declaration of Environmental Restrictions, shall not have an adverse impact on the status of the ownership of and title to the Property. To enforce violations of this Declaration of Environmental Restrictions, the Department may initiate an action in Superior Court or as otherwise allowed by law against any person who is in any way responsible for a violation hereof and seek all available remedies, including without limitation, penalties and injunctive relief. Such enforcement proceedings shall not be initiated against past owners or operators who have not violated this Declaration.

6. Severability. If any court or other tribunal determines that any provision of this Declaration is invalid or unenforceable, such provision shall be deemed to have been modified automatically to conform to the requirements for validity and enforceability as determined by such court or tribunal. In the event that the provision invalidated is of such a nature that it cannot be so modified, the provision shall be deemed deleted from this instrument as though it had never been included herein. In either case, the remaining provisions of this Declaration shall remain in full force and effect.

7. Successors and Assigns. This Declaration shall be binding upon Owner and upon Owner's successors and assigns, and the Department, its agents, contractors, and employees, and to any other person performing remediation under the direction of the Department.

8. Termination and Modification.

(a) This Declaration shall terminate only upon filing of an instrument, executed by the Department, in the office of the [Clerk, of Essex County, New Jersey, expressly terminating this Declaration.

TABLE I
Summary of Analytical Testing

Parameter	Soil Sample #1 (5/7/92)	Soil Sample #2 (9/21/92)	Soil Sample #3 (10/13/92)	Soil Sample #4 (10/13/92)
Total Solids (%)	85.3	78	84	81
Total Petroleum Hydrocarbons	9447.8 mg/kg	11000 mg/kg	4600 mg/kg	85 mg/kg
Corrosivity	NC	NC	NC	NC
pH	6.90	8.8	7.4	7.9
Ignitability	NI	>200° F	>200° F	>200° F
Cyanide Reactivity	<0.063 mg/kg	<1.5 mg/kg	<1.5 mg/kg	<1.5 mg/kg
Sulfide Reactivity	<10.0 mg/kg	<20 mg/kg	<20 mg/kg	<20 mg/kg
Arsenic	<0.01 mg/l	<0.50 mg/l	<0.50 mg/l	0.29 mg/l
Barium	<1.0 mg/l	<2.0 mg/l	1.9 mg/l	0.81 mg/l
Cadmium	<0.025 mg/l	0.080 mg/l	0.084 mg/l	0.036 mg/l
Chromium	<0.10 mg/l	<0.010 mg/l	<0.010 mg/l	<0.010 mg/l
Lead	<0.25 mg/l	11 mg/l	11 mg/l	35 mg/l
Mercury	<0.0005 mg/l	<0.001 mg/l	<0.001 mg/l	<0.001 mg/l
Selenium	<0.01 mg/l	<0.50 mg/l	<0.50 mg/l	<0.50 mg/l
Silver	<0.05 mg/l	<0.030 mg/l	<0.030 mg/l	<0.030 mg/l
AROCHLOR 1016	<17.0 ug/kg	ND	ND	ND
AROCHLOR 1221	<17.0 ug/kg	ND	ND	ND
AROCHLOR 1232	<17.0 ug/kg	ND	ND	ND
AROCHLOR 1242	<17.0 ug/kg	ND	ND	ND
AROCHLOR 1248	<17.0 ug/kg	ND	ND	3600 ug/kg
AROCHLOR 1254	<17.0 ug/kg	ND	ND	ND
AROCHLOR 1260	<17.0 ug/kg	ND	ND	280 ug/kg
Benzene	NS	ND	ND	ND
Toluene	NS	5.0 ug/kg	61 ug/kg	46 ug/kg
Ethylbenzene	NS	ND	ND	ND
Xylenes, total	NS	7.7 ug/kg	37 ug/kg	ND
Total Lead	NS	NS	320 mg/kg	3200 mg/kg

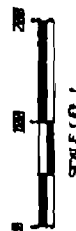
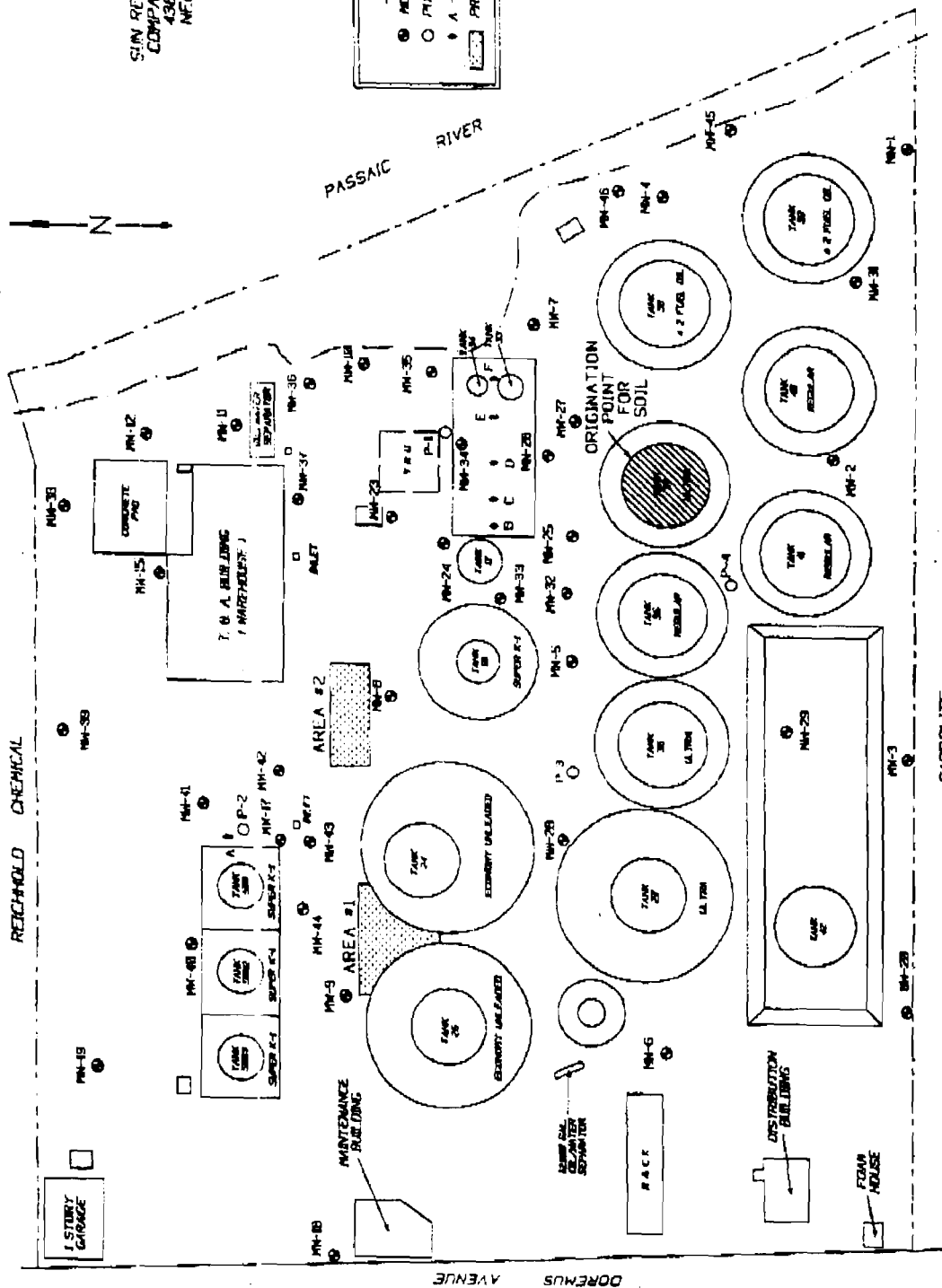
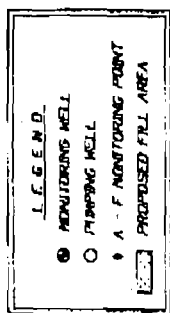
NS = not sampled

ND = not detected

FIGURE 1

SITE PLAN

SUN REFINING AND MARKETING
COMPANY NEWARK TERMINAL
436 DOREMUS AVENUE
NEWARK, NEW JERSEY



SENT BY: HNU

; 4-5-94 ; 9:56 ;

HANDEX OF

1 201 669 3987;# 7

Exhibit A
Meets and Bounds of Subject Property

(b) Owner may request in writing at any time that the Department modify or terminate this Declaration of Environmental Restrictions or execute termination proceedings based on, for example, the owner's proposal that the property does not pose an unacceptable risk to human health or the environment. Within 90 calendar days after receiving the request the Department shall either:

- i. execute the termination or modification Declaration; or
- ii. issue a draft notice of intent to deny.

The Department shall set forth in a draft notice of intent to deny the request its basis for its decision. The owner can respond to the draft denial by providing new or additional information or data. The Department shall review any such new or additional information and issue a final decision to execute the agreement or deny the request within 60 calendar days of the Department's receipt of the owner's response.

IN WITNESS WHEREOF, Owner has executed this Declaration as of the date first written above.

During reconstruction of an existing above-ground bulk storage tank at the facility, approximately 300 cubic yards (yds³) of soil was excavated. Analytical testing of the soil indicated that lead was present in levels above the NJDEPE's residential cleanup criteria. A soil reuse plan was prepared and sent to the NJDEPE in February, 1993. The plan was reviewed by the NJDEPE and approval for the soil reuse was granted by the NJDEPE on -----, 1994. As per the approved plan, the soil is to be utilized to raise the grade and improve drainage in the area between Tanks 24 and 25 and north of Tank 16. These areas are depressed and subject to ponding water during rainfall events. The proposed fill area is indicated on the attached Site Plan. The total square footage of the fill area is approximately 22,200 ft². The grade is to be raised between four (4) and six (6) inches in this area, requiring a total of 300 yd³ of fill. An impermeable asphalt cover is to be placed over the fill.

A summary of the soil analytical data obtained is attached as Table 1.

SENT BY: HNU

; 4-5-94 ; 9:56 ;

HANDEX OF NJ

1 201 669 3987;# 8

Exhibit B
Description of Affected Areas



**State of New Jersey
Department of Environmental Protection and Energy**

Division of Water Quality
CN 029 Trenton, NJ 08625-0029
FAX: (609) 984-7938

Robert C. Shinn, Jr.
Commissioner

Dennis Hart
Director

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Sun Refining and Marketing Center
Risk Management
Ten Penn Center
1801 Market Street
Philadelphia, Pennsylvania 19103-1699

MAY 25 1994

ATTN: Carl Borkland

RE: General B4B Permit Authorization to Discharge Treated Groundwater to the Surface
Waters of the State Individual NJPDES/DSW General Permit Authorization No. NJ0104256
Sunoco Newark Terminal, 436 Doremus Avenue, Newark, Essex County, New Jersey

Dear Permittee:

Enclosed is an Individual NJPDES/DSW General Permit Authorization under the General Groundwater Petroleum Product Cleanup (B4B) Permit which was issued by the Department on October 29, 1993. This General Permit Authorization is issued in accordance with the New Jersey Pollutant Discharge Elimination System (NJPDES) Regulations N.J.A.C. 7:14A-1 et seq.

This General Permit Authorization allows for the direct discharge of treated groundwater to the Passaic River from Discharge Serial Number (DSN) 002A. Individual requirements of this Authorization are specified on the permittee's Individual Authorization Pages. Violation of any condition of this authorization may subject the permittee to significant penalties.

The permittee is encouraged to voluntarily develop a Best Management Practices (BMP) Plan to ensure that proper operation and maintenance procedures and good housekeeping practices are implemented at the facility. The implementation of a BMP Plan at the site will extend the use and effectiveness of the treatment system and decrease the likelihood of additional groundwater contamination from stormwater infiltration. Information on the development of BMPs and other Stormwater Pollution Prevention Plans is available by contacting the Bureau of Stormwater Permitting at (609) 633-7026. Information is also available in the U.S. Environmental Protection Agency's publication entitled, Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92-006, September 1992.

The enclosed Authorization to discharge groundwater under the General Permit shall expire on November 30, 1998 or the expiration date of the Individual Authorization Page. Applications for renewal of this Authorization must be submitted at least 180 days prior to expiration of the General Permit pursuant to N.J.A.C. 7:14A-2.1(g)5.

A copy of the Department's most recently revised Discharge Monitoring Report (DMR) Instructions Manual is enclosed for your use in completing DMRs. Please note that if there is a discrepancy between the General Permit Authorization and the DMR Instructions Manual, the General Permit Authorization always takes precedence.

All monitoring shall be conducted in accordance with the Department's most recently revised Field Sampling Procedures Manual. This manual is available through the Maps and Publications Sales Office, Bureau of Revenue, CN-417, Trenton, New Jersey 08625, (609) 777-1038.

If you have any questions concerning this action, please contact Stacy Marinos at (609) 292-4860.

Sincerely,

A handwritten signature in dark ink, appearing to read "Richard DeWan".

Richard DeWan, Chief
Bureau of Standard Permitting

WFM391

Enclosure

c: Final Permit Distribution List

PERMIT NUMBER NJ0104256

Permittee

SUN COMPANY INC
10 PENN CENTER
1801 MARKET STREET
PHILADELPHIA PA 19103

Co-Permittee

Property Owner

SUN COMPANY INC
10 PENN CENTER
1801 MARKET STREET
PHILADELPHIA PA 19103

Location of Activity

SUNOCO NEWARK TERMINAL
436 DOREMUS AVENUE
NEWARK NJ 07102

Current Authorization

Covered By This Approval
And Previous Authorization

Issuance
Date

Effective
Date

Expiration
Date


B4B:GENERAL PERMIT GW PETRO PROD 05/25/1994 06/01/1994 11/30/1998

DISCHARGE TO: Passaic River

CLASSIFICATION: SE-3

The permittee is authorized to discharge through outfall 001 and 002A identified in the Administrative Record for this permit.

By Authority of:
COMMISSIONER'S OFFICE


DEPE AUTHORIZATION
RICHARD DEWAN, CHIEF
BUREAU OF STANDARD PERMITTING
DIVISION OF WATER QUALITY

NJPDES/DSW PERMIT NUMBER NJ0104256
INDIVIDUAL AUTHORIZATION PAGE CONTINUED

1. The permittee shall discharge in compliance with **TABLE A**; however the requirements of NJPDES/DSW Permit No. NJ0102709 are in effect in all cases;

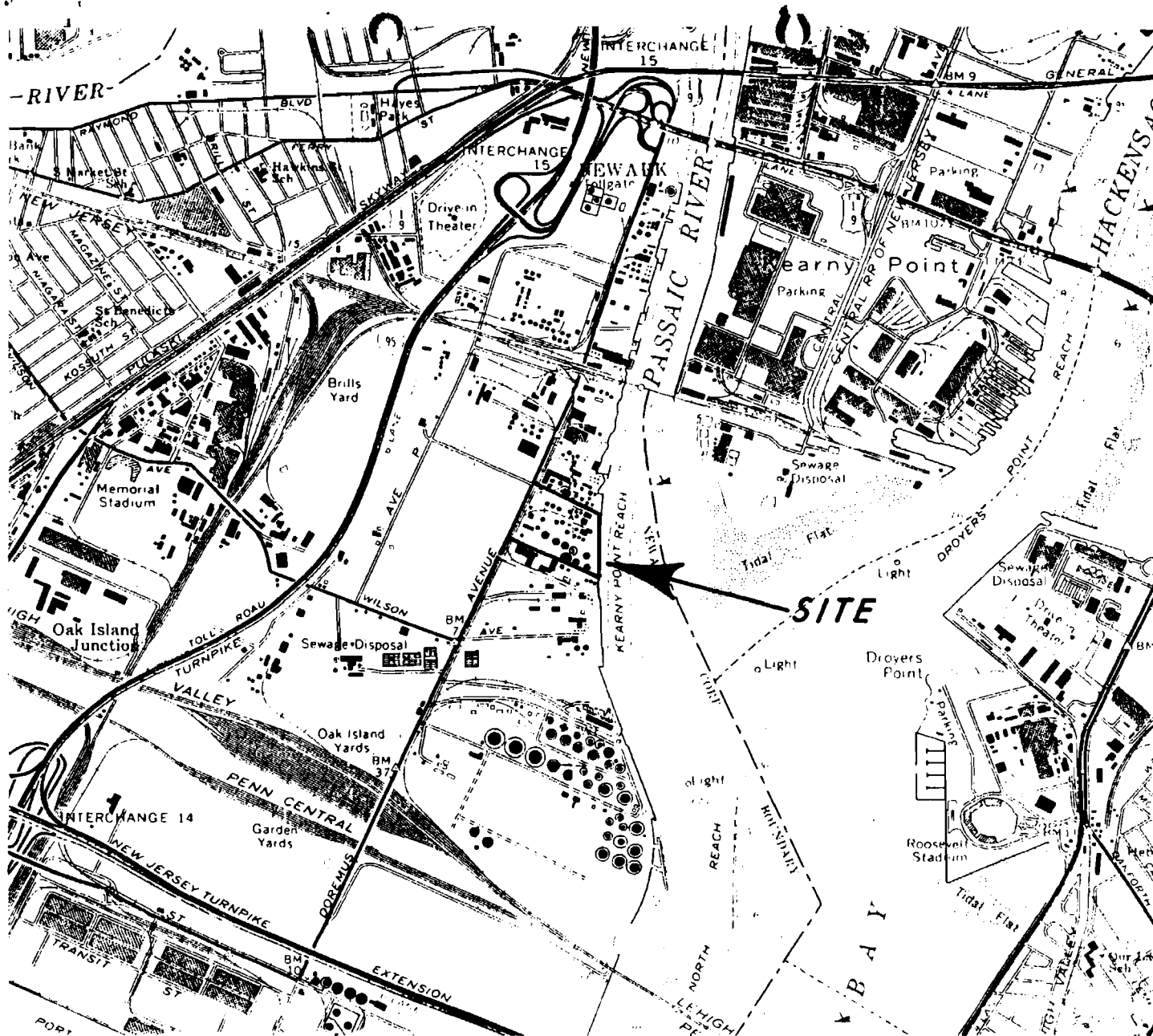
Table A - Remediation Project for Groundwater Contaminated by Petroleum Products.

Table B - Pump Test Discharge Lasting Four Days or Less for Groundwater Contaminated by Petroleum Products.

Table C - Dewatering Discharge Lasting Three Months or Less for Groundwater Contaminated by Petroleum Products.

2. The permittee shall sample flow for reporting purposes using a **Flow Meter**.
3. The permittee **IS NOT** located in the Hackensack Meadowlands District (HMD).
4. The permittee **IS NOT** subject to the Total Recoverable Lead effluent limitation.
5. This authorization **IS** subject to the specified acute toxicity effluent limitation.

If the authorization **IS** subject to specified acute toxicity requirements, the Dilution Factor (DF) is equal to N/A.

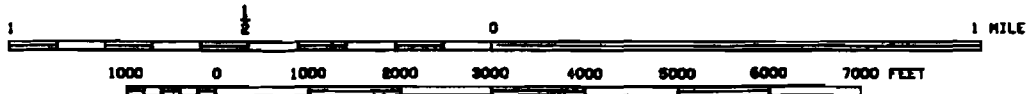


ELIZABETH QUADRANGLE JERSEY CITY QUADRANGLE
 NEW JERSEY-NEW YORK NEW JERSEY-NEW YORK
 15 MINUTE SERIES (TOPOGRAPHIC) 15 MINUTE SERIES (TOPOGRAPHIC)

LATITUDE 40° 40' 12"

LONGITUDE 74° 7' 30"

SCALE 1 : 24000

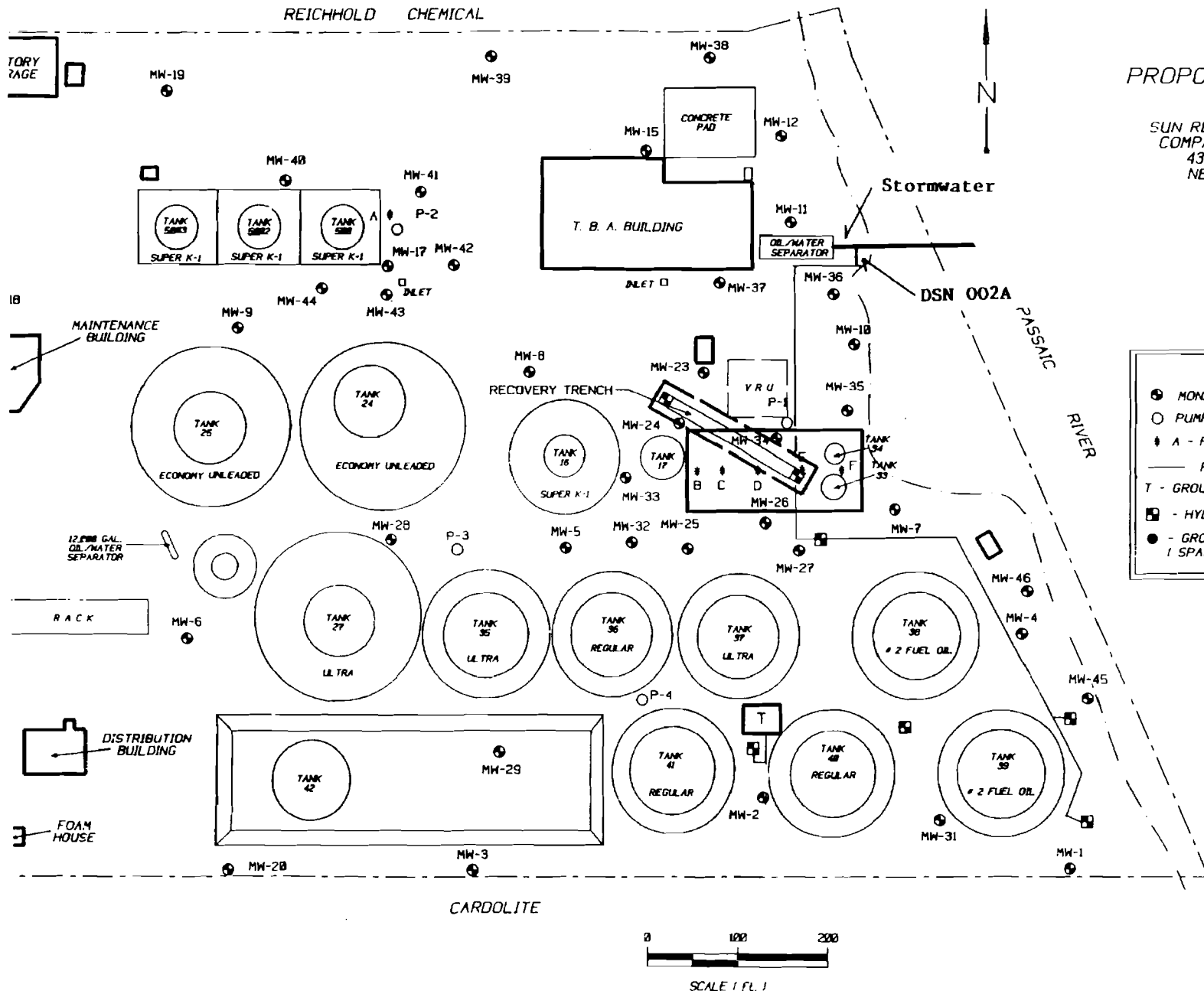


SUN REFINING & MARKETING CO.
 NEWARK TERMINAL
 NEWARK, N. J.

FIGURE 1
 LOCATION MAP

BSP No. 05000000

EPA Reach No. 02030103-010



**Checklist of Parts and Modules Comprising the
NJPDES/DSW General GPPC Permit Authorization**

- 1. Cover Letter**
- 2. Individual Authorization Page**
- 3. Facility Location on a USGS Map**
- 4. Checklist of Parts and Modules Comprising
the NJPDES/DSW General GPPC Permit Authorization**
- 5. Master General GPPC Permit Page**
- 6. Part I - DSW Administrative (Minimum Filing Requirements)**
- 7. Part I - DSW - General Conditions for All NJPDES/DSW Permits**
- 8. Part II - B/C (Industrial /Commercial/Thermal)**
- 9. Part III - Effluent Limitations and Monitoring Requirements**
 - Part III - B/C - Table A - Remediation Project
 - Part III - B/C - Table B - Pump Test Project
 - Part III - B/C - Table C - Dewatering Project
- 10. Part IV - B/C**
 - 1. Special Conditions**
 - 2. Acute Toxicity Requirements**
 - 3. Toxicity Reduction Evaluation**
- 11. Part IV - Residuals**

PERMIT NUMBER NJ0102709

Permittee

GENERAL PERMIT - CATEGORY B4B
PER INDIVIDUAL
NOTICE OF AUTHORIZATION
08625

Co-Permittee

Property Owner

NJDEP&E
WASTEWATER FAC REG PROGRAM
BSP CN-029
TRENTON NJ 08625

Location of Activity

GENERAL PERMIT - CATEGORY B4B
PER INDIVIDUAL
NOTICE OF AUTHORIZATION
TRENTON NJ 08625

Current Authorization

Covered By This Approval
And Previous Authorization

Issuance
Date

Effective
Date

Expiration
Date

B4B:GENERAL PERMIT GW PETRO PROD 10/29/1993 12/01/1993 11/30/1998

DISCHARGE TO: PER INDIVIDUAL NOTICE OF AUTHORIZATION

CLASSIFICATION: PER INDIVIDUAL NOTICE OF AUTHORIZATION

By Authority of:
COMMISSIONER'S OFFICE

Narinder Ahuja
DEPE AUTHORIZATION
NARINDER AHUJA
ASSISTANT DIRECTOR
DIVISION OF WATER QUALITY

**Minimum Filing Requirements to Request Authorization
under the NJPDES/DSW General Groundwater Petroleum
Products Clean-up (GPPC) Permit**

The following forms must be submitted in order to request authorization under the General GPPC Permit:

CP-1 Form
Form WQM-001
Form WQM-003
EPA Form-2C
GPPC Checklist (including GPPC Supplement)

The aforementioned forms may be obtained from NJDEPE, Bureau of Standard Permitting at (609) 292-4860.

Please submit all applications to:

New Jersey Department of Environmental Protection and Energy
Division of Water Quality
Bureau of Permit Management
CN-029
Trenton, New Jersey 08625

A Treatment Works Approval (TWA) application submittal is required for any treatment units proposed to comply with the effluent limitations. A TWA application may be submitted to the Chief of the Bureau of Construction and Connection Permits, Division of Water Quality, CN-029, Trenton, New Jersey 08625. The TWA application is required in accordance with N.J.A.C. 7:14A-12.1 et seq. and may be submitted in conjunction with the authorization request.

No Treatment Works Approval (TWA) authorization pursuant to N.J.A.C. 7:14A-12.1 et seq. will be required for a discharge authorized under this General Permit in connection with a pump test, dewatering, design, engineering, and/or feasibility study lasting for a period of no more than three months.

Guidance on the preparation of TWAs can be found in the "Treatment Works Approval Technical Manual for Industrial DSW/DGW Dischargers".

There is no deadline to submitting a request for authorization under the General GPPC Permit with the exception of the expiration date of the General GPPC Permit. This expiration date is included on the General Permit Authorization Page.

The permittee is required to publish an intent to request authorization under the general permit pursuant to N.J.A.C. 7:14A-3.9 (b) 2.iii. The following public notice shall be used by the permittee when complying with the general permit publication requirements:

"Notice is hereby given that pursuant to N.J.A.C. 7:14A-3.9(b)2., _____[name of permittee] has submitted a request for authorization under the General Groundwater Petroleum Product Cleanup Permit, No.NJ0102709 to the N. J. Department of Environmental Protection and Energy. This authorization will allow _____[name and address of facility] to discharge decontaminated groundwater from petroleum product remediation projects into select surface waters of the State."

In accordance with N.J.A.C. 7:14A-3.9(b)2.v, the Department shall publish in the NJDEPE Bulletin or other similar NJDEPE publication, a quarterly report of each authorization issued under the General GPPC Permit.

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
WASTEWATER FACILITIES REGULATION PROGRAM
10-26-92

GENERAL CONDITIONS FOR ALL NJPDES/DSW PERMITS

The permittee shall comply with all conditions set forth in this permit and the New Jersey Pollutant Discharge Elimination System (NJPDES) regulations, N.J.A.C. 7:14A-1 et seq., which are authorized by the New Jersey Water Pollution Control Act (the State Act), N.J.S.A. 58:10A-1 et seq. The permittee may be subject to penalties for any violations hereof. Specific conditions and requirements of this permit are incorporated herein by reference and are set forth as follows:

Subchapter 1: General Information

- 7:14A-1.1 Purpose
- 7:14A-1.2 Scope
- 7:14A-1.3 General prohibitions
- 7:14A-1.4 Consolidation of permit processing
- 7:14A-1.5 Severability
- 7:14A-1.6 Conflict of interest
- 7:14A-1.7 Application
- 7:14A-1.8 Fee schedule for NJPDES permittees and applicants
- 7:14A-1.9 Definitions

Subchapter 2: General Requirements for the NJPDES Permit

- 7:14A-2.1 Application for a NJPDES permit
- 7:14A-2.2 Emergency permits
- 7:14A-2.3 Continuation of expired permits
- 7:14A-2.4 Signatories
- 7:14A-2.5 Conditions applicable to all permits
- 7:14A-2.6 Establishing permit conditions
- 7:14A-2.7 Duration of permits
- 7:14A-2.8 Schedules of compliance
- 7:14A-2.9 Requirements for recording and reporting of monitoring results
- 7:14A-2.10 Effect of a permit.
- 7:14A-2.11 Transfer of permits
- 7:14A-2.12 Modification, suspension, or revocation of permits
- 7:14A-2.13 Termination of permits
- 7:14A-2.14 Minor modification of permits
- 7:14A-2.15 (Reserved)

Subchapter 3: Additional Requirements Applicable to Discharges to Surface Water (DSW)

- 7:14A-3.1 Scope
- 7:14A-3.2 Application for a permit
- 7:14A-3.3 Discharge allocation certificate (DAC)
- 7:14A-3.4 Concentrated animal feeding operations
- 7:14A-3.5 Concentrated aquatic animal production facilities
- 7:14A-3.6 Aquaculture projects
- 7:14A-3.7 Silvicultural activities
- 7:14A-3.8 Separate storm sewers
- 7:14A-3.9 General permits
- 7:14A-3.10 Additional conditions applicable to all DSW permits
- 7:14A-3.11 Additional conditions applicable to specified categories of DSW permits

- 7:14A-3.12 Emergency plans
- 7:14A-3.13 Establishing DSW permit conditions
- 7:14A-3.14 Calculating NJPDES permit conditions
- 7:14A-3.15 Duration of certain DSW permits
- 7:14A-3.16 Disposal of pollutants into wells, DTW's or by land application
- 7:14A-3.17 Criteria and Standards for the New Jersey Pollutant Discharge Elimination System

Subchapter 4: Additional Requirements for an Industrial Waste Management Facility

- 7:14A-4.1 Purpose
- 7:14A-4.2 Scope
- 7:14A-4.3 Definitions
- 7:14A-4.4 Application for an individual IWMF permit
- 7:14A-4.5 IWMF permits-by-rule
- 7:14A-4.6 Standards for wastewater treatment units subject to a permit-by-rule
- 7:14A-4.7 Standards for hazardous waste land treatment units

Subchapter 5: Additional Requirements for Underground Injection Control Program (UIC)
(Not applicable to DSW permits)

Subchapter 6: Additional Requirements for Discharges to Ground Water (DGW)
(Not applicable to DSW permits)

Subchapter 7: Procedures for Decision-Making

- 7:14A-7.1 Purpose and scope
- 7:14A-7.2 Procedures for decision-making
- 7:14A-7.3 Application review by the Department
- 7:14A-7.4 Consolidation of permit processing
- 7:14A-7.5 Modification, revocation and reissuance, or termination of permits
- 7:14A-7.6 Draft permits and draft DACs
- 7:14A-7.7 Statement of basis
- 7:14A-7.8 Fact Sheet
- 7:14A-7.9 Administrative record for the draft DAC and draft permits

Subchapter 8: Public Comment and Notice Procedures

- 7:14A-8.1 Public notice of permit actions and public comment period
- 7:14A-8.2 Public comments and requests for public hearings
- 7:14A-8.3 Public hearings
- 7:14A-8.4 Obligation to raise issues and provide information during the public comment period
- 7:14A-8.5 Action subsequent to public comment
- 7:14A-8.6 Issuance and effective date of permit
- 7:14A-8.7 Response to comments
- 7:14A-8.8 Administrative record for final permit and final DAC
- 7:14A-8.9 Adjudicatory hearing
- 7:14A-8.10 Stays of contested permit conditions
- 7:14A-8.11 Notice of adjudicatory hearing
- 7:14A-8.12 Conduct of an adjudicatory hearing
- 7:14A-8.13 Public participation in the State enforcement process

Subchapter 9: Specific Procedures Applicable to Discharges to Surface Water (DSW)

- 7:14A-9.1 Permits required on a case-by-case basis
- 7:14A-9.2 Fact Sheet
- 7:14A-9.3 Public notice of Section 316(a) request
- 7:14A-9.4 Conditions requested by the Corps of Engineers and other governmental agencies concerning DSW permits

- 7:14A-9.5 Issuance and effective date of stays and DSW permits
- 7:14A-9.6 Variances under the State and Federal Acts
- 7:14A-9.7 Decisions on variances
- 7:14A-9.8 Procedures for variances
- 7:14A-9.9 Special procedures for decisions on thermal variances under Section 316(a)

Subchapter 10: Filing Requirements for NPDES Permits

- 7:14A-10.1 Schedule for submission of applications
- 7:14A-10.2 Transition period for NPDES and NPDES/DSW permits
- 7:14A-10.3 Discharges to surface water (DSW)
- 7:14A-10.4 Environmental Assessment for a Discharge Allocation Certificate (DAC)
- 7:14A-10.5 Discharges into domestic treatment works (DTW)
- 7:14A-10.6 (Reserved)
- 7:14A-10.7 Surface impoundments
- 7:14A-10.8 Land application of residuals
- 7:14A-10.9 Land application of effluents by spray irrigation
- 7:14A-10.10 Land application of effluents by overland flow
- 7:14A-10.11 Land discharge by infiltration-percolation lagoons
- 7:14A-10.12 Discharges from sanitary landfills
- 7:14A-10.13 Underground injection control

Subchapter 11: Public Access to Information and Requirements for Department Determination of Confidentiality

- 7:14A-11.1 Public access to information and scope of authority
- 7:14A-11.2 Confidentiality
- 7:14A-11.3 Procedure for asserting or reasserting confidentiality
- 7:14A-11.4 Fees
- 7:14A-11.5 Procedure for confidentiality determinations
- 7:14A-11.6 Substantive criteria for confidentiality determinations
- 7:14A-11.7 Class determinations
- 7:14A-11.8 Access to and safeguarding confidential information
- 7:14A-11.9 Disclosure of confidential information to State, Interstate, and Federal agencies, with the exception of EPA and the U.S. Department of Justice.
- 7:14A-11.10 Disclosure of confidential information to authorized agents
- 7:14A-11.11 Designation by person of an addressee for notices and inquiries
- 7:14A-11.12 Access to information for EPA and U.S. Department of Justice
- 7:14A-11.13 Use of confidential information in rulemaking, permitting, and enforcement proceedings

Subchapter 12: Requirements for a Treatment Works Approval

- 7:14A-12.1 Scope
- 7:14A-12.2 General policy and purpose
- 7:14A-12.3 Activities for which a treatment works approval is required
- 7:14A-12.4 Activities for which a treatment works approval is not required
- 7:14A-12.5 Construction or operation inconsistent with terms of a treatment works approval
- 7:14A-12.6 Modification or revocation of treatment works approvals
- 7:14A-12.7 Ninety day limitation on Department
- 7:14A-12.8 Responsibility for successful construction and operation is on applicant
- 7:14A-12.9 Request for endorsement
- 7:14A-12.10 Treatment works approval: general
- 7:14A-12.11 Preliminary review of applications for treatment works approval (Stage 1)
- 7:14A-12.12 Applications for construction, installation, or modification of treatment works (Stage 2)
- 7:14A-12.13 Application for treatment works approvals (Stage 2)
- 7:14A-12.14 Criteria for approval of building, installing, or modifying treatment works (Stage 2)
- 7:14A-12.15 Operation of existing treatment works during construction (Stage 2)

- 7:14A-12.16 Expiration of a treatment works approval (Stage 2)
- 7:14A-12.17 Approval of operation of treatment works (Stage 3)
- 7:14A-12.18 Scope of review of treatment works approval
- 7:14A-12.19 Validity of permits to Construct and Operate
- 7:14A-12.20 Capacity assurance programs
- 7:14A-12.21 Sewer connection bans
- 7:14A-12.22 Sewer connection ban exemptions
- 7:14A-12.23 Application for sewer connection ban exemption
- 7:14A-12.24 Bans in effect prior to November 2, 1987
- 7:14A-12.25 Construction only permits
- 7:14A-12.26 Requests for adjudicatory hearings

Subchapter 13: Additional Requirements for Users of Domestic Treatment Works (DTWs)
(Not applicable to DSW permits)

Subchapter 14: Oil and Grease Effluent Limitations

- 7:14A-14.1 Purpose and scope
- 7:14A-14.2 Definitions
- 7:14A-14.3 Implementation
- 7:14A-14.4 Oil and grease effluent limitations
- 7:14A-14.5 Minimum monitoring and reporting requirements
- 7:14A-14.6 Sampling protocol
- 7:14A-14.7 Analytical methods
- 7:14A-14.8 Exemptions

Copies of the NJPDES Regulations may be obtained, for a nominal charge, by contacting:

NJDEPE
Office of Administrative Law
Budget and Finance
CN 049
Trenton, NJ 08625-0049
(609) 588-6606

In addition to the requirements cited, the following are applicable to all NJPDES/DSW permits:

I. Penalties for Violations

- A. Section 10 of the State Act provides that any person who violates a permit condition is subject to a civil penalty each day of violation. Any person who willfully or negligently violates permit conditions is subject to a fine each day of violation, or to imprisonment, or to both.
- B. Section 10 of the State Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine per violation, or by imprisonment, or by both.
- C. Section 10 of the State Act provides that any person who knowingly makes a false statement, representation, or certification in any application, record, or other document filed or required to be maintained under the State Act shall, upon conviction, be subject to a fine, or imprisonment, or both.
- D. Violation of any condition of this permit or the NJPDES regulations may subject the permittee to an Assessment of Civil Administrative Penalties of up to \$30,000 per violation per day in accordance with N.J.A.C. 7:14-8.1 et seq.

2. Permit Expiration. This permit and the authorization to discharge shall expire at midnight on the expiration date of the permit. The permittee may only continue an activity regulated by a NJPDES permit after the expiration of the permit if the permittee has complied with the provisions of N.J.A.C. 7:14A-2.3.
3. Duty to Reapply. If the permittee wishes to continue an activity regulated by a NJPDES permit after the expiration date of the permit, the permittee shall apply for and obtain a new permit. (If the activity is continued, the permittee shall complete, sign and submit such information, forms, and fees as are required by the Department at N.J.A.C. 7:14A-2.1 no later than 180 days before the expiration date.)
4. Facilities Operation and Operator Certification. The operation of any treatment works shall be under the supervision of an operator on the first day of operation of the treatment works and continually thereafter in accordance with N.J.A.C. 7:14A-2.5(a)7. The operator shall meet the requirements of the Department of Environmental Protection and Energy (Department) pursuant to the provisions of N.J.S.A. 58:11-64 et seq. and any amendments thereto. The name of the proposed operator shall be submitted to the Department in order that his/her qualifications may be determined prior to initiating operation of the treatment works. Further information regarding this section may be obtained from:

NJDEPE
Bureau of Revenue
Examinations and Licensing Unit
CN 417
Trenton, NJ 08625-0417
(609) 777-1012

5. Operation Restrictions. The operation of a waste treatment or disposal facility shall at no time create: (a) a direct discharge to surface waters of the State, except as authorized by the Department; (b) a persistent standing or ponded condition for water or waste on the permittee's property except as specifically authorized by this or another permit, or (c) any standing or ponded condition for water or waste on adjacent properties unless these activities are specifically included within this or another permit.
6. Liability and Other Laws
 - A. Nothing in this permit shall be deemed to preclude the institution of any legal action or relieve the permittee from any responsibilities or penalties to which the permittee is or may be subject under any federal, state or local law, ordinance, rule, or regulation.
 - B. Nothing in this permit shall be construed to exempt the permittee from complying with the rules, regulations, policies, and/or laws lodged in any agency or subdivision in this State having legal jurisdiction.
7. Inspection and Entry
 - A. The permittee shall, upon the presentation of credentials, allow the USEPA, the Department, or any authorized representative(s) right of entry to the permittee's premises for purposes of inspection, sampling, copying, or photographing as provided by N.J.A.C. 7:14A-2.5(a)11.
 - B. Any refusal by the permittee, facility land owner(s), facility lessee(s), their agents, or any other person(s) with legal authority, to allow entry to the authorized representatives of the Department and/or USEPA shall constitute grounds for suspension, revocation and/or termination of this permit.
 - C. By acceptance of this permit, the permittee hereby agrees, consents and authorizes the representatives of the Department and/or USEPA to present a copy of this permit to any municipal or state police officer having jurisdiction over the premises occupied by the permittee in order to have said officer effectuate compliance

with the right of entry, should the permittee at any time refuse to allow entry to said authorized representatives.

- D. By acceptance of this permit, the permittee waives all rights to prevent inspections by authorized representatives of the Department and/or USEPA to determine the extent of compliance with any and all conditions of this permit and agrees not to, in any manner, seek to charge said representatives with the civil or criminal act of trespass when they enter the premises occupied by the permittee in accordance with the provisions of this authorization as set forth herein above.

8. Monitoring and Reporting

- A. Monitoring results shall be summarized and reported on the appropriate Discharge Monitoring Reports (DMRs) following the completed reporting period. Unless otherwise specified or directed, signed copies of these shall be submitted postmarked no later than the 25th day of the month following the completed reporting period to the following address:

NJDEPE
Bureau of Permits Management
CN-029
Trenton, New Jersey 08625
ATTN: Monitoring Reports

- B. If a contract laboratory is utilized for analyses, the permittee shall submit the name and address of the laboratory and the parameters analyzed at the time it submits its monitoring reports as required by N.J.A.C. 7:14A-2.5(a)12(iv). Any change in the contract laboratory being used or the parameters analyzed shall be reported prior to or together with the monitoring report covering the period during which the change was made.
- C. All permit applications and associated information, and all effluent data shall be available for public inspection at the Department offices. All other submittals shall likewise be available unless a claim of confidentiality has been asserted and approved under N.J.A.C. 7:14A-11.1 et seq.
9. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
10. Transfers. This permit is not transferable except after notice to the Department in accordance with N.J.A.C. 7:14A-2.11.
11. Definitions. Unless otherwise stated, all terms shall be as defined in the NJPDES Regulations, N.J.A.C. 7:14A-1 et seq.

"Aliquot" means a sample of specified volume used to make up a total composite sample.

"Composite sample" means a combination of individual (or continuously taken) samples (aliquots) of at least 100 milliliters, collected at periodic intervals over a specified time period. Composites can be either time proportional or flow proportional. The type of composite to be used shall be specified in the permit. If not specifically stated in the permit, the sample type shall be considered to be a time proportional composite. Aliquots may be collected manually or automatically. For a continuous discharge, a minimum of 24 aliquots (at hourly intervals) shall be collected and combined to constitute a 24-hour composite sample. For intermittent discharges of more than 4 hours duration, aliquots shall be taken at a minimum of 30-minute intervals. For intermittent discharges of less than 4 hours duration, aliquots shall be taken at a minimum of 15-minute intervals.

"Daily" means seven days per week including holidays.

"EDP" means Effective Date of Permit.

"Flow Proportional Composite" means either the time interval between each aliquot or the volume of each aliquot must be proportional to either the wastestream flow at the time of sampling or the total wastestream flow since the collection of the previous aliquot.

"Grab" means an individual sample of at least 100 milliliters collected over a period not exceeding 15 minutes.

"Monthly" means one day each calendar month (the same day each month) and a normal operating day (e.g., the 2nd Tuesday of each month), except for stormwater, which shall be sampled during the first precipitation event of the month which causes a discharge at the site during working hours, unless otherwise directed in the permit. A normal operating day shall be a period of time reasonably representative of normal operating conditions.

"Multiple Grab Composite" means a combination of individual samples (aliquots) collected at a specified frequency over a specified time period. Each aliquot must be collected in a glass vial with a septum cap and iced until delivered for analysis. An air space should remain in the vial. Each aliquot shall be analyzed individually. The recorded value will be the flow proportioned average of the individual analyses for the specific time period.

"Seven day average value" or "Weekly average value" means the greatest sum of all daily discharges measured during any seven consecutive days, divided by the number of discharges measured during those seven consecutive days.

"Six hour composite" means a combination of individual aliquots obtained at a minimum frequency of one aliquot at 30-minute intervals over a 6-hour period.

"Thirty day average value" or "Monthly average value" means the sum of all daily discharges measured during a calendar month, divided by the number of daily discharges measured during that month.

"Time Proportional Composite" means a single sample which receives equal aliquots at equal time intervals.

"ug/l" means micrograms per liter.

"Weekly" means every seventh day (the same day each week) and a normal operating day, unless otherwise directed in the permit. A normal operating day shall be a period of time reasonably representative of normal operating conditions.

Miscellaneous Notes:

In N.J.A.C. 7:14A-2.5(a)(14)(vi)(2), (3), and (4), 7:14A-2.5(a)(14)(vii), 7:14A-3.10(a), (a)(1), (2), and (3), all references to 12 vi are incorrect and should be replaced with 14 vi.

ADDITIONAL GENERAL CONDITIONS FOR NJPDES/DSW PERMITS FROM
INDUSTRIAL/COMMERCIAL AND/OR THERMAL DISCHARGES

1. The following additional conditions applicable to specified categories of DSW permits in accordance with N.J.A.C. 7:14A-3.11, in addition to those set forth in N.J.A.C. 7:14A-2.5, 3.10 and 3.12, hereby apply to all DSW permits within the categories specified below:

Existing manufacturing, commercial, mining, and silvicultural discharges and research facilities. In addition to the reporting requirements under Section 2.5(a)12 and Section 3.10 of N.J.A.C. 7:14A-1 et seq. all existing manufacturing, commercial, mining, and silvicultural dischargers and research facilities must notify the Department as soon as they know or have reason to believe:

- A. That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels."
- (1) One hundred micrograms per liter (100 ug/l);
 - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4, 6 dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with N.J.A.C. 7:14A-10.3(a)9. or 10.3(a)12; or
 - (4) The level established by the Department in accordance with N.J.A.C. 7:14A-3.13(a)6.
- B. That they (except for research facilities) have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application under N.J.A.C. 7:14A-3.2 and 10.3(a)11.

2. If the permittee is required by this permit to monitor for Oil and Grease and/or Petroleum Hydrocarbons, samples shall be collected and analyzed in accordance with the Oil and Grease Effluent Limitations, N.J.A.C. 7:14A-14.1 et seq.

3. Submission of Monitoring Reports

Monitoring results for each reporting period shall be summarized and reported on the appropriate Monitoring Report Forms and shall be submitted postmarked no later than the 25th day of the month following the completed reporting period.

1.A. REMEDATION DISCHARGES

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During the period beginning EDPA (Effective Date of Permit Authorization) and lasting through EDPA + 5 years or the expiration of the master general permit whichever comes first, the permittee is authorized to discharge treated groundwater from the outfall(s) specified on the individual authorization page according to the limitations and conditions of this table.

There shall be no discharge of floating solids or visible foam in other than trace amounts. There shall be no visible sheen.

The treatment works shall operate at the optimal design flow rate for maximum groundwater clean-up. No backwash from any treatment unit(s) for maintenance purposes or any other reasons shall be discharged through the authorized outfall(s).

Samples taken in compliance with the specified monitoring requirements shall be taken at the discharge outfall(s) specified in the individual authorization at the nearest accessible point after final treatment but prior to actual discharge; and shall be reported monthly.

<u>Parameter</u>	<u>Discharge Limitations</u>		<u>Permit Reporting Level(1)</u>	<u>Monitoring Requirements</u>	
	Monthly Average	Daily Max		Frequency	Sample Type
Flow (GPD)	NL	NL	N/A	Monthly	(5)
Total Suspended Solids (mg/l):					
-discharges to FW2-TM, FW2-TP	NL	25.0	N/A	Monthly	Grab
-discharges to all other eligible waterbodies	NL	40.0	N/A	Monthly	Grab
Petroleum Hydrocarbons (mg/l)	10	15	N/A	Quarterly	Grab
Total Organic Carbon (mg/l)	NL	20	N/A	Monthly	Grab
pH Range (S.U.):					
-discharge to waterbodies NOT in the Hackensack Meadowlands District (HMD)	6.0 min	9.0 max	N/A	Quarterly	Grab
-discharge to HMD waterbodies	6.5 min	8.5 max	N/A	Quarterly	Grab
Benzene (ug/l):					
-discharge to freshwater	NL	(1)	7	Monthly(2)	Grab
-discharge to saline water	NL	50	N/A	Monthly(2)	Grab
Naphthalene (ug/l)	22	59	N/A	Monthly(2)	Grab
Total Recoverable Lead (ug/l)*	37	79	N/A	Monthly(3)	Grab
Acute Toxicity** (% mortality)	(4)	(4)	N/A	See Part IV	Composite

- * Limitation only imposed for discharges resulting from groundwater contaminated by leaded automotive gasoline unless Total Recoverable Lead is present in the discharge at which time the limitation is also imposed. The applicability of the lead limitation will be indicated on the permittee's individual Permit Authorization Page.
- ** Limitation is not associated with discharges resulting from treated groundwater contaminated with automotive gasoline. The applicability of the acute toxicity limitation will be indicated on the permittee's individual Permit Authorization Page.

(1) Since this effluent concentration limitation is less than the sensitivity of commonly used analytical methods, a monthly average monitoring condition, a daily maximum permit reporting level (PRL), and minimum detection level are specified. Therefore the permittee shall meet a monthly average monitoring condition and a daily maximum Permit Reporting Level, not the specified effluent limitation, for permit reporting purposes. Should the permittee's wastewater data indicate that a pollutant is unquantified (<) at an analytical level which is greater than the PRL, this result will be evaluated by the Department to verify that all QA/QC procedures were adhered to by the laboratory. If QA/QC procedures were not followed, the result would be considered a "reporting violation" as opposed to an "effluent violation". If QA/QC procedures were adhered to by the laboratory, no action would be taken on the unquantified or non-detectable value.

(2) The permittee shall analyze the effluent according to the appropriate procedures specified in 40 CFR 136 to achieve a minimum detection level of:

Benzene - Minimum Detection Level \leq 7 ug/l

Naphthalene - Minimum Detection Level \leq 8 ug/l

(3) The permittee shall use the appropriate procedures specified in 40 CFR 136 to achieve a minimum detection of 10 ug/l for Total Recoverable Lead. Analysis for Total Recoverable Lead shall also follow the sample preparation procedures contained in the Method 200.2 "Sample Preparation Procedure for Spectrochemical Determination of Total Recoverable Elements".

(4) Acute Toxicity (%mortality)	Daily Minimum	Monthly Average	Daily Maximum
- discharge to a municipal storm sewer or saline water	N/A	N/A	NMAT
- discharge to freshwater			
DF = 1	N/A	N/A	NMAT
1 > DF < 100	N/A	N/A	NMAT
100 ≥ DF < 200	LC50 ≥ 100%	N/A	N/A
DF ≥ 200	LC50 ≥ 50%	N/A	N/A

$$DF = \frac{Q_u + Q_e}{Q_e}$$

Where: DF = Dilution Factor

Qu = Upstream Freshwater MA7CD10 Flow

Qe = Average Effluent Flow

MA7CD10 = minimum average 7 consecutive day flow with a
statistical recurrence interval of 10 years.

(5) The flow sample type shall be specified on the permittee's individual
Authorization Page and monthly Discharge Monitoring Reports.

GPD denotes "Gallons per Day".

NL denotes "Not Limited" with both monitoring and reporting required.

N/A denotes "Not Applicable" with no monitoring and reporting required.

NMAT denotes "No Measurable Acute Toxicity". NMAT means not greater than 10%
mortality in any effluent concentration, including 100% effluent.

1.B. PUMP TESTS LASTING FOUR DAYS OR LESS

During the period beginning EDPA (Effective Date of Permit Authorization) and lasting through EDPA + 6 months or the expiration date of the master general permit, whichever comes first, the permittee is authorized to discharge treated groundwater from the outfall(s) specified on the individual authorization page according to the limitations and conditions of this table. This authorization will administratively expire six months following the effective date of the individual authorization or the expiration date of the master general permit, whichever comes first. No public notice will be issued for the termination of this individual authorization.

The permittee shall submit a letter to the Department, no later than one month after the completion of the discharges from the dewatering activities, certifying that all authorized discharges have ceased.

There shall be no discharge of floating solids or visible foam in other than trace amounts. There shall be no visible sheen.

The treatment works shall operate at the optimal design flow rate for maximum groundwater clean-up. No backwash from any treatment unit(s) for maintenance purposes or any other reasons shall be discharged through the authorized outfall(s).

Samples taken in compliance with the specified monitoring requirements shall be taken at the discharge outfall(s) specified in the individual authorization at the nearest accessible point after final treatment but prior to actual discharge, and shall be reported monthly.

<u>Parameter</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	Monthly Average	Daily Max	Frequency	Sample Type
Flow (GPD)	NL	NL	Daily	(3)
Total Suspended Solids (mg/l):				
-discharges to FW2-TM, FW2-TP	NL	25.0	Daily	Grab
-discharges to all other eligible waterbodies	NL	40.0	Daily	Grab
Petroleum Hydrocarbons (mg/l)	10	15	Daily	Grab
Total Organic Carbon (mg/l)	NL	20	Daily	Grab
pH Range (S.U.):				
-discharge to waterbodies NOT in the Hackensack Meadowlands District (HMD)	6.0 min	9.0 max	Daily	Grab
-discharge to HMD waterbodies	6.5 min	8.5 max	Daily	Grab
Benzene (ug/l)	NL	50	Daily(1)	Grab
Naphthalene (ug/l)	NL	59	Daily(1)	Grab
Total Recoverable Lead (ug/l)*	NL	79	Daily(2)	Grab

- * Limitation only imposed for discharges resulting from groundwater contaminated by leaded automotive gasoline unless Total Recoverable Lead is present in the discharge at which time the limitation is also imposed. The applicability of the lead limitation will be indicated on the permittee's individual Permit Authorization Page.

(1) The permittee shall analyze the effluent according to the appropriate procedures specified in 40 CFR Part 136 to achieve a minimum detection level of:

Benzene - Minimum Detection Level \leq 7 ug/l

Naphthalene - Minimum Detection Level \leq 8 ug/l

(2) The permittee shall use the appropriate procedures specified in 40 CFR 136 to achieve a minimum detection of 10 ug/l for Total Recoverable Lead. Analysis for Total Recoverable Lead shall also follow the sample preparation procedures contained in the Method 200.2 "Sample Preparation Procedure for Spectrochemical Determination of Total Recoverable Elements".

(3) The flow sample type shall be specified on the permittee's Individual Authorization Page and monthly Discharge Monitoring Reports.

GPD denotes "Gallons per Day".

NL denotes "Not Limited" with both monitoring and reporting required.

N/A denotes "Not Applicable" with no monitoring and reporting required.

1.C. DEWATERING DISCHARGES LASTING THREE MONTHS OR LESS

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During the period beginning EDPA (Effective Date of Permit Authorization) and lasting through EDPA + 12 months or the expiration date of the master general permit whichever comes first, the permittee is authorized to discharge treated groundwater from the outfall(s) specified on the individual authorization page according to the limitations and conditions of this table. This authorization will administratively expire twelve months following the effective date of the individual authorization or the expiration date of the master general permit, whichever comes first. No public notice will be issued for the termination of this individual authorization.

The permittee shall submit a letter to the Department, no later than one month after the completion of the discharges from the dewatering activities, certifying that all authorized discharges have ceased.

There shall be no discharge of floating solids or visible foam in other than trace amounts. There shall be no visible sheen.

The treatment works shall operate at the optimal design flow rate for maximum groundwater clean-up. No backwash from any treatment unit(s) for maintenance purposes or any other reasons shall be discharged through the authorized outfall(s).

Samples taken in compliance with the specified monitoring requirements shall be taken at the discharge outfall(s) specified in the individual authorization at the nearest accessible point after final treatment but prior to actual discharge; and shall be reported monthly.

<u>Parameter</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	Monthly Average	Daily Max	Frequency	Sample Type
Flow (GPD)	NL	NL	2/weekly	(3)
Total Suspended Solids (mg/l):				
-discharges to FW2-TM, FW2-TP	NL	25.0	2/weekly	Grab
-discharges to all other eligible waterbodies	NL	40.0	2/weekly	Grab
Petroleum Hydrocarbons (mg/l)	10	15	2/weekly	Grab
Total Organic Carbon (mg/l)	NL	20	2/weekly	Grab
pH Range (S.U.):				
-discharge to waterbodies NOT in the Hackensack Meadowlands District (HMD);	6.0 min	9.0 max	2/weekly	Grab
-discharge to HMD waterbodies	6.5 min	8.5 max	2/weekly	Grab
Benzene (ug/l)	NL	50	2/weekly(1)	Grab
Naphthalene (ug/l)	NL	59	2/weekly(1)	Grab
Total Recoverable Lead (ug/l)*	NL	79	2/weekly(2)	Grab

- * Limitation only imposed for discharges resulting from groundwater contaminated by leaded automotive gasoline unless Total Recoverable Lead is present in the discharge at which time the limitation is also imposed. The applicability of the lead limitation will be indicated on the permittee's individual Permit Authorization Page.

(1) The permittee shall analyze the effluent according to the appropriate procedures specified in 40 CFR Part 136 to achieve a minimum detection level of:

Benzene - Minimum Detection Level \leq 7 ug/l

Naphthalene - Minimum Detection Level \leq 8 ug/l

(2) The permittee shall use the appropriate procedures specified in 40 CFR 136 to achieve a minimum detection of 10 ug/l for Total Recoverable Lead. Analysis for Total Recoverable Lead shall also follow the sample preparation procedures contained in the Method 200.2 "Sample Preparation Procedure for Spectrochemical Determination of Total Recoverable Elements".

(3) The flow sample type shall be specified on the permittee's Individual Authorization Page and monthly Discharge Monitoring Reports.

GPD denotes "Gallons per Day".

NL denotes "Not Limited" with both monitoring and reporting required.

N/A denotes "Not Applicable" with no monitoring and reporting required.

2. Toxic Pollutant Reopener Clause

Pursuant to N.J.A.C. 7:14A-3.13(a)3.iv., the Department may modify or revoke and reissue any permit to incorporate limitations or requirements to control the discharge of toxic pollutants, including whole effluent, chronic and acute toxicity requirements, chemical specific limitations or toxicity reduction requirements, as applicable.

1. SPECIAL CONDITIONS

A. Treatment Works Application

The permittee shall submit a completed Treatment Works Approval (TWA) application for any existing or proposed treatment units unless such a submittal has already been made in accordance with N.J.A.C. 7:14A-12.1 et seq. The completed TWA submittal shall be sent to the Chief of the Bureau of Construction and Connection Permits, Division of Water Quality, New Jersey Department of Environmental Protection and Energy, CN-029, Trenton, NJ 08625.

B. Treatment Works Application - Short Term Discharges

Although treatment may be necessary to meet the effluent limits for a short term project (i.e. dewatering project, pump test), the applicant is not required to obtain a Treatment Works Approval (TWA), pursuant to N.J.A.C. 7:14A-12.1 and N.J.A.C. 7:14A-1.9. N.J.A.C. 7:14A-12.1(a) alleviates the requirement of a TWA for the collection, treatment, or discharge of any pollutant in connection with feasibility, engineering, and design studies. N.J.A.C. 7:14A-1.9 does not include equipment used in connection with feasibility, engineering, and design studies regarding the source or water pollution treatment for the source of pollution in the definition of facility. Therefore, a TWA will not be required to operate a short term treatment system since it will be used to obtain data to help engineer and design a permanent long term project.

C. Operation of Treatment Works

If subsequent to the issuance of this permit the permittee proposes to install treatment, the permittee shall submit to the Department, for approval of the treatment works and determination of the operator's appropriate license classification, a complete application for Treatment Works Approval pertaining to the proposed treatment works installation/modification pursuant to N.J.A.C. 7:14A-12.1 et seq. A Treatment Works Approval is required to be obtained from the Department prior to beginning construction. The permittee shall obtain the services of a licensed operator of the appropriate classification in accordance with the "Rules Governing the Examination and Licensing of Operators", N.J.A.C. 7:10-13.1 et seq., which became effective July 2, 1984, for any treatment works installed.

D. Third Party Storm Sewer Systems

If the permittee proposes to discharge via a storm sewer system owned by a third party, please note that this permit to discharge does not exempt, nor shall be construed to exempt, the permittee from compliance with rules, regulations, policies, and/or laws lodged in any agency or subdivision of the state having legal jurisdiction over the storm sewer system proposed for use as a wastewater conveyance.

2. ACUTE TOXICITY BIOMONITORING REQUIREMENTS

The permittee shall conduct definitive acute toxicity tests on its long term wastewater discharge to surface water. Such testing will determine if appropriately selected effluent concentrations will affect the survival of the test species.

A. All toxicity tests shall be conducted in accordance with the following:

1. Acute toxicity test procedures shall conform to the "Regulations Governing Laboratory Certification and Standards of Performance" (N.J.A.C. 7:18). Subchapter 6 of the regulations contains the criteria and procedures for acute toxicity testing and analysis. The laboratory performing your acute toxicity testing will have to be within the laboratory certification program established by those regulations.
2. Test results shall be expressed in terms of the mortalities in each effluent concentration and, if they can be calculated, the median lethal concentration (LC50) with confidence interval.
3. All samples taken for the purpose of monitoring shall be representative of the monitored DSN.
4. If the acute toxicity test results trigger the provisions of Part IV - B/C, Paragraph 3.A., then the permittee shall conduct a Toxicity Reduction Evaluation in accordance with that Part.

B. Test Species and Test Duration

1. The test species and test duration shall be:

Fathead Minnow (Pimephales promelas), 96 hr., if the discharge is to a freshwater receiving stream, having a salinity of less than 3.5 ppt.

Mysid (Mysidopsis bahia), 96 hrs., if the discharge is to a saltwater receiving stream, having a salinity of 3.5 ppt or greater.

2. The Department may require additional testing with a second species, or designate the use of alternate test species. Any species so designated for acute toxicity testing will be from among those species approved for use by N.J.A.C. 7:18-6.

C. Effluent Sampling Requirements

1. Effluent samples shall be collected as 24 hour composite samples daily, throughout the test duration.
2. Effluent samples shall be collected after the final treatment step, prior to discharge into the receiving stream.

D. Monitoring Frequency

1. From EDPA + 3 months through EDPA + 15 months, the monitoring frequency shall be once every three months.
2. From EDPA + 15 months through the permit expiration date the monitoring frequency shall be once every six months.
3. If a test, after a quality control review, is found to be invalid or otherwise unacceptable to the Department, the permittee shall begin an additional definitive acute toxicity test, with a freshly collected effluent sample, no later than 30 days after notification by the Department that the test is unacceptable/invalid.

E. The following information shall be submitted, to the address in paragraph F.1., within two months from EDPA:

1. A fully completed "Methodology Questionnaire for Acute Toxicity Tests" form, which includes an identification of the certified acute toxicity testing laboratory responsible for the testing. Copies of this form are provided to certified laboratories.
2. A schematic diagram which depicts the location that the effluent samples will be taken; the diagram shall indicate the location of effluent sampling in relation to any wastewater treatment facilities (including chlorination/disinfection if present) and all Discharge Serial Numbers (DSN's).
3. A photocopy of a county map or USGS quad with the location of the dilution water sampling site relative to the effluent discharge point marked (unless the use of a reconstituted water has been approved).

F. Acute toxicity test results shall be reported on the "NJPDES Biomonitoring Report Form - Acute Bioassays," copies of which are provided to certified laboratories.

1. TWO COPIES of each completed report form shall be submitted within 60 days of test completion to:

NJ Dept of Environmental Protection and Energy
Division of Water Quality
Bureau of Standard Permitting
CN-029
Trenton, New Jersey 08625
Attention: Industrial Biomonitoring Program

2. The test results shall also be reported on the permittee's Discharge Monitoring Report (DMR) for the monitoring period during which the test was conducted.

3. TOXICITY REDUCTION EVALUATION

- A. The permittee shall conduct a Toxicity Reduction Evaluation (TRE) if any two valid/acceptable acute toxicity tests, conducted within any eighteen month period, violate the acute toxicity limitation. The TRE will determine how the permittee can consistently achieve compliance with the acute toxicity limitation.
- B. The TRE shall be conducted as follows:
1. The permittee shall submit to the Department, within ninety (90) days of the occurrence of A. above, a plan for conducting the TRE. The TRE plan shall include: an identification of the investigator performing the TRE, appropriate measures to characterize effluent variability, appropriate measures to identify the causative toxicants and/or evaluate toxicity treatability, and a schedule for completing the study.
 2. Upon notice that the Department has reviewed the plan and approved the schedule, the permittee shall implement the TRE in accordance with the plan and approved schedule. Progress reports detailing all activities undertaken, including all data collected in connection with the study, shall be submitted to the Department beginning 90 days from the date of receipt of the Department's approval of the TRE schedule. Progress reports shall then be submitted on or before January 1, April 1, July 1 and October 1 of each year.
 3. Within 90 days of TRE completion, the permittee shall submit to the Department the final TRE results. These results shall include the corrective actions identified in the TRE as necessary to attain compliance with the acute toxicity limitation and a schedule for its implementation.
 4. Upon receipt of written approval from the Department on the corrective action schedule, the permittee shall implement those corrective actions consistent with that schedule. If, for any reason, the implemented measures do not result in consistent compliance with the acute toxicity limitation, the permittee shall submit to the Department a plan for resuming the TRE. The TRE shall not be complete until the permittee has attained consistent compliance with the acute toxicity limitation in this permit.
- C. Two copies of all written submissions required above shall be sent to:

NJ Dept. of Environmental Protection and Energy
Division of Water Quality
Bureau of Standard Permitting
CN-029
Trenton, New Jersey 08625
Attention: Industrial Biomonitoring Program

PERMIT CONDITIONS RELATING TO RESIDUALS MANAGEMENT

A. Collected grit and screenings, scums, sand bed sands, slurries, and sludges, and all other solids from the treatment process shall be managed in such a manner as to prevent such materials from entering the ground and/or surface waters of the State except in accordance with the NJPDES permit. If for any reason such materials are placed in the water or on the lands where they may cause pollutants to enter the ground and/or surface waters of the State, the following information shall be reported to the Water and Hazardous Waste Enforcement Element and to the Bureau of Pretreatment and Residuals of the Division of Water Quality as outlined under N.J.A.C. 7:14A-2.5(a)(14):

- (1) Dates of occurrence;
- (2) A description of the noncomplying discharge (nature and volume);
- (3) Cause of noncompliance;
- (4) Steps taken to reduce and eliminate the noncomplying discharge; and
- (5) Steps taken to prevent recurrence of the condition of noncompliance.

B. If the chosen sludge management method is land application, the permittee must make provisions for storage, or some other approved management strategy, for those periods when land application is prohibited, including but not limited to winter months, or when the ground is frozen or saturated with water. The permittee shall not be permitted to store sludge on-site beyond the capacity of the structural treatment and storage components of the treatment facility, except in accordance with a NJPDES Emergency On-site Storage Permit. Nor shall the permittee be permitted to store sludge on-site in any manner which is not in accordance with Solid Waste Management Rules, N.J.A.C. 7:26-1 et seq. Any violations must be reported to the appropriate Enforcement Element within 24 hours.

C. The permittee shall comply with the Sludge Quality Assurance Regulations, N.J.A.C. 7:14-4.1 et seq. Where quality information is required by these regulations, analyses must reflect the quality of the final sludge product which the permittee must remove.

D. The permittee shall manage the sludge from this facility in compliance with the New Jersey Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., and the New Jersey Water Quality Planning Act N.J.S.A. 58:11A-1 et seq., which require conformance with District Sludge Management Plans, and Water Quality Management Plans. The permittee shall also comply with all applicable rules and regulations promulgated pursuant to the federal Resource Conservation and Recovery Act.

E. The permittee shall at all times have on file with the Department, proof of proper residuals management at a facility/operation duly licensed and permitted by the appropriate entity(ies). To satisfy this requirement the permittee shall submit proof of ownership or contractual arrangement with a permitted facility/operation for the composting, land application, thermal reduction, or other approved method of ultimate residuals management.

Where such permitted residuals management does not extend for the full term of this permit, the permittee shall submit similar proof of new permitted management arrangements which shall become effective no later than the expiration date of the previous arrangements. All such proofs of ultimate management must be submitted in duplicate to:

Chief
Bureau of Pretreatment and Residuals
Division of Water Quality
CN-029
Trenton, New Jersey 08625

The permittee shall assure that sludge produced by this facility is at all times suitable for management at the site identified on such submitted proof of proper management.

F. The permittee shall comply with the provisions concerning the management of sludge in the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and the Solid Waste Management Act (N.J.S.A. 13:1E et seq.) and all regulations which address sludge management promulgated under these acts.

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**REMEDIAL INVESTIGATION
AND
REMEDIAL ACTION WORKPLAN**

**Sun Newark Terminal
436 Doremus Avenue
Newark, New Jersey**

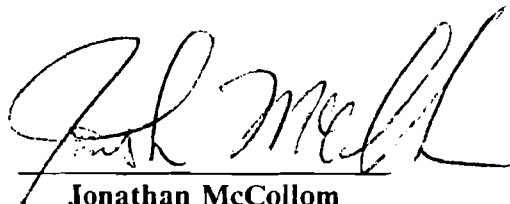
August, 1994

Prepared for:

**Sun Company, Inc.
1835 Market Street
Philadelphia, PA**

Prepared by:

**Handex of New Jersey, Inc.
500 Campus Drive
Morganville, New Jersey**

A handwritten signature in black ink, appearing to read 'Jonathan McCollom', written over a horizontal line.

**Jonathan McCollom
Senior Hydrogeologist
NJDEPE Certification #0001762**

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Executive Summary

The site is a bulk petroleum storage and distribution facility which has been in operation since the 1920's. Investigations at the facility and neighboring properties indicate that the site is underlain by fill associated with the development of the region. The first unit of natural earth materials underlying the fill consists of a low permeability, semi-confining silt, peat and clay layer. Groundwater is located between one (1) and four (4) feet below grade within the fill.

Groundwater and soils underlying the site have been impacted by past releases of petroleum hydrocarbons. LPH is present in four distinct areas of the site. Dissolved phase hydrocarbons are present in the groundwater, but at relatively low concentrations. Due to the presence of LPH across the site, a soils investigation has not been conducted to date. The site is located in a highly industrialized zone, and a regional groundwater pollution problem exists.

It is proposed to install a recovery system to address the liquid phase and dissolved phase hydrocarbons which have impacted the site. The proposed system includes eight recovery wells manifolded to a common treatment system.



HANDEX OF NEW JERSEY, INC., 500 Campus Drive, P.O. Box 451, Morganville, New Jersey 07751-0451 Fax (908) 536-7751 (908) 536-8500

REMEDIAL INVESTIGATION AND REMEDIAL ACTION WORKPLAN

**Sun Newark Terminal
436 Doremus Avenue
Newark, New Jersey**

Introduction

The following Remedial Investigation Report and Remedial Action Workplan (RI/RAW) summarizes the site conditions, investigative work and remedial actions performed to date. The proposed action plan is to continue the remediation of liquid and dissolved phase hydrocarbons which have impacted groundwater and soil beneath the facility. The remedial action approach is based on the analysis of available background information, local land usage, regional conditions, site geology and hydrogeology, soil and groundwater quality, sensitive receptors, aquifer test data, regulatory requirements and goals of the remedial process.

Site Description

The site is an active bulk petroleum storage and distribution facility located at 436 Doremus Avenue, Newark, Essex County, New Jersey. The site location is shown on the annotated USGS topographic map (Elizabeth and Jersey City Quadrangles) enclosed as Figure 1. The facility occupies approximately 22 acres between Doremus Avenue, which forms the western site boundary and the Passaic River, which exists along the eastern boundary of the site. Industrial facilities exist north and south of the site.

A detailed site plan of the facility is enclosed as Figure 2. Referring to Figure 2, a total of 18 above-ground bulk storage tanks are present at the terminal. Products stored at the facility include gasoline, diesel fuel, #2 fuel oil and kerosene. The petroleum products are delivered to the site via pipeline and barge and are shipped from the site via barge and tanker trucks. The total volume of product storage available at the facility is approximately 25,000,000 gallons. A 14-inch diameter underground pipeline operated by Sun Pipeline, Inc. exists along the southern property boundary. Product distribution lines within the terminal are located above grade. The tanker loading rack is located in the southwestern portion of the site, adjacent to Doremus Avenue.

Until approximately 1978, a portion of the facility was used to blend and package lubricating oils. Above-ground storage tanks associated with the former blending operations have been removed. Figure 3 shows the former tank locations and Table 1 summarizes information on the storage tanks (past and present).

The site is located in a highly industrialized area. The adjacent property to the north is occupied Reichold Chemical, a manufacturer of coating resins. The adjacent property to the south is occupied by Cardolite Corporation, a facility which produces polyester liquid resins. A trucking firm occupies the property west of the site, across Doremus Avenue. The nearest residential area is located approximately one mile northwest of the site.

Topography and Surface Drainage

The site exists at an elevation of approximately eight feet above mean sea level and does not exhibit significant relief. Surface drainage at the site is collected by a storm water collection system and is routed through a 65,000 gallon API separator prior to discharge to the Passaic River. Storm water collected at the loading rack area is directed through a 12,000 gallon oil water separator prior to reaching the main separator unit. Infiltration and recharge to the water table aquifer occurs in low lying unpaved portions of the terminal.

Background

Sun has operated a petroleum distribution facility at the site since the 1920's. Other industrial operations, including the processing of raw ores, were also conducted on portions of the site by other companies until as recently as 1945.

Historical aerial photographs of the site dating back to 1959 were reviewed. The 1959 aerial photographs indicate that all tanks shown on Figure 3, with the exception of Tank 42 were present at the site at that time. The area currently occupied by Tank 42 was undeveloped. Surrounding properties to the north and south were both developed, but the property west of the site, across Doremus Avenue was vacant. Photographs taken in 1966 indicate a similar site configuration as that shown in the 1959 photos. Aerial photographs from 1991 show the current site configuration after removal of the above ground storage tanks associated with the blending operations in the northeastern portion of the facility and construction of Tank 42. Development on surrounding properties is similar to that existing today.

A review of records indicates that environmental investigations and remediation efforts have been ongoing at the facility since 1984. Between June and November 1984, 27 monitoring wells (MW-1 through MW-27) were installed at the site by Marine Pollution Control under the direction of Groundwater Cleanup Inc. (GCI). The wells are 10 to 12 feet deep and were installed using hollow stem auger drilling techniques. Geologic logs for the wells installed by GCI are enclosed as Appendix A.

According to records, on May 3, 1989 a surface spill of approximately 43,000 gallons of unleaded economy gasoline occurred adjacent to Tanks 35 and 36. The spill was a result of a rupture in an eight inch diameter flexible coupling. GCI estimated that 22,000 gallons was recovered by vacuum trucks or was captured at the facilities oil/water separator. GCI also performed an investigation of the release which included mapping of the aerial extent of the surface spill, a soil gas survey, soil sampling and installation of well points. Based on the results of the investigation, GCI installed recovery wells P-3 and P-4 to recover liquid phase hydrocarbons (LPH) from this spill. Recovery well P-3 is 6 inches in diameter, 14 feet deep and had a submersible pump that directed total fluids to a 1000 gallon separator near Tank 35. Recovery well P-4 is 6 inches in diameter, 14 feet deep and had a double pump system that directed LPH to a 550 gallon holding tank and ground water to the bermed impoundment surrounding tank 42. Records on recovery from these wells were not available.

GCI equipped additional areas of the site with LPH recovery equipment. Monitoring wells MW-4 and MW-27 were equipped with electric submersible pumps which directed total fluids to a 550 gallon separator located near Tank 34. Well PW-1, a 24 inch diameter, 10 foot deep well was installed along the north side of the firewall near Tank 34, but was apparently never equipped with any pumping equipment. PW-2, a 12 inch diameter, 12 foot deep recovery well situated in a recovery trench near Tank 5001 was equipped with a total fluids pump which discharged to a 1000 gallon separator also near Tank 5001. The systems were shut down late in 1989. About 60 gallons of LPH was present in the holding tanks (combined) on October 4, 1990, but no information on total LPH volume recovered was available.

Between November 26 and November 30, 1990 Handex installed 17 additional monitoring wells (MW 28 - 44). The wells were installed to further characterize subsurface materials, delineate the extent of LPH, establish compliance points, and assess areas that previously did not have well coverage. Logs of these wells appear in Appendix B.

In March and April, 1991, Handex conducted slug tests on 13 monitoring wells and pump tested 6 wells to determine hydraulic conductivity, specific capacity and estimate capture zones. Additional short duration pump tests and tidal monitoring of the river and three monitoring wells were also conducted at this time.

On March 22 and April 3, 1991, two monitoring wells (MW 45 and 46) were installed and five test pits conducted to the water table in the southeastern part of the terminal along the Passaic River to investigate the extent of LPH in this area. An LPH recovery system was installed by Handex and placed into operation at MW-45 on May 2, 1991. That system remains operational. Passive LPH recovery systems were installed in three monitoring wells along Gaugehouse Road in Feb., 1993. These systems remain operational and have reduced LPH thicknesses in the wells to less than 0.01 foot.

Sensitive Receptor Survey

The primary sensitive receptor at the site is the Passaic River, which forms the eastern boundary of the site. Underground utility lines (water, storm sewer and sanitary sewer) are present beneath Doremus Avenue.

In order to investigate potential aquifer usage in the vicinity of the site, a well records search was performed. The well records search was obtained from the New Jersey Department of Environmental Protection and Energy (NJDEPE), Division of Water Resources, Bureau of Water Allocation. The search was requested in two parts: a computer search for wells within one (1) and five (5) miles of the site that withdraw a minimum of 100,000 gallons of water per day and a manual records search for all wells within one half (1/2) mile of the site. The computer well search also provides information on facilities listed on the NJDEPE's Comprehensive Site List. Records from the computer radius search are presented in Appendix C and records from the manual well search are available upon request.

The computer radius search indicated that there are a total of 26 wells which yield in excess of 100,000 gallons per day within five (5) miles of the site and one (1) high yield wells within one (1) mile of the site. The closest of high yield water withdrawal points is located approximately 0.8 miles west of the site and is operated by Ronson Metals. The well is reported to be 400 feet deep and is completed within the Brunswick Formation. The well has a reported yield of 100 gpm. There are no municipal supply wells located within five (5) miles of the site. A total of 593 sites within five (5) miles of the site are listed on the NJDEPE's Comprehensive Site List.

The manual well search indicates that there are a total of 393 low yield wells within 1/2 mile of the site. All of these wells were installed for monitoring purposes. No low yield domestic or industrial supply wells exist in the vicinity of the site. Based on the well records search, the site is not in an aquifer usage area. Furthermore, the large number of monitoring wells installed in the vicinity of the site indicates that an area wide groundwater pollution problem exists. The regional pollution problem is verified by the large number of sites in the area on the NJDEPE's Comprehensive Site List.

Regional Geology and Hydrogeology

The site is located in the Piedmont physiographic province, north of the terminal moraine of the Wisconsin age glacial epoch. Geologic maps (Geology of the Newark Quadrangle, Lytle and Epstein, 1980) indicate that bedrock underlying the site consists of reddish brown non-marine mudstone and siltstone belonging to the Passaic Formation of the Brunswick group. In the Newark area, the bedrock surface has been eroded to form a broad north-south trending bedrock valley whose axis is located approximately two (2) miles northwest of the site. The valley floor along the axis lies approximately 200 feet below mean sea level. Regional investigations (Groundwater Resources of Essex County, New Jersey, USGS

Special Report No. 28, 1968) indicate that the depth to bedrock under the site may be on the order of 50 feet below mean sea level. A review of deep boring logs prepared during construction of the bulkhead at the site indicates that the depth to bedrock varies from approximately 40 to 90 feet below mean sea level. Copies of the bulkhead boring logs are provided in Appendix D.

The unconsolidated sediments overlying the bedrock consist mainly of glacial till deposited during the Wisconsin Glacial period of the Pleistocene Epoch and fill material placed during development of the region. The fill material is highly variable. The natural deposits are also highly variable, but based on a review of the bulkhead boring logs, can be divided into three (3) distinct units. The deepest of these units (directly overlying the bedrock) consists predominantly of clay and has a reported thickness of 20 to 60 feet. A coarse to medium sand with variable amounts of silt is reported to overlie the deep clay. The thickness of this unit varies from 7 to 15 feet in the vicinity of the site. The sand unit may be fluvially derived. The uppermost non-fill material encountered in the vicinity of the site consists of a low permeability clay, silt and peat with an average thickness of 20 feet. This unit is likely a swamp or marsh deposit.

Early maps for this area indicate that the site was formerly marshland. Development of the area by filling in the marshland reportedly occurred in the early portion of this century. Many of the surrounding properties were previously used in the production of iron ore as smelters. A significant percentage of the fill placed in the area consists of slag generated during the smelting process. The presence of this slag is common on facilities all along Doremus Avenue.

Research indicates that two (2) aquifers underlie the site. The water table aquifer is located within the fill. A regional groundwater pollution problem exists in the vicinity of the site. Due to this area wide groundwater pollution in the water table aquifer and the saline nature of the groundwater, it is unlikely that groundwater in the vicinity of the site can ever be utilized for potable purposes. Based on this, it appears that the aquifer underlying the site meets the NJDEPE's criteria for classification as III-B. The presence of a deep aquifer has been confirmed at other properties in the vicinity of the site. The deeper artesian aquifer is located within the coarse to medium sand unit, and is separated from the surficial aquifer by the low permeability semi-confining clay, silt and peat layer.

Site Geology and Hydrogeology

The lithology of the site can be divided into four units, fill from 0 to 7 feet (on average), clay and silt from 7 to 28 feet, sand from 28 to 37 feet and clay and silt from 37 feet to the top of bedrock which was reported between 47 and 100 feet below grade.

Fill underlies the site from 0 to greater than 10 feet with an average thickness of 7 feet. The water table is located in the fill at a depth of 1 to 4 feet below grade. The fill varies in consistency across the site. A black fine gravel was noted in the southern half of the

terminal particularly along Gaugehouse road. This fine gravel was also noted at wells MW-42, 43 and 44 southwest of Tank 5001. This material was also reported in GCI's logs from 1984. Slag cobbles (about 5 inches in diameter) were also encountered during drilling in the southeastern part of the terminal. In the northern half of the terminal higher silt contents were encountered in the saturated zone above the clay unit (with the exception of wells 42, 43 and 44). Drilling was easier in the northern half of the terminal due to the absence of slag cobbles. Based on geologic logs and observations made during bailing of the monitoring wells, permeability in the fill is generally higher in the southern half of the site and at wells 42, 43 and 44 in the northern half of the site.

A clay and silt layer with plant fibers occurs at the site from 3 to 12 feet below grade with an average depth of 7 feet. This unit is representative of the former marsh deposits. Generally the depth to the clay layer increases in the southern and western portion of the terminal. In the southern part of the terminal, the clay was reported between 8 and 10 feet below grade in MW-2, 20, and 31. This clay unit is also reported in monitoring well logs from the Reichhold Chemical site to the north. At Reichhold, a clay silt and peat unit is reported to begin at an average depth of 8 feet below grade. It is reported to have an average thickness of 19 feet. Below the clay unit a sand unit exists at Reichhold with an average thickness of 12 to 14 feet. Below this sand unit a reddish brown clay and silt was noted in the logs.

Eight soil borings were drilled along the water front at the Sun Terminal in 1982 and 1987 as part of a bulkhead reconstruction project. Seven of the eight borings reported the gray clay and silt unit discussed above. The clay was reported between 5 and 22 feet below grade (four of the borings were conducted in 22 feet of water) and extended to an average depth of 28 feet below the surface. A sand unit with an average thickness of 9 feet was reported below the clay from 28 to 37 feet below grade. Beneath the sand unit (at an average depth of 37 feet) a red-brown clay and silt with shale fragments was reported. Bedrock (red shale of the Brunswick Formation) was reported in three borings at a depth of 47, 65 and 104 feet below grade. The lithologic units reported in the eight borings along the waterfront at Sun are consistent with deep boring logs at the Reichhold Chemical site to the north. Geologic cross sections drawn from the data are included as Figures 4 and 5.

Groundwater at the site is located between one and four feet below grade within the fill and is under unconfined water table aquifer conditions. A deeper, artesian aquifer has been confirmed at adjacent sites and exists at depths of 28 to 37 feet below grade. The deep aquifer exists within a coarse to medium sand unit and is separated from the water table aquifer by a low permeability silt and clay layer. Tidal influence within the water table aquifer was evaluated and the results indicate varied tidal response in monitoring wells. A complete discussion of the tidal monitoring is presented in Appendix E.

Monitoring wells are gauged for liquid levels on a regular basis. A summary of the monitoring data is attached as Appendix F. Two water table contour maps, using data obtained on August 31, 1993 and March 2, 1994 are enclosed as Figures 6 and 7. The

general trend of the groundwater is an easterly flow direction towards the Passaic River. A groundwater mound in the east central portion of the site is superimposed on this general trend. Radial flow away from the mound is shown in this portion of the site. Hydraulic gradients range from 0.001 to 0.25. Long term monitoring has indicated that the water levels at the site fluctuate rapidly in response to large precipitation events. This is a common response in unconfined water table conditions.

Liquid Phase Hydrocarbon Occurrence and Distribution

LPH have impacted in four areas of the site. The approximate extent of LPH on the water table is shown on Figure 8. The first LPH plume is associated with the 1989 surface spill of gasoline and exists in the central portion of the site. The LPH in this area consists of a weathered brown gasoline. Current LPH thicknesses in monitoring wells present in this area are on the order of 0.05 feet. A calculation was performed to estimate the maximum depth of penetration of product from the May 3, 1989 spill at the site. The total spill was estimated at 43,000 gallons. Groundwater Cleanup, Inc. (GCI) estimated that 22,000 gallons of this was recovered by vacuum trucks and at the terminal oil/water separator. Another 1,000 gallons was lost to evaporation, bringing to 20,000 gallons the total amount of product that infiltrated the ground surface. Using a sketch map prepared by GCI on the day following the spill, the surface area effected by the spill was estimated at 38,357 ft². The maximum depth of penetration can be estimated from the following formula:

$$D = \frac{1000 V}{A \times R \times k}$$

where D = maximum depth of penetration (m)
V = volume of product (m³)
A = area of infiltration at surface (m²)
R = retention capacity of soil (l/m³)
R = 15 for coarse to medium sand (average)
k = correction factor for various product viscosities
k = 0.5 for gasoline

Using the above formula, the maximum depth of penetration was found to be 2.8 m or 9.29 feet. The water table is approximately three feet below grade in the area of the surface spill. This suggests that approximately 66% of the product from the spill (or 13,200 gallons) has saturated the pore spaces and 33% of the product from the spill (or 6,800 gallons) is entrained in the soil above the water table as residual saturation.

Another calculation was performed to estimate the volume of liquid phase hydrocarbons from the 5/3/89 spill saturating the pore spaces at the water table. The area of the site which currently contains LPH from the spill is estimated at 90,992 ft². Assuming an average LPH thickness of 0.05 feet across this area, and an average porosity of 30%, the amount of

LPH saturating the pore spaces is estimated at 10,209 gallons. This number is generally in agreement with the calculation performed above.

The second area of the site impacted by LPH is adjacent to monitoring well MW-45 in the southeastern portion of the site. The product in this area consists of a weathered diesel fuel or fuel oil and current thicknesses are on the order of 0.50 feet. Active recovery of the LPH through a fixed intake positive displacement pump in MW-45 has been ongoing since 1991 and to date a total of approximately 940 gallons of LPH have been recovered. Product recovery rates have declined significantly over time.

The third area of the site with LPH present is within the firewall adjacent to Tanks 33 and 34. The LPH in this area consists of a dark brown to black viscous petroleum product. LPH thicknesses are on the order of 0.2 to 0.5 feet.

The final area with LPH present is located immediately west of Tank 5001 in the northwestern corner of the site. The LPH in this area consists of dark brown weathered kerosene and typical LPH thicknesses in this area are on the order of 0.20 feet.

Groundwater Quality Investigation

Groundwater samples were obtained from select monitor wells on March 2, 1994. Prior to sample collection, all wells were purged of three (3) times their original volume. Readings of temperature, pH, dissolved oxygen and conductivity were obtained prior to purging and again prior to sampling in each of the wells. The samples were obtained in dedicated, disposable teflon samplers. All groundwater samples were analyzed by Accutest (NJ Certification #12129) for benzene, toluene, ethylbenzene and total xylenes (BTEX), MTBE and TBA. The analytical results are attached as Appendix G and are summarized in Table 2. A Total BTEX Isopleth Map is included as Figure 8. Additional groundwater analyses were performed to obtain data needed to aid in the design of a groundwater treatment system. These analyses are summarized in Table 3.

Referring to Figure 8, total BTEX concentrations in the groundwater range from not detected (ND) to 13,580 parts per billion (ppb). MTBE concentrations in the monitoring wells ranged from ND to 3,900 ppb and TBA concentrations ranged from ND to 1700 ppb. The dissolved phase hydrocarbons are most predominant in the central portion of the site and thus are likely associated with the 1989 surface spill of gasoline. Other areas of the site which have been affected by historic releases do not exhibit significant levels of dissolved phase hydrocarbons due to the lower volatility of the petroleum hydrocarbons present in these areas.

Aquifer Analyses

Specific Capacity Testing

Several short duration specific capacity tests were conducted to determine potential yields. In a specific capacity test, the yield of the well per foot of drawdown is measured by pumping the well until a constant flow rate and pumping level are achieved. A summary of the specific capacity data from the wells tested is presented in Table 4. The specific capacity of the wells ranged from 0.25 gpm/ft to 23 gpm/ft.

An empirical calculation presented in Groundwater and wells, (Driscoll, 1986) was utilized to relate the specific capacities to transmissivity in the aquifer. The formula utilized is presented below:

$$\frac{Q}{S} = \frac{T}{1500}$$

where $\frac{Q}{S}$ = specific capacity in gpm/ft
and T = transmissivity in gpd/ft.

Using the specific capacity values presented above, the transmissivity values obtained range from 375 gpd/ft to 34,500 gpd/ft. The highly variable specific capacities and corresponding transmissivities are likely related to the variable, complex nature of the fill deposits underlying the site. Other factors which may have effected the results include well design and efficiency.

Slug Testing

The characteristics of the water table aquifer underlying the site were evaluated by performing a series of slug tests on selected wells. In a slug test, a volume of water is removed from the well by bailing and the rate of recovery is measured. In the majority of the slug tests, a Hermit Datalogger Model SE1000B was used to measure the rate of recovery. In the remaining tests water level measurements were obtained with a hand held electronic interface probe. The slug test data was evaluated using Geraghty and Miller, Inc.'s Aqtesolv program which derives hydraulic conductivity for the aquifer using the Bouwer and Rice Method. An assumed aquifer thickness of eight feet was utilized in the calculations. The slug test data is included in Appendix H and summarized in Table 5.

Slug tests were conducted of 13 monitoring wells in March and April 1991 to estimate hydraulic conductivity values and serve as a comparison to K values inferred from boring logs and K values determined from pump tests. K values from slug testing ranged from 0.14 to 1310 gpd/ft². This range corresponds to silty sands to clean medium sand. The lowest K values were recorded in MW-4, 31, 35, 36 and 38. The highest K values were at MW-29 and

MW-30 in the southern portion of the terminal.

Pump Tests

The characteristics of the water table aquifer underlying the site were evaluated by performing pumping tests in selected monitoring wells. The pumping tests were performed between March 8 and May 17, 1991. Both diaphragm pumps and submersible pumps were utilized in the testing. The discharge was routed through an oil/water separator drum and a portable granular activated carbon drum prior to discharge over the ground surface.

During the tests, water level measurements were taken in monitoring wells surrounding the pumping wells to determine influence. Measurements were taken with a HERMIT Environmental Datalogger Model SE1000B and a hand held interface probe. The results were analyzed using Geraghty and Miller Inc.'s Aqtesolv program which derives transmissivity and storage coefficients using the Cooper-Jacob method. A saturated thickness of eight (8) feet was used to calculate hydraulic conductivity. Tidal conditions in the river and anticipated tidal response in the monitor wells, if any, was noted. Table 6 presents information obtained from observation wells during pumping.

Over the pumping test period from March through May 9, 1991 the Newark, NJ area received 11.1 inches of rainfall. Rainwater was often ponded in secondary containment structures at the terminal and may have resulted in recharge during testing. Pump tests conducted during recharge events will generally result in higher than actual transmissivity values and lower than actual coefficients of storage.

Storage coefficients (S) calculated from pump test data ranged from 0.1 to 0.0002. Four of the values fell within the expected range of 0.01 to 0.3 for a water table aquifer while four other values were in a range of 0.004 to 0.0002 which are more representative of confined aquifer conditions. A combination of recharge from rainfall events coupled with delayed drainage of groundwater from storage that is characteristic of a water table aquifer may explain the lower than expected storage coefficients. Recharge effects and delayed drainage would also result in higher than actual transmissivity values. This may explain the higher hydraulic conductivity values calculated from pump test data as compared to slug test data.

Summary of Aquifer Testing

Specific capacities range from 0.25 to 23 gpm/ft. Hydraulic conductivity values range from 580 to $> 30,000$ gpd/ft² with the highest values occurring in the fine to medium gravel (slag) deposit in the southern portion of the site. Figure 9 is a graphical representation of the hydraulic conductivity distribution across the site. The widely varied well yields and hydraulic properties of the aquifer reflect the heterogeneous nature of the fill material underlying the site.

Capture Zone Analyses

Results of the pump testing were used to perform capture zone analyses to determine the radius of influence (hydrodynamic control) from a single point pumping well downgradient and perpendicular to the flow direction. The flow rates used are based on the actual flow rate achieved during the selected pump test. The analysis also defines the "stagnation point", which is the area beyond the capture zone where hydrodynamic control is not achieved. These capture zone analyses are based on equations presented by Keely and Tsang ("Velocity Plots and Capture Zones of Pumping Centers for Ground Water Investigations", Ground Water, Nov/Dec, 1983).

Analysis #1-- Assumes PW-3 is a single point pumping well

Hydraulic conductivity (K)	= 629 ft/day
Saturated Aquifer Thickness (H)	= 8 ft
Effective Porosity (ϕ)	= 0.30
Average Natural Gradient (I)	= 0.001
Seepage Velocity (V_s)	= 2 ft/day
Flow Rate (Q)	= 1543 ft ³ /day

The seepage velocity ($V_s = KI/\phi$), represents the actual rate of ground water flow through the subsurface sediments. The actual rate of soluble phase contaminant migration is less than the computed seepage velocity due to the retardation effects of hydrodynamic dispersion and adsorption onto subsurface sediments.

Substituting the aquifer coefficients listed above and the actual pumping rate of 8.0 gpm into the capture zone analysis, The following results were derived:

$$\begin{aligned}\text{Capture Zone (r)} &= \frac{Q}{2 \pi H \phi V_s} \\ &= \text{51 feet downgradient} \\ &\quad \text{161 feet perpendicular to natural flow}\end{aligned}$$

(r) = radius of capture from pumping well

Analysis #2 -- Assumes PW-1 is a single point pumping well

Hydraulic conductivity (K)	= 13 ft/day
Saturated Aquifer Thickness (H)	= 8 ft
Effective Porosity (ϕ)	= 0.30
Average Natural Gradient (I)	= 0.015
Seepage Velocity (V_s)	= 0.65 ft/day
Flow Rate (Q)	= 192 ft ³ /day

Substituting the aquifer coefficients listed above and the actual pumping rate of 1 gpm into the capture zone analysis, The following results were derived:

$$\text{Capture Zone (r)} = \frac{Q}{2 \pi H \phi V_s}$$

= 20 feet downgradient
62 feet perpendicular to natural flow

Analysis #3 -- Assumes MW-30 is a single point pumping well

(A K value of 1340 ft/day was used for this well due to the presence of coarse gravels and high specific capacity (23 gpm/ft) relative to other wells that had lower K values and lower specific capacities)

Hydraulic conductivity (K)	= 1340 ft/day
Saturated Aquifer Thickness (H)	= 8 ft
Effective Porosity (ϕ)	= 0.30
Average Natural Gradient (I)	= 0.002
Seepage Velocity (V_s)	= 8.9 ft/day
Flow Rate (Q)	= 5788 ft ³ /day

Substituting the aquifer coefficients listed above and the actual pumping rate of 30 gpm into the capture zone analysis, The following results were derived:

$$\begin{aligned}\text{Capture Zone (r)} &= \frac{Q}{2 \pi H \phi V_s} \\ &= \begin{array}{l} 43 \text{ feet downgradient} \\ 135 \text{ feet perpendicular to natural flow} \end{array}\end{aligned}$$

Proposed Remedial Action

All future investigatory and remedial actions will be carried forth under the existing Memorandum of Agreement for site remediation. The proposed remedial action plan includes the installation and operation of a recovery system designed to capture LPH and control the migration of dissolved phase contaminants present in the groundwater. The proposed system incorporates use of recovery wells and trenches at each area of the terminal affected by LPH. One common treatment system will be utilized for all impacted groundwater. A discussion of the various components of the recovery and treatment system is provided below. A schematic of the recovery well locations is enclosed as Figure 10 and a schematic of the proposed treatment works is enclosed as Figure 11.

The immediate focus of the remediation efforts shall be the recovery of LPH and the control of dissolved phase hydrocarbons in the groundwater. It is proposed to further evaluate the extent of impact of historical releases on the soil following successful recovery of the LPH.

Area of Concern #1 - Diesel Plume in Southeastern Portion of Site

The overwhelming factor influencing the design of the recovery system for this area is the tidal effects which have been observed in monitoring well MW-45. As previously discussed, the LPH thickness fluctuates with the tides and is greatest at low tide. Thus the most effective LPH recovery system would incorporate a floating LPH intake system capable of easily responding to a fluctuating product level. Operation of a groundwater depression pump may dampen some of the tidal fluctuations within the vicinity of the recovery well by maintaining a constant drawdown in the well. During system operation Handex will evaluate various drawdown levels within the recovery well. In as the recovery pump operates at a continuous flow rate, some fluctuations within the aquifer will be observed during various tidal events.

The recommended design for this portion of the recovery system is a large diameter (26 inch) recovery well equipped with a variable intake electric product recovery pump and an electric submersible water table depression pump. This well is designated as RW-1 on Figure 10. Due to the presence of abundant slag and cobbles in the subsurface, it is

recommended that the recovery well be backfilled into an excavated trench. The recovery well should be completed approximately three feet into the silt and clay layer which exists at a depth of approximately ten feet below grade. The well will be constructed of a continuous wrap screen (0.20 slot) well screen. The remainder of the trench excavated for well construction including the normal annular well space should be backfilled with clean pea washed gravel.

Recovered LPH will be directed to a secondarily contained holding tank while the recovered groundwater will be directed to the treatment plant. Due to the nature of the product present in this area, relatively low concentrations of volatile organics are anticipated.

Area of Concern #2 - Area of 1989 Gasoline Release

A 1989 surface release of gasoline in the central portion of the site has also impacted groundwater beneath the terminal property. The impact currently consists of a thin, widely dispersed layer of LPH and a well defined dissolved phase hydrocarbon plume. The recommended recovery system for this area of concern includes installation of four 8-inch diameter recovery wells.

Three of the recovery wells RW-2, RW-3 and RW-4 will be installed near the downgradient edge of the LPH and dissolved phase hydrocarbon plume. These wells are designed to control any further migration of hydrocarbons, to capture LPH at the downgradient edge of the affected area and continue to allow gravity drainage of the residual LPH in the source area. Since minimal LPH thicknesses have been encountered (under both pumping and non-pumping conditions), Handex does not recommend immediate deployment of mechanical product recovery pumps within these wells. Independent water table depression pumps in conjunction with passive product recovery bailers will be deployed within each well. The wells will also be equipped with the capability to upgrade to automated LPH recovery in the future if required.

The fourth recovery well RW-5 will be installed in the area which has shown the greatest historical LPH thicknesses. This well will be equipped with both a water table depression pump and an electric submersible product recovery pump. Recovered product from this area will be pumped to a separate, vented, grounded and secondarily contained above ground storage tank.

All recovery wells in this area will be constructed of eight inch diameter continuous wrap PVC well screen. Each well will be completed to a depth of 13 feet, approximately three feet into the clay and silt layer. The wells will be installed using hollow stem augers or water rotary drilling methods and will be completed with a Morie gravel annular space and a bentonite surface seal.

Area of Concern #3 - Tank 33 and 34 Area

The area inside the firewall of Tanks 33 and 34 is the third area of concern the recovery system will address. The soil and groundwater in this area has been impacted by historic releases of viscous petroleum products. The recovery system designed for this area includes three eight-inch diameter recovery wells (RW-6 through RW-8) equipped with water table depression pumps and passive bailers.

Lowering of the water table in this area will reduce the natural groundwater mounding within the existing dike area. The mounding appears to be caused by groundwater recharge from storm water events. The localized mounding in this area serves as a driving force for dispersion of both the LPH and dissolved phase hydrocarbon plumes. The natural product dispersion is counter-acted by the concrete footings of the dike containment wall. It appears as though the dike footings extend below the seasonally low water level, thereby creating a natural containment wall.

The drawdown levels within this area will be seasonally adjusted so that the groundwater level inside the containment structure does not drop below the depth of the foundation of the fire wall. The passive bailers will be used to collect LPH as it enters the recovery wells.

Area of Concern #4 - LPH east of Tank 5001

A limited LPH plume exists in the area east of and immediately adjacent to Tank 500. An existing recovery trench and recovery well (P-2) will be utilized to recover LPH in this area. A passive bailer will be installed in the recovery well and the progress of the recovery will be monitored. The need for utilization of groundwater depression in conjunction with the LPH recovery will be further evaluated as data is collected.

Treatment Works

The groundwater treatment system has been conceptually designed to treat a variety of hydrocarbons. Specifically, Handex proposes the use of an integrated treatment system for the areas of hydrocarbon concern. Recovered groundwater from each of the AOC's would be piped above grade to the existing TBA building on the site. The combined influent would be diverted into an influent settling tank. Following equalization and settling groundwater would be filtered using a canister-sock filtration system and treated with a packed tower air stripper system. The air stripping system is designed to treat the high volatile organic fraction to 99% efficiencies.

Air stripper effluent will be further treated with a dual sand filtration system and a dual granular activated carbon system. Figure 11 is a conceptual Piping and Instrumentation Drawing for the treatment system. The P&ID includes anticipated flow rates for each recovery well plus anticipated influent and treatment efficiencies.

The treatment system will be a licensed industrial waste water treatment facility. Upon approval, Handex will complete a final system design including a Treatment Works Approval and Engineer's report. The treated groundwater will be discharged to the Passaic River under DSW General B4B Permit #NJ0104256.

Permits and Regulatory Requirements

A NJPDES Discharge to Surface Water General Permit (Class B4B - #NJ0104256) was issued by the NJDEP in June, 1994. The effluent from the proposed treatment system will be discharged in accordance with the requirements of the permit. Additional permitting required for the treatment system installation and operation may include an air permit (if air stripping is utilized), well permits and local construction and electrical permits. These permits will be obtained as required.

Cleanup Goals, Remediation System Evaluation and Closure Criteria

The cleanup goal is to remove LPH from the subsurface and to lower the soluble-phase hydrocarbon concentrations in the groundwater to targeted regulatory standards. Compound specific alternate concentration limits (ACLs) for soil and groundwater will be requested at a later date, after operation and evaluation of the remediation system's performance as allowed for in the NJDEPE proposed "Cleanup Standards for Contaminated Sites" rules (N.J.A.C. 7:26D-4).

During the operation of the groundwater pumping system the concentrations of hydrocarbons in the groundwater will be monitored. Hydrocarbon removal efficiency from the subsurface will also be evaluated with time. A particle tracking model will be employed to evaluate the groundwater recovery system and the resulting capture zone.

As allowed for in N.J.A.C. 7:26D-Subchapter 7 and based on the operational results of the remediation system Sun/Handex will apply to the NJDEPE and request that alternate concentration limits (ACLs) be established as groundwater cleanup standards for this site based on the lack of potable wells near the site and the limited future uses of water table aquifer in this area. Once the groundwater pumping system is shut down, the concentrations of the remaining hydrocarbons in the groundwater will be monitored via the post corrective action compliance monitoring and ground-water sampling program. This program will consist of sampling selected monitor wells bi-annually for a period of up to two years. A post remedial soil sampling plan or variance request will be developed at a later date based upon the operation of the proposed remediation system.

Site Restoration Plan

After the completion of the remedial action and the post remediation compliance groundwater sampling and monitoring period, site closure will be requested from the NJDEPE. Upon closure approval from the NJDEPE, the recovery, and monitor wells will be sealed by a New Jersey certified well driller in accordance with NJDEPE well abandonment regulations (N.J.A.C. 7:9-9). All subsurface remediation system piping will be abandoned in place.

Implementation Schedule

Upon approval of the RAW, an implementation schedule will be prepared detailing the schedule for installation of the recovery system. During the interim, Sun will proceed with the following site activities:

- Monthly Site Monitoring and Well Bailing;
- Annual Groundwater Sampling;

Health and Safety Plan and Standard Operating Procedures

All work on-site was carried out in accordance with a site-specific Health and Safety Plan (HASp), which is included as Appendix I. The HASp was followed to assure safe operating procedures were followed while conducting field activities. Included in the HASp are emergency phone numbers, road maps and directions to the nearest hospital. Standard operating procedures for sampling and handling of groundwater samples has been prepared for this site and is included as Appendix J.

TABLE 1
Sun Newark Terminal
Tank Inventory (Current and Historic)

<i>Aboveground Tank #</i>	<i>Capacity (Gallons)</i>	<i>Status Active(A) Removed (R)</i>	<i>Contents</i>
1	11550	R	NA
2	11550	R	NA
3	11550	R	NA
4	11550	R	MT
5	11550	R	SECO 15
6	11550	R	70 Golden
7	11550	R	MPM-300
8	11550	R	SECO 15
9	105000	R	XXX-LT
10	105000	R	NA
11	11550	R	NA
12	11550	R	NA
13	11550	R	NA
14	11550	R	NA
15	46200	R	C-XXX LT
16	46200	R	C-XXX LT
17	588000	A	Ballast water
18	588000	A	Kerosene
20	252000	R	91 Golden
21	252000	R	Sunsprint 1750
22	252000	R	96 Golden
23	252000	R	96 Golden
24	1470000	A	Gasoline
25	1470000	A	Sunlite
26	210000	A	Scraper

TABLE 1 (Continued)
Sun Newark Terminal
Tank Inventory (Current and Historic)

27	1470000	A	Gasoline 260
31	210000	R	100-N
32	210000	R	110-H
33	210000	A	Ballast oil
34	46200	A	Slop oil
35	2310000	A	Gasoline Ultra
36	2310000	A	Gasoline Reg.
37	2310000	A	Nº 2 Fuel oil
38	2310000	A	Nº 6 Fuel oil
39	2310000	A	Nº 2 Fuel oil
40	2268000	A	Gasoline 190
41	2268000	A	Gasoline 190
42	2310000	A	Gasoline - UL
4995	105000	R	150 BS
4996	105000	R	SSR 510
4997	105000	R	SSR 210
4998	105000	R	SSR 110
5001	420000	A	Suntec 20
5002	420000	A	Nº 2 Fuel oil
5003	420000	A	Nº 2 Fuel oil
5012	21000	R	SR 210
5013	21000	R	SR 210
5014	21000	R	SR 210
5015	21000	R	Boiler Rm. Tank
5016	21000	R	BS 150
5017	21000	R	SR 510
5018	21000	R	SR 510
5019	21000	R	SR 110
5020	21000	R	SR 110
5021	21000	R	SR 110
5022	21000	R	SR 70
5023-A	21000	R	Sunvis 754

TABLE 1 (Continued)
Sun Newark Terminal
Tank Inventory (Current and Historic)

5023-B-C	21000	R	3813 SR
5024	23100	R	SSR 2820 P
5025	23100	R	SSR 3814
5026	23100	R	SSR 3814
5027	21000	R	SSR 2830 P
5028	21000	R	2830 L
5029	21000	R	4230 D
<i>Underground Tank *</i>	<i>Capacity (Gallons)</i>	<i>Status Active (A) Removed (R)</i>	<i>Contents</i>
A	2000	A	Heating Oil
B	2000	A	Heating Oil
C	2000	A	Heating Oil
D	1000	A	Waste Oil
E	12000	A	O/W. sep.

* = UST Reg #0135560
NA= Not Available

TABLE 2
Sun Newark Terminal
Groundwater Sampling Data (BTEX)

WELL #	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENE, TOTAL	TOTAL BTEX	MTBE	TBA
W-1	2.7	ND	ND	6.2	8.9	3.0	ND
W-2	58	170	50	1700	1978	6.4	ND
W-4	120	14	20	140	294	400	ND
W-6	330	51	22	50	453	1500	ND
W-7	720	63	59	59	901	1100	ND
W-8	ND	ND	ND	ND	ND	130	1700
W-10	ND	ND	ND	140	140	3900	ND
W-11	ND	ND	ND	ND	ND	52	ND
W-15	ND	ND	ND	ND	ND	18	ND
W-25	320	310	28	2100	2758	410	ND
W-26	350	28	31	25	434	1500	ND
W-28	330	930	90	670	2020	1200	ND
W-32	650	2800	230	9900	13580	25	ND
W-44	480	19	7.8	53	5598	ND	660
P-4	2000	570	390	1200	4160	160	ND

All results in ug/l
ND - Non Detect

TABLE 3
Sun Newark Terminal
Groundwater Sampling Data

WELL #	IRON (unfilt.)	IRON (filtered)	TOTAL ALKALINITY	CHEMICAL OXYGEN DEMAND	TOTAL HARDNESS	TOTAL DISSOLVED SOLIDS
W-4	34000	31000	270	NA	330	480
W-10	15000	12000	530	NA	530	1800
W-25	11000	9700	150	NA	200	560
W-26	21000	16000	270	NA	330	1200
W-32	4000	4000	67	78	85	140
W-45	72000	21000	210	NA	380	550

All results in mg/l except iron, which was measured in ug/l.

ND - Non Detect

NA - Analyses was not performed

TABLE 4
Sun Newark Terminal
Specific Capacity Testing Data

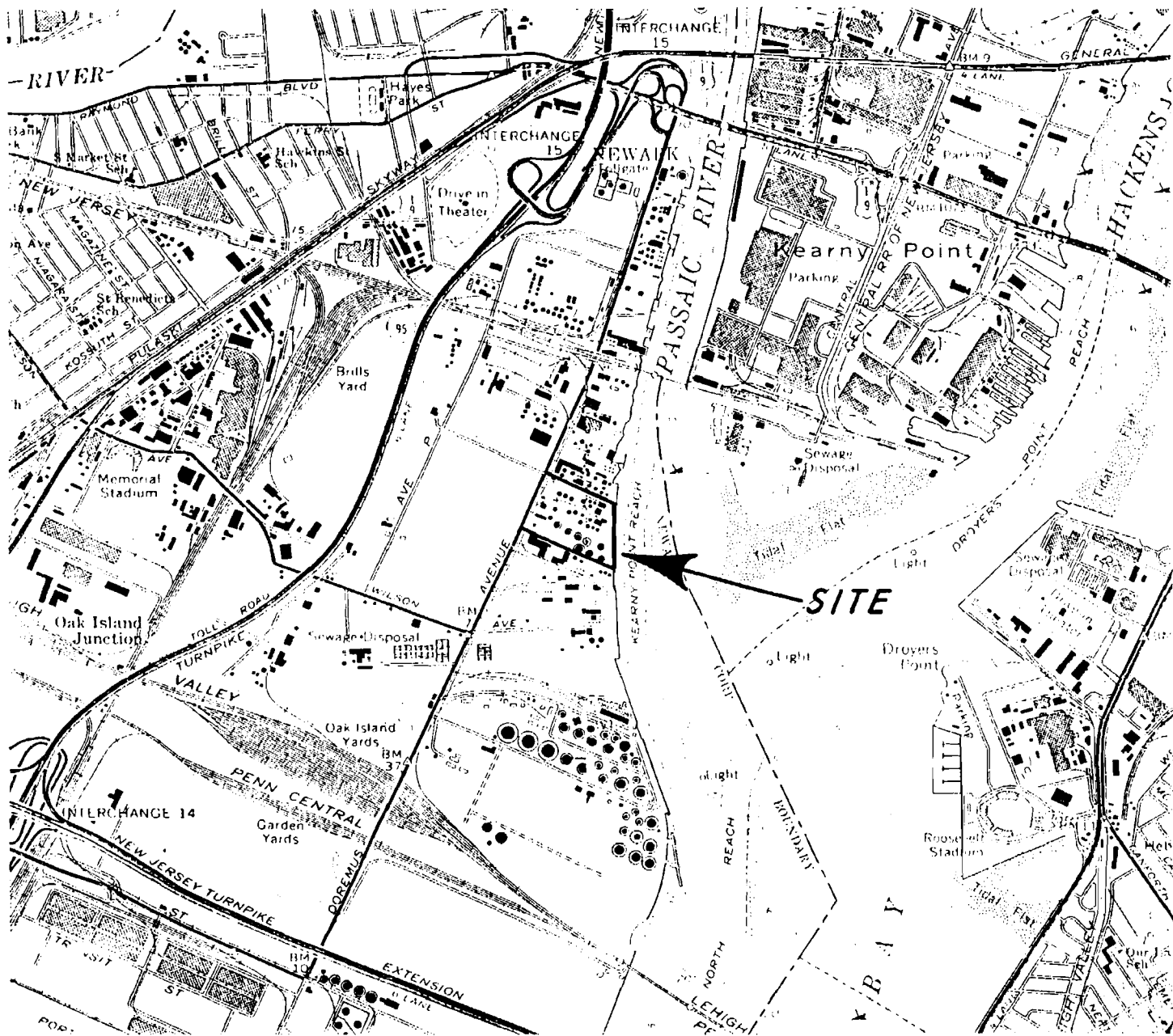
Date	Well Pumped	Rate (gpm)	Drawdown (feet)	Specific Capacity gpm/ft	Transmissivity gpd/ft
03/08/91	MW-17	1.0	3.0	0.33	495
03/20/91	MW-30	10.0	0.5	20.0	30000
03/28/91	MW-32	11.0	6.0	1.8	2700
04/02/91	PW-3	8.0	4.0	2.0	3000
04/04/91	MW-27	1.0	4.0	0.25	375
04/05/91	PW-1	1.5	5.0	0.37	555
04/15/91	MW-2	5.4	1.4	3.8	5700
04/15/91	MW-46	6.5	0.55	12	18000
04/15/91	MW-31	<1	3	<0.3	450
05/08/91	MW-44	4	3.15	1.3	1950
05/08/91	MW-15	2	2.85	0.7	1050
05/08/91	MW-26	6.5	3.40	2.0	3000
05/09/91	MW-30	30	1.3	23	34500

TABLE 5
Sun Newark Terminal
Slug Test Data

Well #	Date Tested	Results	
		Bouwer and Rice Method	
		Hydraulic Conductivity (gpd/ft ²)	Transmissivity (gpd/ft)
MW-2	3/26/91	91.13	729.04
MW-2	4/15/91	76.69	613.52
MW-4	3/26/91	3.64	29.15
MW-7	3/22/91	84.65	677.20
MW-15	3/19/91	147.27	1178.16
MW-26	3/26/91	208.35	1666.85
MW-29	3/26/91	742.24	5937.92
MW-29	4/15/91	772.18	6177.44
MW-30	4/15/91	1310.85	10486.80
MW-31	3/26/91	4.54	36.36
MW-35	3/22/91	3.0	24.0
MW-36	3/19/91	5.28	42.24
MW-38	3/19/91	0.143	1.143
MW-41	3/19/91	63.4	507.2
MW-44	3/19/91	83.05	664.40

TABLE 6
Sun Newark Terminal
Pump Test Data

Date	Well #	Maximum Draudown (ft)	Distance from Pumping Well (feet)	Hydraulic Conductivity (gpd/ft. ²)	Method used for determining Hydraulic Conductivity
03/08/91	MP-A	.08	55	5,559	Cooper - Jacob
03/08/91	MW-42	.10	77	4,942	Cooper - Jacob
03/20/91	MW-2	.065	80	5,000	Cooper - Jacob
04/02/91	MW-28	.10	80	4,672	Cooper - Jacob
04/02/91	MW-5	.08	50	3,541	Cooper - Jacob
04/04/91	MW-4	.06	120	580	Cooper - Jacob
04/04/91	MW-7	.03	60	685	Cooper - Jacob
04/04/91	MW-25	0.03	120	2,200	Cooper - Jacob
05/09/91	MW-2	0.22	80	4,377	Cooper - Jacob



ELIZABETH QUADRANGLE JERSEY CITY QUADRANGLE
 NEW JERSEY-NEW YORK NEW JERSEY-NEW YORK
 7.5 MINUTE SERIES (TOPOGRAPHIC) 7.5 MINUTE SERIES (TOPOGRAPHIC)

LATITUDE 40° 40' 12"

LONGITUDE 74° 7' 30"

SCALE 1 : 24000

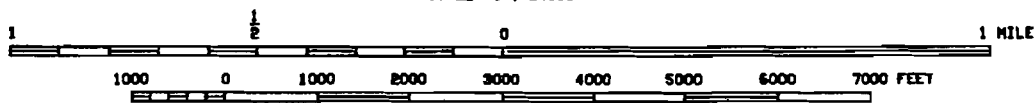


FIGURE 1
 LOCATION MAP



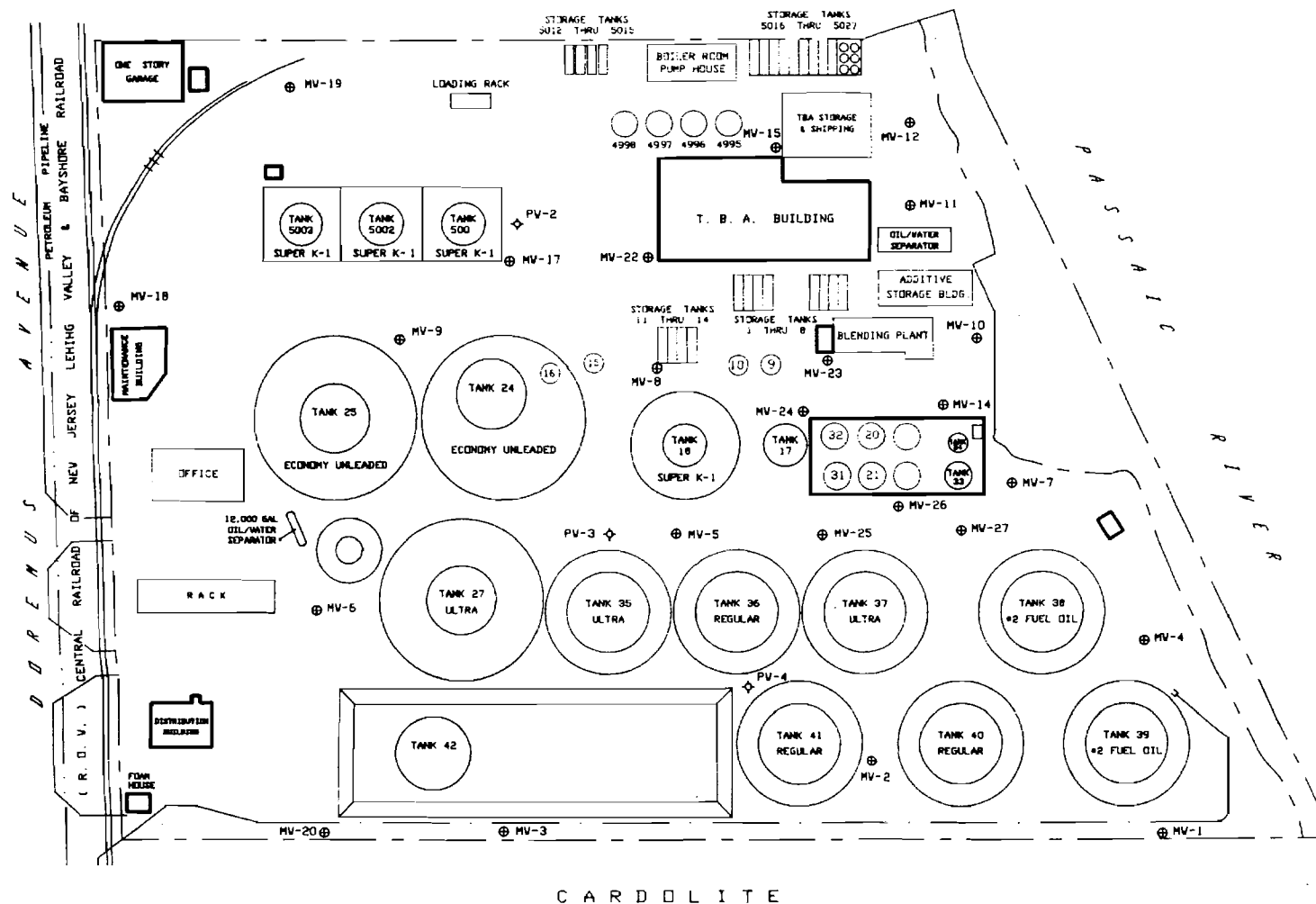
SUN REFINING & MARKETING CO.
 NEWARK TERMINAL
 NEWARK, N. J.

FIGURE 3

REICHOLD CHEMICAL

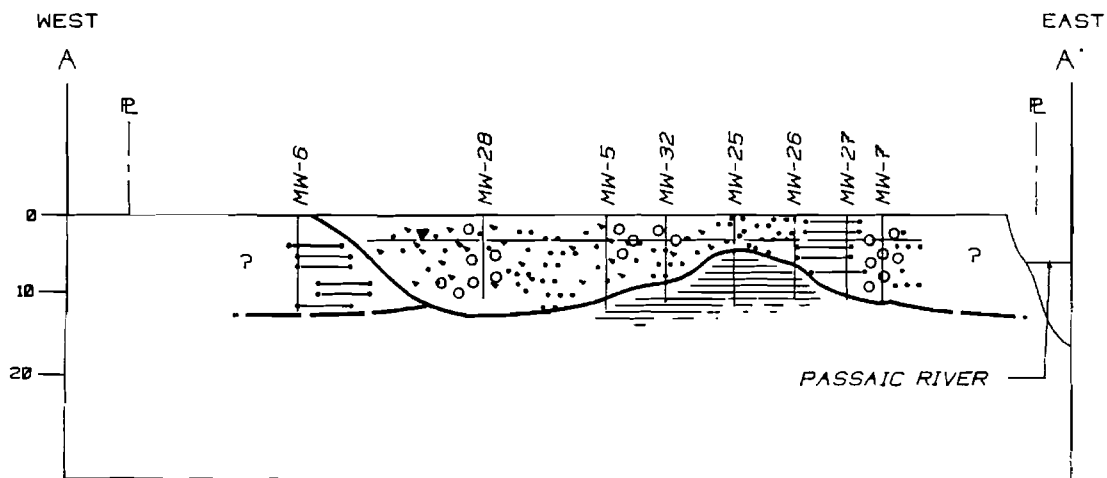
FORMER TANK AND
STRUCTURE LOCATIONS

SUN REFINING AND MARKETING COMPANY
NEWARK TERMINAL
436 DOREAUS AVENUE
NEWARK, NEW JERSEY



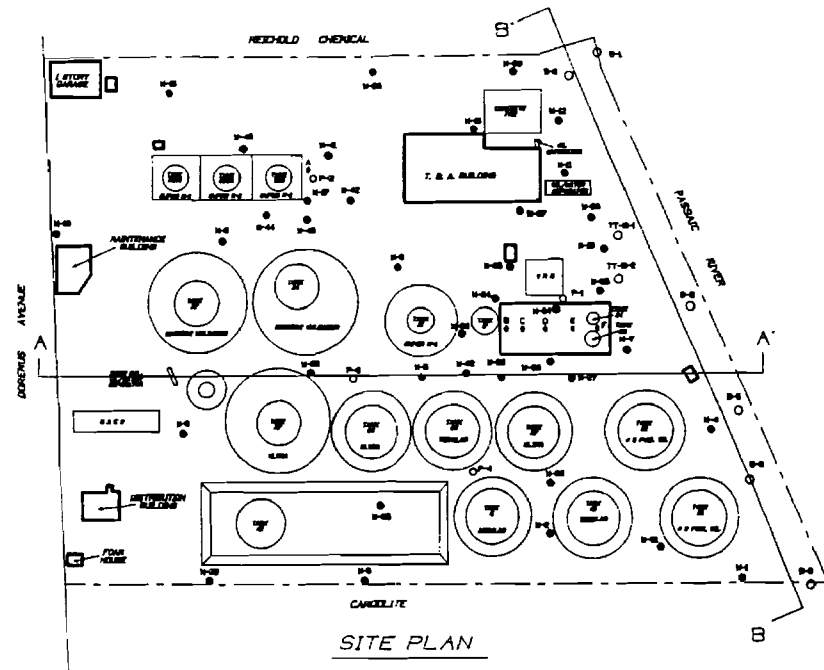
CARDOLITE






CROSS-SECTION A - A'

SCALES: VERTICAL 1" = 15'
HORIZONTAL 1" = 150'




LEGEND

 COBBLES

 SAND

 GRAVEL

 SILT


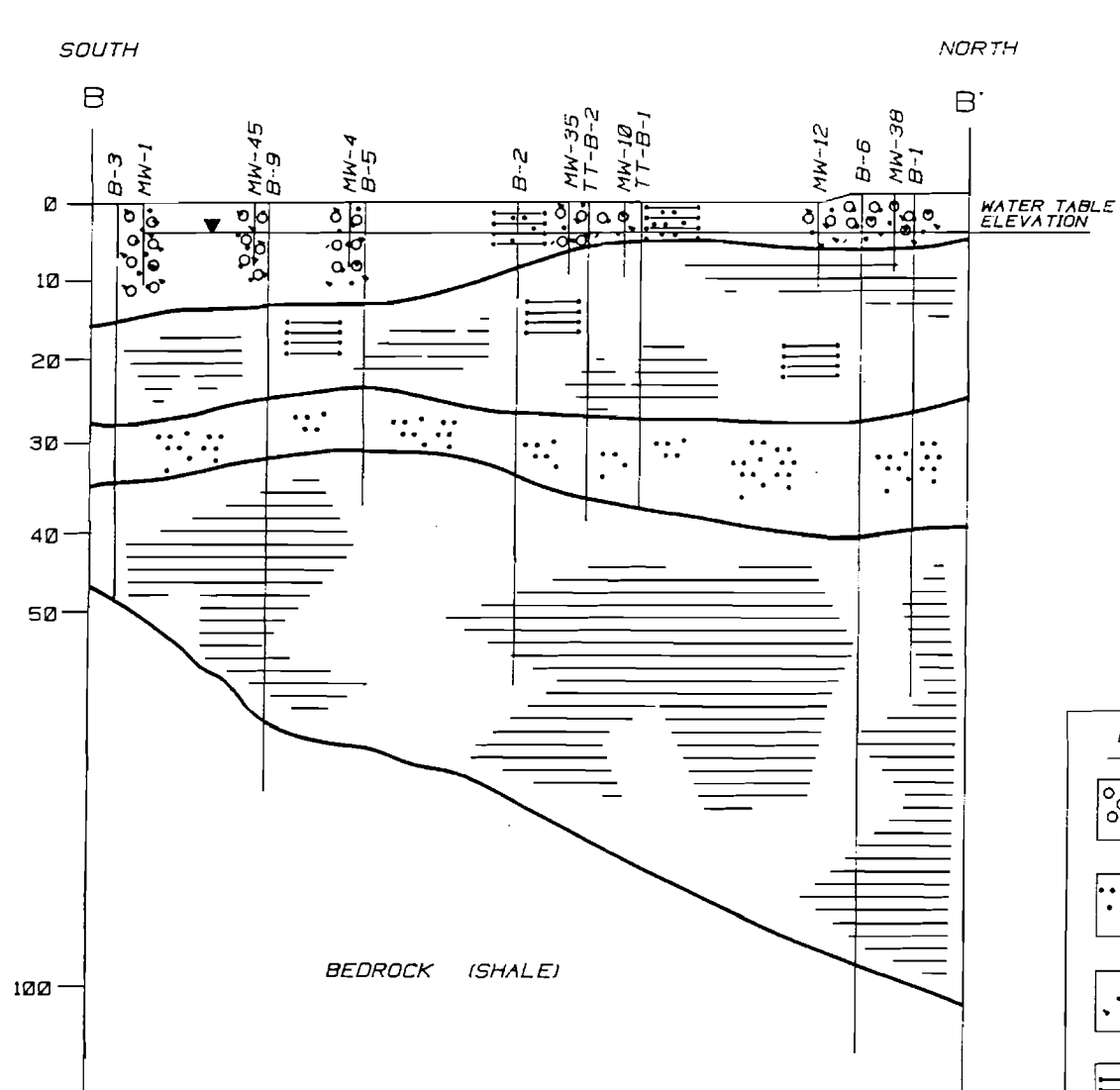
 CLAY

FIGURE 4

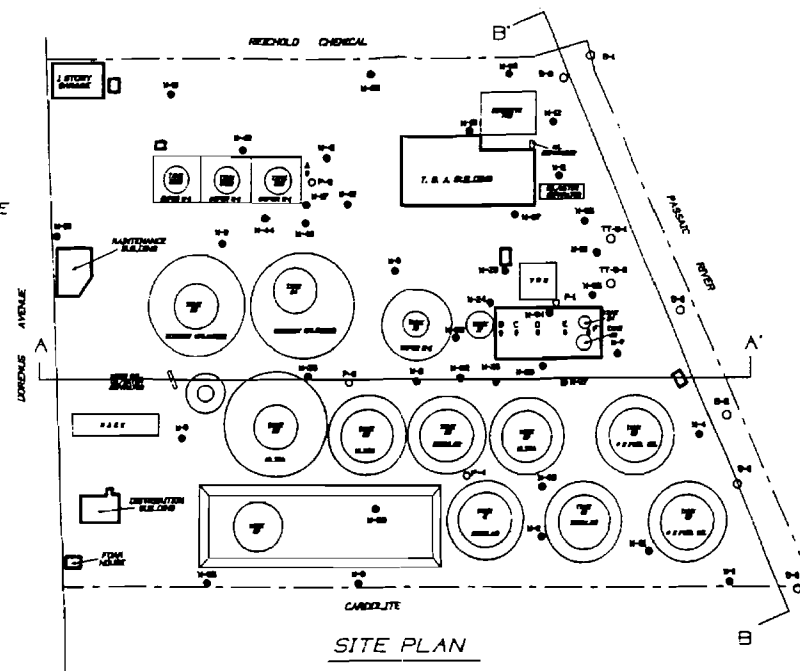
CROSS-SECTION A-A'

SUN REFINING AND
MARKETING COMPANY
436 DOREBUS AVENUE
NEWARK, NEW JERSEY



CROSS-SECTION B - B'

SCALES: VERTICAL 1" = 15'
HORIZONTAL 1" = 132'



LEGEND

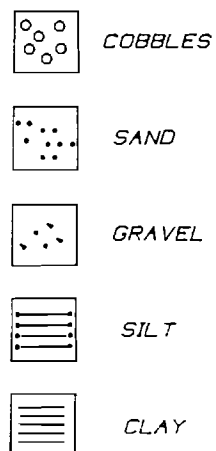


FIGURE 5

CROSS-SECTION B-B'

SUN REFINING AND
MARKETING COMPANY
436 DOREMUS AVENUE
NEWARK, NEW JERSEY

NOTE:

DASHED LINE INDICATES BORING
PERFORMED IN WATER.

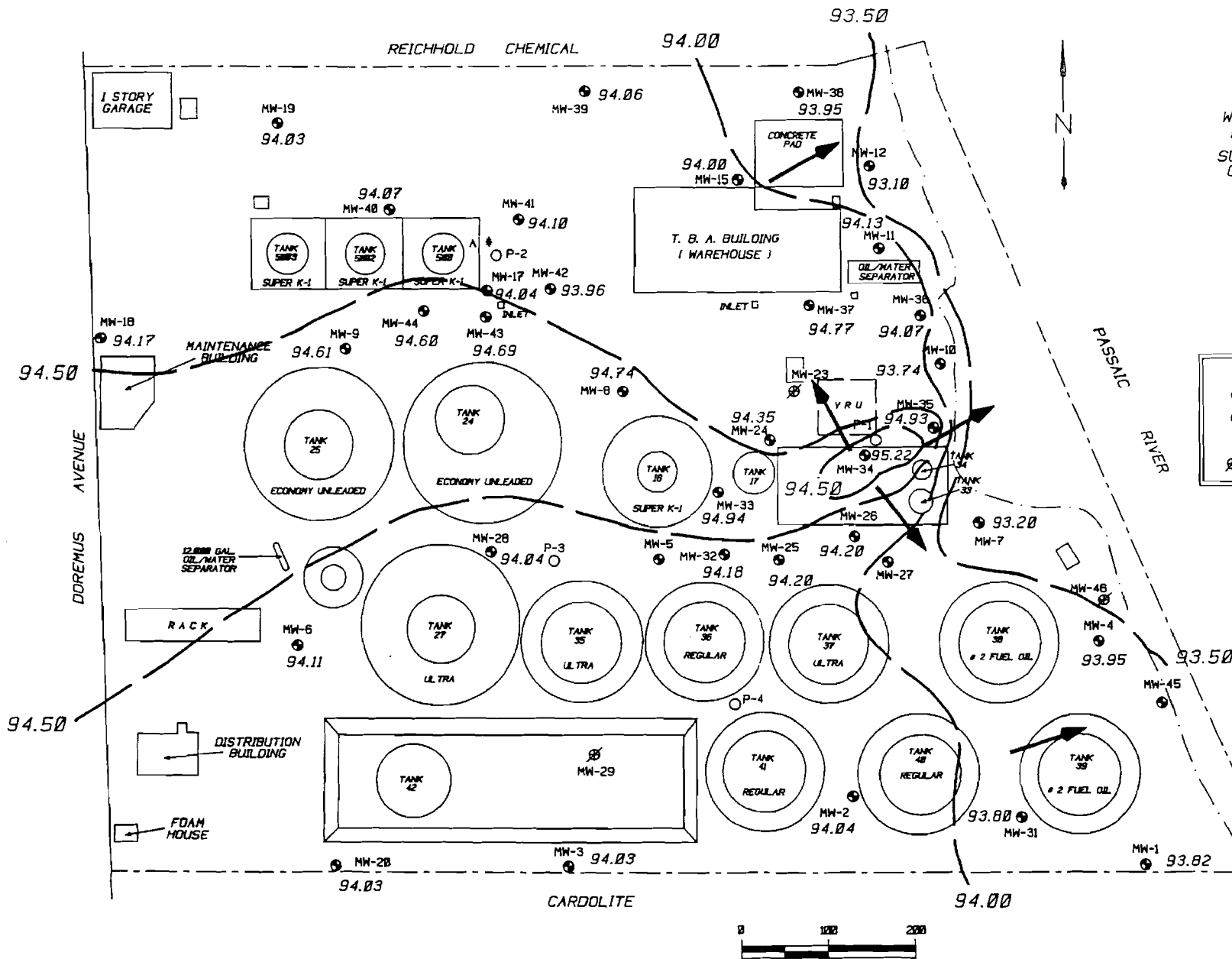


FIGURE 9
HYDRAULIC CONDUCTIVITY
DISTRIBUTION

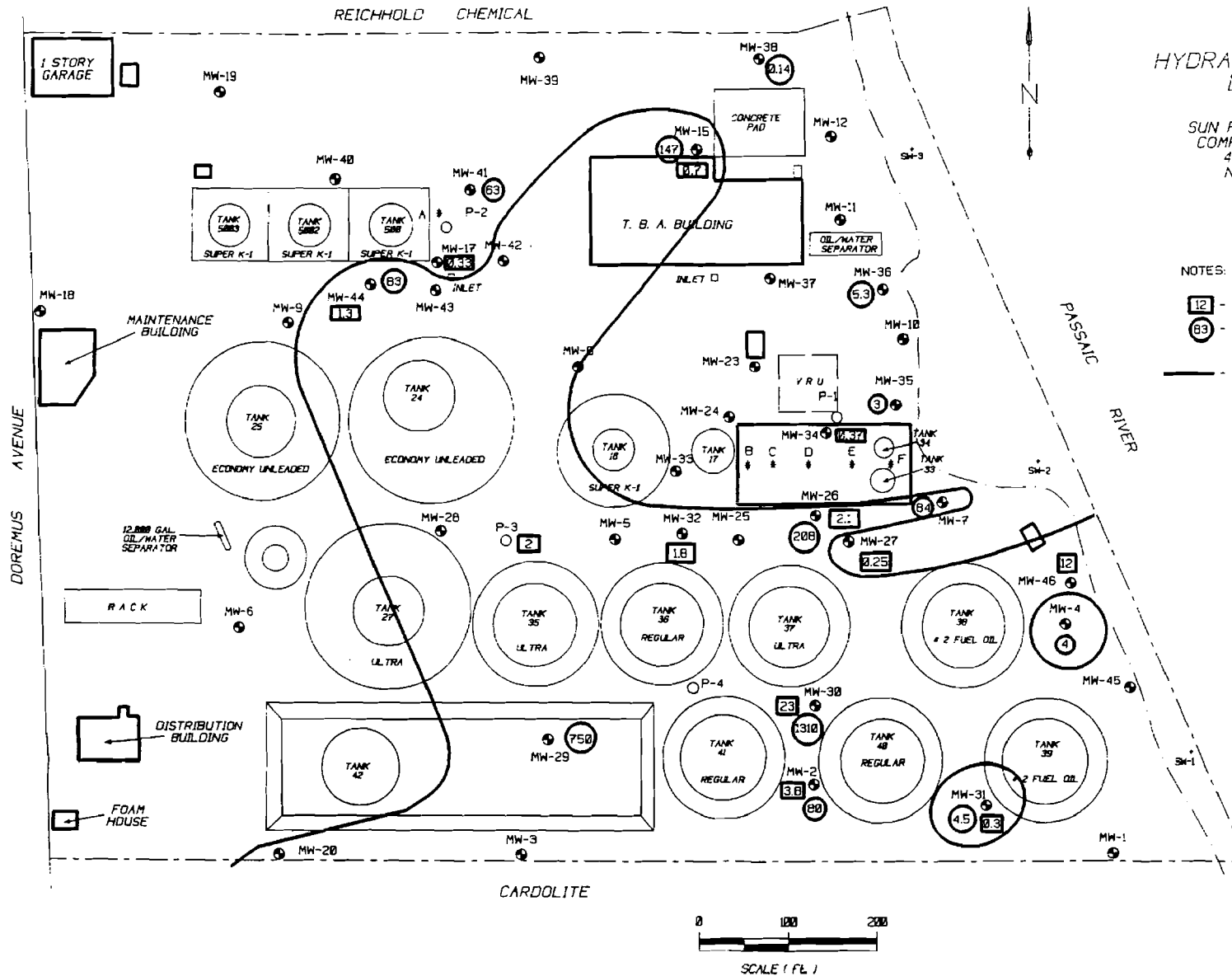
SUN REFINING AND MARKETING
COMPANY NEWARK TERMINAL
436 DOREMUS AVENUE
NEWARK, NEW JERSEY

NOTES:

- 12 - SPECIFIC CAPACITY (gpd/ft)
- 83 - HYDRAULIC CONDUCTIVITY FROM
SLUG TESTS (gpd/ft²)
- ZONE OF HIGH HYDRAULIC
CONDUCTIVITY GREATER THAN
80 gpd/ft² (BASED ON RESULTS
OF SLUG TESTS, PUMP TESTS, AND
LITHOLOGY - SAND AND GRAVEL).

LEGEND

- MONITORING WELL
- PUMPING WELL
- * A - F MONITORING POINT
- + SURFACE WATER ELEVATION





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

JACOB K. JAVITS FEDERAL BUILDING

NEW YORK, NEW YORK 10278-0012

DEC 13 1994

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Mark Taylor, Terminal Manager
Sun Company, Inc.
436 Doremus Avenue
Newark, New Jersey 07105

Re: Sun Company, Inc.
EPA I.D. No. NJD980650154

Dear Mr. Taylor:

Your submittal in response to the U.S. Environmental Protection Agency's (EPA) 3007 Information Request shows that Sun Company, Inc. is in compliance with the Resource Conservation and Recovery Act (RCRA).

The documentation submitted in your response shows:

- a) The solid waste in the roll-offs and 8-55 gallon drums to be non-hazardous and not subject to RCRA regulatory requirements,
- b) Three unlabeled drums observed were filled with degreaser solution and used for site operations, and
- c) Hazardous waste generated by the garage parts cleaner is properly managed and maintained by Safety Kleen.

Please be advised your facility is under the continuing obligation to comply with all the applicable state and federal regulations regarding the management of hazardous waste. Subsequently, if your facility should be found in violation of the regulation in the future, you may be subject to escalated enforcement action, including monetary penalties. If you have any questions, direct them to Ms. Kellyann Few at (212) 264-1362.

Sincerely yours,

James C. Golumbek
Joel Golumbek, Section Chief
Hazardous Waste Compliance Branch

cc: James Hamilton, Assistant Director
Office of Enforcement Policy
New Jersey Department of Environmental Protection

RECEIVED
Dept. of Environmental Protection & Energy

DEC 17 1994
Div. of Facility Wide Enforcement
Water & Hazardous Waste Enforcement Element

BAB000033

TIERRA-D-020734



Resource Control Corporation

Environmental Professionals
P.O. Box 579 • Rancocas, NJ 08073-0579

609 261-3388
Fax 609 261-0944

RECEIVED
SEP 12 1997

**REPORT OF FINDINGS
FOR UNDERGROUND STORAGE TANK CLOSURE**

Sunoco Newark Terminal

Duns #0000-9233

Newark, Essex County, New Jersey

NJDEP TMS # C97-0296

NJDEP UST # 0135560

David Frearson

NJDEP Subsurface Evaluator #001075

Prepared for:

Mark Taylor
Sun Company, Inc.
436 Doremus Avenue
Newark, New Jersey 07105

Prepared By:

Resource Control Corporation
Certification No. US00926
PO Box 579
Rancocas, New Jersey 08073

BAB000034

TIERRA-D-020735

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APPENDIX 2 - DISPOSAL DOCUMENTATION

APPENDIX 3 - LABORATORY ANALYTICAL DATA





Resource Control Corporation

Environmental Professionals
P.O. Box 579 • Rancocas, NJ 08073-0579

609 261-3388
Fax 609 261-0944

RECEIVED
SEP 12 1997

27 August 1997

Rafael Rivera
New Jersey Department of Environmental Protection
Bureau of Field Operations - Initial Notice Section
401 E. State Street, 5th Floor
CN 435
Trenton, New Jersey 08625-0435

**RE: Sunoco Newark Terminal # 0000-9233
436 Doremus Avenue
Newark, Essex County, New Jersey**

Sun Refining & Marketing Co.

Dear Mr. Rivera:

Enclosed please find the Report of Findings for the removal of one 550 gallon used oil underground storage tank (UST) at the above referenced site. This report details the post-excavation soil investigation conducted by Resource Control Corporation.

Should you have any questions or concerns regarding any aspect of this project please contact me at (609) 261-3388.

Sincerely,
RESOURCE CONTROL CORPORATION

David Frearson

David Frearson P.G.
Project Geologist

Bryan Emile

SEP 12 1997

c: Project File (312)

92-1-51244

*SCF
Transfer Field Office*

RESOURCE CONTROL CORPORATION
P.O. BOX 579
103 WILLS STREET
RANCOCAS, NEW JERSEY 08073-0579
PHONE (609) 261-3388
FAX (609) 261-0944

Facsimile Transmission Cover Sheet

Date: 9/4/97 Time: 14:30
Sent to: Stuart Friedman
Recipient's Fax Number: 777-0985
Sent From: Dave Freeman
Number of Pages Sent (including cover sheet): 4
Notes:

Should you have any questions please do not hesitate to contact me at (609) 261-3388

New Jersey Department of Environmental Protection
Site Remediation Program
Site Investigation/Remedial Investigation Report Checklist

Oversight Document: ☒ UST Regulations ☐ Industrial Site Recovery Act (ISRA)
☐ Administrative Consent Order (ACO) ☒ Memorandum of Agreement (MOA)
☐ Memorandum of Understanding

A. Case Name (and AKA): SUNOCO - Newark Terminal

Address: 436 Doremus Avenue

Municipality/Country: NEWARK, ESSEX County

RP Contact: Mark Taylor

Telephone: (201) 465-3215

B. (Check as appropriate)

☒ Site Investigation (SI) Report

☐ Remedial Investigation (RI) Report

C. (Complete all that apply)

• Assigned Case Manager ARNOLD Schiff
 • ISRA Case Number _____ (5 digits)
 • UST Registration Number 0135560 (7 digits)
 • Incident Report Number 92-12-30-5p04M (10 or 12 digits)

 • Tank Closure Number C9 7-0296 C9 _____ C9 _____ (7 characters)
 C9 _____ C9 _____ C9 _____
 • EPA ID Number NJ _____ (12 characters)

D. (Circle "Yes" or "No" as applicable for each statement. If the statement is not applicable, indicate "N/A")

- 1) All "Areas of Concern", as defined in N.J.A.C. 7:26E-1.8 or 40 CFR 300.5, noted in the attached report were sampled pursuant to N.J.A.C. 7:26E-3 and 4, and analyzed pursuant to Table 2-3, as applicable Yes No
 (If the answer to #1 is "No", answer 1A & 1B. If the answer is "Yes", go to #2)
- A) Did the Department grant a variance from any of the requirements of N.J.A.C. 7:26E-2 through 6, pursuant to N.J.A.C. 7:26E-1.6(d)1 and 2? Yes No
- B) If alternative sampling and/or investigatory methods were utilized without Department pre-approval, is the documentation required by N.J.A.C. 7:26E-1.6(c) provided? Yes No
- 2) The attached report documents all individual contaminants below most recently published residential and impact to ground water soil cleanup criteria contained in the "Site Remediation Newsletter" Yes No
- 3) The attached report includes results from a ground water investigation conducted pursuant to N.J.A.C. 7:26E-3.7 or 4.4. (If "No", go to question 5, if "Yes", answer question 4) N/A Yes No
- 4) The attached report documents all individual contaminants below applicable Ground Water Quality Standards as contained in N.J.A.C. 7:9-6 N/A Yes No
- 5) The attached report was submitted in response to a discharge of any contaminants as defined at N.J.A.C. 7:26E-1.8 Yes No
 If answer to #5 was "Yes" continue to 5A through 5E. If answer is "No" go to #6.
 Pursuant to N.J.A.C. 7:26E-3.7 and/or 4.4:
- A) Was the discharge associated with a substance with a solubility greater than 100 milligrams per liter (i.e. gasoline, #2 heating oil etc.)? Yes No
- B) Does all the soil between the discharge (last depth of contamination above remediation standard) and ground water/bedrock contain less than 15% silt and clay? Yes No

- C) If a soil sample was collected 2 feet from the saturated zone or bedrock, does it contain a contaminant above the impact to ground water remediation criteria? Yes No
- D) Are any of the soil sampling results above the impact to ground water remediation criteria anywhere in the soil column and the contaminant is not going to be actively remediated? Yes No
- E) Was a sheen or product noted on the ground water? Yes No
- 6) Were any wastes generated for disposal during the SI or RI? Yes No
- A) The attached contains a "soil reuse" proposal or report, including characterization sampling, as requested in the May 14, 1993, "Management of Excavated Soils" guidance document Yes No
- B) The attached report contains a request for a Waste Flow Exemption Yes No
- C) The attached report contains documentation of the quantity, waste classification and status of all excavated soil/waste disposal (including drum contents, tank sludge/rinsate, overburden soils, etc.) remediation or reuse and clean fill documentation Yes No

Site Investigation (SI) and Remedial Investigation (RI) Report Submittal Checklist

(Note page, figure, table or plate number(s) or NA for Not Applicable)

E. SI Reporting Requirements

- 1) Historical Information (including maps and air photos) Pg. No. N/A
- 2) Physical Setting Pg. No. N/A
- 3) Technical Overview of investigation execution and results including reliability of lab data, summary of contamination, information on waste characterization and any other significant events Pg. No. 1-2
- 4) Findings and recommendations by Area of Concern (AOC) Pg. No. 1-2
- A) Description of each AOC including size (i.e. size of drum pad, volume of impoundment or area, length of UST and piping), suspected and actual contamination (presence of discoloration, stressed vegetation, corrosion holes in USTs, description of the excavation, if any), source or potential source of discharge and field measurements Pg. No. 1-2
- B) Results of Analyses Pg. No. 2
- C) Fully supported Recommendation for additional remedial activities or "No Further Action" Pg. No. N/A
- 5) Summary Table of analytical methods and quality assurance indicators pursuant to N.J.A.C. 7:26E-2.2 (a)iv Pg. No. N/A
- 6) Laboratory Quality Assurance and Quality Control Deliverables pursuant to N.J.A.C. 7:26E-2.1 and Appendix A (include lab deliverable checklist) Pg. No. App 3
- A) Nonconformance Summary signed by the Laboratory Pg. No. App 3
- B) Chain of Custody Pg. No. App 3
- 7) Discussion of why the analytical methods chosen for each sample matrix accurately represent all of the contaminants of concern at the facility Pg. No. N/A
- 8) Table summarizing sampling results, including media, sampling depth, field and laboratory identification numbers, date and time of sampling, analytical results, and comparison to applicable remediation standards (ARS). Identify all samples exceeding ARS and all samples with MDLs or PQLs exceeding ARS. Solid results on dry weight basis (in mg/Kg) and aqueous samples in ug/l Pg. No. Table 1
- 9) Scaled Site map and AOC base map(s) with sample locations, sample depth and contaminant levels. (see N.J.A.C. 7:26E-3.10 (d)1 or 4.9 (d)2 for map details) Pg. No. Figure 3
- 10) Boring/Stratigraphic logs including instrument readings and physical characteristics Pg. No. N/A
- 11) Boring/Stratigraphic cross sections Pg. No. N/A
- 12) Boring, piezometer and monitoring well records with applicable permit numbers Pg. No. N/A

F. RI Reporting Requirements (Include all items above plus the following.)

- 13) Additional information collected pursuant to N.J.A.C. 7:26E-4.1 and any work plan approved per N.J.A.C. 7:26E-4.8 (i.e. well search information results/summary, subsurface gas threats, investigation of sediment, surface water, wetlands), as applicable Pg. No. _____
- 14) Well Search Results (pursuant to 7:26E-4.4(h) and Appendix B) Pg. No. _____
- 15) Description of treatability bench scale or pilot studies as well as data to develop permit limits for air, surface water and/or ground water discharges Pg. No. _____
- 16) Average contaminant concentrations for each AOC (see N.J.A.C. 7:26E-4.9 (c)3i), and a description of the procedures used for averaging Pg. No. _____
- 17) Well casing and ground water elevations (include well Certifications A and B) Pg. No. _____
- 18) Ground water temperature, pH and conductivity measurements Pg. No. _____
- 19) Review of inventory control records to identify product loss Pg. No. _____
- 20) Results of an Ecological Assessment, if conducted Pg. No. _____
- 21) Summary of Landfill records, if site is a landfill Pg. No. _____
- 22) Site base maps with sampling locations* and diagrams shall include:
- A) ground water elevation contour maps with flow direction, and tidal studies, if applicable Pg. No. _____
 - B) top of bedrock contour map, if bedrock was encountered Pg. No. _____
 - C) contaminant isopleth maps for ground water showing horizontal/vertical extent of contamination above applicable standards, and free product Pg. No. _____
 - D) isopleth maps for soil contaminants (required if more than 25 soil samples collected; suggested for fewer than 25 samples) Pg. No. _____
 - E) horizontal and vertical distribution of contaminants in soil and sediment with sample numbers* and contaminant concentrations Pg. No. _____
 - F) all ground water sampling points* including open hole and screened intervals Pg. No. _____
 - G) if applicable, a map of surface water, structure and airborne contaminants Pg. No. _____
 - H) photos may be submitted of sample locations (identify photo location on site map) Pg. No. _____
 - I) other data collected (e.g. soil gas), specify type Pg. No. _____

*NOTE: The same alpha/numeric sample label used in the RI workplan shall be used in the RI Report

G. Report Contents Completeness and Two Part Certification:

- 23) The attached report conforms to the specific reporting requirements listed at N.J.A.C. 7:26E-3.10 for a SI Report or N.J.A.C. 7:26E-4.9 for a RI Report ☒ Yes ☐ No

Name: DAVID FREEDSON Signature: [Signature] UST Cert. No. 001075

Firm: Resource Center Corp. Firm's UST Certification Number: US00926

(NOTE: Certification numbers required only if work was conducted on USTs regulated per N.J.S.A. 58:10A-21 et seq.)

- 24) Two part certification signed and completed pursuant to one of the following requirements (indicate the page number next to the appropriate regulatory citation):

- A) N.J.A.C. 7:26C-1.2 Pg. No. N/A
- B) N.J.A.C. 7:14B-2.3 Pg. No. 100
- C) N.J.A.C. 7:26B-1.13 Pg. No. N/A

1.0 INTRODUCTION

This report is submitted to provide documentation of the underground storage tank (UST) closure and site assessment performed at the Sunoco Newark Terminal facility located at 436 Doremus Avenue in Newark, Essex County, New Jersey (See **Figure 1**). One (1) 550 gallon used oil fiberglass UST (UST # 0135560) was closed at this location consistent with the Closure Approval TMS # C97-0296 and *Underground Storage Tank Closure Plan Approval Application* approved by the New Jersey Department of Environmental Protection (NJDEP) Bureau of Underground Storage Tanks (BUST). The UST closures and site assessment were performed, and this report was prepared, consistent with the appropriate portions of the Technical Requirements for Site Remediation, N.J.A.C. 7:26E.

The removal, closure, and assessment of the former UST system was performed by E.V. Banta & Company (UST Certification No. 001209). The subsurface investigation was performed under the supervision of RCC personnel certified by the NJDEP for subsurface evaluation (David Frearson, License No. 001075).

2.0 SUMMARY OF REMEDIAL ACTION

This section presents a summary of the remedial actions performed consistent with N.J.A.C. 7:26E-6.3. The NJDEP UST Closure Approval and the City of Newark Construction Permits are contained in **Appendix 1**.

The remedial action consisted of the removal of one (1) 550 gallon used oil UST and associated piping. The removal of the UST system was performed consistent with the requirements specified in N.J.A.C. 7:26E-6.3(b). This UST area measures approximately 7 feet by 10 feet and is depicted on **Figure 2**.

The closure of the UST was performed on June 4, 1997. The UST was partially filled with an oil/water mixture which was removed from the UST and processed at the Sunoco facility as off-spec petroleum. Approximately 268 gallons of oil/water mixture were removed from the used oil UST (See **Appendix 2** for Documentation).

Prior to tank removal, the concrete slab located over the UST was jack hammered and removed to expose the top of UST. Pea gravel proximal to the UST was excavated to facilitate the removal of the UST from the subsurface and temporarily stockpiled on-site. The soils were field screened with a



photoionization detector (PID) as they were removed from the subsurface.

Due to the presence of groundwater at approximately 2.5 feet below grade, the groundwater within the excavation was removed to gain access to the UST. Please note that globules of apparent petroleum product were observed on the watertable. This water was also processed at the Sunoco facility. Once ample groundwater was removed from the excavation, the tank and associated piping were removed and placed on 6 MIL polyethylene. The fiberglass UST was inspected and determined to be in good condition.

The remote piping run was determined to be less than 15 feet in length. All steel piping was drained, cleaned and removed from the subgrade. The removal of the steel UST piping was performed in compliance with the requirements specified in N.J.A.C. 7:26E-6.3(b).

3.0 SOIL SAMPLING PROCEDURES AND RESULTS

After the UST was removed, field screening was performed to assess the petroleum hydrocarbon content of soils within the UST excavation. The side walls of the excavation were field screened with a PID, calibrated to the manufacturers specifications and set to a response factor for benzene. The PID readings ranged from 13.4 parts per million (ppm) to 21.2 ppm from the excavation side walls.

Soil samples designated as SS-1 through SS-4 were obtained at four (4) locations at approximately two (2) feet below grade from the UST excavation side walls . Please refer to **Figure 2** for the soil sample locations.

All soil samples were obtained in accordance with NJDEP Field Sampling Procedures. Each sample was collected in clear glass jars with a Teflon septum lids. Dedicated sampling equipment was utilized during the sampling event. Disposable latex gloves were worn during sample procurement. Please note that the volatile soil samples were secured utilizing methanol field preservation. The samples were stored on ice until delivery to Lancaster Laboratories of Lancaster, Pennsylvania (New Jersey Laboratory Certification #77011).

All of the above samples were analyzed for total petroleum hydrocarbons (TPH). The soil sample exhibiting the highest TPH concentration was also analyzed for volatile organics (VO+10), base neutrals (B/Ns+15), polychlorinated biphenols (PCBs) and lead as outlined in the Closure Approval. The results of the soil sampling in the 550 gallon used oil UST excavation are provided in **Table 1** and also presented on



Figure 3. In addition, the complete New Jersey Reduced Deliverables Package is presented in **Appendix 3** of this report.

Soil samples designated as SS-1, SS-2, SS-3, and SS-4 exhibited TPH concentrations ranging from 5,720 ppm (SS-4) to 22,000 ppm (SS-2). Accordingly, the sample designated as SS-2 was additionally analyzed for VO+10, B/N+15, lead and PCB's.

The laboratory analytical revealed trace concentrations of volatile and base neutral compounds. None of the compounds were present at levels above the NJDEP soil remediation standards. The analytical results for the lead analysis revealed a concentration of 174 ppm, which is well below the soil standard of 400 ppm. The analysis for PCBs in sample SS-2 revealed an estimated concentration of 0.041 ppm, which is well below the NJDEP soil standard of 50 ppm. The only compound that was detected above the NJDEP soil standards was TPH. TPH was observed in soil sample designated as SS-2 at a concentration of 22,000 ppm, which exceeds the soil standard of 10,000 ppm. Although the TPH concentration for SS-2 is above the proposed NJDEP soil standard, the contingency sampling performed on SS-2 did not reveal any compounds above the soil standards. The elevated TPH concentrations observed are more likely due to the historical operations of the region and not associated with the 550 gallon used oil UST. Please refer to **Table 1** and **Figure 3** for the analytical results.

4.0 DESCRIPTION OF BACKFILL

Once the UST was removed from the subsurface and soil samples were secured from the excavation, the former UST excavation was backfilled with the excavated pea gravel and virgin pea gravel was used to bring the excavation to grade. The pea gravel was then compacted and the excavation was completed with asphalt.

5.0 WASTE DOCUMENTATION

Auchter Industrial Vac Services was on site with a vacuum truck to remove the contents of the used oil UST. A total of 268 gallons of liquids were removed from the UST (See **Appendix 2**).

The 550 gallon used oil fiberglass UST was labeled per American Petroleum Institute (API) 1640 guidelines and prepared for transportation. The UST was rendered useless and delivered to Browning-Ferris Industries (BFI). See **Appendix 2** for Disposal Documentation).



6.0 CONCLUSIONS

Based on visual observations, field screening, and the results of the post-excavation soil sampling, no further action should be required for the 550 gallon fiberglass used oil UST. The apparent petroleum hydrocarbons noted on the watertable and elevated TPH concentrations observed are most likely due to the historical operations of the region and not associated with the decommissioned UST system.

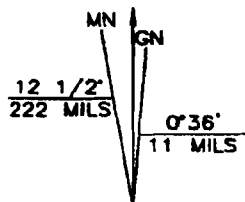
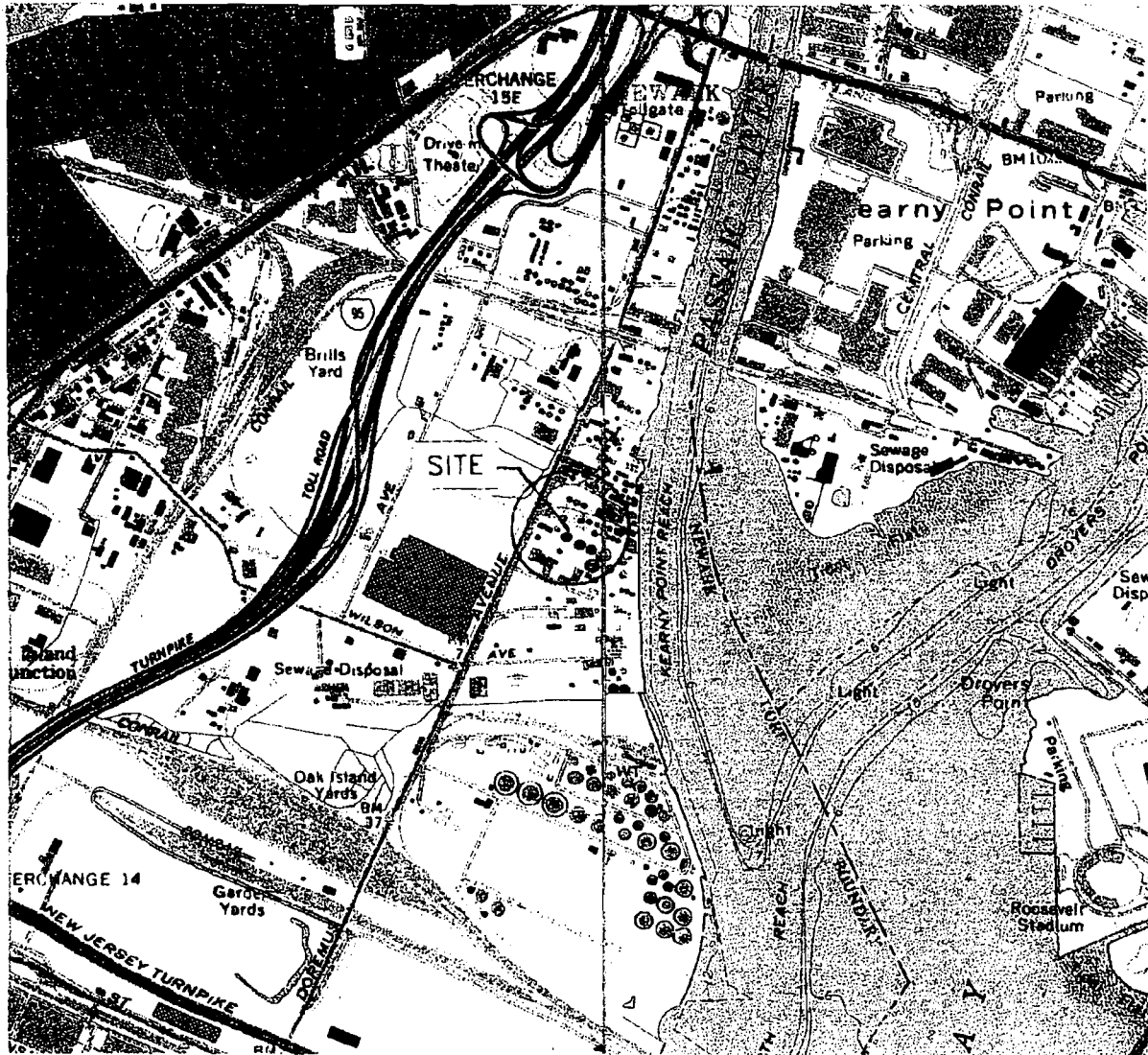


FIGURES

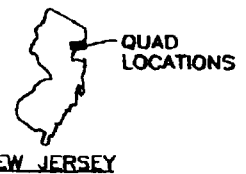
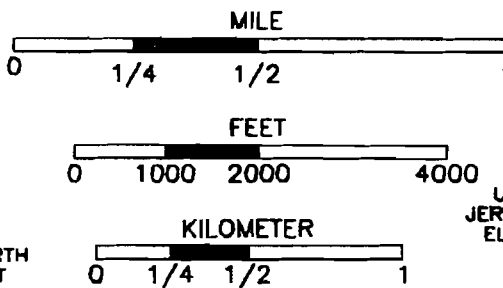


FIGURE 1 SITE LOCATION

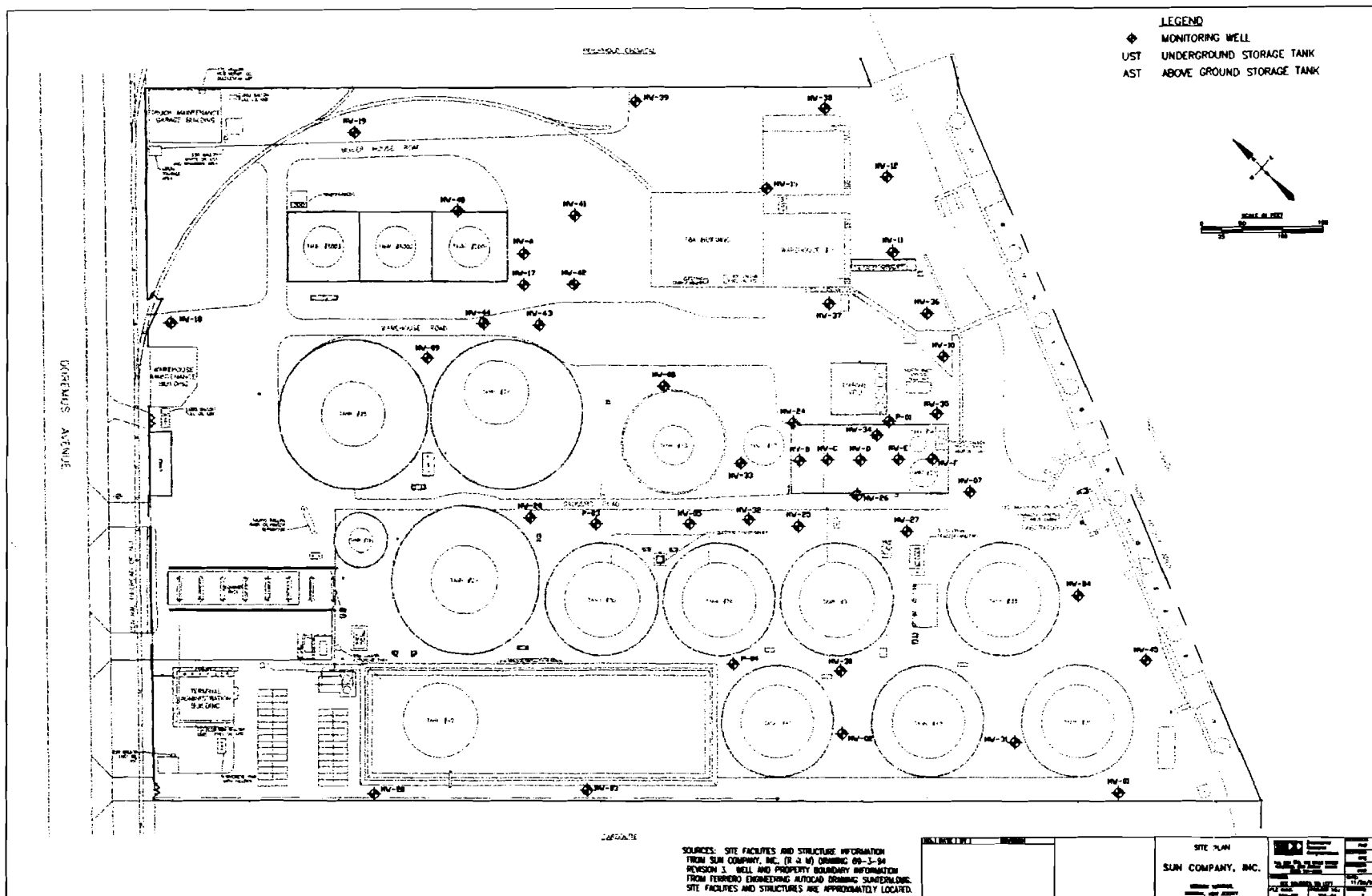
SUN COMPANY, INC., NEWARK TERMINAL
DUNS #0000-9233
436 DOREMUS AVENUE
NEWARK, NEW JERSEY

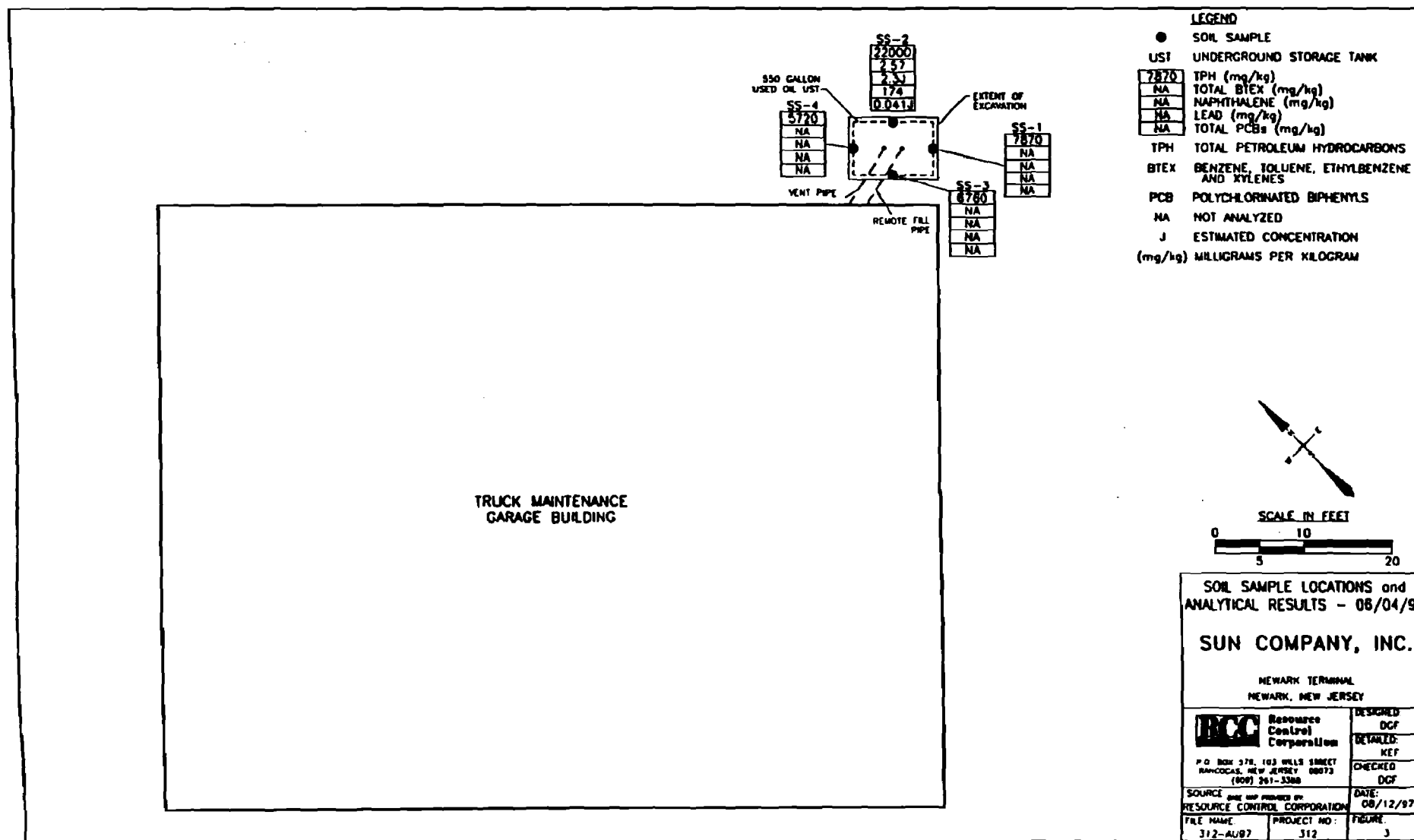


UTM GRID AND 1989 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET



SOURCE:
U.S.G.S. TOPOGRAPHIC QUADRANGLE
JERSEY CITY, N.J. - N.Y. QUADRANGLE
ELIZABETH, N.J. - N.Y. QUADRANGLE
7.5 MINUTE SERIES
BOTH 1981





TABLES

TABLES



TABLE 1
SOIL SAMPLING ANALYTICAL RESULTS
550 GALLON USED OIL UST REMOVAL
SUN COMPANY, INC
NEWARK TERMINAL, NJ

SAMPLE I.D.:			SS-1	SS-2	SS-3	SS-4	AMBIENT BLANK
SAMPLING DATE:			6/4/97	6/4/97	6/4/97	6/4/97	6/4/97
LAB I.D.:			2721960	2721961	2721962	2721963	2721964
PARAMETERS:	UNITS	NJDEP Soil Standard*					
VOLATILES							
Benzene	mg/kg	1	NA	ND	NA	NA	ND
Toluene	mg/kg	500	NA	0.36 J	NA	NA	ND
Ethylbenzene	mg/kg	100	NA	0.31 J	NA	NA	ND
Xylenes (Total)	mg/kg	10	NA	1.9	NA	NA	ND
Total BTEX	mg/kg	-	NA	2.57	NA	NA	ND
Methylene Chloride	mg/kg	1	NA	ND	NA	NA	0.28 J
Total TIC's	mg/kg	1000	NA	82.7 J	NA	NA	0.77 J
BASE NEUTRALS							
Naphthalene	mg/kg	100	NA	2.3 J	NA	NA	NA
Acenaphthylene	mg/kg	-	NA	ND	NA	NA	NA
Fluorene	mg/kg	100	NA	2.5 J	NA	NA	NA
Acenaphthene	mg/kg	100	NA	1.9 J	NA	NA	NA
Phenanthrene	mg/kg	-	NA	3.6 J	NA	NA	NA
Fluoranthene	mg/kg	100	NA	0.62 J	NA	NA	NA
Pyrene	mg/kg	100	NA	1 J	NA	NA	NA
benzo(a)anthracene	mg/kg	-	NA	ND	NA	NA	NA
chrysene	mg/kg	500	NA	0.4 J	NA	NA	NA
benzo(b)fluoranthene	mg/kg	50	NA	ND	NA	NA	NA
Anthracene	mg/kg	100	NA	0.46 J	NA	NA	NA
bis (2-ethylhexyl)phthalate	mg/kg	100	NA	0.83 J	NA	NA	NA
benzo(k)fluoranthene	mg/kg	500	NA	ND	NA	NA	NA
benzo(a)pyrene	mg/kg	100	NA	ND	NA	NA	NA
indeno(1,2,3-cd)pyrene	mg/kg	500	NA	ND	NA	NA	NA
dibenz(a,h)anthracene	mg/kg	100	NA	ND	NA	NA	NA
benzo(ghi)perylene	mg/kg	-	NA	ND	NA	NA	NA
Total TICs	mg/kg	-	NA	748 J	NA	NA	NA
METALS							
Lead	mg/kg	400	NA	174	NA	NA	NA
PCB's							
TOTAL PCB's	mg/kg	50	NA	0.041 J	NA	NA	NA
TPH (418.1)	mg/kg	10,000	7,870	22,000	6,760	5,720	NA

mg/kg = concentrations in milligrams per kilogram.

J = compound is detected at concentration indicated but concentration is estimated.

B = compound was also detected in the blank.

* - New Jersey Department of Environmental Protection Impact to Groundwater Soil Cleanup Criteria.

NA = Not Analyzed.

ND = Not Detected.



Resource Control Corporation

Environmental Professionals
P.O. Box 579 · Rancocas, NJ 08073-0579

609 261-3388
Fax 609 261-0944

March 13, 1998

New Jersey Department of Environmental Protection
Division of Water Quality
Bureau of Administration and Management
401 E. State St., 3rd Floor West Wing
CN-029
Trenton, NJ 08625-0029

**RE: NJPDES-TWA Application
SUNOCO - Newark Terminal
436 Doremus Avenue
Newark, Essex County, NJ**

Dear Sir or Madam:

Resource Control Corporation (RCC), on behalf of Sun Company, Inc. (Sun), has prepared the attached NJPDES TWA application as referenced. The project groundwater recovery, treatment, and discharge are part of an environmental cleanup being conducted pursuant to State laws and regulations, with oversight by NJDEP Case Manager Arnold Schiff.

The requested discharge flow rate is 12.5 gpm. The cleanup is to address petroleum hydrocarbons detected in groundwater at the site. This discharge is to the Passaic River. Treatment system influent water quality data is included in the application package. Groundwater treatment will be by activated carbon.

A NJPDES-DSW General B4B permit has been approved for this site (NJ0104256), and a copy of the permit authorization is attached. We request that the TWA application be reviewed for administrative and technical completeness, and that an approval be issued following receipt of the executed Form WQM-003. WQM-003 consent has been requested for consent A-1, and notifications have been sent to the Newark planning board and Newark Department of Development - Environmental Commission, all via certified mail-return receipt requested (receipts attached).

Your attention to this application is appreciated. If you have any questions, or require additional information, please feel free to call me at (609) 261-3388.

Sincerely,
RESOURCE CONTROL CORPORATION

Paul Rosenwinkel, P.E.
NJ PE #38784
NJ Certified Subsurface Evaluator #001456

Attachment

c. Arnold Schiff, NJDEP
Russell Hammond, Sun
Bryan Emilius, RCC

BAB000035

TIERRA-D-020754



Resource Control Corporation

Environmental Professionals
P.O. Box 579 · Rancocas, NJ 08073-0579

609 261-3388
Fax 609 261-0944

March 13, 1998

Mayor's Office
City of Newark
City Hall - Room 200
920 Broad Street
Newark, NJ 07102

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

**RE: Notification of Application and Request for Consent
NJPDES-TWA Application
SUNOCO - Newark Terminal
436 Doremus Ave., Newark, NJ**

Dear Sir,

Resource Control Corporation (RCC), on behalf of Sun Company, Inc. (Sun), respectfully requests that the attached form WQM-003 Section A-1 Consent by Governing Body (yellow post-its) be executed by the Mayor or other appropriate official of the City of Newark.

The consent is needed to complete the NJPDES-Treatment Works Approval application, which has been submitted to the NJDEP. The TWA application is to allow Sun to operate water treatment equipment required prior to discharging to the Passaic river.

Generally, the groundwater pumping, treatment, and discharge are being conducted as required by the State to achieve groundwater cleanup below the service station. All work is being conducted under the NJDEP supervision of Mr. Arnold Schiff. If you have any questions regarding this request, or any aspect of the work, please feel free to call me at (609) 261-3388.

Sincerely,
RESOURCE CONTROL CORPORATION

Paul Rosenwinkel, P.E.
Project Engineer

Attachments

- c. File #306
NJDEP-Bureau of Permit Management
Arnold Schiff, NJDEP
Russ Hammond, Sun
Bryan Emilius, RCC



Resource Control Corporation

Environmental Professionals
P.O. Box 579 • Rancocas, NJ 08073-0579

609 261-3388
Fax 609 261-0944

March 13, 1998

City of Newark
Department of Development - Environmental Commission
City Hall - Room 410
920 Broad Street
Newark, NJ 07102

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

**RE: Notification of Application
NJPDES-TWA
SUNOCO - Newark Terminal
436 Doremus Ave., Newark, NJ**

Dear Sir or Madam:

This letter serves as notification that Sun Company, Inc. (Sun) has submitted a NJPDES-Treatment Works Approval application to the NJDEP. The TWA application is to allow Sun to operate groundwater treatment equipment required prior to permitted discharge to the Passaic River. A copy of the NJPDES-TWA application is attached.

Generally, the groundwater pumping, treatment, and discharge are being conducted as required by the State to achieve groundwater cleanup below selected areas of the terminal. All work is being conducted under the NJDEP supervision of Mr. Arnold Schiff. If you have any questions regarding this request, or any aspect of the work, please feel free to call me at (609) 261-3388.

Sincerely,
RESOURCE CONTROL CORPORATION

Paul Rosenwinkel, P.E.
Project Engineer

Attachment

- c. NJDEP-Division of Water Quality-Bureau of Admin. & Mgt.
Arnold Schiff, NJDEP
Russ Hammond, Sun
Bryan Emilius, RCC



Resource Control Corporation

Environmental Professionals
P.O. Box 579 • Rancocas, NJ 08073-0579

609 261-3388
Fax 609 261-0944

March 13, 1998

City of Newark
ATTN: Central Planning
City Hall - Room 112
920 Broad Street
Newark, NJ 07102

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

**RE: Notification of Application
NJPDES-TWA Application
SUNOCO - Newark Terminal
436 Doremus Ave., Newark, NJ**

Dear Sir or Madam:

This letter serves as notification that Sun Company, Inc. (Sun) has submitted a NJPDES-Treatment Works Approval application to the NJDEP. The TWA application is to allow Sun to operate groundwater treatment equipment required prior to permitted discharge to the Passaic River. A copy of the NJPDES-TWA application is attached.

Generally, the groundwater pumping, treatment, and discharge are being conducted as required by the State to achieve groundwater cleanup below selected areas of the Terminal. All work is being conducted under the NJDEP supervision of Mr. Arnold Schiff. If you have any questions regarding this request, or any aspect of the work, please feel free to call me at (609) 261-3388.

Sincerely,
RESOURCE CONTROL CORPORATION

Paul Rosenwinkel, P.E.
Project Engineer

Attachment

- c. NJDEP-Division of Water Quality-Bureau of Admin. & Mgt.
Mr. Arnold Schiff, NJDEP
Russ Hammond, Sun
Bryan Emilius, RCC

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Water Quality

TREATMENT WORKS APPROVAL PERMIT APPLICATION

— Refer to Instructions on Page 4 and Provide All Applicable Information. Please Print or Type. —

1. APPLICANT/OWNER*

Name SUN COMPANY INC. Telephone (516) 239-2431
Permanent Legal Address 10 PENN CENTER, 1801 MARKET STREET
City or Town PHILADELPHIA State PA Zip Code 19103

* Applicant/Owner should be the eventual owner of the proposed Treatment Works.

2. LOCATION OF ACTIVITY

Name of Facility/Site SUNOCO NEWARK TERMINAL
Street Address/Location 436 DOREMUS AVENUE
Lot No. 15 Block No. 5070
City or Town NEWARK State NJ Zip Code 07105
Municipality NEWARK County ESSEX

3. NEW JERSEY LICENSED PROFESSIONAL ENGINEER

Name PAUL ROSENWINKEL N.J. License No. 38784
Name of Firm, if employee RESOURCE CONTROL CORPORATION
Mailing Address P.O. BOX 579
City or Town RANDOLPH State NJ Zip Code 08073-0579
Telephone (609) 261-3388 Telefax (609) 261-0944

4. ESTIMATED CONSTRUCTION COST AND APPLICATION FEE

- A. Cost of treatment works proposed in this application \$ 44,343.60
(attach a breakdown of the cost of all items related to the construction of the proposed treatment works)
- B. Application Fee \$ 450.00
(in accordance with N.J.A.C. 7:1C-1.5 et seq., made payable to Treasurer, State of NJ, Environmental Services Fund)

Proposal 306-03
Remediation System Installation

Cost Estimate Spreadsheet

Newark Terminal, Duns #0000-9233
Doremus Avenue, Newark, NJ

Description	Source	Quantity	Units	Rate	Multiplier	Subtotal	Total
TASK 01 PERMITTING							
<u>UNIT COST</u>							
Permitting - Hourly Rate	RCC	32	RS-A	55.00	1	1,760.00	
Includes Air permits, Treatment Works Authorization and Building Permits							
<u>T & M</u>							
Subcontractor & Materials							
Air Permit Fee	NJDEP	1	each	1,350.00	1.05	1,417.50	
TWA Review Fee	NJDEP	1	each	500.00	1.05	525.00	
Construction Permit Fee	Newark	1	each	500.00	1.05	525.00	
Subtotal, Task 01, Permitting							4,227.50
TASK 02 DRILLING							
<u>T&M</u>							
2 - Recovery Wells							
RCC Labor							
Project Geologist 1	RCC	12	hour	55.00	1	660.00	
RCC Rental & Materials							
Photoionization Detector (PID)	RCC	1	day	125.00	1	125.00	
Liquid Level Interface Probe	RCC	1	day	40.00	1	40.00	
Plastic Sheeting	RCC	1	each	75.00	1	75.00	
Vehicle Charge	RCC	1	day	80.00	1	80.00	
Well Materials	RCC	2	well	200.00	1	400.00	
Subcontractor & Materials							
Well Permits	NJDEP	2	well	75.00	1.05	157.50	
Driller - mob/demob	Summit	1	job	300.00	1.05	315.00	
Driller - material	Summit	2	job	216.00	1.05	453.60	
Driller - daily rate	Summit	1	day	1,500.00	1.05	1,575.00	
Subtotal, Task 02, Drilling							3,881.10
TASK 03 INSTALLATION							
<u>UNIT COST</u>							
Trenching, 100 lf.	RCC	1	RS-3A	4,475.00	1	4,475.00	
Trenching, Inf. Piping (price per ft. - labor)	RCC	50	RS-4	7.50	1	375.00	
Trenching, Eff. Piping (price per ft. - labor)	RCC	50	RS-5	3.00	1	150.00	
<u>T & M</u>							
RCC Labor							
Construction installation	RCC (ET2)	80	hour	48.00	1	3,840.00	
Construction installation	RCC (ET2)	80	hour	48.00	1	3,840.00	
RCC Rental & Equipment							
Vehicle Charge	RCC	8	day	80.00	1	640.00	
Hand Tools	RCC	8	day	15.00	1	120.00	
Subcontractor and Materials							
electrical service and facility	contr.	1	job	10,000.00	1.05	10,500.00	
electric utility connection	PSE+G	1	job	500.00	1.05	525.00	
pipe, fittings, materials	Stevns.	1	job	6,000.00	1.05	6,300.00	
replace activated carbon	Envirotrol	1	job	1,500.00	1.05	1,575.00	
replace air powered diaphragm pump	Yamada	1	each	700.00	1.05	735.00	
Subtotal, Task 03, Installation							33,075.00
TASK 04 PROJECT MANAGEMENT AND REGULATORY INTERACTION DURING INSTALLATION							
<u>T&M</u>							
RCC Labor							
Project Manager	RCC	32	hour	75.00	1	2,400.00	
Project Director	RCC	8	hour	95.00	1	760.00	
Subtotal, Task 04, Project Management							3,160.00
PROJECT TOTAL							44,343.60

5. OTHER REQUIRED PERMITS

If any of the following applications have been submitted for this project, provide the applicable information.

Permit Type	Application Status		Application Date (or Application No.)
	Pending (check one)	Approved*	
• Treatment Works Approval	_____	_____	_____
• Exemption From Sewer Ban	_____	_____	_____
• Water Quality Management Plan Amendment	_____	_____	_____
• CAFRA	_____	_____	_____
• Stream Encroachment	_____	_____	_____
• Freshwater Wetlands	_____	_____	_____
• Tidal or Coastal Wetlands	_____	_____	_____
• Waterfront Development	_____	_____	_____
• NJPDES (DSW) DGW or SIU)	_____	X	NJ0104256
• Pinelands Certificate	_____	_____	_____
• Delaware & Raritan Canal Commission	_____	_____	_____
• Hackensack/Meadowlands Commission	_____	_____	_____
• Other Related Approvals	_____	_____	_____

(* - If any of the above applications were approved, please provide a copy of the approval with this application)

6. PROJECT DESCRIPTION (Brief Description of Proposed Treatment Works and Intended Use)

THE TREATMENT WORKS WILL BE INSTALLED AS
A GROUNDWATER REMEDIATION SYSTEM TO RECOVER
AND TREAT SEPARATE PHASE HYDROCARBONS (SPH) AND
GROUNDWATER FROM SELECTED ON-SITE AREAS, PRIOR TO
PERMITTED DISCHARGE TO THE PASSAIC RIVER.

7. APPLICANT'S AGENT (Optional)

I, RUSSELL HAMMOND
 (Applicant/Owner's Name)

authorize to act as my agent/representative in all matters pertaining to my application the following person:

Name PAUL ROSENWINKEL Position ENGINEER
 Address P.O. Box 579 City RANCOGAS
 State NJ Zip Code 08073 Telephone (609) 261-3388

Signature of Agent

Date

Signature of Applicant/Owner

Date

8. PROPERTY OWNER'S CERTIFICATION

I hereby certify that I, RUSSELL HAMMOND
 (Property Owner's Name)

own the property identified in this application. As owner, I grant permission for the activity to be permitted under this application and authorize the Department of Environmental Protection to conduct on-site inspections, if necessary. If the construction activity will take place in an easement, I certify that with this application, I presently have or will obtain permission of the property owner(s) prior to initiation of construction of this proposed treatment works.

Signature of Owner

Date

Print or Type: Name and Position

9. STATEMENT OF PREPARER OF PLANS, SPECIFICATIONS AND ENGINEER'S REPORT AND/OR ABSTRACT

I hereby certify that the engineering plans, specifications, and engineer's report and/or abstract applicable to this project comply with the current rules and regulations of the Department of Environmental Protection with the exceptions as noted.

Signature of Engineer

Date

PAUL ROSENWINKEL, P.E.
SENIOR ENGINEER
 Print or Type: Name and Position

PAUL ROSENWINKEL
 PROFESSIONAL ENGINEER'S
 EMBOSSED SEAL

10. PROPER CONSTRUCTION AND OPERATION CLAUSE

I, the Applicant/Owner, RUSSELL HAMMOND, agree that the treatment works will be properly constructed and operated in accordance with the engineering plans, specifications and conditions under which approval is granted by the Department of Environmental Protection.

Signature of Applicant/Owner

Date

RUSSELL HAMMOND
ENVIRONMENTAL ENGINEER
Print or Type: Name and Position

11. CERTIFICATION BY APPLICANT/OWNER

I certify, under penalty of law, that the information provided in this application and the attachments is true, accurate, and complete. I am aware that there are significant civil and criminal penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment.

Signature of Applicant/Owner

Date

RUSSELL HAMMOND
ENVIRONMENTAL ENGINEER
Print or Type: Name and Position

INSTRUCTIONS FOR COMPLETING FORM TWA - 1

This form should accompany all Treatment Works Approval permit applications.

1. **General Information** - (items #1 through #4, #6) Complete the requested applicant and project information.
2. **Other Required Permits** (item # 5) - Please list all permits issued for the subject project (in addition to the permits being applied for at this time).
3. **Signatures** (items #7 through #11) - All signatures must comply with N.J.A.C. 7:14A-2.4 and N.J.A.C. 7:14A-22.8. Where indicated under items #1, #10 and #11, the applicant/owner should be the eventual owner of the proposed treatment works. Item #8 shall be completed by the owner of the property.

Should you need assistance in completing the application, please call the appropriate phone number listed below:

• Bureau of Administration and Management (609) 633-1208 Municipal Treatment Works, Industrial Treatment Works, Sewer Extension, Sewer Ban Exemption, Subsurface Disposal Systems	• Bureau of Non-Point Pollution Control (609) 282-0407 Alternate Design Septic Systems (design flow less than 2,000 GPD)
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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER QUALITY
CN-029, TRENTON, NEW JERSEY 08625

LICENSED OPERATOR GRADING SHEET

NJPDES PERMIT NO.: <u>NS 0104256</u>	FACILITY NAME: <u>SUNOCO NEWARK TERMINAL</u>
LOCATION OF FACILITY: <u>NEWARK, NJ</u>	

FACILITY CLASS	N1	N2	N3	N4	NS Special/ Limited(*)
RANGE OF POINTS	6 to 19	20 to 49	50 to 69	70 & greater	

POINTS ARE ASSIGNED TO EACH ITEM LISTED BELOW THAT APPLIES TO THE INDUSTRIAL TREATMENT SYSTEM	POINTS	
	RATING	ACTUAL
A. TOXICITY GROUP		
I	1	
II	5	
III	10	
IV	15	
V	20	20
VI	25	
B. RECEIVING WATER (DTW's)		
Surface Water-FW	5	
Surface Water-TW	3	3
Surface Water-CW	2	
Ground Water	5	
C. HYDRAULIC LOAD		
Less than 0.1 MGD	2	2
0.1 - 1.0 MGD	4	
1.0 - 10.0 MGD	6	
Greater than 10.0 MGD	10	
D. PRIMARY		
pH Adjustment	1	
Equalization	1	
Oil Separator	3	3
Dissolved Air Flotation	3	
Chemical Coagulation/Flocculation	5	
Sedimentation/Clarification	3	
Chemical Addition	2	
Filtration	5	5
Disinfection	2	
Air Stripping	5	
E. SECONDARY		
Activated Sludge	15	
Bio-Filtration	10	
Stabilization	5	
Disinfection	2	
Spray Irrigation	10	
Subtotal		33

POINTS ARE ASSIGNED TO EACH ITEM LISTED BELOW THAT APPLIES TO THE INDUSTRIAL TREATMENT SYSTEM	POINTS	
	RATING	ACTUAL
F. ADVANCED		
Ammonia Removal	10	
Nutrient Removal	10	
Filtration	5	
Carbon Adsorption	10	10
Ion Exchange	10	
Post Aeration	2	
Reverse Osmosis	10	
G. SLUDGE HANDLING/DISPOSAL		
Digestion	5	
Sludge Conditioning	2	
Mechanical Dewatering	4	
Drying Beds/Lagoons	2	
Thickening or DAF	3	
On-Site Landfill	2	
Composting	7	
Incineration	10	
Subtotal		10
Grand Total		43

I hereby certify that the treatment units, as noted above, comprise the entire treatment process for the above referenced facility, and subsequently the operator licensing requirement has been accurately determined.

PAUL ROSENWINKER
Typed Name of Certifying Engineer
Paul Rosenwinker 3/12/98
Signature and Date

3/12/98
Paul Rosenwinker
Professional Engineer's
Embossed Seal

(*) Facility class NS: N1 facility using only Gravity Oil Separation and/or Gravity Separation.

State of New Jersey
Department of Environmental Protection
Division of Water Quality
CN-029, Trenton, New Jersey 08625-0029

PROFESSIONAL ENGINEER'S CERTIFICATION FOR
GENERAL INDUSTRIAL TREATMENT WORKS APPROVAL (TWA) APPLICATIONS
FOR INDUSTRIAL WASTEWATER TREATMENT FACILITIES

Name of Project: SUNOCO NEWARK TERMINAL

Municipality: NEWARK

County: ESSEX

Description of Project: GROUNDWATER REMEDIATION

1. The proposed treatment works, as designed, will enable the facility to meet the applicable Federal, State and local effluent limitations, conditions and/or requirements.
2. The proposed treatment works or contributing facility will not dilute any portion of its waste stream for the purpose of meeting any applicable NJPDES effluent limitation or condition.
3. The permittee currently holds a valid final NJPDES permit, General Permit authorization, or for indirect dischargers, the applicant is specifically exempted by the Department to obtain such an approval.

In accordance with N.J.A.C. 7:14A-22.6(a)3, I hereby certify that the above statements are true and correct for the proposed treatment works identified above.

7/17/98
P. Rosenwinkel
Professional Engineer's
Embossed Seal

PAUL ROSENNINKEL NJ PE# 38784
Engineer Name and N.J.P.E. License No.

P. Rosenwinkel 3/11/98
Signature and Date

RESOURCE CONTROL CORPORATION / SENIOR ENGINEER
Name of Firm and Position



Resource Control Corporation

Environmental Professionals
P.O. Box 579 • Rancocas, NJ 08073-0579

609 261-3388
Fax 609 261-0944

**ENGINEER'S REPORT
for
SUBMITTAL WITH
NJPDES-TWA APPLICATION**

**Sunoco Newark Terminal
436 Doremus Avenue
Newark, Essex County, New Jersey**

RCC Job # 306-03

NJPDES/DSW #NJ0104256

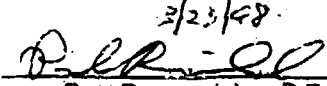
March 13, 1998

Prepared for:

**Mr. Russell Hammond
Retail Environmental Engineer
Sun Company, Inc.
70 East Ave.
Lawrence, New York 11559**

Prepared By:

**Resource Control Corporation
PO Box 579
Rancocas, NJ 08073-0579
Cert. #US00926**

3/23/98

Paul Rosenwinkel, P.E.
NJ PE #38784

NJ Certified Subsurface Evaluator #1456

Contents

1.0	Introduction.....	1
2.0	Groundwater Recovery Rate.....	1
3.0	Groundwater and SPH Conveyance from Wells.....	1
4.0	Influent Water Quality.....	1
5.0	Water Treatment and Effluent Water Quality	2
6.0	Waste Disposal	2
7.0	Project Permitting	2

Figures

Figure 1	Site Location Map
Figure 2	Site Plan - Remediation System Layout
Figure 3	Treatment Works Process and Instrumentation Diagram

Tables

Table 1	Process Water Quality and Permit Limitations
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Appendices

Appendix 1	Carbon Use Calculations
Appendix 2	NJPDES-DSW Permit Authorization



Engineer's Report

Sun Newark Terminal
436 Doremus Ave., Newark, NJ

March 13, 1998
Page 1 of 3

1.0 INTRODUCTION

This Engineer's Report has been prepared as required for submittal with a NJPDES TWA application for the SUNOCO Newark Terminal, 436 Doremus Ave., Newark, Essex Co., NJ. The report has been prepared by Resource Control Corporation (RCC), on behalf of Sun Company, Inc. (Sun).

This report describes the groundwater treatment system which is to be installed to recover and treat separate phase petroleum hydrocarbons (SPH) and groundwater from selected on-site areas, prior to permitted discharge to the Passaic River.

Groundwater recovery will occur from three (3) areas on site which will be remediated in sequence utilizing the NJPDES DSW permit and this TWA. These consist of:

- 1) Diesel area; This area consists of an approximately 54,000 sq. ft. area surrounding monitoring well MW-45. Diesel fuel is known to be present at this area.
- 2) Weathered Petroleum area; This area consists of an approximately 78,400 sq. ft. area surrounding monitoring well MW-24. Petroleum of unknown origin is present at this area, and consists of weathered, dark, viscous material.
- 3) Gasoline area; This area consists of approximately 181,400 sq. ft. area surrounding monitoring well MW-32. Kerosene is known to be present at this area.

A site location map showing the site and the proposed discharge location is provided as Figure 1. A site plan showing each impacted area and the location of the recovery wells and the treatment compound is provided as Figure 2. Figure 3 shows a treatment system process drawing.

2.0 GROUNDWATER RECOVERY RATE

Remediation pilot tests have been conducted at the site to establish groundwater recovery rates.

- 1) Diesel area - Based on direct results of a total phase extraction pilot test, the groundwater recovery rate from an individual well near this location will be 2.5 gpm. Based on a total 5 recovery wells operating simultaneously, the maximum total water flow rate through the treatment system will be 12.5 gpm.
- 2) Weathered Petroleum area - Based on direct results of a total phase extraction pilot test, the groundwater recovery rate from an individual well near this location will be 1.5 gpm. Based on a total 5 recovery wells operating simultaneously, the maximum total water flow rate through the treatment system will be 7.5 gpm.
- 3) Gasoline area - Based on extrapolation of results of pilot tests mentioned above, the groundwater recovery rate from an individual well near this location will be 2.5 gpm. Based on a total 5 recovery wells operating simultaneously, the maximum total water flow rate through the treatment system will be 12.5 gpm.

3.0 GROUNDWATER AND SPH CONVEYANCE FROM WELLS

Groundwater will be recovered by applying a high vacuum to each well, resulting in the entrainment of liquids (product and/or groundwater) with soil gas. The mixed fluids will be drawn through a gas liquid separator where liquids will be separated from gases, and will be pumped off to the water treatment system.



4.0 INFLUENT WATER QUALITY

Influent water quality is based on samples collected from wells located adjacent to MW-45, MW-24 and MW-32 during pumping or non-pumping conditions. This information, is provided in Table 1 and the Carbon Use calculation in Appendix 1. It is noted that petroleum hydrocarbons are present above surface water discharge limitations.

Petroleum hydrocarbons are the focus of the work, and will be removed via treatment prior to discharge.

5.0 WATER TREATMENT AND EFFLUENT WATER QUALITY

Groundwater treatment will be accomplished utilizing liquid phase granular activated carbon (LGAC). A calculation for estimated LGAC usage is provided in Appendix 1 of this report, and indicates a 36-day duration to breakthrough per canister. This estimate is based on LGAC canisters containing 400 pounds of LGAC with an adsorption rate of 10%. The maximum design water flow rate is 13 gpm, and VOC concentrations are from groundwater samples collected during a site investigation. This is a conservative carbon consumption rate in that it does not account for the concentration reductions through the inherent air stripping volatilization of total phase extraction.

A second LGAC canister will be installed to provide treatment between sampling events, and process water effluent sampling will be conducted each month, as required by permit.

Upon detection of VOCs in the process effluent water, LGAC canister change out will be conducted. This procedure will include removing the primary LGAC canister from service, moving the secondary LGAC canister to the primary position, and installing an unused LGAC canister in the secondary position. This will allow maximum utilization of all LGAC installed on site, while minimizing the possibility of undetected breakthrough of the secondary canister.

Process monitoring will be conducted at least once per 30-days, and this frequency will allow detection of breakthrough down stream of the primary LGAC canister before breakthrough of the secondary canister would be expected to occur.

6.0 WASTE DISPOSAL

Waste generated during water treatment includes spent LGAC. This material will be returned to the carbon vendor Envirotrol, Inc., 432 Green St., PO Box 61, Sewickley, PA 15143-0061, (412) 741-2030. Based on adsorption of petroleum compounds during environmental cleanup of a gasoline site, this material will be unclassified for transportation purposes. The spent carbon will be regenerated through high temperature thermal incineration at the Envirotrol facility, and a certificate of receipt and recycling will be produced.

7.0 PROJECT PERMITTING

Permits which are required for the project include:

Air Discharge Permit (issued by NJDEP-BNSR - Pending)



Engineer's Report

Sun Newark Terminal
436 Doremus Ave., Newark, NJ

March 13, 1998
Page 3 of 3

This permit is associated with the total phase extraction and associated vapor treatment on site. This system is designed to 1) remediate soils through volatilization and capture of VOCs through the total phase extraction system, and 2) remediate groundwater through groundwater recovery and treatment and VOC volatilization caused by the inherent air stripping action.

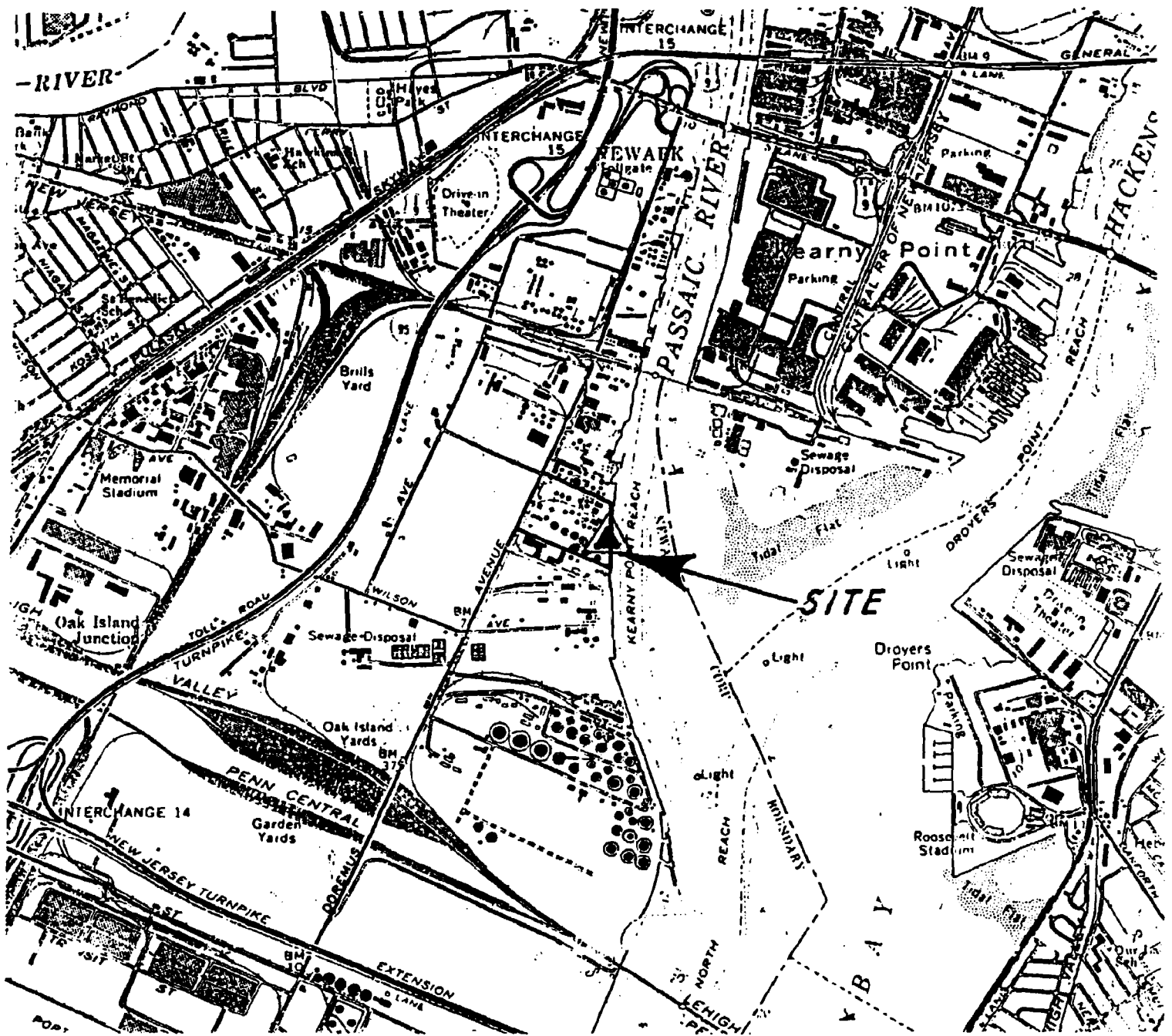
NJPDES-DSW General B4B permit (# NJ0104256)

This permit is required for ultimate discharge of treated groundwater to the Passaic River.



Figures





ELIZABETH QUADRANGLE JERSEY CITY QUADRANGLE
 NEW JERSEY-NEW YORK NEW JERSEY-NEW YORK
 7.5 MINUTE SERIES (TOPOGRAPHIC) 7.5 MINUTE SERIES (TOPOGRAPHIC)

LATITUDE 40° 40' 12"
 LONGITUDE 74° 7' 30"

 NJPDES DISCHARGE
 OUTFALL LOCATION

SCALE 1 : 24000

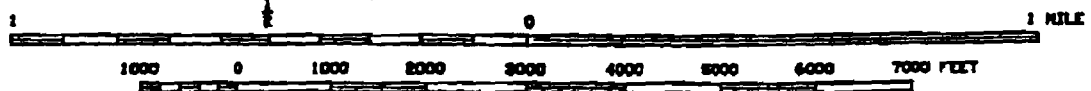


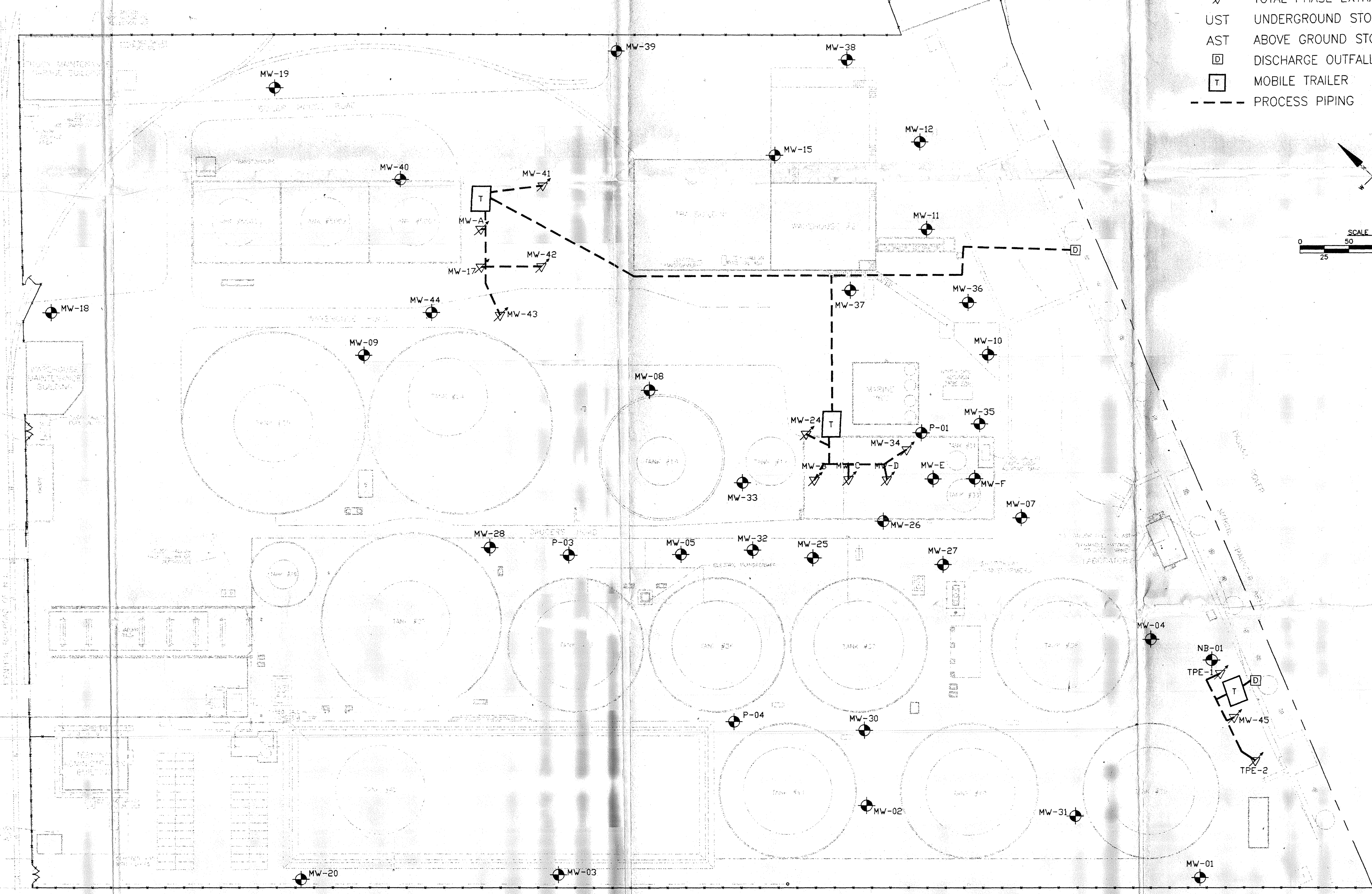
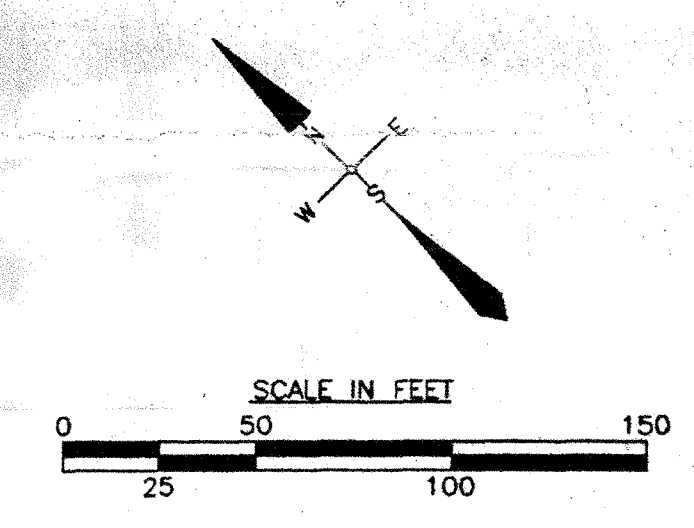
FIGURE 1
 LOCATION MAP



SUN REFINING & MARKETING CO.
 NEWARK TERMINAL
 NEWARK, N. J.

TIERRA-D-020771

- LEGEND**
- ⊕ MONITORING WELL
 - ⌵ TOTAL PHASE EXTRACTION WELL
 - UST UNDERGROUND STORAGE TANK
 - AST ABOVE GROUND STORAGE TANK
 - ⊠ DISCHARGE OUTFALL
 - T MOBILE TRAILER
 - PROCESS PIPING



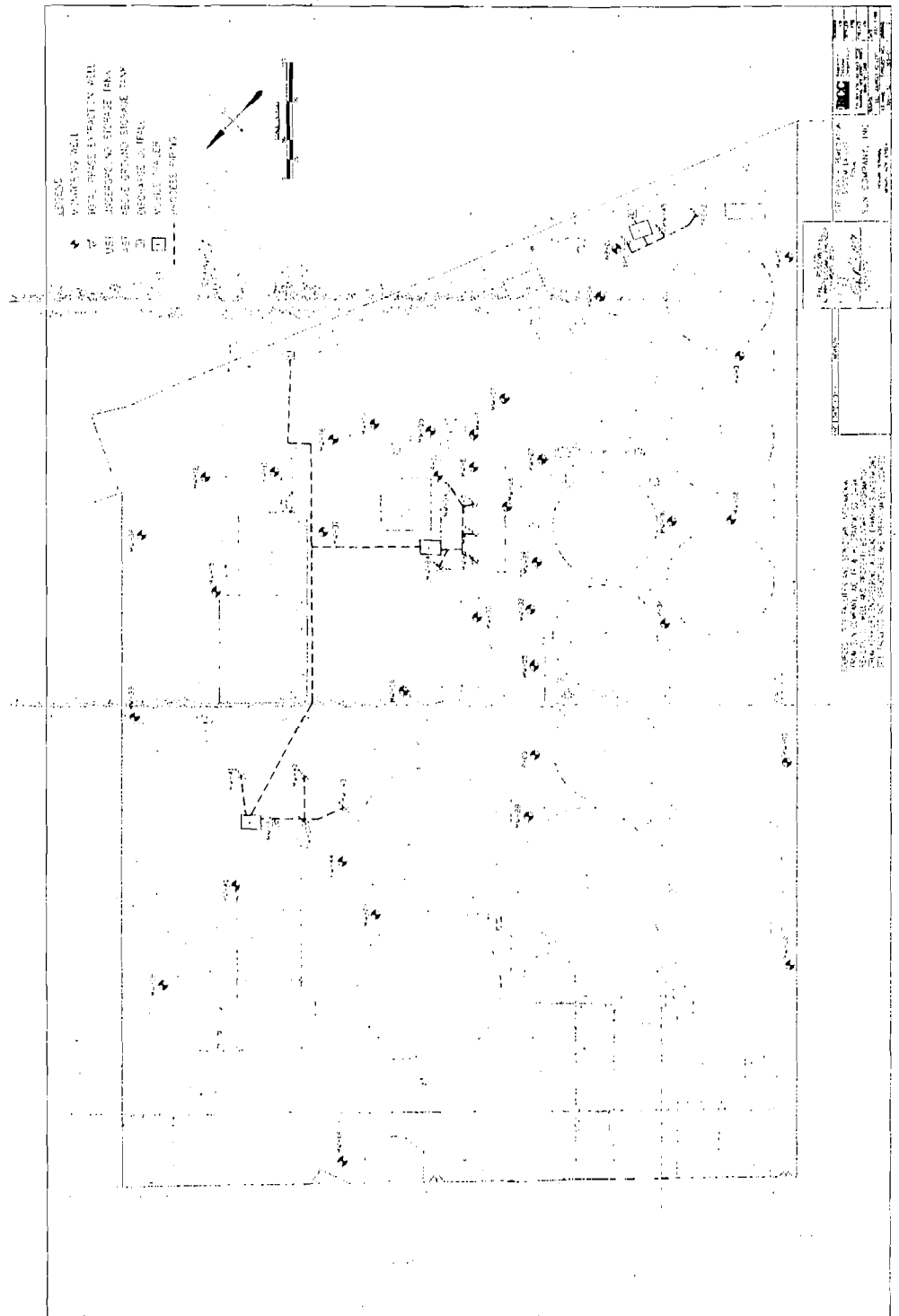
SOURCES: SITE FACILITIES AND STRUCTURE INFORMATION
FROM SUN COMPANY, INC. (R & M) DRAWING 69-3-94
REVISION 3. WELL AND PROPERTY BOUNDARY INFORMATION
FROM FERRIERO ENGINEERING AUTOCAD DRAWING SUNTERM.DWG.
SITE FACILITIES AND STRUCTURES ARE APPROXIMATELY LOCATED.

NO.	DATE	BY	REVISION

PAUL ROSENWINKEL
NJ PROFESSIONAL ENGINEER
NUMBER 08784

SITE PLAN - REMEDIATION
SYSTEM LAYOUT
FINAL
SUN COMPANY, INC.
NEWARK TERMINAL
NEWARK, NEW JERSEY

RCC Resource Control Corporation P.O. BOX 578, 103 WELLS STREET RANCOAS, NEW JERSEY 08073 (609) 281-3386	DESIGNED:	KW
	DETAILED:	KRE
	CHECKED:	KW
	DATE:	03/11/98
SOURCE:	SEE SOURCES TO LEFT	
FILE NAME:	PROJECT NO.:	DRAWING:
306-TPEL	306-01	2



Tables



TABLE 1
Process Water Quality and Permit Limitations

SUNOCO TERMINAL
436 DOREMUS AVENUE
NEWARK, NEW JERSEY

			Maximum Anticipated Influent	
PARAMETERS:		NJDEP		NJPDES
VOLATILES	UNITS	Groundwater Standard*		Effluent Standard
Benzene	ug/L	1	2000	50.0
Toluene	ug/L	1,000	2800	
Ethylbenzene	ug/L	700	390	
Xylenes (Total)	ug/L	1,000	9900	
MTBE	ug/L	70	2129	
TBA	ug/L	30	166	
SEMIVOLATILES				
Napthalene	ug/L	30	140	22.0
2- Methylnaphthalene	ug/L	None	860	
Phenanthrene	ug/L	None	540	
Pyrene	ug/L	200	180	
TPH	mg/L	10,000	690	10.0
METALS				
Copper	ug/L	1,000	110	
Lead	ug/L	10	53	37.0
TOC (NPOC)	mg/L	None	100	
TSS	mg/L	None	520	40.0

ug/L = concentrations in micrograms per liter

mg/L = concentrations in milligrams per liter

* - NJ Department of Environmental Protection Groundwater Quality Standard (N.J.A.C. 7:9-6)

APPENDIX 1

CARBON USE CALCULATIONS

Influent VOC concentrations

Parameter	Concentration (ug/l)
Benzene	580
Toluene	1500
Ethylbenzene	150
Xylenes (total)	1300
MTBE	2800
TBA	150
TICs	944 J
Total	7424

Design water flow rate = 12.5 gpm
Design LGAC capacity (single canister) = 400 lb
Design adsorption rate = 10%
LAGC canister = 400 lb_{LGAC} each
ppb mass basis = ug/l

VOC mass flow rate

$$\frac{12.5 \text{ gal}}{\text{min}} \times \frac{7424 \text{ lb}_{\text{VOC}}}{10^9 \text{ lb}_{\text{WATER}}} \times \frac{8.341 \text{ lb}}{\text{gal}} \times \frac{1440 \text{ min}}{\text{day}}$$

$$= 1.11 \text{ lb}_{\text{VOC}}/\text{day}$$

Carbon usage

$$\frac{1.11 \text{ lb}_{\text{VOC}}}{\text{day}} \times \frac{10 \text{ lb}_{\text{LGAC}}}{\text{lb}_{\text{VOC}}}$$

$$= 11.1 \text{ lb}_{\text{LGAC}}/\text{day}$$

Canister use duration

$$\frac{400 \text{ lb}_{\text{LGAC}}}{11.1 \text{ lb}_{\text{LGAC}}} \times \frac{\text{day}}{\text{day}}$$

$$= 36 \text{ days}$$

Therefore, one 400 lb LGAC canister will last 36 days.





New Jersey Pollutant Discharge Elimination System

The New Jersey Department of Environmental Protection hereby restricts and controls the discharge of pollutants to waters of the State from the subject facility/activity in accordance with applicable laws and regulations. The permittee is responsible for complying with all terms and conditions of this authorization and agrees to said terms and conditions as a requirement for the construction, installation, modification or operation of any facility for the collection, treatment or discharge of any pollutant to waters of the State.

PERMIT NUMBER NJ0104256

Permittee

SUNOCO COMPANY INC
10 PENN CENTER
1801 MARKET STREET
PHILADELPHIA PA 19103

Co-Permittee

Property Owner

SUN COMPANY INC
1801 MARKET STREET
PHILADELPHIA PA 19102-2290

Location of Activity

SUNOCO NEWARK TERMINAL
436 DOREMUS AVENUE
NEWARK NJ 07102

CURRENT AUTHORIZATION

Covered By This Approval
And Previous Authorization

Issuance
Date

Effective
Date

Expiration
Date

B4B:GENERAL PERMIT GW PETRO PROD 05/25/1994 06/01/1994 11/30/1998

Modification of Category B4B 09/22/1997 10/01/1997 11/30/1998

By Authority of:

COMMISSIONER'S OFFICE

DEP AUTHORIZATION

DEBRA HAMMOND, BUREAU CHIEF

(Terms, conditions and provisions attached hereto) PERMITTING REGION 2

DIVISION OF WATER QUALITY

State of New Jersey Department of Environmental Protection/Division of Water Resources

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Water Quality

STATEMENTS OF CONSENT

A supplement to the TWA-1 or NJPDES-1 Forms

General Information

Applicant/Owner/Operator SUN COMPANY INC.
Location of Work Site NEWARK, NJ
Name of Project/Facility SUNOCO NEWARK TERMINAL
Type of permit application DSW
(DSW, DGW, TWA, SIU, etc.)
NJPDES Permit Number (if applicable) NJ 0104256

A-1 Consent By Governing Body**

(Consent by the municipality in which the project is located.)

As an authorized representative of the governing body, I hereby certify that the

(Name of Municipality or Municipal Authority)

consents to the submission of the above listed application to the Department of Environmental Protection for approval. I further certify that the project as proposed conforms with the requirements of all municipal ordinances.

Signed* _____ Date _____

Print or Type Name and Position _____

* Cite authorization to sign for the governing body

Resolution# _____ Dated _____
(Submit the resolution with the application. If no such resolution granting authority to sign exists, the Governing Body's full resolution, consenting to the project, must be submitted with the application.)

** Note

1. Complete this section for all NJPDES applications.
2. For most Treatment Works Approval (TWA) applications, this section may be omitted if a sewerage entity (for example, sewerage authority, utilities authority, municipal utilities authority, joint meeting, etc.) has responsibility for regulating the construction and operation of wastewater treatment and conveyance facilities within the municipality. In such cases, the governing body consent requirement may be satisfied by completing Section A-2. TWAs for industrial/commercial facilities discharging pursuant to NJPDES/DSW or DGW permits must complete section A-1.

A-2 Consent by Sewerage Authority**

As an authorized representative of this agency, I hereby certify that the

(Name of Agency)

consents to the submission of the above listed application to the Department of Environmental Protection for approval. I further certify that the project as proposed conforms with the requirements of this agency.

Signed* _____ Date _____

Print or Type Name and Position _____

* Cite authorization to sign for the agency

Resolution# _____ Dated _____
(Submit the resolution with the application. If no such resolution granting authority to sign exists, the Governing Body's resolution, consenting to the project, must be submitted with the application.)

**** Note**

For TWA and NJPDES applications, this section must be completed when a sewerage entity (for example, sewerage authority, utilities authority, municipal utilities authority, joint meeting, etc.) has responsibility for regulating the construction and operation of wastewater treatment and conveyance facilities within the municipality.

A-3 Consent by Owner of Wastewater Treatment Facility**

(For NJPDES/SIU applications only)

As an authorized representative of this agency, I hereby certify that the

(Name of Agency)

consents to the submission of the above listed application to the Department of Environmental Protection for approval. I further certify that the project as proposed conforms with the requirements of this agency and the agency agrees to accept wastewater from the project for treatment.

Signed* _____ Date _____

Print or Type Name and Position _____

* Cite authorization to sign for the agency

Resolution# _____ Dated _____
(Submit the resolution with the application. If no such resolution granting authority to sign exists, the Agency's full resolution, consenting to the project, must be submitted with the application.)

**** Note**

For NJPDES/SIU applications, this section must be completed when the owner of the receiving wastewater treatment plant is different than the entity listed under A-2.

B. Certification by Wastewater Conveyance System Owner**

I (we) hereby certify that to the best of my (our) knowledge the wastewater conveyance system, into which the project proposed under this application will connect, has adequate capacity in accordance with N.J.A.C. 7:14A-1.9 ("Adequate conveyance capacity"). Furthermore, I (we) am (are) not aware of inadequate conveyance capacity conditions in any portion of the downstream facilities necessary to convey the wastewater from this project to the treatment plant.

Name of Municipality or Authority _____

Signed* _____ Date _____

Print or Type Name and Position _____

* Cite authorization to sign for the governing body

Resolution# _____ Dated _____

(Submit the resolution with the application. If no such resolution granting authority to sign exists, the governing body's full resolution, consenting to the project, must be submitted with the application.)

** Note

For TWA applications, this section must be completed by the owner/operator of the wastewater conveyance system into which the project named herein will directly connect.

C. Certification by Wastewater Treatment Facility Owner**

(For TWA applications that include a sewer connection/extension.)

I (we) hereby certify that the committed flow*** to the

(Name of Wastewater Treatment Plant)

does not exceed the presently permitted design capacity and with the additional flow proposed by this application, the permitted design capacity is not anticipated to be exceeded. I (we) further certify that the treatment plant is currently complying with its conventional and non-conventional NJPDES permit requirements (see N.J.A.C. 7:14A-22.17(b)-(d), percent removal and toxicity requirements excluded from this certification) as determined by a rolling average of the three most recent monthly discharge monitoring reports that were required to be submitted to the Department as of this date, and based upon my (our) assessment of all information pertinent to this permit request, is anticipated to continue to do so with the additional flow from this project.

Accepted for Treatment by _____
(Name of Treating Authority)

Signed* _____ Date _____

Print or Type Name and Position _____

Name of project and/or location _____

* Cite authorization to sign for the governing body

Resolution# _____ Dated _____

(Submit the resolution with the application. If no such resolution granting authority to sign exists, the governing body's full resolution, consenting to the project, must be submitted with the application.)

** For TWA applications, this section must be completed by the owner of the wastewater treatment facility receiving the wastewater identified in this application.

*** For the purposes of this certification, committed flow means the sum of the 1) actual metered flow, 2) flow from DEP approved TWA applications (not yet operational), and 3) flow from locally approved projects that do not require DEP approval.

Additional Information (For TWA Applications)

1. Approvals, permits, service contracts, or other reservations of flow capacity issued or agreed to by participating municipality or sewerage agency do not constitute the required approval of the DEP.
2. For computation of actual flow at the receiving wastewater treatment plant, the average flow processed at the facility for the three (3) month period immediately preceding the submission of the application shall be used. Pursuant to the NJPDES regulations (N.J.A.C. 7:14A), no application shall be submitted to the DEP if the wastewater treatment facility is not meeting its discharge permit requirements.

Lack of Consent*

1. The affected sewerage authority or municipality must consent to the application or submit comments to the DEP within 60 days of the applicant's request for consent. Prior to the expiration of the 60-day period to respond to a request for a written statement of consent, the municipality or sewerage authority may request a 30-day time extension.
2. Any document issued by a sewerage authority or municipality which is a tentative, preliminary, or conditional approval shall not be considered a statement of consent.
3. When the affected sewerage authority or municipality does not consent to a project, it shall state all reasons for rejection or disapproval in a resolution and send a certified copy of the resolution to the DEP.
4. When the affected sewerage authority or municipality expressly denies a request for a written statement of consent for a project, the permit application may be determined by the DEP to be incomplete for processing; in the alternative, the DEP may review the reasons for denial. Any such reasons shall be considered by the DEP in determining whether to issue a draft permit in accordance with N.J.A.C. 7:14A-7.6, or a Treatment Works Approval or sewer connection approval in accordance with N.J.A.C. 7:14A-22.
5. When the affected sewerage authority or municipality does not issue a written statement of consent in accordance with (1) above, or a denial in accordance with (3) above, the DEP, upon receipt of proof that the applicant has delivered to the affected agency a written request for a statement of consent, shall review the reasons therefore, if known on the basis of reasonably reliable information. Any such reasons shall be considered by the DEP in determining whether to issue a draft permit in accordance with N.J.A.C. 7:14A-7.6, or a Treatment Works Approval in accordance with N.J.A.C. 7:14A-22. The DEP, may in its discretion, deem the application to be incomplete pending the expiration of the time period set forth in (1) above.

* This section has been excerpted from the NJPDES regulations for guidance purposes only. Please refer to N.J.A.C. 7:14A-2.1(k) for the complete requirements concerning statements of consent.

Notice: False statements, representations, or certifications, in any application, record, or document are subject to fines and penalties as set forth in the Water Pollution Control Act (N.J.S.A. 58:10A-10F 2 and 3.

07-14-340
JM



Resource Control Corporation

Environmental Professionals
P.O. Box 579 · Rancocas, NJ 08073-0579

609 261-3388
Fax 609 261-0944

January 27, 2000

Mr. Arnold Schiff, Case Manager
New Jersey Department of Environmental Protection (NJDEP)
Division of Responsible Party Site Remediation
Bureau of Underground Storage Tanks
401 East State Street
PO Box 433
Trenton, NJ 08625-0433



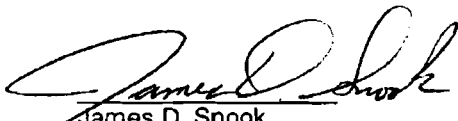
**Re: Sunoco Terminal, Duns #0000-9233
436 Doremus Avenue
Newark, New Jersey
Remedial Action Progress Report
NJDEP Case #92-12-30-SP04M**

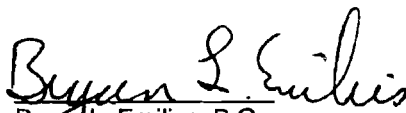
Dear Mr. Schiff,

Enclosed please find a copy of the Remedial Action Progress Report. A summary of site activities, a groundwater elevation contour map, and a remediation update and effectiveness evaluation are included in the report.

Should you have any questions or concerns regarding any aspect of this project please contact our office.

Sincerely,
RESOURCE CONTROL CORPORATION


James D. Snook
Project Hydrogeologist


Bryan L. Emilius, P.G.
Project Manager

**Cc: R. Hammond (Sunoco, Inc)
K. McCaney (Sunoco, Inc)
Project File (306-06)**

BAB000036

TIERRA-D-020782

REMEDIAL ACTION PROGRESS REPORT
January 27, 2000

SITE NAME:	Sunoco Terminal	SITE LOCATION:	436 Doremus Avenue Newark, New Jersey
DUNS #:	0000-9233	ENGINEER:	Russel Hammond
CASE MANAGER:	Arnold Schiff	CASE #:	92-12-30-SP04M

SITE HISTORY: The subject site is an active petroleum bulk storage and distribution terminal. Historical remedial investigation activities at the site have revealed petroleum impacts to soil and groundwater in excess of regulatory action levels. Due to the presence of separate phase hydrocarbons (SPH) on the water table and the proximity of the Passaic River to the site, active SPH recovery is being implemented at the site as an interim remedial measure.

The development of long-term remedial objectives at the site is pending release of the NJDEP's Large Petroleum Facility Guidance Document, such that appropriate, risk-based goals for the site can be established, considering the ongoing nature of site use.

RCC has prepared the following reports:

- Project Update and Conceptual Remedial Action Workplan (January 1997)
- Report of Findings, Total Phase Extraction Pilot Study and Proposed Remedial Actions (February 1998)
- Remedial Action Progress Report (September 1999)

GEOLOGY: The Remedial Investigation and Remedial Action Workplan (Handex of NJ, Inc., August 1994) provides geologic and hydrogeologic details of the site. The reported geology indicates that a soil horizon of varied permeability exists from grade and ranging in thickness from 0 to 15 feet. This material consists primarily of sand, cobbles, and fill. Beneath this layer exists a low permeability clay and silt layer extending typically from about 10 to 30 feet below grade. An approximately 10 ft thick sand and cobble layer is reported to lie from about 30 to 40 feet below grade, which is underlain by additional silt and clay, which is further underlain by bedrock. The top of bedrock is indicated at 47 feet below grade at the south property boundary, and sloping to 100 feet below grade at the north property boundary along the river embankment.

RECEPTORS: Based on the results presented in previous reports, soil adsorbed petroleum hydrocarbons (PHCs), dissolved phase PHCs, and separate phase hydrocarbons (SPH) have not migrated off-site. The Passaic River is immediately adjacent to the site and is considered the most important potential sensitive receptor. Results of the liquid level gauging conducted quarterly indicate no off-site migration of SPH and therefore indicate that the Passaic River has not been impacted as a result of the SPH present on site. Vapor migration to nearby structures, including utilities and buildings on adjacent properties is not expected.

SITE ACTIVITIES: Resource Control Corporation collected liquid levels at the above referenced facility on September 21, 1999 from monitoring wells MW-01 through MW-45, MW-B through MW-F, P-03, and P-04. Liquid levels were not obtained for MW-A, MW-03, MW-33, MW-34, MW-41, and MW-42. Liquid level gauging has been used to measure the depth to groundwater as well as delineate the SPH location and thickness.

Resource Control Corporation collected liquid levels at the above referenced facility on December 20, 1999 from monitoring wells MW-01 through MW-45, MW-A through MW-F, P-03, and P-04. Liquid levels



were not obtained for MW-03, MW-34, MW-36, MW-40 and MW-42. Liquid level gauging has been used to measure the depth to groundwater as well as delineate the SPH location and thickness.

A Site Location Map is attached as **Figure 1**. The total phase extraction (TPE) remediation system and trailer layout is depicted on the Site Plan, **Figure 2**.

Weekly site visits are conducted in order to complete routine Operation, Maintenance and Monitoring (OM&M) of the SPH recovery system.

Quarterly liquid level gauging is conducted in site monitoring wells, to monitor for presence of SPH and to determine groundwater elevation and flow direction.

GROUNDWATER MONITORING RESULTS: Groundwater elevations at the time of the September 21, 1999 gauging event ranged between 6.69 feet in P-03 to 1.95 feet in MW-45. The groundwater flow direction is generally to the southeast at an approximate gradient of 0.0064 ft/ft. A groundwater elevation contour map is presented in **Figure 3**. SPH was delineated around MW-43 and MW-24 at a maximum thickness of 0.260 feet. The SPH thickness and location is presented in **Figure 4**.

Groundwater elevations at the time of the December 20, 1999 gauging event ranged between 5.60 feet in MW-33 to 2.14 feet in MW-45. The groundwater flow direction is generally to the southeast at an approximate gradient of 0.006 ft/ft. A groundwater elevation contour map is presented in **Figure 5**. SPH was delineated around MW-43, MW-24 and MW-27 at a maximum thickness of 0.340 feet. The SPH thickness and location is presented in **Figure 6**.

REMEDIAL EFFECTIVENESS EVALUATION:

Remedial Objective

The objective of the active total phase extraction (TPE) remediation system is to mitigate and efficiently recover SPH from the subsurface.

Based on reduced product recovery rates during active TPE on MW-45, remediation was ceased in November 1999. Product has not recurred in the 2 months since cessation of TPE, so it has been proposed to move the remediation system from this area of the site to the large SPH plumes in the central area of the facility (in the vicinity of MW-24 and MW-27).

Sunoco's immediate remedial goal is the recovery of the SPH observed on the water table beneath the site. Removal of this SPH plume is considered by Sunoco to be the highest priority, due to the proximity of the plume to the surface water body adjacent to the site. Therefore, Sunoco's initial remedial efforts focus on this area. Complete delineation and remediation of PHCs at the site may prove infeasible based on site use and physical constraints, as the subject site is currently an active petroleum distribution terminal.

Remedial Process Description

The remediation system, in the vicinity of MW-24 and MW-27, is designed to extract groundwater and soil vapor from the subsurface, through eight (8) TPE wells (MW-24, MW-D, MW-E, MW-26, MW-27, MW-25, MW-32 and MW-05). The TPE wells located in the vicinity of monitoring well MW-24 and MW-27 are shown on **Figure 2**. At an applied operating vacuum of 122 in (9 inHg), a vapor flow rate of 25 scfm per extraction point can be obtained with an accompanying water table drawdown of approximately 4 feet. Moderate groundwater yield is anticipated per extraction point (1 to 1.5 gpm).

Groundwater SPH and soil vapor will be simultaneously extracted from the TPE wells, through drop tubes, utilizing a 30 HP rotary lobe blower capable of producing up to 300 scfm at 15 inHg vacuum. The combined fluid flow is routed to a gas/liquid separator located in the TPE trailer. Following separation, SPH is removed from groundwater in an oil/water separator. Groundwater is then treated through

granular activated carbon to remove recalcitrant compounds. Recovered SPH is stored in a 1,000 gallon above ground storage tank (AST) pending disposal. Extracted vapor will be routed to a biofilter to treat off-gas prior to granulated activated carbon polish.

Remedial Effectiveness Monitoring

Efficiency of the remediation system is routinely monitored by the project engineer, to ensure that the maximum system up-time is maintained.

The effectiveness of the remediation system at achieving the remedial goals, presented above, will be evaluated based on monitoring of the following:

1. Contaminant mass recovery rates, as determined through routine O&M PID readings of influent soil vapor;
2. Cumulative mass recovery, as determined through routine O&M PID readings of influent soil vapor;
3. Cumulative SPH recovery and evaluation of vacuum, pressure and drawdown radii of influence, due to TPE operation, based on routine site monitoring results.
4. Quarterly liquid level gauging for delineation of SPH plumes.

Groundwater/Product Recovery

Recovery System Start Date:	4/5/99
Estimated % Operation:	50% since 4/5/99 (due to blower failure)
Estimated Gallons Pumped Since 4/5/99:	71,216
Avg. Water Flow Rate (8/11/99 to 12/30/99):	0.04 gpm

Vapor Extraction/Treatment

Recovery System Start Date:	4/5/99
Estimated % Operation:	50% (due to blower failure)

8/11/99 to 12/30/99:

Avg. Applied Vacuum VX-3 (MW-45):	7.46 in. Hg
Avg. Applied Vacuum VX-4 (TPE-2):	7.63 in. Hg
Avg. Applied Vacuum VX-5 (TPE-1):	7.51 in. Hg
Avg. VOC Influent:	564 ppm

Currently, the TPE system is down pending liquid level monitoring results. TPE system maintenance and operational data is presented in **Table 1**. MW-45 is referred to as VX-3 in Table 1. The TPE well south of MW-45 (TPE-2) is referred to as VX-4 and the TPE well north of MW-45 (TPE-1) is referred to as VX-5.

SPH recovery rate due to TPE implementation in the vicinity of MW-45 was initially high. After two months of operation SPH recovery dropped off significantly, and as of August 1999 SPH recovery appeared to stop. On August 11, 1999 the TPE system ceased operation due to a seized blower motor bearing. The blower has been repaired and the system restarted.

Currently the system has been shut down due to very limited product recovery from the TPE points in the vicinity of MW-45. SPH has not recurred in MW-45, based on the results of liquid level gauging. As such, the system trailer will be moved to the location of wells MW-24 and MW-27, as discussed in this report.

Remedial Effectiveness Monitoring

Efficiency of the remediation system is routinely monitored by the project engineer, to ensure that the maximum system up-time is maintained.

The effectiveness of the remediation system at achieving the remedial goals, presented above, will be evaluated based on monitoring of the following:

1. Contaminant mass recovery rates, as determined through routine O&M PID readings of influent soil vapor;
2. Cumulative mass recovery, as determined through routine O&M PID readings of influent soil vapor;
3. Cumulative SPH recovery and evaluation of vacuum, pressure and drawdown radii of influence, due to TPE operation, based on routine site monitoring results.
4. Quarterly liquid level gauging for delineation of SPH plumes.

Groundwater/Product Recovery

Recovery System Start Date:	4/5/99
Estimated % Operation:	50% since 4/5/99 (due to blower failure)
Estimated Gallons Pumped Since 4/5/99:	71,216
Avg. Water Flow Rate (8/11/99 to 12/30/99):	0.04 gpm

Vapor Extraction/Treatment

Recovery System Start Date:	4/5/99
Estimated % Operation:	50% (due to blower failure)

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Avg. Applied Vacuum VX-3 (MW-45):	7.46 in. Hg
Avg. Applied Vacuum VX-4 (TPE-2):	7.63 in. Hg
Avg. Applied Vacuum VX-5 (TPE-1):	7.51 in. Hg
Avg. VOC Influent:	564 ppm

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SPH recovery rate due to TPE implementation in the vicinity of MW-45 was initially high. After two months of operation SPH recovery dropped off significantly, and as of August 1999 SPH recovery appeared to stop. On August 11, 1999 the TPE system ceased operation due to a seized blower motor bearing. The blower has been repaired and the system restarted.

Currently the system has been shut down due to very limited product recovery from the TPE points in the vicinity of MW-45. Liquid level gauging will continue until it is determined that either the system will be turned back on at its current location or moved to another location as discussed in this report.

Cessation of Operation

The main objective to be attained, in order to shut down the system and move it to the next area of concern, is to first recover SPH to the extent practical. As such, the following conditions should be met, prior to ceasing operation of the system at the MW-24 and MW-27 location and moving the TPE system to the next area of concern:

- Asymptotic rate of hydrocarbon mass recovery, during operation of the TPE system.
- No further recovery of SPH from the 8 TPE wells.
- Demonstrated mitigation of the separate phase hydrocarbon (SPH) in the area of concern near MW-24 and MW-27, based on three monthly gauging events conducted following cessation of TPE operation.

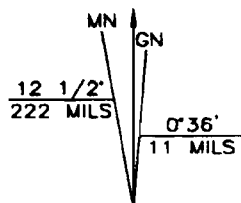
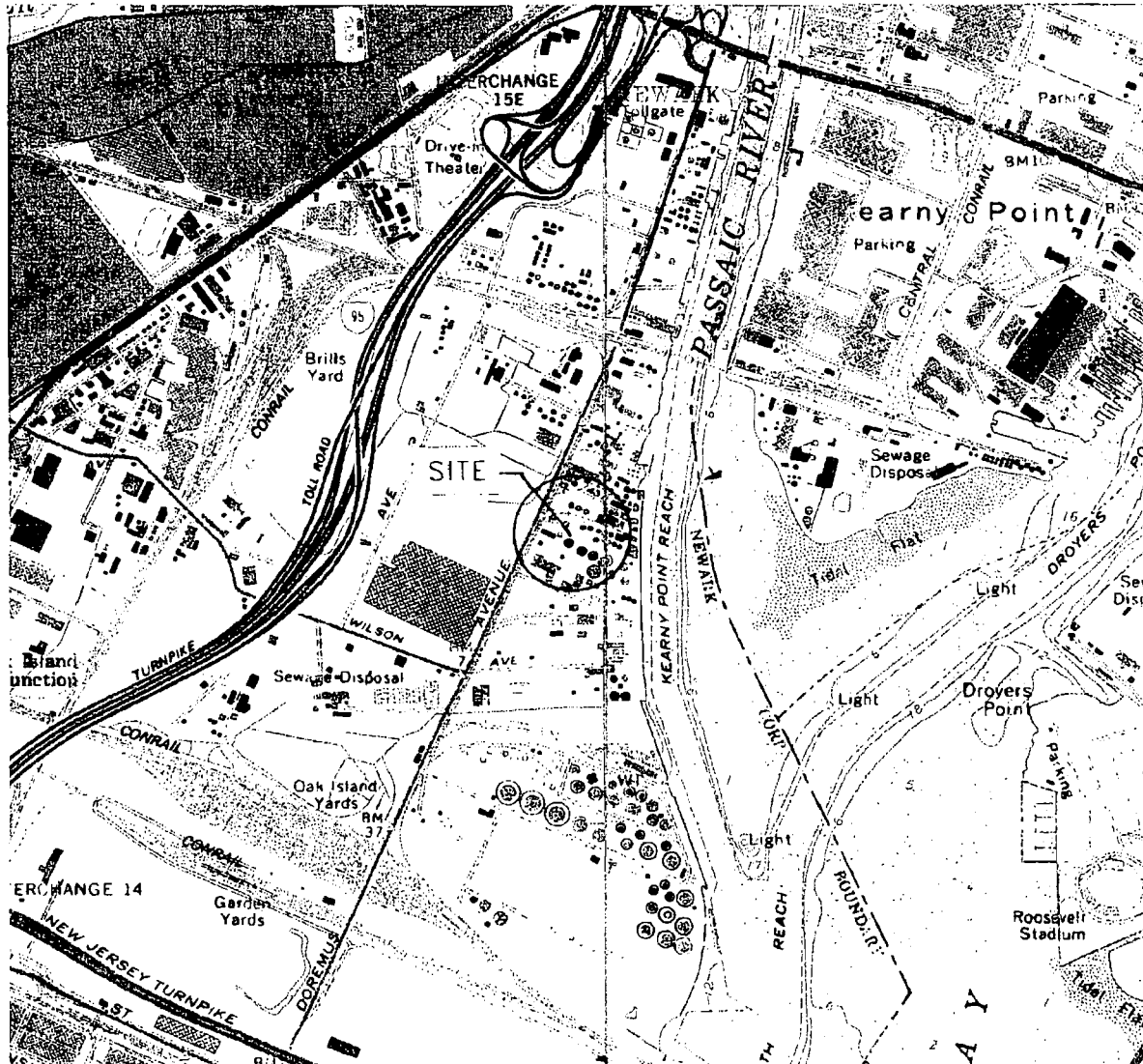
Operating Procedure

The TPE system will be operated through June 2000 and will then be shut-down in order to monitor groundwater in the vicinity of MW-24 and MW-27 for the recurrence of SPH. Should SPH return to any of the targeted TPE wells, then TPE will resume. If SPH does not return in this area by the end of August, then the TPE system will be scheduled for mobilization to the vicinity of MW-43 during the fourth quarter of 2000.

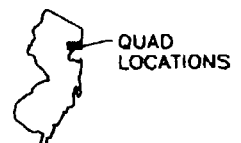
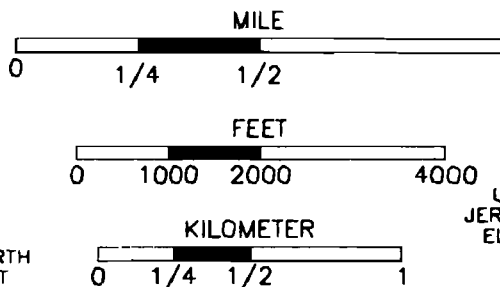
FIGURES

FIGURE 1 SITE LOCATION

SUN COMPANY, INC., NEWARK TERMINAL
DUNS #0000-9233
436 DOREMUS AVENUE
NEWARK, NEW JERSEY

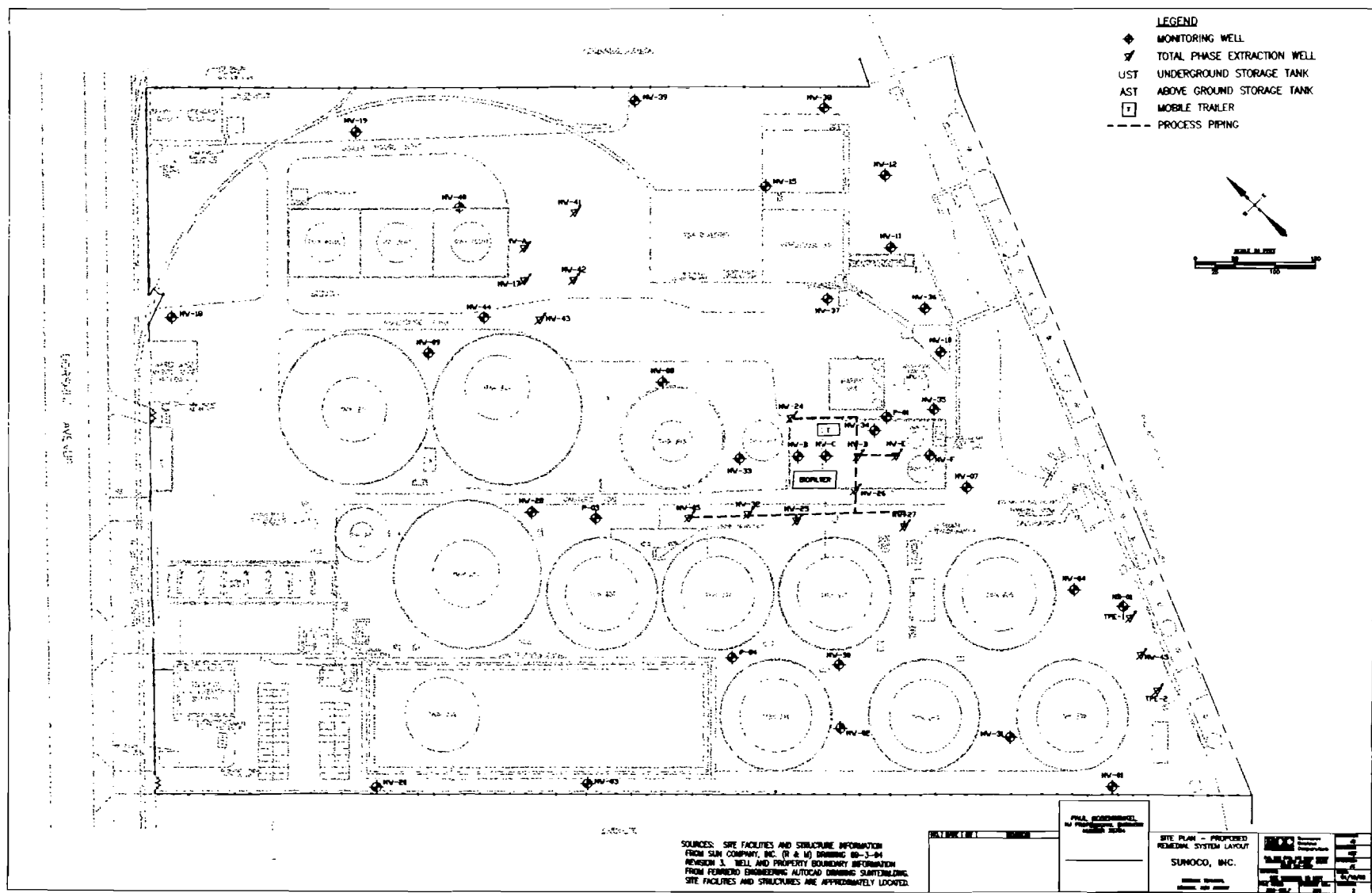


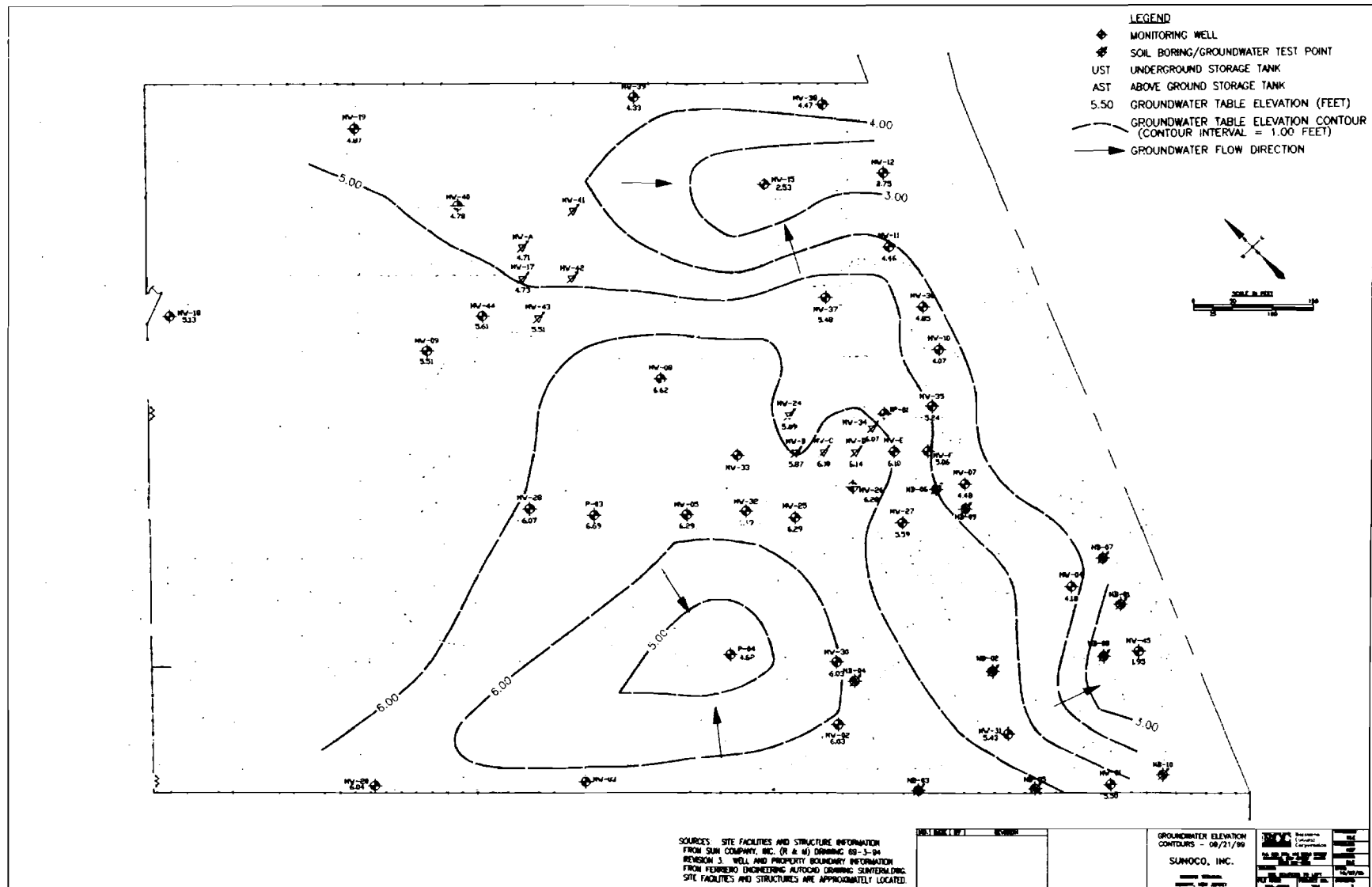
UTM GRID AND 1989 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

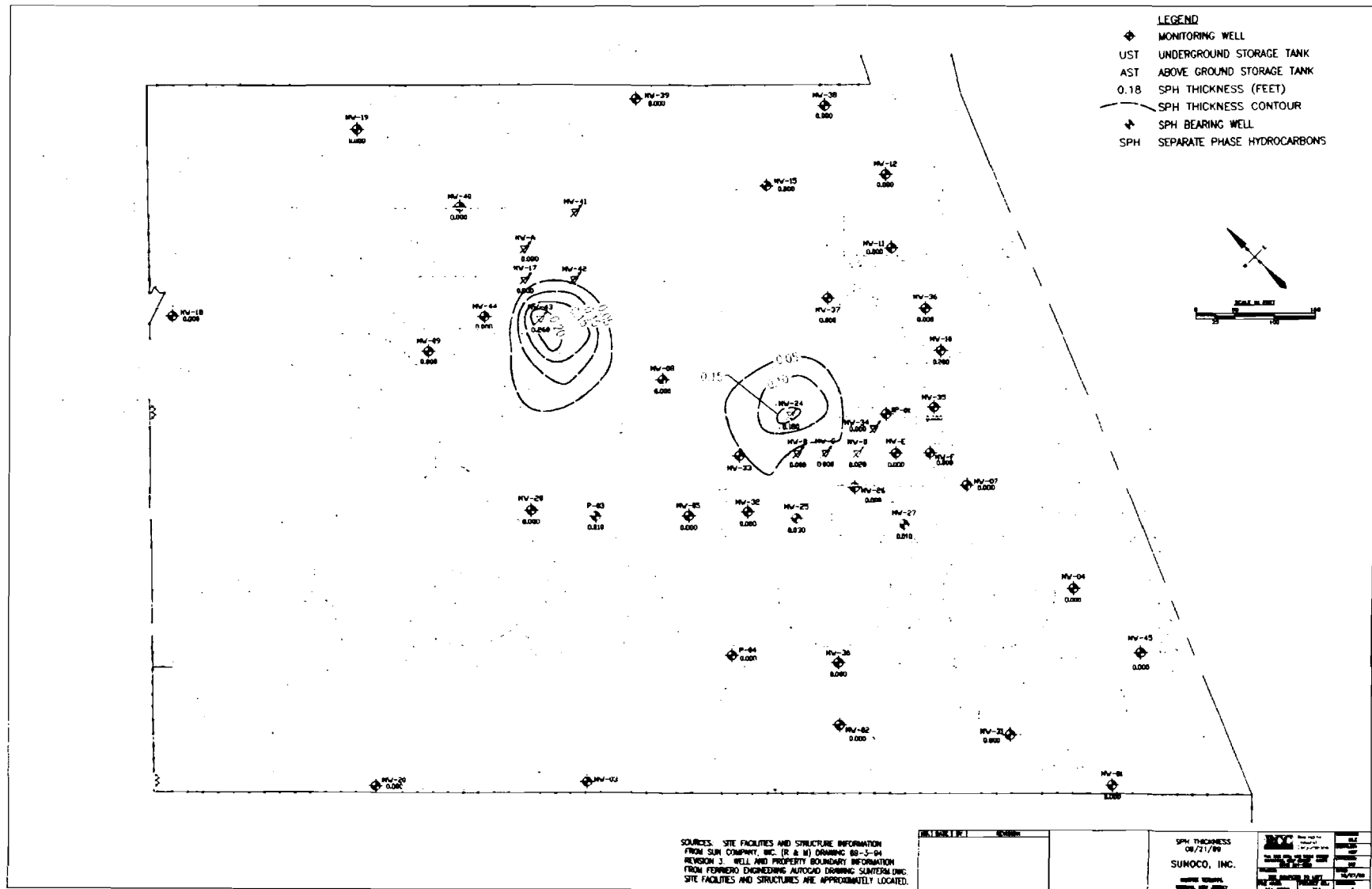


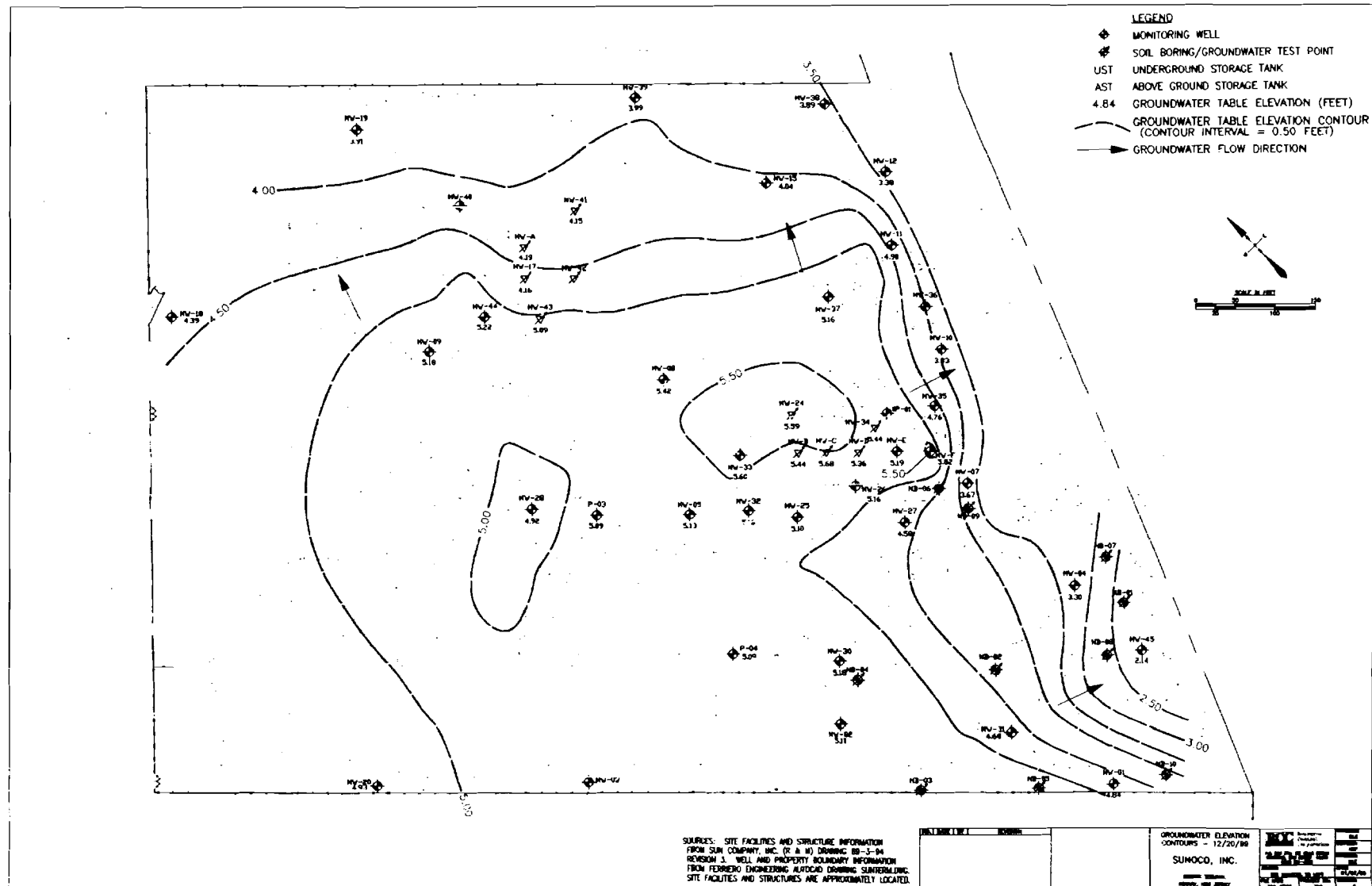
NEW JERSEY

SOURCE:
U.S.G.S. TOPOGRAPHIC QUADRANGLE
JERSEY CITY, N.J. - N.Y. QUADRANGLE
ELIZABETH, N.J. - N.Y. QUADRANGLE
7.5 MINUTE SERIES
BOTH 1981









TABLES


Site Company, Inc.
436 Dargatzis Avenue
Haworth, Essex County
NJ 07030-00

Notes
 1-2000 - Bureau Order about approval
 2000 - Bureau Order about approval

176
07-14-55
RECEIVED

DEC 18 2000

Christine Todd Whitman
Governor


State of New Jersey
Department of Environmental Protection
Division of Solid and Hazardous Waste
PO Box 414
Trenton, NJ 08625-0414
Tel. # 609-292-8341
Fax. # 609-633-9839

**Solid and Hazardous
Waste Enforcement**
Robert C. Shinn, Jr.
Commissioner

DEC 14 2000

Mr. James M. Scott, III
Drinker, Biddle & Shanley LLP
105 College Road East, Suite 300
P.O. Box 627
Princeton, NJ 08542-0627

RE: Sun Chemical Corporation, Reuse of Phosphoric Acid

Dear Mr. Scott:

This correspondence is in response to your letter of October 27, 2000 in which you asked several questions regarding the possibility of concentrating the 22% phosphoric acid by-product at Sun Chemical Corporation's (Sun) facility in Newark, New Jersey and sending the concentrated phosphoric acid to Rhodia Inc.'s (Rhodia) Tennessee facility for use as an ingredient in making new polyphosphoric acid (PPA) product.

You have stated that Sun intends to install a processing and storage unit that will concentrate the 22% phosphoric acid by-product to 75% and store the concentrated phosphoric acid (inside the production unit) until it is shipped for use as feedstock via the concentrator at Rhodia's Tennessee facility and inquired as to this unit's regulatory status. You have also stated that "the equipment and a storage tank for the concentrated 75% phosphoric acid would be installed "in line" with the existing 22% phosphoric acid tank. This additional equipment and tank will be operated continuously and in concert with overall plant operations."

Based upon this description, the Department would not consider the concentrating of the 22% phosphoric acid by-product by Sun as a regulated activity subject to solid or hazardous waste regulations. This is due to the fact that the Department has adopted the provisions of 40 CFR 261.4(c), which states: "A hazardous waste which is generated . . . in a manufacturing process unit . . . is not subject to regulation under parts 262 through 265, 268, 270, 271, and 124 of this chapter or to the notification requirements of section 3010 of RCRA until it exits the unit in which it was generated . . . unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing."

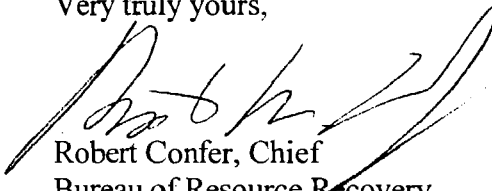
You have also inquired as to the regulatory status of the concentrated 75% phosphoric acid

after it exits the production unit at Sun's Newark facility. Based upon the information provided, the Department's opinion is that the concentrated phosphoric acid is exempt from regulation as a solid waste under the provisions of 40 CFR 261.1(c)(4) and 40 CFR 261.2(c)(3) because it is a by-product that is being reclaimed. Furthermore, the concentrated phosphoric acid would be exempt from solid (and hazardous) waste regulations pursuant to the provisions of 40 CFR 261.2(e)(i) provided that the Rhodia's Tennessee process uses it as an ingredient to make a product and provided it is not reclaimed at the Rhodia's Tennessee facility prior to its introduction into the PPA production process.

I also suggest that you may wish to contact the relevant Tennessee authorities to ascertain their viewpoint on Sun's proposed activities.

If you have any further questions or need further assistance, please feel free to contact Mr. Ralph Davis of my staff at (609) 292-8341.

Very truly yours,



Robert Confer, Chief
Bureau of Resource Recovery
and Technical Programs

RD/rd
HI00-489
C: Paul Mander
Robert Confer
Wolf Skacel
Anthony Fontana



File #

RESOURCE CONTROL CORPORATION

www.rcc-het.com

March 20, 2002

Mr. Arnold Schiff
New Jersey Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Field Operations – Metro Field Office
2 Babcock Place
West Orange, New Jersey 07052-5504

was more
work done at
this AOC

RE: **Release Investigation Letter**
Newark Terminal, Duns # 0000-9233
Newark, NJ

Dear Mr. Schiff,

On December 24, 2001 approximately 50 to 100 gallons of gasoline was released to the surface due to the failure of a product supply pump at the above referenced site (**Figure 1**). RCC, on behalf of Sunoco, Inc., was dispatched to the site to assist in the oversight of impacted soil removal and to perform the post excavation soil sampling.

RCC arrived at the site on December 27, 2001 to assist CleanVenture/CycleChem in the excavation of the gasoline impacted soils. The impacted area is located between tank #27 and tank #35. See the Site Plan **Figure 2** for location. CleanVenture/CycleChem removed the surficial two to four inches of impacted soil with the use of a vacuum truck. Prior to RCC arriving at the site, CleanVenture/CycleChem had removed several inches of surface water, produced by the prior nights rain, which had a thin layer of free product on the surface.

Once the top layer of soil had been removed, RCC collected three (3) soil samples (SS-1, SS-2 & SS-3) at a depth of 0.0 to 0.5 feet below grade. The locations of the soil samples are provided on **Figure 3**. The samples were submitted to Severn Trent Laboratories, Inc. and analyzed for VOC +10, MTBE and TBA by EPA Method 8260B.

The analytical results revealed concentrations of benzene, toluene, ethylbenzene, xylenes (total), MTBE and VOC TOCs (total) above NJDEP Impact to Groundwater Soil Cleanup Criteria (IGWSCC) in all three samples. The detailed analytical results are provided on **Table 1**. The full laboratory analytical data package and electronic data deliverables disc are attached.

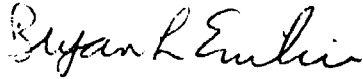
Due to the elevated VOCs detected in the post excavation samples, it appears that there may be deeper impacted soils.

Data collected to date indicates the separate phase product and surficial impact of the 12/24/01 release has been addressed. However, deeper impacted soil remains at the release location. RCC recommends further investigating of the deeper impacted soils.

March 20, 2002
Page 2 of 2

If you have any questions regarding the above information or any aspect of this project, please contact
RCC at (856) 273-1009.

Sincerely,
RESOURCE CONTROL CORPORATION



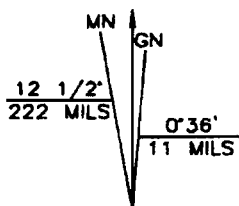
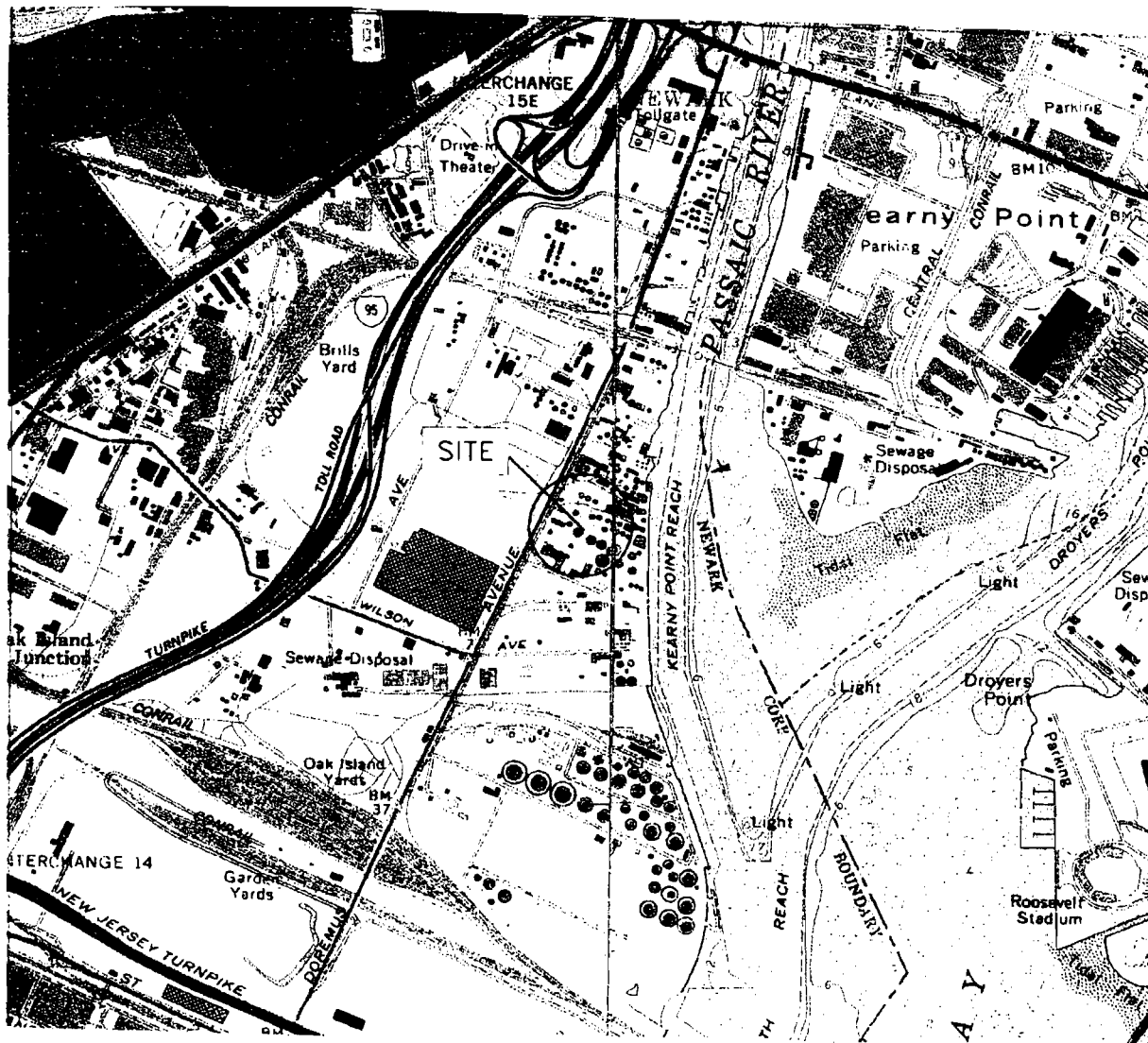
Bryan L. Emilius, P.G.
Project Manager

Cc: R. Hammond (Sunoco, Inc.)
Y. Monti (Sunoco, Inc.)
File (306)

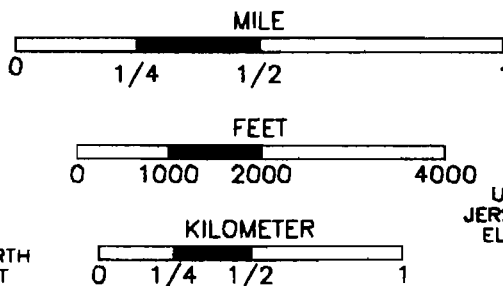


FIGURE 1 SITE LOCATION

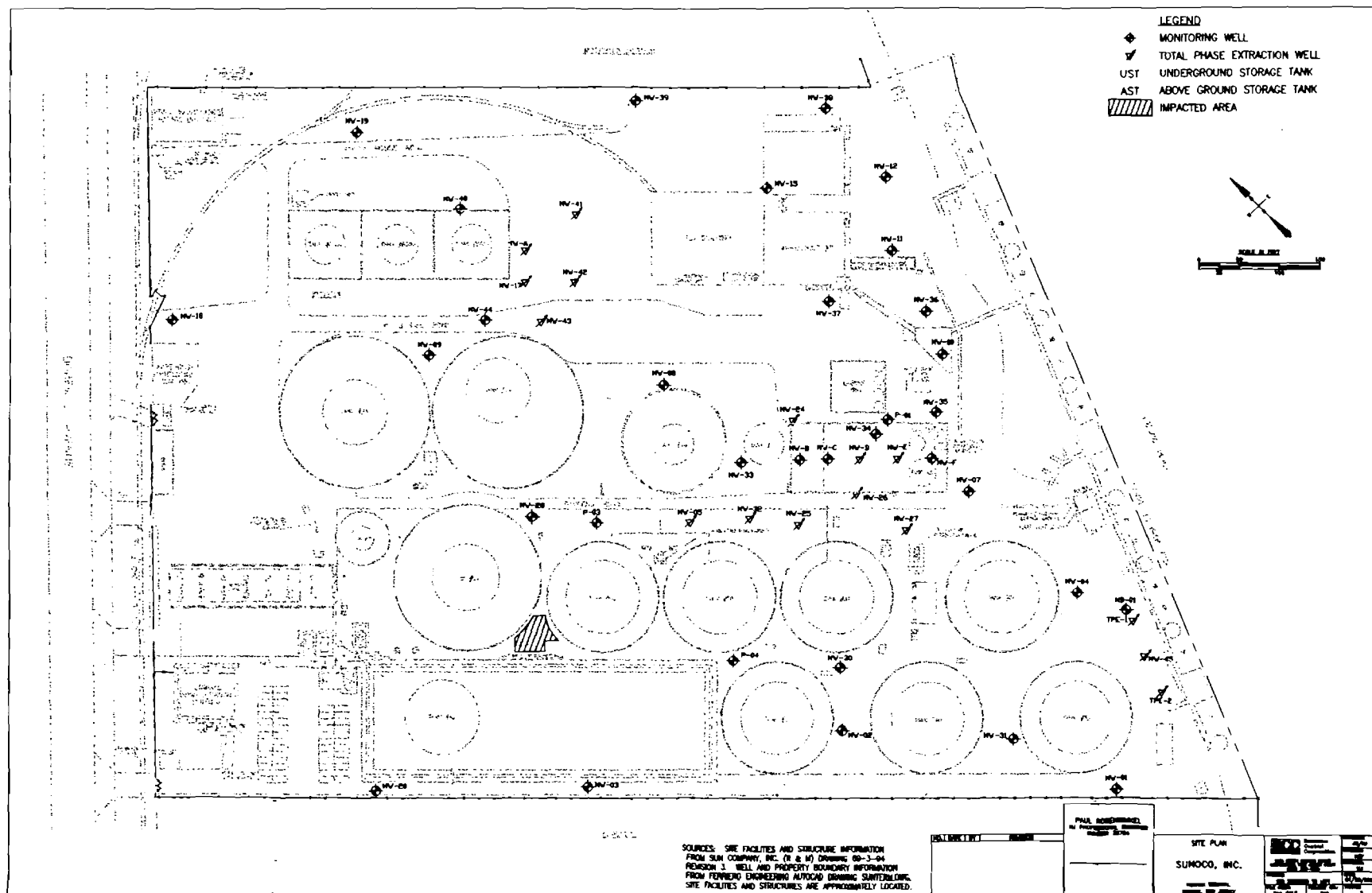
SUN COMPANY, INC., NEWARK TERMINAL
DUNS #0000-9233
436 DOREMUS AVENUE
NEWARK, NEW JERSEY

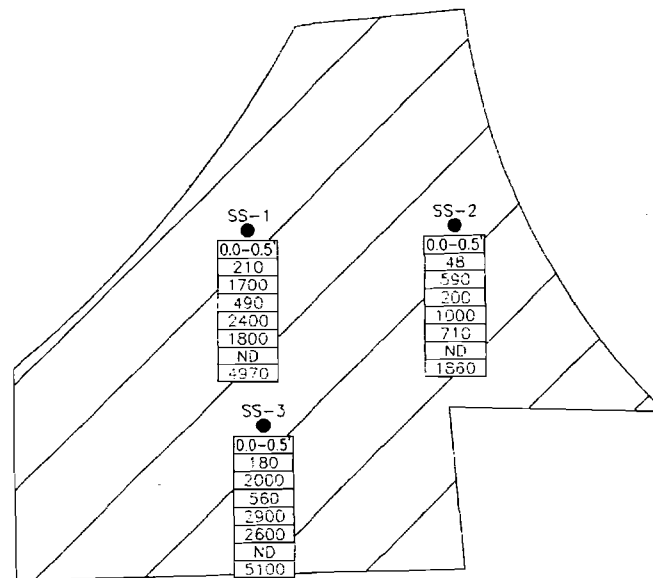


UTM GRID AND 1989 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

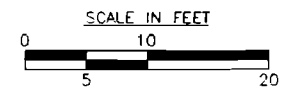
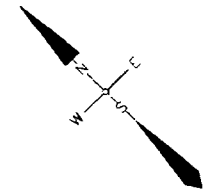


SOURCE:
U.S.G.S. TOPOGRAPHIC QUADRANGLE
JERSEY CITY, N.J. - N.Y. QUADRANGLE
ELIZABETH, N.J. - N.Y. QUADRANGLE
7.5 MINUTE SERIES
BOTH 1981





LEGEND	
●	SOIL SAMPLE
▨	IMPACTED AREA
---	SAMPLE DEPTH (FEET)
1	BENZENE (mg/kg)
500	TOLUENE (mg/kg)
100	ETHYLBENZENE (mg/kg)
67	TOTAL XYLENES (mg/kg)
3.1	MTBE (mg/kg)
---	TBA (mg/kg)
1000	TOTAL TICs (mg/kg)
MTBE	METHYL TERTIARY BUTYL ETHER
TBA	TERTIARY BUTYL ALCOHOL
TICs	TENTATIVELY IDENTIFIED COMPOUNDS
ND	NOT DETECTED
(mg/kg)	MILLIGRAMS PER KILOGRAM



SOIL SAMPLE LOCATIONS and
ANALYTICAL RESULTS - 12/27/2001

SUNOCO, INC.

NEWARK TERMINAL
NEWARK, NEW JERSEY



Resource
Control
Corporation

1274 NORTH CHURCH STREET
MOORESTOWN, NEW JERSEY 08057
(856) 273-1009

SOURCE: BASE MAP PROVIDED BY:
SEE SOURCES TO LEFT

FILE NAME: 306-IMP PROJECT NO.: 306

DESIGNED: KJ

DETAILED: KEF

CHECKED: KJ

DATE: 01/29/2002

FIGURE: 3

SOURCES: SITE FACILITIES AND STRUCTURE INFORMATION
FROM SUN COMPANY, INC. (R & M) DRAWING 69-3-94
REVISION 3, WELL AND PROPERTY BOUNDARY INFORMATION
FROM TERRIERO ENGINEERING AUTOCAD DRAWING SUNTERM.DWG.
SITE FACILITIES AND STRUCTURES ARE APPROXIMATELY LOCATED.

306
12/01 Soil

01/18/2002

Resource Control Corporation
1274 North Church Steet
Moorestown, NJ 08057

Attention: Mr. Bryan Emilius



STL Edison
777 New Durham Road
Edison, NJ 08817

Tel: 732-549-3900
Fax: 732-549-3679
www.st-inc.com

Laboratory Results
Job No. S366 - Newark Terminal 306

Dear Mr. Emilius:

Enclosed are the results you requested for the following sample(s) received at our laboratory on December 28, 2001.

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
324805	SS-1	PP VOA+10 w/MTBE&TBA
324806	SS-2	PP VOA+10 w/MTBE&TBA
324807	SS-3	PP VOA+10 w/MTBE&TBA

If you have any questions please contact your Project Manager, Deanna Doster, at (732) 549-3900.

Very Truly Yours,

A handwritten signature in black ink, appearing to read "Michael J. Urban".

Michael J. Urban
Laboratory Director



STL Edison is a part of Severn Trent Laboratories, Inc.

Analytical Results Summary	1
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Analytical Results Summary

Client ID: SS-1
Site: Newark Terminal 306

Lab Sample No: 324805
Lab Job No: S366

Date Sampled: 12/27/01
Date Received: 12/28/01
Date Analyzed: 01/02/02
GC Column: DB624
Instrument ID: VOAMS3.1
Lab File ID: c16584.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.8 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 5000.0
% Moisture: 11

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results	Quantitation
	Units: ug/kg (Dry Weight)	Limit Units: ug/kg
Chloromethane	ND	65000
Bromomethane	ND	65000
Vinyl Chloride	ND	65000
Chloroethane	ND	65000
Methylene Chloride	ND	39000
Trichlorofluoromethane	ND	65000
1,1-Dichloroethene	ND	26000
1,1-Dichloroethane	ND	65000
trans-1,2-Dichloroethene	ND	65000
cis-1,2-Dichloroethene	ND	65000
Chloroform	ND	65000
1,2-Dichloroethane	ND	26000
1,1,1-Trichloroethane	ND	65000
Carbon Tetrachloride	ND	26000
Bromodichloromethane	ND	13000
1,2-Dichloropropane	ND	13000
cis-1,3-Dichloropropene	ND	65000
Trichloroethene	ND	13000
Dibromochloromethane	ND	65000
1,1,2-Trichloroethane	ND	39000
Benzene	210000	13000
trans-1,3-Dichloropropene	ND	65000
2-Chloroethyl Vinyl Ether	ND	65000
Bromoform	ND	52000
Tetrachloroethene	ND	13000
1,1,2,2-Tetrachloroethane	ND	13000
Toluene	1700000	65000
Chlorobenzene	ND	65000
Ethylbenzene	490000	52000
Xylene (Total)	2400000	65000
TBA	ND	1300000
MTBE	1800000	65000



Client ID: SS-1
Site: Newark Terminal 306

Lab Sample No: 324805
Lab Job No: S366

Date Sampled: 12/27/01
Date Received: 12/28/01
Date Analyzed: 01/02/02
GC Column: DB624
Instrument ID: VOAMS3.i
Lab File ID: c16584.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.8 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 5000.0
% Moisture: 11.3

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
=====	=====	=====	=====
1. C6H14 Alkane	6.27	590000	
2. C6H14 Alkane	7.04	310000	
3. C7H16 Alkane	9.04	370000	
4. Coeluting Unknowns	9.41	920000	
5. C7H14 Alkene/Unknown Alkane	10.43	520000	
6. C8H18 Alkane	11.11	480000	
7. Ethylmethylbenzene isomer/C10H22 Alkan	15.01	520000	
8. Ethylmethylbenzene isomer	15.05	370000	
9. Trimethylbenzene isomer	15.50	530000	
10. C9H10 Aromatic/C10H14 Aromatic	16.20	360000	
11.			
12.			
13.			
14.			
15.			
16.			
17.			
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30.			

TOTAL ESTIMATED CONCENTRATION

4970000

Client ID: SS-2
Site: Newark Terminal 306

Lab Sample No: 324806
Lab Job No: S366

Date Sampled: 12/27/01
Date Received: 12/28/01
Date Analyzed: 01/02/02
GC Column: DB624
Instrument ID: VOAMS3.i
Lab File ID: c16585.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.0 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 2000.0
% Moisture: 9

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results	Quantitation
	Units: ug/kg (Dry Weight)	Limit Units: ug/kg
Chloromethane	ND	28000
Bromomethane	ND	28000
Vinyl Chloride	ND	28000
Chloroethane	ND	28000
Methylene Chloride	ND	16000
Trichlorofluoromethane	ND	28000
1,1-Dichloroethene	ND	11000
1,1-Dichloroethane	ND	28000
trans-1,2-Dichloroethene	ND	28000
cis-1,2-Dichloroethene	ND	28000
Chloroform	ND	28000
1,2-Dichloroethane	ND	11000
1,1,1-Trichloroethane	ND	28000
Carbon Tetrachloride	ND	11000
Bromodichloromethane	ND	5500
1,2-Dichloropropane	ND	5500
cis-1,3-Dichloropropene	ND	28000
Trichloroethene	ND	5500
Dibromochloromethane	ND	28000
1,1,2-Trichloroethane	ND	16000
Benzene	48000	5500
trans-1,3-Dichloropropene	ND	28000
2-Chloroethyl Vinyl Ether	ND	28000
Bromoform	ND	22000
Tetrachloroethene	ND	5500
1,1,2,2-Tetrachloroethane	ND	5500
Toluene	590000	28000
Chlorobenzene	ND	28000
Ethylbenzene	200000	22000
Xylene (Total)	1000000	28000
TBA	ND	550000
MTBE	710000	28000

Client ID: SS-2
Site: Newark Terminal 306

Lab Sample No: 324806
Lab Job No: S366

Date Sampled: 12/27/01
Date Received: 12/28/01
Date Analyzed: 01/02/02
GC Column: DB624
Instrument ID: VOAMS3.i
Lab File ID: c16585.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.0 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 2000.0
% Moisture: 9.1

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
=====	=====	=====	=====
1. C7H16 Alkane	9.05	110000	
2. Coeluting Unknowns	9.41	300000	
3. C7H14 Cycloalkane	10.43	180000	
4. C8H18 Alkane	11.11	190000	
5. C9H18 Alkene	12.82	150000	
6. C9H20 Alkane	13.02	140000	
7. Ethylmethylbenzene isomer/C10H22 Alkan	15.02	240000	
8. Trimethylbenzene isomer	15.07	150000	
9. Trimethylbenzene isomer	15.51	240000	
10. C9H10 Aromatic/C10H14 Aromatic	16.22	160000	
11.			
12.			
13.			
14.			
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16.			
17.			
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26.			
27.			
28.			
29.			
30.			
TOTAL ESTIMATED CONCENTRATION		1860000	



Client ID: SS-3
Site: Newark Terminal 306

Lab Sample No: 324807
Lab Job No: S366

Date Sampled: 12/27/01
Date Received: 12/28/01
Date Analyzed: 01/02/02
GC Column: DB624
Instrument ID: VOAMS3.i
Lab File ID: c16586.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.3 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 5000.0
% Moisture: 34

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results	Quantitation
	Units: ug/kg (Dry Weight)	Limit Units: ug/kg
Chloromethane	ND	92000
Bromomethane	ND	92000
Vinyl Chloride	ND	92000
Chloroethane	ND	92000
Methylene Chloride	ND	55000
Trichlorofluoromethane	ND	92000
1,1-Dichloroethene	ND	37000
1,1-Dichloroethane	ND	92000
trans-1,2-Dichloroethene	ND	92000
cis-1,2-Dichloroethene	ND	92000
Chloroform	ND	92000
1,2-Dichloroethane	ND	37000
1,1,1-Trichloroethane	ND	92000
Carbon Tetrachloride	ND	37000
Bromodichloromethane	ND	18000
1,2-Dichloropropane	ND	18000
cis-1,3-Dichloropropene	ND	92000
Trichloroethene	ND	18000
Dibromochloromethane	ND	92000
1,1,2-Trichloroethane	ND	55000
Benzene	180000	18000
trans-1,3-Dichloropropene	ND	92000
2-Chloroethyl Vinyl Ether	ND	92000
Bromoform	ND	74000
Tetrachloroethene	ND	18000
1,1,2,2-Tetrachloroethane	ND	18000
Toluene	2000000	92000
Chlorobenzene	ND	92000
Ethylbenzene	560000	74000
Xylene (Total)	2900000	92000
TBA	ND	1800000
MTBE	2600000	92000

Client ID: SS-3
Site: Newark Terminal 306

Lab Sample No: 324807
Lab Job No: S366

Date Sampled: 12/27/01
Date Received: 12/28/01
Date Analyzed: 01/02/02
GC Column: DB624
Instrument ID: VOAMS3.i
Lab File ID: c16586.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.3 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 5000.0
% Moisture: 34.1

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
=====	=====	=====	=====
1. C6H14 Alkane	6.30	340000	
2. C7H16 Alkane	8.82	280000	
3. Coeluting Unknowns	9.42	1000000	
4. C7H14 Cycloalkane	10.44	580000	
5. C8H18 Alkane	10.93	240000	
6. C8H18 Alkane	11.12	500000	
7. Ethylmethylbenzene isomer/C10H22 Alkan	15.03	680000	
8. Trimethylbenzene isomer	15.09	390000	
9. Trimethylbenzene isomer	15.52	670000	
10. C9H10 Aromatic/C10H14 Aromatic	16.22	420000	
11.			
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30.			

TOTAL ESTIMATED CONCENTRATION

5100000

General Information

Chain of Custody

STL EDISON

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY / ANALYSIS REQUEST

PAGE 1 OF 1

Name (for report and invoice) BRYAN EMILINS		Samplers Name (Printed) KEVIN J. TOLSON		Site/Project Identification NJ WAX TERNING / 306	
Company Resource Control Corp		P.O. #		State (Location of site): NJ: <input checked="" type="checkbox"/> NY: <input type="checkbox"/> Other:	
Address 1274 North Church Street		Analysis Turnaround Time Standard <input checked="" type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)	
City MOORESTOWN State NJ		Phone (856) 273-1009 Fax		LAB USE ONLY Project No: Job No: 53600 Sample Numbers	
Sample Identification		Date	Time	Matrix	No. of Cont.
SS-1	12/27/01	12:30	Soil	2	X X
SS-2	12/27/01	2:00	Soil	2	X X
SS-3	12/27/01	4:00	Soil	2	X X
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____					
Soil: _____ Water: _____					

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by 1) Resallor	Company RCC	Date / Time 12/28/01 8:00	Received by 1) R Head	Company SSO
Relinquished by 2) R Head	Company SSO	Date / Time 1/2/02	Received by 2) N Ventuarelli	Company STZ
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132)

Laboratory Chronicles

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
STL Edison

777 New Durham Road, Edison, New Jersey
08817

Job No: S366

Site: Newark Terminal 306

Client: Resource Control Corporation

VOAMS

SOLID - 8260B

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
324805	12/27/2001	12/28/2001			1/2/2002	Tupayachi, Audberto	3532
324806	12/27/2001	12/28/2001			1/2/2002	Tupayachi, Audberto	3532
324807	12/27/2001	12/28/2001			1/2/2002	Tupayachi, Audberto	3532

Methodology Review

Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

- P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)
- A - Flame Atomic Absorption
- F - Furnace Atomic Absorption
- CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

Element	Water Test Method		Solid Test Method	
	Flame	Furnace	Flame	Furnace
Aluminum	202.1	202.2	7020	--
Antimony	204.1	204.2	7040	7041
Arsenic	--	206.2	--	7060
Barium	208.1	--	7080	--
Beryllium	210.1	210.2	7090	7091
Cadmium	213.1	213.2	7130	7131
Calcium	215.1	--	7140	--
Chromium, Total	218.1	218.2	7190	7191
Chromium, (+6)	218.4	218.5	7197	7195
Cobalt	219.1	219.2	7200	7201
Copper	220.1	220.2	7210	--
Iron	236.1	236.2	7380	--
Lead	239.1	239.2	7420	7421
Magnesium	242.1	--	7450	--
Manganese	243.1	243.2	7460	--
Nickel	249.1	249.2	7520	--
Potassium	258.1	--	7610	--
Selenium	--	270.2	--	7740
Silver	272.1	272.2	7760	--
Sodium	273.1	--	7770	--
Tin	283.1	283.2	7870	--
Thallium	279.1	279.2	7840	7841
Vanadium	286.1	286.2	7910	7911
Zinc	289.1	289.2	7950	--

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

- Ignitability - Method 1020A
- Corrosivity - Water pH Method 9040B
Soil pH Method 9045C
- Reactivity - Chapter 7, Section 7.3.3 and 7.3.4
respectively for hydrogen cyanide and
hydrogen sulfide release
- Toxicity - TCLP Method 1311

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

Data Reporting Qualifiers

DATA REPORTING QUALIFIERS

- ND - The compound was not detected at the indicated concentration.
- J - Mass spectral data indicates the presence of a compound that meets the identification criteria. The result is less than the specified detection limit but greater than zero. The concentration given is an approximate value.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- * - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

Non-Conformance Summary

NON-CONFORMANCE SUMMARY

STL Edison Job Number: S366

Volatile Organics Analysis:

All data conforms with method requirements ☒; or

Analysis was not requested ☐; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Base/Neutral and/or Acid Extractable Organics:

All data conforms with method requirements ☒; or

Analysis was not requested ☐; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

PCBs and/or Organochlorine Pesticides:

All data conforms with method requirements ☒; or

Analysis was not requested ☐; or

Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Page 1 of 2

Non-conformance Summary, Page 2 of 2
STL Edison Job Number: S366

Metals Analysis:

All data conforms with method requirements ; or
Analysis was not requested / ; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Total Petroleum Hydrocarbons:


All data conforms with method requirements ; or
Analysis was not requested / ; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

General Chemistry/Disposal Parameters:

All data conforms with method requirements ; or
Analysis was not requested / ; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ()

Signature of
Laboratory Manager: 

Date: 1/17/02

Surrogate Compound Recovery Summary

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY
METHOD 8260B

Matrix: SOIL Level: HIGH Lab Job No: S366

	LAB SAMPLE NO.	S1 #	S2 #	S3 #	OTHER	TOT OUT
01	CV002	110	93	91		0
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

QC LIMITS

S1 = 1,2-Dichloroethane-d4 (61-137)
S2 = Toluene-d8 (61-137)
S3 = Bromofluorobenzene (61-150)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY
METHOD 8260B

Matrix: SOIL

Level: HIGH

Lab Job No: S366

	LAB SAMPLE NO.	S1 #	S2 #	S3 #	OTHER	TOT OUT
	=====	=====	=====	=====	=====	=====
01	324805	0D	0D	0D		0
02	324806	0D	0D	0D		0
03	324807	0D	0D	0D		0
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

QC LIMITS

S1 = 1,2-Dichloroethane-d4 (61-137)
 S2 = Toluene-d8 (61-137)
 S3 = Bromofluorobenzene (61-150)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Spike Recovery Summary

VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8260B

Matrix: SOIL

Matrix Spike - Lab Sample No.: 322867

Level: HIGH

MS Sample from Lab Job No: S081

QA Batch: 3532

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	7700	0.00	6800	88	74-133
Trichloroethene	7700	0.00	7400	96	76-128
Benzene	7700	0.00	7600	99	77-125
Toluene	7700	0.00	8300	108	73-131
Chlorobenzene	7700	0.00	7600	99	79-129

Compound	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
1,1-Dichloroethene	7700	6800	88	0	40	74-133
Trichloroethene	7700	7300	95	1	40	76-128
Benzene	7700	7600	99	0	40	77-125
Toluene	7700	7800	101	6	40	73-131
Chlorobenzene	7700	7600	99	0	40	79-129

Column to be used to flag recovery and RPD values with an asterik

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:



RESOURCE CONTROL CORPORATION

www.rcc-net.com

April 9, 2003

Mr. Arnold Schiff, Case Manager
New Jersey Department of Environmental Protection (NJDEP)
Division of Responsible Party Site Remediation
Bureau of Field Operations – Metro Field Office
2 Babcock Place
West Orange, New Jersey 07052-5504

RECEIVED

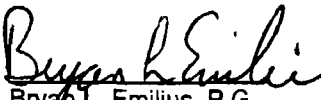
**Re: Sunoco Terminal, Duns #0000-9233
436 Doremus Avenue
Newark, New Jersey
Remedial Action Progress Report
NJDEP Case #92-12-30-SP04M**

Dear Mr. Schiff,

Enclosed please find a copy of the Remedial Action Progress Report. A summary of site activities, a groundwater elevation contour map, and a remediation update and effectiveness evaluation are included in the report.

Should you have any questions or concerns regarding any aspect of this project please contact our office.

Sincerely,
RESOURCE CONTROL CORPORATION


Bryan L. Emilius, P.G.
Project Manager

Cc: R. Hammond (Sunoco, Inc)
Y. Monti (Sunoco, Inc)
Project File (306)



07-14-340

RESOURCE CONTROL CORPORATION

www.rcc.net.com

REMEDIAL ACTION PROGRESS REPORT**APRIL 9, 2003**

SITE NAME:	Sunoco Terminal	SITE LOCATION:	436 Doremus Avenue Newark, New Jersey
DUNS #:	0000-9233	ENGINEER:	Russel Hammond
CASE MANAGER:	Arnold Schiff	CASE #:	92-12-30-SP04M

SITE HISTORY: The subject site is an active petroleum bulk storage and distribution terminal. Historical remedial investigation activities at the site have revealed petroleum impacts to soil and groundwater in excess of regulatory action levels. Due to the presence of separate phase hydrocarbons (SPH) on the water table and the proximity of the Passaic River to the site, active SPH recovery is being implemented at the site as an interim remedial measure.

The development of long-term remedial objectives at the site is pending release of the NJDEP's Large Petroleum Facility Guidance Document, such that appropriate, risk-based goals for the site can be established, considering the ongoing nature of site use.

RCC has prepared the following reports:

- Project Update and Conceptual Remedial Action Workplan (January 1997)
- Report of Findings, Total Phase Extraction Pilot Study and Proposed Remedial Actions (February 1998)
- Remedial Action Progress Report (September 1999)
- Remedial Action Progress Report (January 2000)
- Remedial Action Progress Report (July 2002)

GEOLOGY: The Remedial Investigation and Remedial Action Workplan (Handex of NJ, Inc., August 1994) provides geologic and hydrogeologic details of the site. The reported geology indicates that a soil horizon of varied permeability exists from grade and ranging in thickness from 0 to 15 feet. This material consists primarily of sand, cobbles, and fill. Beneath this layer exists a low permeability clay and silt layer extending typically from about 10 to 30 feet below grade. An approximately 10 ft thick sand and cobble layer is reported to lie from about 30 to 40 feet below grade, which is underlain by additional silt and clay, which is further underlain by bedrock. The top of bedrock is indicated at 47 feet below grade at the south property boundary, and sloping to 100 feet below grade at the north property boundary along the river embankment.

RECEPTORS: Based on the results presented in previous reports, soil adsorbed petroleum hydrocarbons (PHCs), dissolved phase PHCs, and separate phase hydrocarbons (SPH) have not migrated off-site. The Passaic River is immediately adjacent to the site and is considered the most important potential sensitive receptor. Results of the liquid level gauging conducted quarterly indicate no off-site migration of SPH and therefore indicate that the Passaic River has not been impacted as a result of the SPH present on site. Vapor migration to nearby structures, including utilities and buildings on adjacent properties is not expected.

SITE ACTIVITIES: Resource Control Corporation (RCC) collected liquid levels at the above referenced facility on October 4, 2002 and November 22, 2002 from site monitoring wells. Liquid level

gauging is used to measure groundwater elevation and determine flow direction as well as delineate the SPH location and thickness.

RCC also collected groundwater quality samples from seven (7) perimeter monitoring wells which included MW-01, MW-12, MW-18, MW-19, MW-20, MW-38 and MW-39 on November 22, 2002. A Site Location Map is attached as **Figure 1**. The well locations are depicted on the Site Plan, **Figure 2**. Groundwater samples were collected in accordance with the Field Sampling Procedures Manual, May 1992. Samples from monitoring wells were submitted to Lancaster Laboratories, Inc. of Lancaster, Pennsylvania. The samples from the November 22, 2002 sampling event were analyzed for VOC+10, MTBE and TBA by EPA Method 624 and BN+15 by EPA Method 625. Field observations including temperature, pH, dissolved oxygen and conductivity were collected in all monitoring wells sampled.

Weekly site visits were conducted during remediation system operation in order to complete routine Operation, Maintenance and Monitoring (OM&M) of the SPH recovery system.

The total phase extraction (TPE) remediation system and trailer layout is depicted on the Site Plan, **Figure 2**.

GROUNDWATER MONITORING RESULTS: Groundwater elevations contours from October 4, 2002 are depicted on **Figure 3**. The groundwater flow direction is generally to the east at an approximate gradient of 0.008 ft/ft. SPH was delineated around well MW-43 at a thickness of 0.14 feet. The SPH thickness and location is presented in **Figure 4**.

Groundwater elevations contours from November 22, 2002 are depicted on **Figure 5**. The groundwater flow direction is generally to the east at an approximate gradient of 0.007 ft/ft. SPH was delineated around wells MW-43 and MW-27 at a maximum thickness of 0.04 feet. The SPH thickness and location is presented in **Figure 6**. The analytical results of the groundwater sampling of the perimeter wells is provided on **Table 1**. The field observation data is provided on **Table 2**.

REMEDIAL EFFECTIVENESS EVALUATION:

Remedial Objective

The objective of the active total phase extraction (TPE) remediation system is to mitigate and efficiently recover SPH from the subsurface.

Sunoco's immediate remedial goal is the recovery of the SPH observed on the water table beneath the site. Removal of this SPH plume is considered by Sunoco to be the highest priority, due to the proximity of the plume to the surface water body adjacent to the site. Therefore, Sunoco's initial remedial efforts focus on this area. Complete delineation and remediation of PHCs at the site may prove infeasible based on site use and physical constraints, as the subject site is currently an active petroleum distribution terminal.

Remedial Process Description

The remediation system, in the vicinity of MW-24 and MW-27, is designed to extract groundwater and soil vapor from the subsurface, through eight (8) TPE wells (MW-24, MW-D, MW-E, MW-27, MW-25 and MW-32). The TPE wells located in the vicinity of monitoring well MW-24 and MW-27 are shown on **Figure 2**. At an applied operating vacuum of 122 in (9 inHg), a vapor flow rate of 25 scfm per extraction point can be obtained with an accompanying water table drawdown of approximately 4 feet. Moderate groundwater yield is anticipated per extraction point (1 to 1.5 gpm).

Groundwater SPH and soil vapor will be simultaneously extracted from the TPE wells, through drop tubes, utilizing a 30 HP rotary lobe blower capable of producing up to 300 scfm at 15 inHg vacuum. The combined fluid flow is routed to a gas/liquid separator located in the TPE trailer. Following separation,

SPH is removed from groundwater in an oil/water separator. Groundwater is then treated through granular activated carbon to remove recalcitrant compounds. Recovered SPH is stored in a 1,000 gallon above ground storage tank (AST) pending disposal. Extracted vapor will be routed to a biofilter to treat off-gas prior to granulated activated carbon polish.

Remedial Effectiveness Monitoring

Efficiency of the remediation system is routinely monitored by the project engineer, to ensure that the maximum system up-time is maintained.

The effectiveness of the remediation system at achieving the remedial goals, presented above, will be evaluated based on monitoring of the following:

1. Contaminant mass recovery rates, as determined through routine O&M PID readings of influent soil vapor;
2. Cumulative mass recovery, as determined through routine O&M PID readings of influent soil vapor;
3. Cumulative SPH recovery and evaluation of vacuum, pressure and drawdown radii of influence, due to TPE operation, based on routine site monitoring results.
4. Quarterly liquid level gauging for delineation of SPH plumes.

Groundwater/Product Recovery

Recovery System Start Date:	4/2/01
Estimated % Operation:	75% (05/02/02 – 10/30/02)
Estimated Gallons Pumped Since 4/2/01:	339,290
Avg. Water Flow Rate (05/02/02 to 10/30/02):	0.77 gpm

Vapor Extraction/Treatment

Recovery System Start Date:	4/2/01
Estimated % Operation:	75% (05/02/02 – 10/30/02)

05/02/02 to 10/30/02:

Avg. Applied Vacuum MW-24:	4.16 in. Hg
Avg. Applied Vacuum MW-25:	2.33 in. Hg
Avg. Applied Vacuum MW-26:	OFF
Avg. Applied Vacuum MW-27:	5.5 in. Hg
Avg. Applied Vacuum MW-05:	OFF
Avg. Applied Vacuum MW-D:	6.60 in. Hg
Avg. Applied Vacuum MW-E:	6.50 in. Hg
Avg. Applied Vacuum MW-32:	2.78 in. Hg
Avg. VOC Influent:	59 ppmv

In November 2001 the TPE system was shut down for the winter to monitor groundwater in the vicinity of MW-24 and MW-27 for the recurrence of SPH. On May 2, 2002 the system was started back up and then on October 30, 2002 it was shut back down again for the winter. The TPE system maintenance and operational data is presented in **Table 3**.

Cessation of Operation

The main objective to be attained, in order to shut down the system and move it to the next area of concern, is to first recover SPH to the extent practical. As such, the following conditions should be met, prior to ceasing operation of the system at the MW-24 and MW-27 location and moving the TPE system to the next area of concern:

- Asymptotic rate of hydrocarbon mass recovery, during operation of the TPE system.
- No further recovery of SPH from the 8 TPE wells.
- Demonstrated mitigation of the separate phase hydrocarbon (SPH) in the area of concern near MW-24 and MW-27, based on three monthly gauging events conducted following cessation of TPE operation.

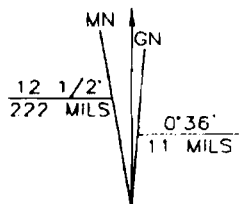
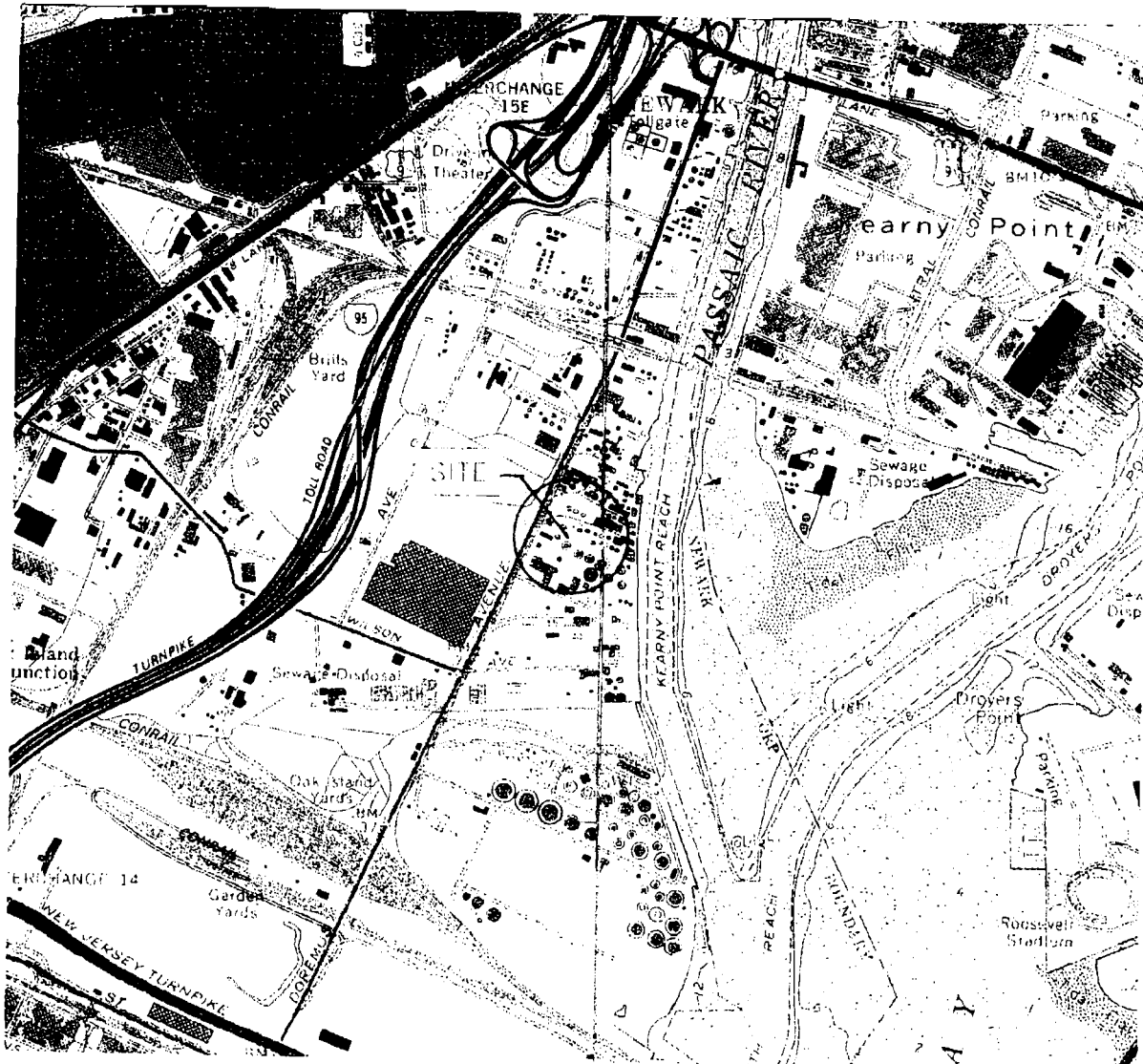
Operating Procedure

Currently the TPE system operating at only those points which exhibit residual SPH in the vicinity of MW-24 and MW-27. These points include MW-5, MW-27 and MW-D. The system will be operated in the current location until July of 2002. If SPH is no longer encountered in this area by the end of July, the TPE points will be moved to the vicinity of MW-43 during the third quarter of 2003.

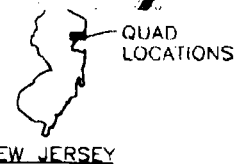
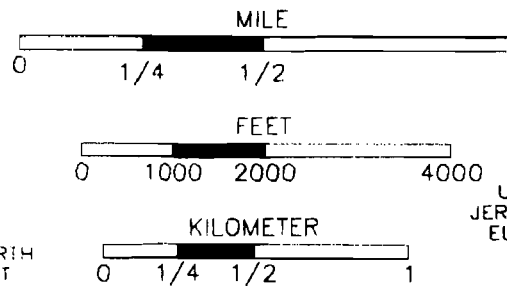
FIGURES

FIGURE 1 SITE LOCATION

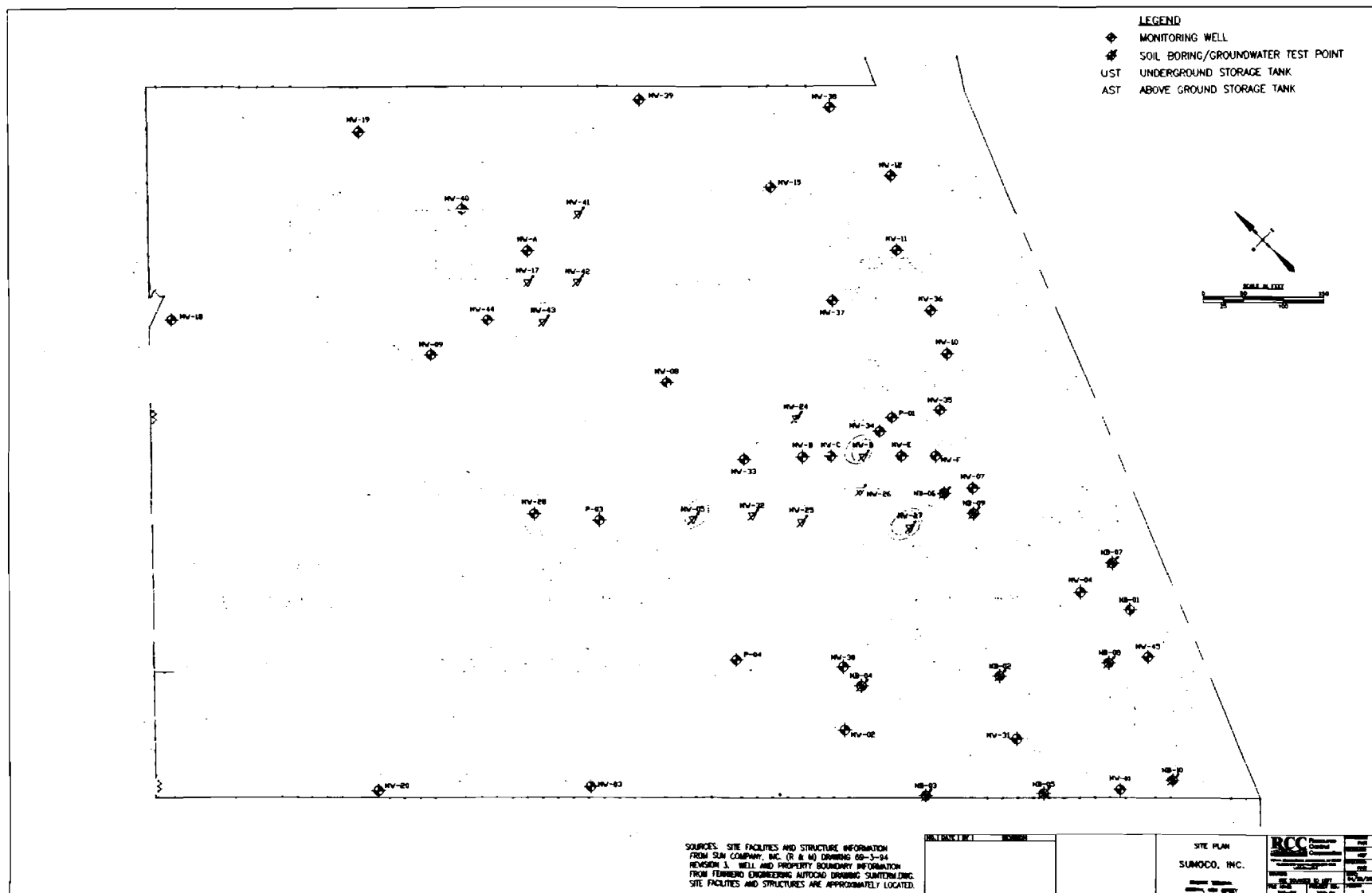
SUN COMPANY, INC., NEWARK TERMINAL
DUNS #0000-9233
436 DOREMUS AVENUE
NEWARK, NEW JERSEY

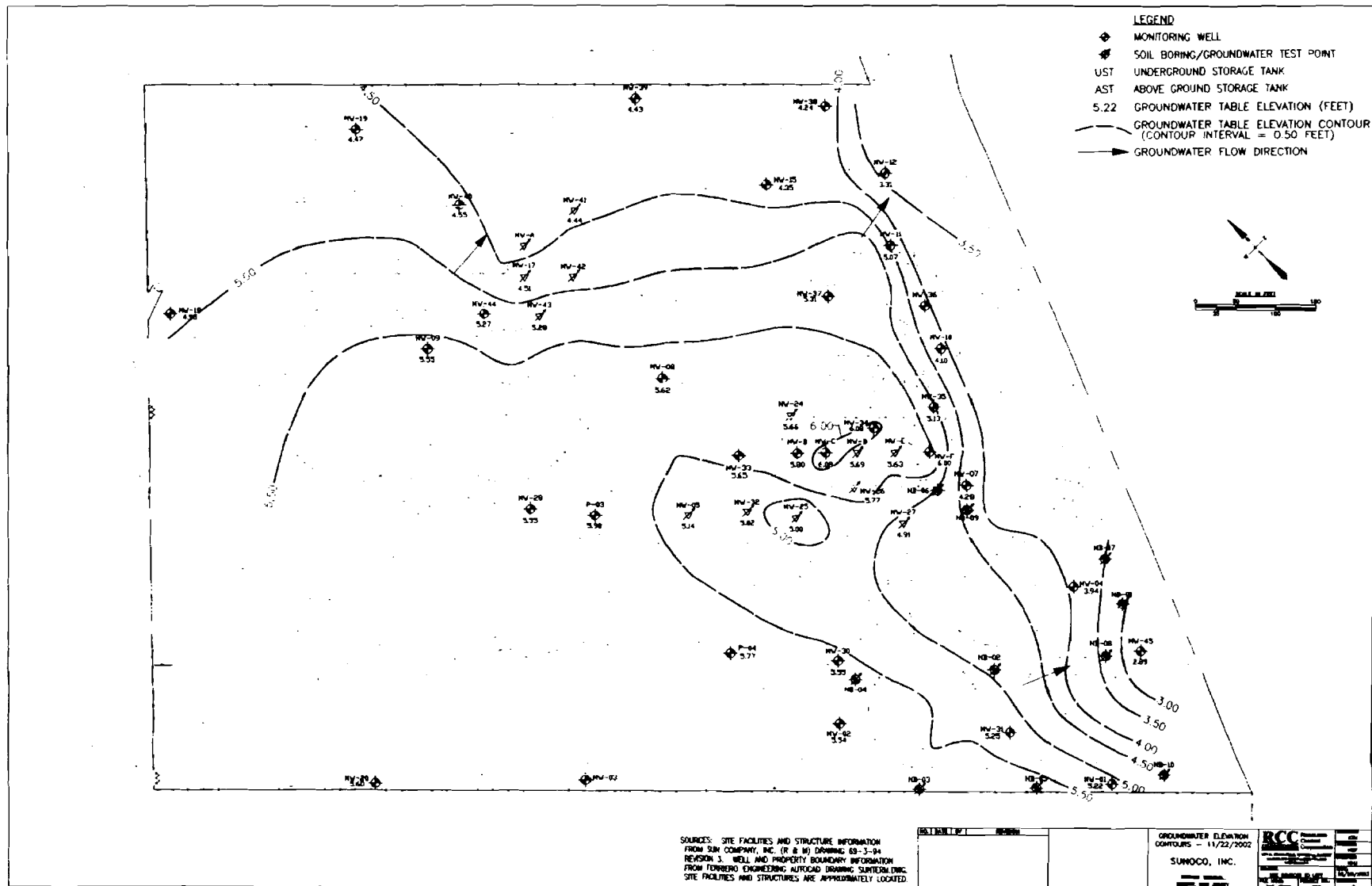


UTM GRID AND 1989 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET



SOURCE:
U.S.G.S. TOPOGRAPHIC QUADRANGLE
JERSEY CITY, N.J. - N.Y. QUADRANGLE
ELIZABETH, N.J. - N.Y. QUADRANGLE
7.5 MINUTE SERIES
BOTH 1981





TABLES

TABLE 1
PERIMETER MONITORING WELL GROUNDWATER ANALYTICAL RESULTS
SAMPLING DATE: NOVEMBER 22, 2002
NEWARK TERMINAL
436 DOREMUS AVENUE
NEWARK, NEW JERSEY

SAMPLE I.D.:			MW-18	MW-19	MW-39	MW-38	MW-12	MW-1	MW-20
DEPTH TO GROUNDWATER:			2.98	2.59	4.78	4.23	4.15	4.50	3.34
SAMPLE DATE:			11/22/02	11/22/02	11/22/02	11/22/02	11/22/02	11/22/02	11/22/02
LAB I.D.:			3948794	3948795	3948796	3948797	3948798	3948799	3948800
MATRIX:			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
PARAMETERS:	UNITS	NJDEP Groundwater Quality Standards							
VOLATILES (VOCs)**									
Benzene	ug/L	1	ND	1 J	ND	ND	ND	ND	ND
Toluene	ug/L	1,000	ND	ND	ND	ND	3 J	ND	ND
Ethylbenzene	ug/L	700	ND	ND	ND	ND	3 J	ND	ND
Xylenes (Total)	ug/L	1,000	ND	ND	ND	ND	20	ND	ND
Chloroform	ug/L	6	ND	ND	ND	ND	ND	38	ND
Trichloroethene	ug/L	1	ND	ND	ND	ND	ND	2 J	ND
1,1-Dichloroethane	ug/L	50	ND	ND	ND	ND	ND	19	ND
cis-1,2-Dichloroethene	ug/L	70	ND	ND	ND	ND	ND	3 J	ND
Total VOCs	ug/L	10,000	ND	1	ND	ND	26	62	ND
Tentatively Identified VOCs	ug/L	500	ND	6	ND	ND	25	ND	ND
Methyl Tertiary Butyl Ether	ug/L	70	21	ND	ND	4 J	1 J	ND	3 J
Tertiary Butyl Alcohol	ug/L	100	2,900	ND	ND	ND	ND	ND	ND
BASE NEUTRAL COMPOUNDS (BNCs)**									
Naphthalene	ug/L	300	ND	1 J	ND	ND	ND	ND	ND
Acenaphthene	ug/L	10	0.9 J	ND	ND	ND	ND	ND	ND
Acenaphthylene	ug/L	None	ND	0.5 J	ND	ND	ND	ND	ND
Fluorene	ug/L	300	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	ug/L	20	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	ug/L	100	ND	0.8 J	ND	ND	0.4 J	ND	ND
Anthracene	ug/L	2000	ND	0.5 J	ND	ND	ND	ND	ND
Fluoranthene	ug/L	300	ND	1 J	ND	4 J	0.4 J	ND	ND
Pyrene	ug/L	200	ND	1 J	0.3 J	12 J	1 J	ND	ND
Benzo(a)anthracene	ug/L	10	ND	0.8 J	ND	ND	0.5 J	ND	ND
Benzo(b)fluoranthene	ug/L	None	ND	1.1 J	ND	ND	0.8 J	ND	ND
Benzo(k)fluoranthene	ug/L	None	ND	0.7 J	ND	ND	0.3 J	ND	ND
Benzo(g,h,i)perylene	ug/L	None	ND	1 J	ND	ND	0.5 J	ND	ND
Chrysene	ug/L	20	ND	1 J	ND	ND	0.7 J	ND	ND
Bis(2-Ethylhexyl)phthalate	ug/L	30	1 J	5 J	ND	16 J	ND	3 J	ND
Indeno(1,2,3-cd)pyrene	ug/L	None	ND	0.9 J	ND	ND	0.4 J	ND	ND
Di-N-Octylphthalate	ug/L	100	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ug/L	20	ND	0.9 J	ND	ND	0.5 J	ND	ND
Total BNCs	ug/L	None	1.9	16.2	0.3	32	5.5	3	ND
Tentatively Identified BNCs	ug/L	500	6	352	9	2,910	ND	10	5

ug/L = Concentration in micrograms per liter, which is approximately equivalent to parts per billion.

** Only those compounds detected are listed.

Shading indicates an exceedance of the NJDEP Groundwater Quality Standards (GWQS).

NA = Not Analyzed

ND = Not Detected

TABLE 2
FIELD OBSERVATIONS
SAMPLING DATE: 11/22/2002

SUNOCO, INC.
NEWARK TERMINAL
NEWARK, NEW JERSEY

FIELD OBSERVATIONS	MW-01	MW-12	MW-18	MW-19	MW-20	MW-38	MW-39
BEFORE PURGING:							
PID Reading (ppmv)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time	14:50	13:55	10:00	11:10	15:50	13:00	12:05
Total Depth (feet)	11.67	5.40	18.80	7.99	10.55	12.07	12.22
Depth to Water (feet)	4.50	4.15	2.98	2.59	3.34	4.23	4.78
pH	6.96	7.41	6.17	6.91	6.90	6.93	6.77
Dissolved Oxygen	0.61	6.03	1.02	4.85	9.02	0.30	0.63
Temperature (°C)	12.4	10.0	15.1	13.3	12.0	13.8	14.6
Specific Conductivity (µS)	549	14.58	1512	269.4	158.2	10.42	1967
Estimated Water Volume in Well (gallons)	4.66	0.81	10.28	3.51	4.68	5.09	4.83
AFTER PURGING:							
Time	15:04	13:58	10:31	11:21	16:05	13:16	12:20
Purge Method	Pump	Pump	Pump	Pump	Pump	Pump	Pump
Purge Rate (gpm)	1	1	1	1	1	1	1
Total Volume Purged (gallons)	14	3	31	11	15	16	15
Depth to Water (feet)	5.36	*	18.48	7.85	3.97	11.93	12.11
pH	6.90	*	6.25	7.02	6.80	7.11	6.78
Dissolved Oxygen (mg/L)	0.77	*	1.27	6.18	4.11	0.51	0.86
Temperature (°C)	12.6	*	15.0	12.8	10.9	13.6	15.4
Specific Conductivity (µS)	478.5	*	1122	283.2	161.9	8.07	1725
BEFORE SAMPLING:							
Depth to Water (feet)	4.50	*	2.98	2.59	3.34	4.23	4.78
AFTER SAMPLING:							
Start Time	15:40	14:35	11:00	11:55	16:40	13:45	12:50
End Time	15:45	14:40	11:05	12:00	16:45	13:50	12:55
Sampling Method	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer
pH	6.86	7.47	6.48	7.31	6.70	7.19	6.71
Dissolved Oxygen (mg/L)	1.21	8.94	1.17	7.42	4.02	0.13	2.45
Temperature (°C)	12.2	9.6	14.8	12.7	10.0	13.8	13.2
Specific Conductivity (µS)	405.5	13.57	960	321.0	169.9	8.41	762
Other observations:	Sampled at 15:40	Sampled at 14:35	Sampled at 11:00	Sampled at 11:55	Sampled at 16:40	Sampled at 13:45	Sampled at 12:50

NOTES:

ppmv = parts per million, volume basis, benzene equivalents

µS = microSiemen (Equivalent to micromho. µmho)

gpm = gallons per minute

mg/L = milligrams per liter

N/A = Not Available

* = Not enough water for second set.

Sun Company, Inc.
438 Doremus Avenue
Newark, Essex County
RCC #306-05

SYSTEM STATUS			THE VACUUM READINGS														Vacuum Blower							Oil Water Separator			
Date	On upon arrival? yes / no	Up at departure? yes: no	Alarms	MW-24 liquid recovery in Hg	MW-25 liquid recovery Y or N	MW-26 liquid recovery in Hg	MW-27 liquid recovery Y or N	MW-28 liquid recovery Y or N	MW-29 liquid recovery Y or N	MW-30 liquid recovery in Hg	MW-31 liquid recovery Y or N	MW-32 liquid recovery in Hg	MW-33 liquid recovery Y or N	MW-34 liquid recovery Y or N	Discharge Pressure psi	Valve Position % open	Pot. Separator Vacuum in Hg	Process Temperature deg F	Discharge Pressure psig	Discharge Flow Rate (16-inch pipe) scfm	Outlet VOC-PID PPMV	Oil Accumulation in unit inches	Bogrowth accumulation in unit Y/N	Unit checked this visit? Y/N			
05/02/2002	KC onsite: system turned on, repaired organo-day vessel, blower & test-add assemblies.																										
05/02/2002	no	none				off	off		off			7.5	y		7.5	y	n	100	11	140	0.02	50.5	816	0	n	n	
05/03/2002	KC onsite: fixed hose in roof, backwashed organo-day vessel, replaced top-on blower						off		off			6.5	y		6.5	y	n	100	10	131	0.03	69.5	116	2	n	n	
05/03/2002	yes	yes				off	off		off			6.5	y		6.5	y	n	100	10	131	0.03	69.5	116	2	n	n	
05/07/2002	KC onsite: repairs completed - system samples taken, send to repair; final valve past OWS removed						off		off			7	y		7	y	n	100	10	145	0.33	74.5	50.6	0	r	n	
05/07/2002	yes	yes				off	off		off			7	y		7	y	n	100	10	145	0.33	74.5	50.6	0	r	n	
05/15/2002	BL onsite: system operational, 1.5 inch effluent pipe by collector broke during repair; need to cut it in a new piece						off		off			6.32	y		5.35	y	n	100	"C	145	0.02	144.5	1.9	0	r	n	
05/15/2002	yes	yes				off	off		off			6.32	y		5.35	y	n	100	"C	145	0.02	144.5	1.9	0	r	n	
05/20/2002	KC onsite: system operational, found leaking check valve post OWS; hoses leaking effluent post; changed system valve						off		off			7	y		7	y	n	100	10	135	0.02	73	17.6	0	n	n	
05/20/2002	yes	yes				off	off		off			7	y		7	y	n	100	10	135	0.02	73	17.6	0	n	n	
06/10/2002	KC onsite: system operational, increased VOCs in effluent stream						off		off			6.05	y		5.98	y	n	100	10.5	162.3	3.02	143.5	130	3	n	-	
06/30/2002	yes	yes				off	off		off			6.05	y		5.98	y	n	100	10.5	162.3	3.02	143.5	130	3	n	-	
06/30/2002	yes	yes				off	off		off			6.05	y		5.98	y	n	100	10.5	162.3	3.02	143.5	130	3	n	-	
06/04/2002	BL onsite: system operational, system samples collected						off		off			6.69	y		5.71	y	n	100	10.25	158.9	0.35	133.5	2.5	0	n	n	
06/04/2002	yes	yes	2.32	y	2.33	n	off		off			6.69	y		5.71	y	n	100	10.25	158.9	0.35	133.5	2.5	0	n	n	
06/04/2002	yes	yes				off	off		off			6.69	y		5.71	y	n	100	10.25	158.9	0.35	133.5	2.5	0	n	n	
06/10/2002	KC onsite: system was open on arrival due to losses; failure, vent fan on roof needed to be replaced so system was refilled						off		off			6	y		6	y	n	100	10.5	124	0.72	80.5	16.4	0	n	n	
06/10/2002	no	no				off	off		off			6	y		6	y	n	100	10.5	124	0.72	80.5	16.4	0	n	n	
06/16/2002	KC onsite: system still down due to vent fan. New fan ordered						off		off			6	y		6	y	n	100	10.5	124	0.72	80.5	16.4	0	n	n	
06/26/2002	KC onsite: new vent fan installed, system re-started						off		off			6	y		6	y	n	100	10.5	124	0.72	80.5	16.4	0	n	n	
06/26/2002	no	yes				off	off		off			6	y		6	y	n	100	10.5	124	0.72	80.5	16.4	0	n	n	
07/09/2002	KC onsite: system operational, OWS transfer pump blocked, closing rebuild not as of TPA 1182						off		off			6	y		6	y	n	100	10	132	0.01	75.5		0	n	n	
07/09/2002	yes	yes				off	off		off			6	y		6	y	n	100	10.5	160.4	0.02	70.5	16.3	0	y	slightly	
07/19/2002	KC onsite: system operational, high process and inlet temperature						off		off			7	y		7	y	n	100	"C	177	0.03	75	11.1	stem	n	r	
07/19/2002	yes	yes				off	off		off			7	y		7	y	n	100	"C	177	0.03	75	11.1	stem	n	r	
07/24/2002	KC onsite: system operational, high chase separator knockout due to fouled probes						off		off			5.5	y		5.5	y	n	100	10.5	165.3	0.02	80.5	16.4	0	n	y	
07/24/2002	no	yes				off	off		off			5.5	y		5.5	y	n	100	10.5	165.3	0.02	80.5	16.4	0	n	y	
07/24/2002	yes	yes				off	off		off			5.5	y		5.5	y	n	100	10.5	165.3	0.02	80.5	16.4	0	n	y	
07/30/2002	BL onsite: system operational						off		off			7	y		7	y	n	100	11	168	0.03	85	84.2	0	y	y	
07/30/2002	yes	yes				off	off		off			7	y		7	y	n	100	11	168	0.03	85	84.2	0	y	y	
08/08/2002	KC onsite: system down on arrival, high OWS, shut-down system upon departure to remove OWS transfer pump						off		off			6.5	y		6.5	y	n	100	10.5	156	0.03	81.5	27.7	0	n	n	
08/08/2002	no	no				off	off		off			6.5	y		6.5	y	n	100	10.5	156	0.03	81.5	27.7	0	n	n	
08/15/2002	Ka onsite: system still from previous visit, re-installed OWS transfer pump						off		off			7	y		7	y	n	100	11	165	0.03	77.5	164	0	slight	n	
08/15/2002	no	yes				off	off		off			7	y		7	y	n	100	11	165	0.03	77.5	164	0	slight	n	
08/22/2002	KC onsite: system operational, system shut off due to LOAC of output						off		off			7	y		7	y	n	100	11	161.3	0.03	77.5	16	stem	n	n	
08/22/2002	yes	no				off	off		off			7	y		7	y	n	100	11	161.3	0.03	77.5	16	stem	n	n	
08/26/2002	Ka onsite: system still off from previous visit						off		off			6.5	y		6.5	y	n	100	10	125	0.03	66.5	20.4	slight	n	n	
08/26/2002	no	yes				off	off		off			6.5	y		6.5	y	n	100	10	125	0.03	66.5	20.4	slight	n	n	
09/12/2002	KC onsite: system started, flipped for top filter blowdown						off		off			7	y		7	y	n	100	11	132.7	0.02	80.5	16.9	0		y	
09/12/2002	no	yes				off	off		off			7	y		7	y	n	100	11	132.7	0.02	80.5	16.9	0		y	
09/18/2002	KC onsite: system operational, low effluent VOCs						off		off			8	y		8	y	n	50	11	161.3	0.03	66.5	14.1	0	y	n	
09/18/2002	yes	yes				off	off		off			8	y		8	y	n	50	11	161.3	0.03	66.5	14.1	0	y	n	
09/23/2002	KC onsite: system down on arrival due to high OWS						off		off			7.25	y		7.25	y	n	50	10.5	109.5	0.01	59.5	17.6	stem	n	n	
09/23/2002	no	yes				off	off		off			7.25	y		7.25	y	n	50	10.5	109.5	0.01	59.5	17.6	stem	n	n	
10/01/2002	KC onsite: system down on arrival due to high OWS						off		off			7.5	y		7.5	y	n	100	10.5	149	0.11	71	27.3	0	n	n	
10/01/2002	no	yes				off	off		off			7.5	y		7.5	y	n	100	10.5	149	0.11	71	27.3	0	n	n	
10/01/2002	yes	yes				off	off		off			7.5	y		7.5	y	n	100	10.5	149	0.11	71	27.3	0	n	n	
10/08/2002	KC onsite: system down on arrival, high process and inlet temperature						off		off			7.42	y		7.42	y	n	100	10.5	136.3	0.02	80.5	18.3	0	n	-	
10/08/2002	no	yes				off	off		off			7.42	y		7.42	y	n	100	10.5	136.3	0.02	80.5	18.3	0	n	-	
10/15/2002	KC onsite: system operational, backwashed organo-day unit						off		off			7	y		7	y	n	100	10	150	0.02	65	18.3	stem	n	n	
10/15/2002	yes	yes				off	off		off			7	y		7	y	n	100	10	150	0.02	65	18.3	stem	n	n	
10/25/2002	KC onsite: system down on arrival, backwashed organo-day unit, and closed						off		off			8.5	y		8.5	y	n	100	11	117	0.02	71.5	24.3	0	n	n	
10/25/2002	no	yes				off	off		off			8.5	y		8.5	y	n	100	11	117	0.02	71.5	24.3	0	n	n	
10/30/2002	BL onsite: system operational, system shut down for winter						off		off			8.5	y		8.5	y	n	100	11	137	0.02	66	16.6	0	y	y	
10/30/2002	yes	no				off	off		off			8.5	y		8.5	y	n	100	11	137	0.02	66	16.6	0	y	y	

TABLE 3

Operation and Maintenance Data

Sun Company, Inc.
436 Ooremus Avenue
Newark, Essex County
RCC #306-05

Date	OWS Transfer Pump				LGACs and Bag Filter						Final Flow Meter				Biotfilter						VGAC Canisters						
	Total Volume Gallons	Discharge Flow Rate gpm	Discharge Pressure psig	Valve Position to Bypass % open	Valve Position to Water Treatment % open	Outlet Water Headset psimv	Organic Clay Vessel Inlet Pressure psig	LGAC-1 Inlet Pressure psig	LGAC-2 Inlet Pressure psig	Bag Filter Inlet Pressure psig	Total Volume Gallons	Instantaneous Flow Rate gpm	Average Water Flow Rate Since Last Visit gpm	Valve Position %Open %	Blower Inlet Vacuum in Hg	Blower Discharge Pressure inW	Blower Discharge Flow Rate (4 non pipe) scfm	Blower Discharge Temperature deg F	Inlet VOC ppmv	Discharge VOC-PID ppmv	Blower-GAC VOC-PID ppmv	Discharge VOC-PID ppmv	VOC mass emission rate lb/hr	Total VOCs Emissions lbs	VOC Mass Removal Rate lb/day	Total Vapor Phase VOCs Recovered lb	
05/02/2002																											
05/02/2002	243,739	10.00	50	10	90		50	12	0	50	252,542	8		100	1	0.02	245	98	606.80	188.6	28.6	18.42	0.070401	0	11.84664	0	
05/03/2002																											
05/03/2002	240,887	10.00	50	10	90		50	12	0	50	252,648	8	0.07	100	1	0.93	245	106	107.94	90.14	21.44	12.22	0.046705	0.046706	3.018413	3.018413	
05/07/2002																											
05/07/2002	244,282	4.00	38	10	90		35	10	0	36					0.94	0.97	245	132	56.12	34.32	13.98	3.7	0.014141	0.10327	1.690034	9.779628	
05/15/2002																											
05/15/2002	249,907	2.50	50	10	90	0.6	50	12	2	50	262,068	2.5	0.55	100	0.96	1	317	138	7.00	0.48	0.64	1.29	0.090033	0.151536	0.102792	10.80798	
05/20/2002																											
05/20/2002	253,815	5.00	40-13	10	90		40-18	10-18	0	40-18	266,943	5	0.54	100	0.97	1.06	251	118	16.56	12.4	1.82	0	0.151536	0.481029	13.00711		
05/30/2002																											
05/30/2002	260,703	2.50	40	10	90	16.8	40	27	0	40	272,875	2.5	0.48	100	0.94	1.05	295	132	128.60	93.1	-3.44	8.82	0.04559	0.557432	6.984432	82.85143	
05/30/2002	4.30	20					20	12	2	20		4.3															
06/04/2002																											
06/04/2002	260,595	4.50	38	10	90	2.5	38	25	2	38	274,196	4.5	0.26	100	0.93	1.06	272	138	13.34	47.5	12.12	1.62	0.006874	0.591902	3.62478	85.97533	
06/04/2002							20	25	2	20																	
06/10/2002																											
06/10/2002	263,123	4.00	38	10	90	0	38	23	0	38	276,330	4	0.18	100	1	1.02	235	130	18.18	6.22	0	0	0	0.591802	0.484283	88.94102	
06/18/2002																											
06/26/2002																											
06/26/2002	264,222	5.50	30	10	90		30	22	0	30	276,432	5	0.00	100	0.95	1.02	237	138	17.30	13.5	0	0	0	0.591802	0	88.94102	
07/09/2002																											
07/09/2002	278,779	2.20	52	10	90		52	40	0	52	291,083	2.2	0.78	100	0.93	1.07	242	140	16.30	16.54	0	0	0	0	0.483032	95.22044	
07/19/2002																											
07/19/2002	286,612	3.20	42	10	90		42	38	0	42	298,157	3.2	0.49	100	0.89	1.08	219	154	13.98	12.4	0	0	0	0	0.311688	98.33732	
07/24/2002																											
07/24/2002	285,310	3.20	45	10	90		44	38	0	44	298,460	3.2	0.04	100	0.9	1.08	218	140	22.78	20.88	0	0	0	0	0.594283	100.8067	
07/24/2002																											
07/30/2002																											
07/30/2002	296,298	2.00	55	10	90		55	45	0	55	309,200	2	1.24	100	0.98	1.06	235	140	60.98	50.8	5.6	0	0	0	2.043101	113.0673	
08/08/2002																											
08/08/2002	301,434	1.50	38	10	90		38	30	0	38	314,177	3.5	0.38	100	0.9	1.09	218	138	26.12	21.4	6.52	0	0	0	0.845227	123.8744	
08/15/2002																											
08/15/2002	301,457	4.20	38	10	90		38	28	0	38	314,201	4.2	0.00	100	0.9	1.07	212	132	13.48	2.72	0	0	0	0	4.758624	153.9847	
08/22/2002																											
08/22/2002	306,823	2.80	46	10	90		46	34	0	46	319,680	2.8	0.54	100						15.18	13.98	0	0	0	0	0.404258	157.2345
08/28/2002																											
08/28/2002	306,890	4.40	25	10	90	slight	25	10	0	25	319,720	4.4	0.01	100	0.94	1.04	215	134	18.10	18.12	0	0	0	0	0.587911	159.2862	
09/12/2002																											
09/12/2002	309,250	4.20	28	10	90		28	10	0	28	322,110	4.2	0.10	100	0.88	1.07	215	79	18.64	18.06	8.54	0.52	0	0	0.328106	166.544	
09/16/2002																											
09/16/2002	312,641	4.00	31	10	90		31	11	0	31	325,518	4	0.58	100	0.98	1.12	213	129	14.00	4.1	0	0	0	0	0.345777	197.3971	
09/23/2002																											
09/23/2002	315,270	4.00	32	10	90		32	12	0	32	328,44	4	0.28	100	0.9	1.15	235	128	17.24	16.22	1.88	0	0	0	0	0.360072	170.6716
10/01/2002																											
10/01/2002	318,290	4.00	34	10	90		34	12	0	34	331,166	4	0.26	100	0.98	1.17	225	125	28.86	20.58	0	0	0	0	0	0.37257	178.4772
10/01/2002																											
10/06/2002																											
10/06/2002	319,264	4.00	38	10	90		38	12	0	38	332,140		0.10	100	0.96	1.18	233	120	18.12	17.92	0	0	0	0	0	0.414517	179.3788
10/16/2002																											
10/16/2002	321,690	4.00	40	10	90		40	15	0	40	334,583	4	0.21	100	0.94	1.07	230	105	18.28	12.68	0	0	0	0	0	0.445343	182.9416
10/25/2002																											
10/25/2002	321,954	4.20	30	10	90		30	19	0	30	334,731	4.2	0.02	100	0.9	1.2	230	109	22.60	19.74	0	0	0	0	0	0.650501	188.7961
10/30/2002																											
10/30/2002	326,473	3.80	40	10	90		40	19	0	40	336,290	3.8	0.62	100	0.97	1.25	222	100	16.72	17.5	0	0	0	0	0	0.436843	190.8404



RESOURCE CONTROL CORPORATION

www.rcc-net.com

September 16, 2006

Mr. Arnold Schiff
New Jersey Department of Environmental Protection
Division of Responsible Party Remediation
Bureau of Field Operations – Metro Field Office
7 Ridgedale Avenue
Cedar Knolls, New Jersey 07927-1112

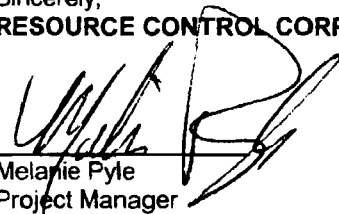
Re: Sunoco Terminal, Duns #0000-9233
436 Doremus Avenue
Newark, New Jersey
Remedial Action Progress Report
NJDEP Case #92-12-30-SP04M

Dear Mr. Schiff,

Enclosed please find a copy of the Remedial Action Progress Report for the above referenced site. A summary of site activities and groundwater elevation contour maps are included.

Should you have any questions or concerns regarding any aspect of this project please contact our office.

Sincerely,
RESOURCE CONTROL CORPORATION



Melanie Pyle
Project Manager

Cc: R. Hammond (Sunoco, Inc)
Y. Monti (Sunoco, Inc)
G. Borkland (Sunoco, Inc.)
Project File (306)

Site Remediation Program

UST Site/Remedial Investigation Report Certification Form

A. Facility Name : Sunoco Terminal, DUNS #0000-9233 Block: 5070 Lot (s): 13, 13A, 15, 15A, 20, 20A, 22AFacility Street Address : 436 Doremus AvenueMunicipality: Newark County: Essex Telephone Number: _____B. Owner (RP)'s Name/ Organization: Sunoco, Inc. (R&M).Street Address: 70 East Ave. City: LawrenceState: NY Zip: 11559 Telephone #: (516) 239-2431

C. (Check as appropriate)

☐ Site Investigation

Report (SLR) \$500 Fee

☐ Remedial Investigation

Report (RIR) \$1000 Fee

D. (Complete all that apply)

- Assigned Case Manager: Arnold Schiff
- UST Facility ID Number: _____
- Closure Activity Number: _____ (i.e. UCL0100001)
- Tank Closure Number C(N) C9 - _____ C9 - _____ (i.e. N01-0000)
- Comm. Center Number(s): 92-12-30-SP04M (i.e. 00-00-00-0000-00)
- Case #: _____ (i.e. 000001USR010001)

E. Certification by the Subsurface Evaluator:

Name: Melanie Pyle Signature: [Signature] UST Cert. No.: 22891Firm: Resource Control CorporationFirm's UST Cert. Number: US00350Firm Address: 1274 North Church StreetCity: MoorestownState: New JerseyZip: 08057Telephone Number: (856) 273-1009Email Address: melaniep@rcc-net.com☒ Yes ☐ No The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E

(NOTE: Certification numbers required only if work was conducted on USTs regulated per N.J.S.A. 58:10A-21 et seq.)

F. Certification by the Responsible Party(ies) of the Facility:

The following certification shall be signed [according to the requirements of N.J.A.C. 7:14B-1.7(b)] as follows:

1. For a Corporation by a person authorized by a resolution of the board of directors to sign the document. A copy of the resolution, certified as a true copy by the secretary of the corporation, shall be submitted along with the certification; or
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
3. For a municipality, State, federal or other public agency by either a principal executive officer or ranking elected Official.

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate, or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

Name (Print or Type): RUSSELL HAMMOND Title: ENVIRONMENTAL ENGINEERSignature: [Signature] Telephone Number: 516 239-2431Company Name: SUNOCO, INC.Date: 9/19/06

Report of Incident/Complaint

1/12/2007

Incident Date: 1/12/2007**Incident Id:** 218493**Program:**

Site Remediation

Incident Type Desc: Spill**Recd Date Time:**

1/12/2007 01:26:44

DEP Region: Northern - SRP**Incident Status Desc:**

Terminated

Incid Link ID#: 78587**Trenton Dispatch Num:**

07-01-12-0126-44

Substances Involved**Incident Description**

SPILL OF ETHANOL FROM NEW TANK BEING FILLED. A VENT HAD BEEN LEFT OPEN. SPILL IS INTO A CONTAINMENT AREA. CONTRACTOR BEEN CALLED FOR CLEANUP.

Substance	CAS Number	Quantity	Units
ETHANOL	64175	12000	gallons
Impacts To:	Land	Waterbody:	

Incident Location**Follow-Up Priority:**

SUNOCO

Municipality: Newark City**County:** Essex**Block, Lot:****Incident Source/Responsible Party****Name:** SUNOCO**Phone #:** 973-715-8540**Verified:****Addr:** 436 DOREMUS AVE**Munic:** Newark City**County:** Essex**State:** NJ**Permit/Case#:** 009929**Reported By:** SUNOCO**Addr:** 436 DOREMUS AVE**Phone #:** 973-715-8540**Name:** JOE NATALE**Confidential:****Municipality:****Case Status:** ER-Assigned**as of:** 1/12/2007**Lead DEP Investigator/Contact:** hcamargo**Action/Activity**

Task	Assigned Staff	Due Date	Completed Date	Hrs Spent	Incident Action Comments	Organization	User ID Last Updt	Dt/Time Last Updt
Notification - Home			1/12/07			ER1	ACARL	1/12/07 9:53
Notification - A310			1/12/07			NEWARK CITY	ACARL	1/12/07 9:53
Notification - Office			1/12/07			NJSP-RIOC	ACARL	1/12/07 9:53
Notification - Fax			1/12/07			NJSP-ODU	ACARL	1/12/07 9:53
Notification - Fax			1/12/07			NJDOH - HAZMAT	ACARL	1/12/07 9:53
Assigned	Camargo, Hayder		1/12/06			ER1	ACARL	1/12/07 9:53

Reporter Comments

BER-1 RESPONDERS CAMARGO AND FONDE DEPLOYED TO INVESTIGATE AND AID IN MITIGATION OF THIS INCIDENT.

JOB #: G14B6D00

MS#: 00014240

PI#: 009929



RESOURCE CONTROL CORPORATION

www.rcc-net.com

**REMEDIAL ACTION PROGRESS REPORT
SEPTEMBER 16, 2006**

SITE NAME:	Sunoco Terminal	SITE LOCATION:	436 Doremus Avenue Newark, New Jersey
DUNS #:	0000-9233	SUNOCO CONTACT:	Russell Hammond
CASE MANAGER:	Arnold Schiff	CASE #:	92-12-30-SP04M

SITE HISTORY: The subject site is an active petroleum bulk storage and distribution terminal. Historical remedial investigation activities at the site have revealed petroleum impacts to soil and groundwater in excess of regulatory action levels. Due to the presence of separate phase hydrocarbons (SPH) on the water table and the proximity of the Passaic River to the site, active SPH recovery is being implemented at the site as an interim remedial measure.

The development of long-term remedial objectives at the site is pending release of the NJDEP's Large Petroleum Facility Guidance Document, such that appropriate, risk-based goals for the site can be established, considering the ongoing nature of site use.

RCC has prepared the following reports:

- Project Update and Conceptual Remedial Action Workplan (January 1997)
- Report of Findings, Total Phase Extraction Pilot Study and Proposed Remedial Actions (February 1998)
- Remedial Action Progress Report (September 1999)
- Remedial Action Progress Report (January 2000)
- Remedial Action Progress Report (July 2002)
- Remedial Action Progress Report (April 2003)
- Remedial Action Progress Report (May 2004)
- Remedial Action Progress Report (January 2006)

GEOLOGY: The Remedial Investigation and Remedial Action Workplan (Handex of NJ, Inc., August 1994) provides geologic and hydrogeologic details of the site. The reported geology indicates that a soil horizon of varied permeability exists from grade and ranging in thickness from 0 to 15 feet. This material consists primarily of sand, cobbles, and fill. Beneath this layer exists a low permeability clay and silt layer extending typically from about 10 to 30 feet below grade. An approximately 10 ft thick sand and cobble layer is reported to lie from about 30 to 40 feet below grade, which is underlain by additional silt and clay, which is further underlain by bedrock. The top of bedrock is indicated at 47 feet below grade at the south property boundary, and sloping to 100 feet below grade at the north property boundary along the river embankment.

RECEPTORS: Based on the results presented in previous reports, soil adsorbed petroleum hydrocarbons (PHCs), dissolved phase PHCs, and separate phase hydrocarbons (SPH) have not migrated off-site. The Passaic River is immediately adjacent to the site and is considered the most important potential sensitive

important potential sensitive receptor. Results of the liquid level gauging conducted biannually indicate no off-site migration of SPH and therefore indicate that the Passaic River has not been impacted as a result of the SPH present on site. Vapor migration to nearby structures, including utilities and buildings on adjacent properties is not expected.

SITE ACTIVITIES: Resource Control Corporation (RCC) collected liquid levels and groundwater quality samples at the above referenced facility on January 25 & 26, 2006 and July 24 & 25, 2006 from site monitoring wells. Groundwater quality samples were collected from eleven (11) perimeter monitoring wells which included MW-01, MW-04, MW-07, MW-10, MW-11, MW-18, MW-19, MW-20, MW-35, MW-38, and MW-39 on January 25 & 26, 2006 and July 24 & 25, 2006. Monitoring well MW-45 is damaged and could not be sampled. A Site Location Map is attached as **Figure 1**. The well locations are depicted on the Site Plan, **Figure 2**. Groundwater samples were collected in accordance with the Field Sampling Procedures Manual, August 2005. Samples from monitoring wells were submitted to Lancaster Laboratories, Inc. of Lancaster, Pennsylvania. The samples were analyzed for VOC+10, MTBE and TBA by EPA Method 624 and BN+15 by EPA Method 625. Field observations including temperature, pH, dissolved oxygen and conductivity were collected in all monitoring wells sampled.

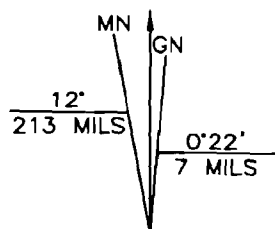
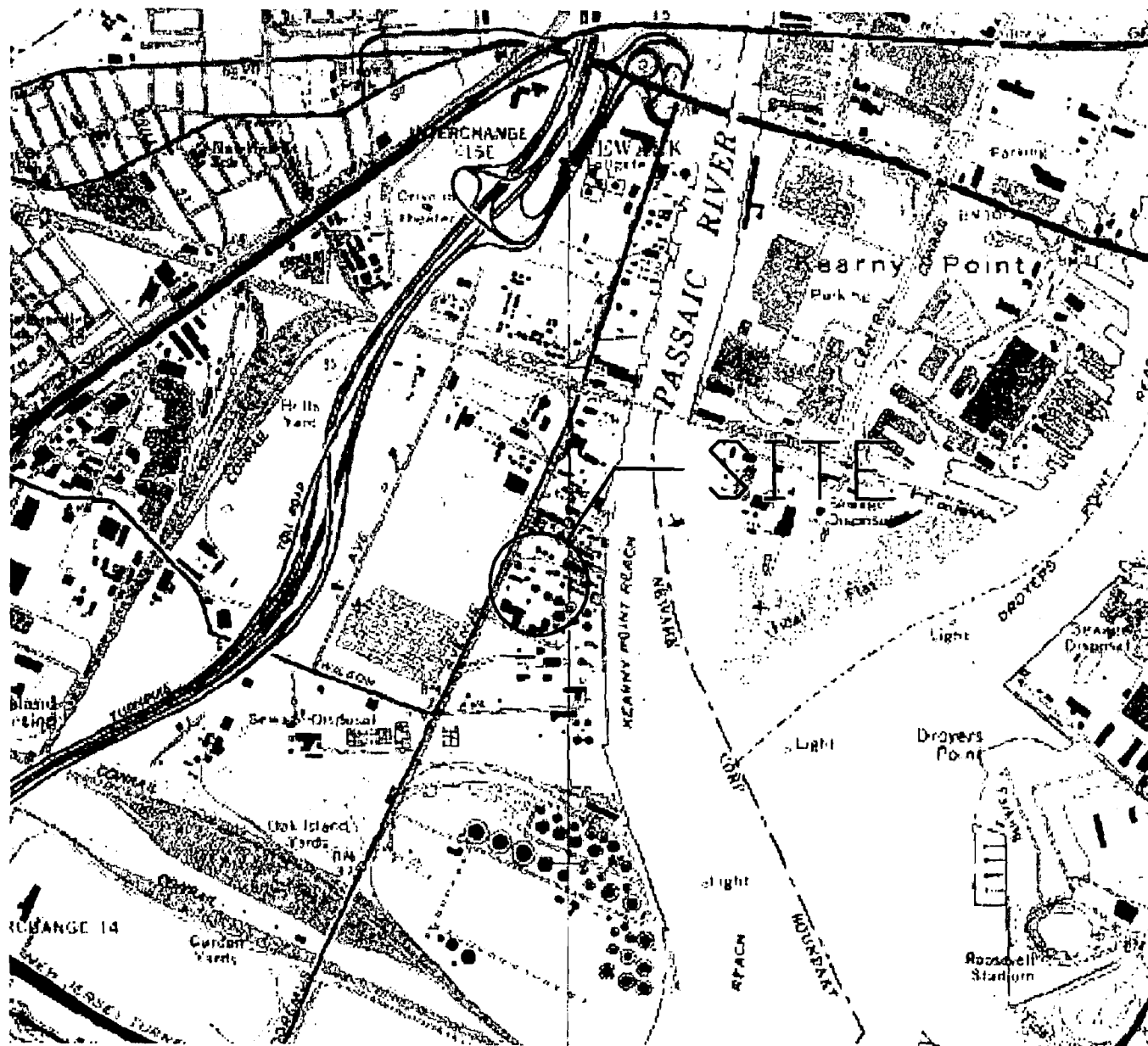
GROUNDWATER MONITORING RESULTS: Groundwater elevations contours from the monitoring and sampling events are depicted on **Figures 3** and **4**. The groundwater flow direction from each event is generally to the northeast.

The analytical results of the groundwater sampling of the perimeter wells is provided on **Table 1** and **2**. The field observation data is provided on **Tables 3** and **4**. Groundwater elevation data is provided in **Tables 5** and **6**.

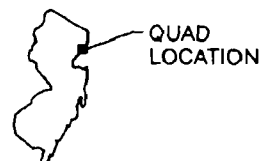
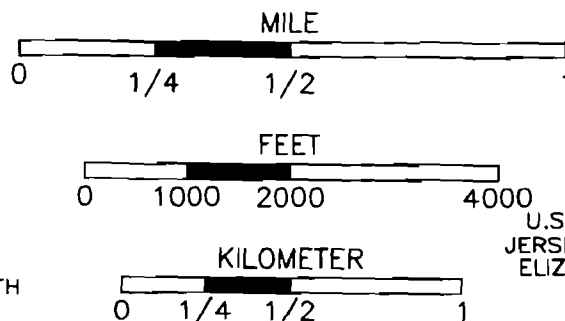
FIGURES

FIGURE 1 SITE LOCATION

SUN COMPANY, INC., NEWARK TERMINAL
DUNS #0000-9233
436 DOREMUS AVENUE
NEWARK, NEW JERSEY



UTM GRID AND 1981 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

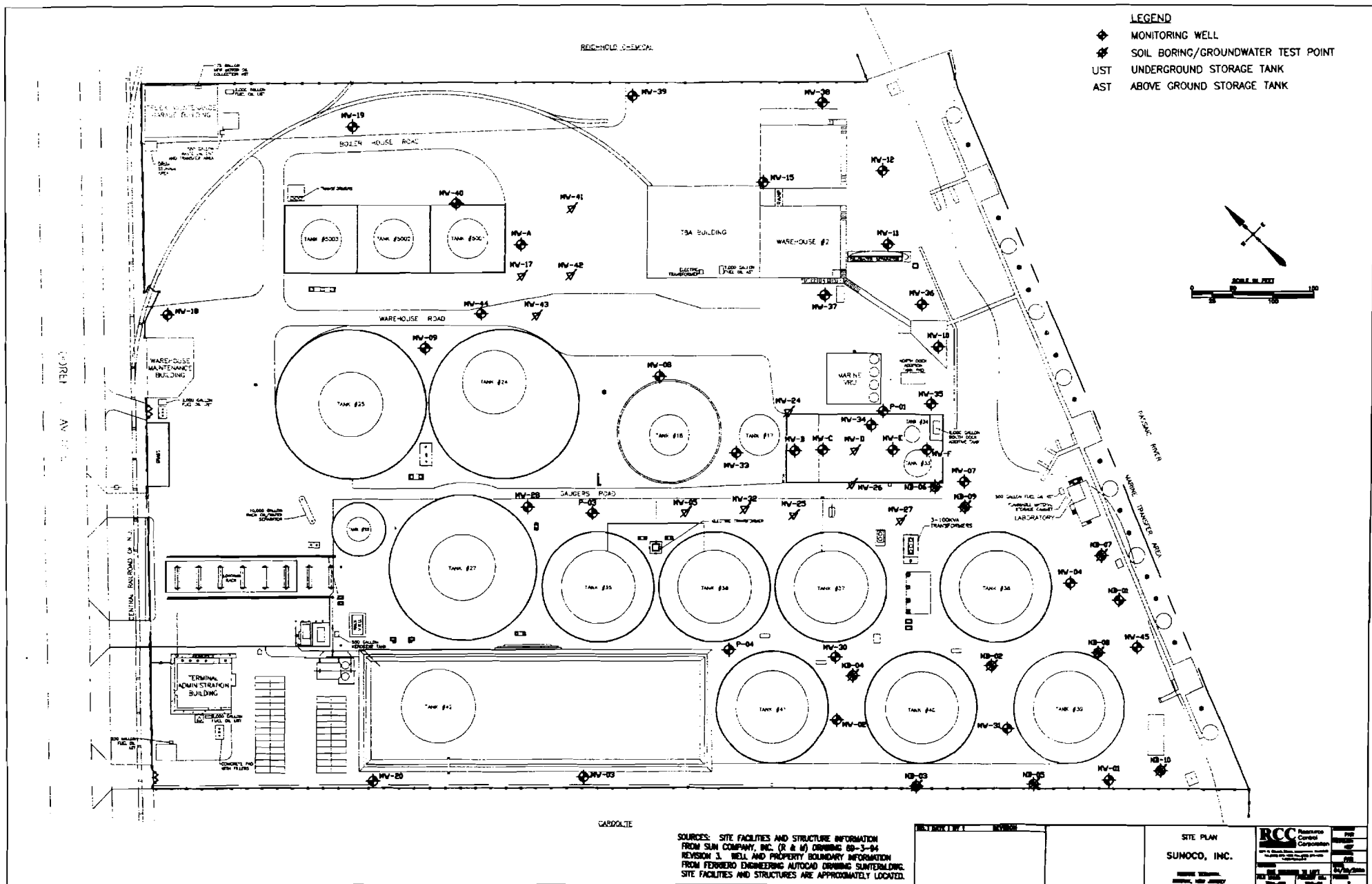


QUAD
LOCATION

NEW JERSEY

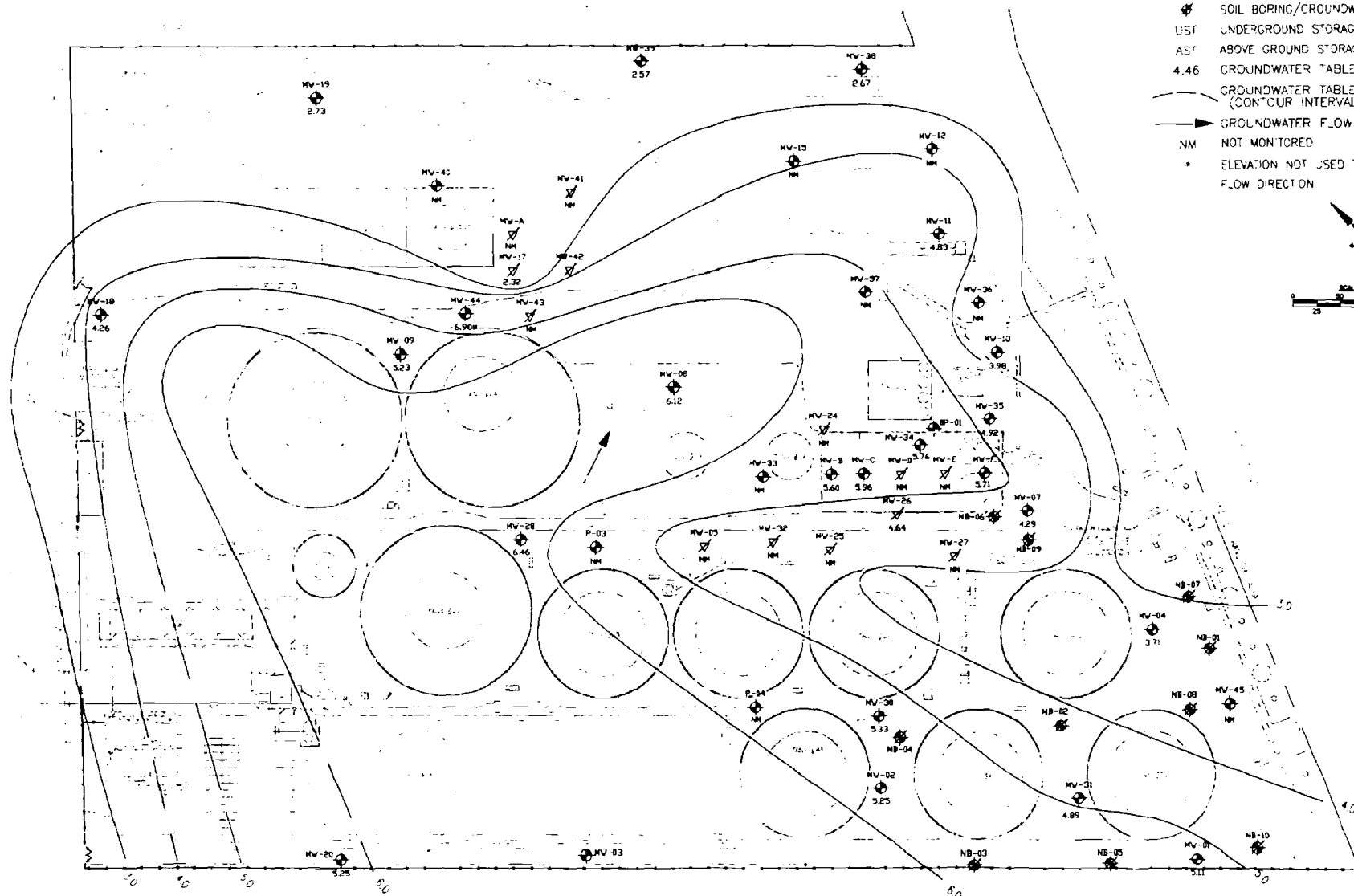
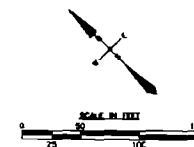
SOURCE:

U.S.G.S. TOPOGRAPHIC QUADRANGLE
JERSEY CITY, N.J. - N.Y. QUADRANGLE
ELIZABETH, N.J. - N.Y. QUADRANGLE
7.5 MINUTE SERIES
BOTH 1981



LEGEND

- ◆ MONITORING WELL
- ◆ SOIL BORING/GROUNDWATER TEST POINT
- UST UNDERGROUND STORAGE TANK
- AST ABOVE GROUND STORAGE TANK
- 4.46 GROUNDWATER TABLE ELEVATION (FEET)
- GROUNDWATER TABLE ELEVATION CONTOUR (CONTOUR INTERVAL = 1.0 FEET)
- GROUNDWATER FLOW DIRECTION
- NM NOT MONITORED
- * ELEVATION NOT USED TO MODEL GROUNDWATER FLOW DIRECTION



TABLES

TABLE 1
PERIMETER MONITORING WELL GROUNDWATER ANALYTICAL RESULTS
SAMPLING DATE: JANUARY 25 & 26, 2006
NEWARK TERMINAL
436 DOREMUS AVENUE
NEWARK, NEW JERSEY

SAMPLE I.D.:		MW-01	MW-04	MW-07	MW-10	MW-11	MW-18	MW-19	MW-20	MW-35	MW-38	MW-39
DEPTH TO GROUNDWATER		4.61	3.35	5.00	3.30	3.47	3.65	4.33	3.69	2.29	5.80	6.64
SAMPLE DATE:		1/25/2006	1/25/2006	1/25/2006	1/26/2006	1/26/2006	1/25/2006	1/25/2006	1/25/2006	1/26/2006	1/26/2006	1/25/2006
LAB I.D.:		4698162	4698163	4698164	4698169	4698170	4698167	4698165	4698161	4698168	4698171	4698166
MATRIX:		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
PARAMETERS:	UNITS	NJDEP Groundwater Quality Standards										
VOLATILES (VOCs)**												
Benzene	ug/L	1	ND	130	18	ND	ND	ND	ND	2 J	ND	ND
Toluene	ug/L	1,000	ND	4 J	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/L	700	ND	7	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/L	1,000	ND	15	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ug/L	6	23	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ug/L	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ug/L	50	15	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ug/L	70	2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	ug/L	10,000	40	1,441	621	517	ND	223	1	395	552	ND
Tentatively Identified VOCs	ug/L	500	ND	1,054 J	127 J	111 J	ND	ND	43 J	8 J	ND	ND
Methyl Tertiary Butyl Ether	ug/L	70	ND	21	26	36	ND	3 J	1 J	210	34	ND
Tertiary Butyl Alcohol	ug/L	100	ND	210	480	370	ND	220	ND	140	510	ND
BASE NEUTRAL COMPOUNDS (BNCs)**												
Naphthalene	ug/L	300	ND	7 J	ND	ND	ND	ND	0.2 J	ND	ND	ND
Acenaphthene	ug/L	10	ND	3 J	0.4 J	0.4 J	ND	0.4 J	ND	ND	ND	2 J
Acenaphthylene	ug/L	None	ND	ND	0.4 J	ND	ND	ND	ND	ND	ND	0.9 J
Fluorene	ug/L	300	ND	2 J	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	ug/L	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	ug/L	100	ND	0.9 J	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	ug/L	2000	ND	ND	0.3 J	0.2 J	ND	ND	ND	ND	ND	0.5 J
Fluoranthene	ug/L	300	ND	0.9 J	ND	ND	ND	ND	ND	ND	ND	2 J
Pyrene	ug/L	200	ND	2 J	0.7 J	0.2 J	ND	ND	0.3 J	ND	4 J	3 J
Benzo(a)anthracene	ug/L	10	ND	0.4 J	ND	ND	ND	ND	ND	ND	ND	1 J
Benzo(b)fluoranthene	ug/L	None	ND	0.7 J	ND	ND	ND	ND	0.4 J	ND	ND	1 J
Benzo(k)fluoranthene	ug/L	None	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4 J
Benzo(g,h,i)perylene	ug/L	None	ND	0.3 J	0.5 J	ND	ND	ND	ND	ND	ND	0.5 J
Chrysene	ug/L	20	ND	0.4 J	ND	ND	ND	ND	0.2 J	ND	ND	1 J
Bis(2-Ethylhexyl)phthalate	ug/L	30	7 J	20	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ug/L	None	ND	ND	0.4 J	ND	ND	ND	ND	ND	ND	0.4 J
Di-N-Octylphthalate	ug/L	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ug/L	20	ND	0.3 J	ND	ND	ND	ND	ND	ND	ND	0.9 J
Total BNCs	ug/L	None	7	419.9	233.7	49.8	ND	0.4	1.1	0.4	4	13.6
Tentatively Identified BNCs	ug/L	500	ND	382 JX	231 J	49 JX	ND	ND	ND	ND	4 J	ND

ug/L = Concentration in micrograms per liter, which is approximately equivalent to parts per billion.

** Only those compounds detected are listed.

Shading indicates an exceedance of the NJDEP Groundwater Quality Standards (GWQS).

NA = Not Analyzed

ND = Not Detected

TABLE 2
PERIMETER MONITORING WELL GROUNDWATER ANALYTICAL RESULTS
SAMPLING DATE: JULY 24 & 25, 2006
NEWARK TERMINAL
436 DOREMUS AVENUE
NEWARK, NEW JERSEY

SAMPLE I.D.:			MW-01	MW-04	MW-07	MW-10	MW-11	MW-18	MW-19	MW-20	MW-35	MW-38	MW-39
DEPTH TO GROUNDWATER			4.28	2.96	4.84	3.00	3.39	3.05	3.63	3.23	2.07	4.81	5.75
SAMPLE DATE:			7/24/2006	7/24/2006	7/24/2006	7/25/2006	7/25/2006	7/24/2006	7/24/2006	7/24/2006	7/25/2006	7/25/2006	7/25/2006
LAB I.D.:			4823859	4823860	4823861	4823866	4823867	4823864	4823863	4823858	4823865	4823862	4823868
MATRIX:			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
PARAMETERS:	UNITS	NJDEP Groundwater Quality Standards											
VOLATILES (VOCs)**													
Benzene	ug/L	1	ND	84	11	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/L	1,000	ND	2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/L	700	ND	2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	ug/L	1,000	ND	5 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ug/L	6	43	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ug/L	1	2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ug/L	50	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ug/L	70	3 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	ug/L	10,000	64	922	360	ND	ND	467	ND	8	1,333	3	2
Tentatively Identified VOCs	ug/L	500	ND	718 J	76 J	ND	ND	3 J	ND	4	J	ND	ND
Methyl Tertiary Butyl Ether	ug/L	70	ND	11	13	ND	ND	4 J	ND	6	29	3 J	2 J
Tertiary Butyl Alcohol	ug/L	100	ND	120	280	ND	ND	480	ND	ND	1300	ND	ND
BASE NEUTRAL COMPOUNDS (BNCs)**													
Naphthalene	ug/L	300	ND	2 J	ND	ND	ND	ND	ND	ND	0.3 J	ND	0.2 J
Acenaphthene	ug/L	10	ND	1 J	4 J	ND	ND	0.6 J	ND	ND	ND	ND	3 J
Acenaphthylene	ug/L	None	ND	ND	ND	ND	ND	ND	ND	ND	0.4 J	ND	2 J
Fluorene	ug/L	300	ND	1 J	3 J	ND	ND	ND	ND	ND	ND	ND	0.7 J
N-Nitrosodiphenylamine	ug/L	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	ug/L	100	ND	0.4 J	0.3 J	ND	ND	ND	0.5 J	ND	0.3 J	ND	0.2 J
Anthracene	ug/L	2000	ND	0.2 J	0.2 J	0.3 J	ND	ND	ND	ND	0.8 J	ND	1 J
Fluoranthene	ug/L	300	ND	0.9 J	ND	ND	ND	ND	ND	ND	2 J	ND	5 J
Pyrene	ug/L	200	ND	2 J	0.2 J	ND	ND	ND	ND	ND	4 J	ND	9 J
Benzo(a)anthracene	ug/L	10	ND	0.6 J	ND	ND	ND	ND	ND	ND	0.8 J	ND	3 J
Benzo(b)fluoranthene	ug/L	None	ND	0.7 J	ND	ND	ND	ND	ND	ND	1 J	ND	3 J
Benzo(k)fluoranthene	ug/L	None	ND	ND	ND	ND	ND	ND	ND	ND	0.4 J	ND	0.9 J
Benzo(g,h,i)perylene	ug/L	None	ND	ND	ND	ND	ND	ND	ND	ND	0.2 J	ND	1 J
Chrysene	ug/L	20	ND	0.4 J	ND	ND	ND	ND	ND	ND	0.9 J	ND	3 J
Bis(2-Ethylhexyl)phthalate	ug/L	30	2 J	30	1 J	ND	ND	2 J	ND	ND	3.0 J	ND	13
Indeno(1,2,3-cd)pyrene	ug/L	None	ND	0.4 J	ND	ND	ND	ND	ND	ND	ND	ND	1 J
Di-N-Octylphthalate	ug/L	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ug/L	20	ND	0.5 J	ND	ND	ND	ND	ND	ND	0.8 J	ND	3 J
Total BNCs	ug/L	None	2	256.1	453.7	143.3	6	13.6	4.5	ND	301.4	1400	80
Tentatively Identified BNCs	ug/L	500	ND	216 J	445 J	143 J	6 J	11 J	4 J	ND	286 J	1400 J	31 J

ug/L = Concentration in micrograms per liter, which is approximately equivalent to parts per billion.

** Only those compounds detected are listed.

Shading indicates an exceedance of the NJDEP Groundwater Quality Standards (GWQS).

NA = Not Analyzed

ND = Not Detected

**TABLE 3
FIELD OBSERVATIONS
SAMPLING DATE: 01/25-26/2006**

**SUNOCO, INC.
NEWARK TERMINAL
NEWARK, NEW JERSEY**

FIELD OBSERVATION	MW-01	MW-02	MW-03	MW-10	MW-11	MW-12	MW-13	MW-20	MW-35	MW-36	MW-39
BEFORE PURGING:											
PID Reading (ppmv)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time	9:05	9:55	10:40	9:15	10:10	13:00	11:25	8:25	8:25	11:10	12:10
Total Depth (feet)	14.50	13.85	11.25	9.95	12.04	16.83	7.81	10.40	12.09	11.76	12.05
Depth to Water (feet)	4.61	3.35	5	3.30	3.47	3.65	4.33	3.69	2.29	5.8	6.64
pH	6.51	6.46	6.86	7.27	7.79	7.26	7.31	7.11	6.94	6.54	6.78
Dissolved Oxygen	2.8	18.50	12.2	15.4	18.9	17.70	17.70	6.20	1.60	19.60	18.10
Temperature (°C)	6.6	8.8	11.3	9.3	7.0	11.7	11.1	10.0	10.0	9.4	12.8
Specific Conductivity (µS)	383	453	893	544	194	817	221	196	26	3,999	2,674
Estimated Water Volume in Well (gallons)	6.43	6.83	4.06	4.32	5.57	8.57	2.26	4.36	6.37	3.87	3.52
AFTER PURGING:											
Time	9:25	10:15	10:55	9:30	10:35	13:30	11:35	8:40	8:45	11:30	12:25
Purge Method	Pump	Pump	Pump	Pump	Pump	Pump	Pump	Pump	Pump	Pump	Pump
Purge Rate (gpm)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total Volume Purged (gallons)	20	21	13	13	17	26	7	14	20	12	11
Depth to Water (feet)	5.01	4.77	6.11	7.34	8.86	9.91	5.56		11.91	9.46	11.59
pH	6.50	6.57	7.05	6.57	7.45	6.95	7.17	6.87	6.79	6.99	6.88
Dissolved Oxygen (mg/L)	15.90	13.50	16.90	17.40	15.40	18.8	16.3	4.9	7.7	14-Jan	15.9
Temperature (°C)	7.7	9.1	11.4	9.4	6.5	11.9	9.9	4.8	10.3	9.1	11.9
Specific Conductivity (µS)	382	405	906	1,105	101	791	556	432	2,551	2,177	2,511
BEFORE SAMPLING:											
Depth to Water (feet)	4.61	3.35	5.00	3.30	3.47	3.65	4.33	3.69	2.29	5.8	6.64
AFTER SAMPLING:											
Start Time	9:40	10:30	11:15	9:50	10:50	13:50	11:50	8:55	9:00	11:50	12:45
End Time	9:45	10:35	11:20	9:55	10:55	13:55	11:55	9:00	9:05	11:55	12:50
Sampling Method	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer
pH	6.47	6.52	6.95	6.52	7.02	6.91	6.88	6.67	6.65	7.08	6.82
Dissolved Oxygen (mg/L)	3.1	11.1	17	18.6	10.9	18.50	17.90	4.10	13.30	15.70	17.30
Temperature (°C)	8.3	10.3	11.3	8.6	6.4	10.9	11.1	6.2	9.5	9.8	12.6
Specific Conductivity (µS)	352	706	886	1,091	148	515	438	208	2,793	3,999	2,773
Other observations:											

NOTES:

ppmv = parts per million, volume basis, benzene equivalents

µS = microSiemen (Equivalent to micromho, µmho)

gpm = gallons per minute

mg/L = milligrams per liter

N/A = Not Available

* = Not enough water for second set.

TABLE 4
FIELD OBSERVATIONS
SAMPLING DATE: 07/24-25/2006

SUNOCO, INC.
NEWARK TERMINAL
NEWARK, NEW JERSEY

FIELD OBSERVATIONS	NW-01	NW-02	NW-03	NW-04	NW-05	NW-06	NW-07	NW-08	NW-09	NW-10	NW-11
BEFORE PURGING:											
PID Reading (ppmv)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time	10:05	10:45	11:25	9:50	10:35	13:15	12:45	9:30	8:25	12:05	8:15
Total Depth (feet)	14.50	13.85	11.25	9.95	12.04	16.83	7.81	10.40	12.09	11.76	12.05
Depth to Water (feet)	4.28	2.96	4.84	3.00	3.39	3.05	3.63	3.23	2.29	4.81	5.75
pH	6.24	5.77	6.53	6.07	6.00	5.77	6.11	5.91	6.94	5.88	5.66
Dissolved Oxygen	1.17	2.03	1.98	1.19	1.96	317.00	3.88	4.01	1.60	2.19	2.20
Temperature (°C)	19.4	17.8	17.6	24.0	26.1	20.5	26.0	18.9	10.0	18.9	18.3
Specific Conductivity (µS)	555	245	474	311	81	527	291	126	28	2,788	1,521
Estimated Water Volume in Well (gallons)	6.64	7.08	4.17	4.52	5.62	8.96	2.72	4.66	6.37	4.52	4.10
AFTER PURGING:											
Time	10:25	11:10	11:40	10:05	10:55	13:45	12:55	9:45	8:45	12:20	8:30
Purge Method	Pump	Pump	Pump	Pump	Pump	Pump	Pump	Pump	Pump	Pump	Pump
Purge Rate (gpm)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total Volume Purged (gallons)	20	22	15	14	17	27	9	15	20	15	13
Depth to Water (feet)	7.71	7.51	7.66	7.89	9.71	10.78	6.81	7.25	11.91	9.90	NR
pH	6.33	5.81	6.49	6.19	6.21	5.81	5.91	6.15	6.79	6.05	NR
Dissolved Oxygen (mg/L)	1.63	1.35	0.67	1.29	1.77	1.29	3.65	2.72	7.7	0-Jan	NR
Temperature (°C)	22.9	19.4	17.5	22.1	26.7	21.1	25.6	23.9	10.3	18.9	NR
Specific Conductivity (µS)	239	299	437	400	83	463	277	148	2,551	2,776	NR
BEFORE SAMPLING:											
Depth to Water (feet)	4.28	2.96	4.84	3.00	3.39	3.05	3.63	3.23	2.29	4.81	NR
AFTER SAMPLING:											
Start Time	10:40	11:20	11:55	10:20	11:10	14:00	13:05	10:00	9:00	12:35	8:45
End Time	10:45	11:25	12:00	10:25	11:15	14:05	13:10	10:05	9:05	12:40	8:50
Sampling Method	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer
pH	6.30	5.99	6.50	5.99	6.29	5.95	5.87	6.17	6.65	6.05	NR
Dissolved Oxygen (mg/L)	2.37	1.21	0.59	1.01	1.09	1.47	3.72	2.00	13.30	0.77	NR
Temperature (°C)	24.3	20	20.2	21.3	26.1	21.0	25.0	24.9	9.5	19.1	NR
Specific Conductivity (µS)	221	410	431	407	84	442	241	159	2,793	2,883	NR
Other observations:											

NOTES:

ppmv = parts per million, volume basis, benzene equivalents

µS = microSiemen (Equivalent to micromho, µmho)

gpm = gallons per minute

mg/L = milligrams per liter

N/A = Not Available

* = Not enough water for second set.

Table 5
Groundwater Table Elevations
Monitoring Date: January 25 & 26, 2006

Sun Company, Inc.
Newark Terminal, NJ
RCC No. 306

Well ID	Top of PVC Elevation (feet)	Depth to Water (feet)	Depth to Product (feet)	Product Thickness (feet)	Relative Water Table Elevation (feet)
MW-01	9.72	4.61	NP	NP	5.11
MW-02	9.56	4.31	NP	NP	5.25
MW-04	7.06	3.35	NP	NP	3.71
MW-05	9.33	NS	NS	NS	NS
MW-07	9.29	5.00	NP	NP	4.29
MW-08	8.30	2.18	NP	NP	6.12
MW-09	8.45	3.22	NP	NP	5.23
MW-10	7.28	3.30	NP	NP	3.98
MW-11	8.30	3.47	NP	NP	4.83
MW-12	7.46	NS	NS	NS	NS
MW-15	9.03	NS	NS	NS	NS
MW-17	6.54	4.22	NP	NP	2.32
MW-18	7.91	3.65	NP	NP	4.26
MW-19	7.06	4.33	NP	NP	2.73
MW-20	8.94	3.69	NP	NP	5.25
MW-24	8.46	NS	NS	NS	NS
MW-25	8.26	NS	NS	NS	NS
MW-26	9.13	4.49	NP	NP	4.64
MW-27	9.57	NS	NS	NS	NS
MW-28	9.35	2.89	NP	NP	6.46
MW-30	10.63	5.30	NP	NP	5.33
MW-31	10.23	5.34	NP	NP	4.89
MW-32	8.50	NS	NS	NS	NS
MW-33	8.26	NS	NS	NS	NS
MW-34	8.22	2.46	NP	NP	5.76
MW-35	7.21	2.29	NP	NP	4.92
MW-36	7.33	NS	NS	NS	NS
MW-37	6.08	NS	NS	NS	NS
MW-38	8.47	5.80	NP	NP	2.67
MW-39	9.21	6.64	NP	NP	2.57
MW-40	6.26	NS	NS	NS	NS
MW-41	5.09	NS	NS	NS	NS
MW-43	7.12	NS	NS	NS	NS
MW-44	9.91	3.01	NP	NP	6.90
MW-45	7.30	NS	NS	NS	NS
MW-A	7.71	NS	NS	NS	NS
MW-B	8.37	2.77	NP	NP	5.60
MW-C	8.30	2.34	NP	NP	5.96
MW-D	8.22	NS	NS	NS	NS
MW-E	8.38	NS	NS	NS	NS
MW-F	8.91	3.20	NP	NP	5.71
P-02	NA	NS	NP	NP	NA
P-03	8.64	NS	NS	NS	NS
P-04	8.68	NS	NS	NS	NS

Notes:

NP - no product

NS - not sampled/monitored

NA - Not Applicable/Not Surveyed

Table 6
Groundwater Table Elevations
Monitoring Date: July 24 & 25, 2006

Sun Company, Inc.
Newark Terminal, NJ
RCC No. 306

Well ID	Top of PVC Elevation (feet)	Depth to Water (feet)	Depth to Product (feet)	Product Thickness (feet)	Relative Water Table Elevation (feet)
MW-01	9.72	4.28	NP	NP	5.44
MW-02	9.56	3.73	NP	NP	5.83
MW-04	7.06	2.96	NP	NP	4.10
MW-05	9.33	NS	NS	NS	NS
MW-07	9.29	4.84	NP	NP	4.45
MW-08	8.30	3.05	NP	NP	5.25
MW-09	8.45	2.94	NP	NP	5.51
MW-10	7.28	3.00	NP	NP	4.28
MW-11	8.30	3.39	NP	NP	4.91
MW-12	7.46	NS	NS	NS	NS
MW-15	9.03	NS	NS	NS	NS
MW-17	6.54	2.66	NP	NP	3.88
MW-18	7.91	3.05	NP	NP	4.86
MW-19	7.06	3.63	NP	NP	3.43
MW-20	8.94	3.23	NP	NP	5.71
MW-24	8.46	NS	NS	NS	NS
MW-25	8.26	NS	NS	NS	NS
MW-26	9.13	2.25	NP	NP	6.88
MW-27	9.57	NS	NS	NS	NS
MW-28	9.35	3.77	NP	NP	5.58
MW-30	10.63	4.80	NP	NP	5.83
MW-31	10.23	4.67	NP	NP	5.56
MW-32	8.50	NS	NS	NS	NS
MW-33	8.26	NS	NS	NS	NS
MW-34	8.22	1.98	NP	NP	6.24
MW-35	7.21	2.07	NP	NP	5.14
MW-36	7.33	NS	NS	NS	NS
MW-37	6.08	NS	NS	NS	NS
MW-38	8.47	4.81	NP	NP	3.66
MW-39	9.21	5.75	NP	NP	3.46
MW-40	6.26	NS	NS	NS	NS
MW-41	5.09	NS	NS	NS	NS
MW-43	7.12	NS	NS	NS	NS
MW-44	9.91	2.90	NP	NP	7.01
MW-45	7.30	NS	NS	NS	NS
MW-A	7.71	NS	NS	NS	NS
MW-B	8.37	2.42	NP	NP	5.95
MW-C	8.30	2.17	NP	NP	6.13
MW-D	8.22	NS	NS	NS	NS
MW-E	8.38	NS	NS	NS	NS
MW-F	8.91	3.88	NP	NP	5.03
P-02	NA	3.85	NP	NP	NA
P-03	8.64	NS	NS	NS	NS
P-04	8.68	NS	NS	NS	NS

Notes:

NP - no product

NS - not sampled/monitored

NA - Not Applicable/Not Surveyed

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF EMERGENCY RESPONSE REGION I

INVESTIGATION REPORT - CASE #: 07-01-12-0126-44

CASE NAME:	Sunoco Ethanol Spill	JOB NUMBER:	G14B6D00
LOCATION:	436 Doremus Avenue	MASTER FILE	00014240
		NUMBER:	
MUNICIPALITY:	Newark	PROGRAM	009929
		INTEREST	
		NUMBER:	
COUNTY:	Essex		
RESPONSIBLE PARTY:	Sunoco Logistics		
ADDRESS:	436 Doremus Avenue		
	Newark, NJ, 07105		
CONTACT:	Romeet Ahuja	PHONE:	973-465-3200
MATERIAL:	Denatured Ethanol	DIRECTIVE:	No
AMOUNT:	14,000-gallons	NOV:	No
CAUSE:	Spill	ACR:	Yes
CLEAN UP:	Atlantic Response	OPA '90:	No
INJURY:	No	NRC #:	No
EVACUATION:	No	FOSC:	No

DUTY OFFICER: Anthony Carl

REPORT AUTHOR: Hayder Camargo
REPORT DATE: 01/23/07

Signature:

Hayder Camargo

	RESPONDERS	DATE	START	STOP	REG HRS	OT HRS	TOT HRS
1	Laura Fonde	1/12/07	0130	0830	1.0	6.0	7.0
2	Hayder Camargo	1/12/07	0130	0830	0.0	7.0	7.0

LEVEL OF PROTECTION:

D

ENTRIES:

INSTRUMENTATION:

MATERIALS:

HAZCAT:

RAD:

BOOM:

PID:

1

MIRAN:

PAD:

FID:

CGI:

1

SWEEP:

DRAGER

WMD

DRUM

OTHER

TUBES:

EQUIP:

TUBES:

EQUIP:

CODE RESPONSE LEVEL: 0

COPY
NFO-1111

BRIEF DESCRIPTION OF INCIDENT:

SOSC's Fonde and Camargo were deployed to investigate the report of 12,000 to 14,000 gallon spill of denatured Ethanol from a bulk above ground storage tank. According to Sunoco the tank was brand new and was just placed into service and the spill was due to an open vent valve that was left open during the fueling of the tank. The spill entered and was contained to a secondary containment dike surrounding the tank.

Upon arrival BER-1 conducted air monitoring with a PID corrected to Ethanol and a Combustible Gas Indicator (CGI). Air monitoring at the property fence line revealed nothing above background. However within the dike area the PID had readings up 900 ppm for Ethanol and 1% of the Lower Explosive Limit (LEL). The LEL for Ethanol is 3%. The low readings outside the dike area were probably due to the extremely cold weather, which was reducing the volatilization of the material.

Sunoco Logistics hired Atlantic Response to remediate the spill. Upon Atlantic's arrival they commenced removing the pooled Ethanol at the dike's rain collection pits/ piping via Vac-trucks. The collected material was placed into a 20,000-gallon temporary storage tank, which was mobilized to the site. Once the surface pooled material was removed Atlantic was to flush the dike/ gravel area with water to lower the vapors within the dike area. The dike area had an impervious clay layer underneath the gravel layer according to Sunoco representatives. In addition, the area within the dike area was graded to allow rain water to drain towards the collection pits. Once flushing was complete Atlantic was to hand excavate test pits within the dike area to determine if any Ethanol remained trapped underneath the gravel layer and determine extent of contamination. Atlantic was also to remove any remaining saturated gravel. BER-1 secured from incident location once all pooled Ethanol was removed.

RECOMMENDATIONS:

Recommend case closure by BER-1, case will be transferred to current NJDEP site manager in Bureau of Field Operation-North.

New Jersey Department of Environmental Protection
COMMUNICATION CENTER NOTIFICATION REPORT

Received: 1/12/2007 01:26:44

Comm. Center #: 07-01-12-0126-44

Operator: 2

Reviewed By: _____

Reporter Type: Facility Rep.

Reported By: JOE NATALE

Affiliation: SUNOCO

Phone: 973-715-8540

Street Address: 436 DOREMUS AVE,

Municipality: Newark City

State: NJ

Incident Category:

Location Description: SUNOCO

Address: 436 DOREMUS AVE

Municipality: Newark City

County: Essex

State: NJ Zip Code:

Location Type: Commercial

Occurred Date: 01/12/2007 Occurred Time: 01:05 AM

Substance Released: ETHANOL

Amount Released: 12000 Units: gallons

Estimated

ID: Known State: Liquid

CAS#: 64175

Incident Status at Time of Report: Terminated

Substance Contained: Yes

HAZMAT: Yes

TCPA: No

Haz Waste: No

Incident Type: Spill

Incident Type 2:

Injuries: No

Public Evac: No

Facility Evac: No

Public Exposure: No

Police At Scene: No

Firemen At Scene: No

Dep Requested: No

Road Closure: No

Wind Speed/Direction:

Contamination Of: Land

Watershed:

Other Watershed:

Incident Description: SPILL OF ETHANOL FROM NEW TANK BEING FILLED. A VENT HAD BEEN LEFT OPEN. SPILL IS INTO A CONTAINMENT AREA. CONTRACTOR HAS BEEN CALLED FOR CLEANUP.

Responsible Party Name: SUNOCO

Responsible Party Phone: 973-715-8540

Responsible Party Street Address: 436 DOREMUS AVE,

Municipality: Newark City

County: Essex

State: NJ Zip Code: 07105

Officials Notified

Name	Affiliation	Phone	Date	Time	Action
ANTHONY CARL	ER1		01/12/2007	1:33	Notification - Home
OPER 82	NEWARK CITY	973-733-7400	01/12/2007	1:44	Notification - A310
DET ESTEREZ	NJSP-RIOC		01/12/2007	0:00	Notification - Office
	NJSP-ODU		01/12/2007	0:00	Notification - Fax
	NJDOH - HAZMAT		01/12/2007	0:00	Notification - Fax
	ER1		01/12/2006	0:00	Assigned

Comments: BER-1 RESPONDERS CAMARGO AND FONDE DEPLOYED TO INVESTIGATE AND AID IN MITIGATION OF THIS INCIDENT.

JOB #: G14B6D00

MS#: 00014240

PI#: 009929



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: ETH-DENATURED FOR+10%BLD

Manufacturer Information:

Sunoco, Inc. (R&M)
1735 Market Street LL

Philadelphia, Pennsylvania, 19103-7583

Product Use:

Alcohol
Denatured Ethanol-Unfit For Human Consumption

Emergency Phone Numbers:

Chemtrec (800) 424-9300
Sunoco Inc. (800) 964-8861

Information:

Product Safety Information (610) 859-1120

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount (Vol%)
ETHYL ALCOHOL	64-17-5	95 - 98
NATURAL GASOLINE (PETROLEUM)	8006-61-9	2 - 5
WATER	7732-18-5	0 - 1
METHANOL	67-56-1	0 - 0.5
BENZENE	71-43-2	0 - 0.06

EXPOSURE GUIDELINES (SEE SECTION 15 FOR ADDITIONAL EXPOSURE LIMITS)

	CAS No.	Governing Body	Exposure Limits
Limit for the product	64-17-5	ACGIH	TWA 1000 ppm
Limit for the product	64-17-5	OSHA	TWA 1000 ppm
BENZENE	71-43-2	OSHA	C 5 ppm Ceiling
BENZENE	71-43-2	ACGIH	STEL 2.5 ppm
BENZENE	71-43-2	OSHA	STEL 5 ppm
BENZENE	71-43-2	ACGIH	TWA 0.5 ppm
BENZENE	71-43-2	OSHA	TWA 1 ppm
ETHYL ALCOHOL	64-17-5	ACGIH	TWA 1000 ppm
ETHYL ALCOHOL	64-17-5	OSHA	TWA 1000 ppm
METHANOL	67-56-1	ACGIH	TWA 250 ppm
METHANOL	67-56-1	OSHA	STEL 200 ppm
METHANOL	67-56-1	ACGIH	TWA 200 ppm
NATURAL GASOLINE	8006-61-9	OSHA	TWA 200 ppm
NATURAL GASOLINE	8006-61-9	ACGIH	STEL 500 ppm

R00000084810, ETH-DENATURED FOR+10%BLD

POTENTIAL HEALTH EFFECTS

PRE-EXISTING MEDICAL CONDITIONS

The following diseases or disorders may be aggravated by exposure to this product: nervous system, respiratory system, lung (asthma-like conditions),

INHALATION

Can cause severe central nervous system depression (including unconsciousness). Excessive exposure to mists or vapors generated by heat may cause irritation to eyes, nose, throat, lungs and respiratory tract.

LC50 (mg/l): no data

LC50 (mg/m3): no data

LC50 (ppm): no data

SKIN

Skin absorption of the material is expected to be minimal. Prolonged or repeated skin contact may cause irritation.

Draize Skin Score: no data

Out of 8.0

LD50 (mg/kg): no data

EYES

Causes eye irritation.

INGESTION

Moderately toxic. Substance may be harmful if swallowed. May produce central nervous system effects, which may include dizziness, loss of balance and coordination, unconsciousness, coma and even death. May cause birth defects.

LD50 (g/kg): no data

4. FIRST AID MEASURES

• INHALATION

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and continue to monitor. Get immediate medical attention.

• SKIN

Wash with soap and water. Get medical attention if irritation develops or persists. Remove contaminated clothing. Wash clothing before reuse.

• EYES

Flush eye with water for 15 minutes. Get medical attention. Obtain immediate medical treatment.

• INGESTION

Give liquids and induce vomiting unless victim is unconscious. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

• EXTINGUISHING MEDIA

Water spray; Alcohol resistant foam; Dry chemical; Carbon dioxide;

• FIRE FIGHTING INSTRUCTIONS

Use water spray. Use water spray to cool fire exposed tanks and containers. Wear structural fire fighting gear. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

FLAMMABLE PROPERTIES

	Typical	Minimum	Maximum	Test Result	Units	Method
Flash Point				BELOW -5 TOC	F	N/A
Autoignition Temperature				> 689 ESTIMATED	F	N/A
Lower Explosion Limit	3.3				%	N/A
Upper Explosion Limit	19				%	N/A

6. ACCIDENTAL RELEASE MEASURES

Prevent ignition, stop leak and ventilate the area. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Vapor can be controlled using a water fog. Water streams should not be directed to the liquid as this will cause the liquid to boil and generate more vapor. Use appropriate personal protective equipment as stated in Section 8 of this MSDS. Advise the Environmental Protection Agency (EPA) and appropriate state agencies, if required. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Vacuum or sweep up material and place in a disposal container. Do not use spark-generating metals for sweeping up spilled material.

7. HANDLING AND STORAGE

• HANDLING

Use only in a well-ventilated area. Ground and bond containers when transferring material. Avoid breathing (dust, vapor, mist, gas). Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

• STORAGE

Keep away from heat, sparks, and flame. Keep container closed when not in use. NFPA class IB storage. Flash point is less than 73 degrees F and boiling point is greater than or equal to 100 degrees F. Consult NFPA and / or OSHA codes for additional information.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult With a Health and Safety Professional for Specific Selections

• ENGINEERING CONTROLS

Use with adequate ventilation. Ventilation is normally required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Use spark-proof tools and explosion-proof equipment.

• PERSONAL PROTECTION

▪ EYE PROTECTION

Splash proof chemical goggles are recommended to protect against the splash of product.

▪ GLOVES or HAND PROTECTION

Protective gloves are recommended when prolonged skin contact cannot be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Property	Typical	Units	Text Result	Reference
Appearance		N/A	COLORLESS LIQUID.	
Boiling Point		F	165-175	
Bulk Density		lb/gal	no data	
Melting Point		F	no data	
Molecular Weight		g/mole	no data	
Octanol/Water Coefficient		N/A	no data	
pH		N/A	no data	
Specific Gravity	0.79	N/A		
Solubility In Water		wt %	COMPLETE	
Odor		N/A	ALCOHOL ODOR.	
Odor Threshold	100	ppm		
Vapor Pressure	3.5	psia	RVP	@ 100 F
Viscosity (F)		SUS	no data	
Viscosity (C)		CsT	no data	
% Volatile	5	wt %		

10. STABILITY AND REACTIVITY

- **STABILITY**
Stable
- **CONDITIONS TO AVOID**
Avoid heat, sparks and open flame.
- **INCOMPATIBILITY**
Strong oxidizers
- **HAZARDOUS DECOMPOSITION PRODUCTS**
Combustion may produce carbon monoxide, carbon dioxide and other asphyxiants.
- **HAZARDOUS POLYMERIZATION**
Will not polymerize.

R00000084810, ETH-DENATURED FOR+10%BLD

11. ECOLOGICAL INFORMATION

No data available

12. DISPOSAL CONSIDERATIONS

Follow federal, state and local regulations. This material is a RCRA hazardous waste. Do not flush material to drain or storm sewer. Incinerate material under controlled conditions. Contract to authorized disposal service.

13. TRANSPORT INFORMATION

<u>Governing Body</u>	<u>Mode</u>	<u>Proper Shipping Name</u>
DOT	Ground	Alcohol n.o.s. (Ethanol, Gasoline)

<u>Governing Body</u>	<u>Mode</u>	<u>Hazard Class</u>	<u>UN/NA No.</u>	<u>Label</u>
DOT	Ground	3 (Flammable liquid)	UN1978	Placard: Flammable Liquid

14. REGULATORY INFORMATION

<u>Regulatory List</u>	<u>Component</u>	<u>CAS No.</u>
ACGIH - Occupational Exposure Limits - Carcinogens	ETHANOL-DENATURED	64-17-5
ACGIH - Occupational Exposure Limits - TWAs	ETHANOL-DENATURED	64-17-5
California - Prop. 65 - Developmental Toxicity	ETHANOL-DENATURED	64-17-5
Canada - WHMIS - Ingredient Disclosure	ETHANOL-DENATURED	64-17-5
Inventory - Australia (AICS)	ETHANOL-DENATURED	64-17-5
Inventory - Canada - Domestic Substances List	ETHANOL-DENATURED	64-17-5
Inventory - China	ETHANOL-DENATURED	64-17-5
Inventory - European EINECS Inventory	ETHANOL-DENATURED	64-17-5
Inventory - Japan - (ENCS)	ETHANOL-DENATURED	64-17-5
Inventory - Korea - Existing and Evaluated	ETHANOL-DENATURED	64-17-5
Inventory - Philippines Inventory (PICCS)	ETHANOL-DENATURED	64-17-5
Inventory - TSCA - Sect. 8(b) Inventory	ETHANOL-DENATURED	64-17-5
Massachusetts - Right To Know List	ETHANOL-DENATURED	64-17-5
New Jersey - Department of Health RTK List	ETHANOL-DENATURED	64-17-5
New Jersey - Special Hazardous Substances	ETHANOL-DENATURED	64-17-5
OSHA - Final PELs - Time Weighted Averages	ETHANOL-DENATURED	64-17-5
Pennsylvania - RTK (Right to Know) List	ETHANOL-DENATURED	64-17-5
ACGIH - Occupational Exposure Limits - Carcinogens	BENZENE	71-43-2
ACGIH - Occupational Exposure Limits - Carcinogens	ETHYL ALCOHOL	64-17-5
ACGIH - Occupational Exposure Limits - TWAs	BENZENE	71-43-2
ACGIH - Occupational Exposure Limits - TWAs	ETHYL ALCOHOL	64-17-5
ACGIH - Occupational Exposure Limits - TWAs	METHANOL	67-56-1
ACGIH - Short Term Exposure Limits	BENZENE	71-43-2
ACGIH - Short Term Exposure Limits	METHANOL	67-56-1
ACGIH - Short Term Exposure Limits	NATURAL GASOLINE (PETROLEUM)	8006-61-9
ACGIH - Skin Absorption Designation	BENZENE	71-43-2
ACGIH - Skin Absorption Designation	METHANOL	67-56-1
CAA (Clean Air Act) - HON Rule - Organic HAPs	BENZENE	71-43-2
CAA (Clean Air Act) - HON Rule - Organic HAPs	METHANOL	67-56-1
CAA (Clean Air Act) - HON Rule - SOCM Chemicals	BENZENE	71-43-2
CAA (Clean Air Act) - HON Rule - SOCM Chemicals	METHANOL	67-56-1
CAA - 1990 Hazardous Air Pollutants	BENZENE	71-43-2
CAA - 1990 Hazardous Air Pollutants	METHANOL	67-56-1
California - Prop. 65 - Developmental Toxicity	BENZENE	71-43-2
California - Prop. 65 - Developmental Toxicity	ETHYL ALCOHOL	64-17-5
California - Prop. 65 - Reproductive - Male	BENZENE	71-43-2

Inventory - Australia (AICS)	BENZENE	71-43-2
Inventory - Australia (AICS)	ETHYL ALCOHOL	64-17-5
Inventory - Australia (AICS)	METHANOL	67-56-1
Inventory - Australia (AICS)	NATURAL GASOLINE (PETROLEUM)	8006-61-9
Inventory - Australia (AICS)	WATER	7732-18-5
Inventory - Canada - Domestic Substances List	BENZENE	71-43-2
Inventory - Canada - Domestic Substances List	ETHYL ALCOHOL	64-17-5
Inventory - Canada - Domestic Substances List	METHANOL	67-56-1
Inventory - Canada - Domestic Substances List	NATURAL GASOLINE (PETROLEUM)	8006-61-9
Inventory - Canada - Domestic Substances List	WATER	7732-18-5
Inventory - China	BENZENE	71-43-2
Inventory - China	ETHYL ALCOHOL	64-17-5
Inventory - China	METHANOL	67-56-1
Inventory - China	NATURAL GASOLINE (PETROLEUM)	8006-61-9
Inventory - China	WATER	7732-18-5
Inventory - European EINECS Inventory	BENZENE	71-43-2
Inventory - European EINECS Inventory	ETHYL ALCOHOL	64-17-5
Inventory - European EINECS Inventory	METHANOL	67-56-1
Inventory - European EINECS Inventory	NATURAL GASOLINE (PETROLEUM)	8006-61-9
Inventory - European EINECS Inventory	WATER	7732-18-5
Inventory - Japan - (ENCS)	BENZENE	71-43-2
Inventory - Japan - (ENCS)	ETHYL ALCOHOL	64-17-5
Inventory - Japan - (ENCS)	METHANOL	67-56-1
Inventory - Korea - Existing and Evaluated	BENZENE	71-43-2
Inventory - Korea - Existing and Evaluated	ETHYL ALCOHOL	64-17-5
Inventory - Korea - Existing and Evaluated	METHANOL	67-56-1
Inventory - Korea - Existing and Evaluated	NATURAL GASOLINE (PETROLEUM)	8006-61-9
Inventory - Korea - Existing and Evaluated	WATER	7732-18-5
Inventory - Philippines Inventory (PICCS)	BENZENE	71-43-2
Inventory - Philippines Inventory (PICCS)	ETHYL ALCOHOL	64-17-5
Inventory - Philippines Inventory (PICCS)	METHANOL	67-56-1
Inventory - Philippines Inventory (PICCS)	NATURAL GASOLINE (PETROLEUM)	8006-61-9
Inventory - Philippines Inventory (PICCS)	WATER	7732-18-5
Inventory - TSCA - Sect. 8(b) Inventory	BENZENE	71-43-2
Inventory - TSCA - Sect. 8(b) Inventory	ETHYL ALCOHOL	64-17-5

R00000084810, ETH-DENATURED FOR+10%BLD

Inventory - TSCA - Sect. 8(b) Inventory	METHANOL	67-56-1
Inventory - TSCA - Sect. 8(b) Inventory	NATURAL GASOLINE (PETROLEUM)	8006-61-9
Inventory - TSCA - Sect. 8(b) Inventory	WATER	7732-18-5
Massachusetts - Right To Know List	BENZENE	71-43-2
Massachusetts - Right To Know List	ETHYL ALCOHOL	64-17-5
Massachusetts - Right To Know List	METHANOL	67-56-1
Massachusetts - Right To Know List	NATURAL GASOLINE (PETROLEUM)	8006-61-9
New Jersey - Department of Health RTK List	BENZENE	71-43-2
New Jersey - Department of Health RTK List	ETHYL ALCOHOL	64-17-5
New Jersey - Department of Health RTK List	METHANOL	67-56-1
New Jersey - Department of Health RTK List	NATURAL GASOLINE (PETROLEUM)	8006-61-9
New Jersey - Env Hazardous Substances List	BENZENE	71-43-2
New Jersey - Env Hazardous Substances List	METHANOL	67-56-1
New Jersey - Env Hazardous Substances List	NATURAL GASOLINE (PETROLEUM)	8006-61-9
New Jersey - Special Hazardous Substances	BENZENE	71-43-2
New Jersey - Special Hazardous Substances	ETHYL ALCOHOL	64-17-5
New Jersey - Special Hazardous Substances	METHANOL	67-56-1
New Jersey - Special Hazardous Substances	NATURAL GASOLINE (PETROLEUM)	8006-61-9
NTP - Report on Carcinogens - Known Carcinogens	BENZENE	71-43-2
OSHA - Final PELs - Ceiling Limits	BENZENE	71-43-2
OSHA - Final PELs - Time Weighted Averages	BENZENE	71-43-2
OSHA - Final PELs - Time Weighted Averages	ETHYL ALCOHOL	64-17-5
OSHA - Final PELs - Time Weighted Averages	METHANOL	67-56-1
OSHA - Regulated Carcinogens	BENZENE	71-43-2
OSHA - Select Carcinogens	BENZENE	71-43-2
Pennsylvania - RTK (Right to Know) List	BENZENE	71-43-2
Pennsylvania - RTK (Right to Know) List	ETHYL ALCOHOL	64-17-5
Pennsylvania - RTK (Right to Know) List	METHANOL	67-56-1
Pennsylvania - RTK - Special Hazardous Substances	BENZENE	71-43-2

Title III Classifications Sections 311,312:

- Acute: YES
- Chronic: YES
- Fire: YES
- Reactivity: NO
- Sudden Release of Pressure: NO

15. OTHER INFORMATION

Warning! Completely denatured alcohol. Unfit for human consumption. Keep out of reach of children. Follow all MSDS/label precautions even after container is emptied because it may retain product residue. WHMIS Classification: Class B Division 2 - Flammable Liquids; Class D Division 2 Subdivision B - Toxic Material;

2/27/69

SUN OIL COMPANY

436 Doremus Ave.
Newark, N.J.

I. INTRODUCTION

This plant is the base terminal for the New York metropolitan area. Petroleum products are delivered here by pipeline from Sun Oil's refinery in Marcus Hook, Penna. and then distributed throughout the metropolitan area by truck and barge.

INTERSTATE SANITATION COMMISSION
10 Columbus Circle
New York, New York, 10019

ISC000001
TIERRA-D-020875

A. PLANT STATISTICS

Employees: 61 at plant
26 drivers

Plant Property: 23.5 acres on Newark Bay
933 ft. of waterfront

Production: Distribution of gas and oil

Operating Schedule: 24 hrs. per day
7 days per week

No seasonal variations

Water:

<u>Source</u>	<u>Quantity</u>	<u>Usage</u>
City of Newark	0.5 million gal. per month	40% Sanitary 5% Equipment washup 55% Boilers

INTERSTATE SANITATION COMMISSION
10 Columbus Circle
New York, New York, 10019

TIERRA-D-020876

II. PLANT PROCESSES

A. General

Oils and gasoline are received here and then distributed. About 15 barges are unloaded at the terminal annually while 1200 to 1500 barges are filled. About 99% of the product arrives via pipeline.

<u>No. of storage tanks</u>		<u>Approximate capacity(gal.)</u>
16	-	11,500
3	-	47,000
6	-	105,000
4	-	205,000
2	-	590,000
3	-	1,450,000
7	-	2,270,000
4	-	415,000

III. WATER USE

The Newark water bill indicates a water usage of about 500,000 gallons per month. An estimated breakdown of this is 40% for sanitary, 5% for equipment washup and 55% for boilers.

IV. CHARACTERISTICS OF WASTES

All yard drainage flows to a ditch which discharges to an oil separator prior to going to Newark Bay. Inspection of this facility on 2/27/69 showed no visible oil being discharged.

V. POLLUTION POTENTIAL

Care is taken to prevent any petroleum losses during transfer operations. Drip pans under all connections drain to a holding tank which is pumped off to a slop tank when it becomes filled. Storage tanks all have depth indicators ^{and} illumination and there is always a guard on duty during transfer operations.

The only accidental losses reported are seepage from storage tanks which were repaired immediately to curtail product losses.

About 95% of the sanitary wastes flow to the city sewer. The remainder should be connected ^{to the sewer} in June 1969.

INTERSTATE SANITATION COMMISSION
10 Columbus Circle
New York, New York, 10019

VI. EXISTING WASTE TREATMENT FACILITIES

There is one oil separator on the plant site to handle yard drainage. Sludge is pumped out once a year and disposed of by an outside contractor. Oil is pumped off regularly to a holding tank.

One septic tank which handles about 5% of the plant's sanitary wastes will be taken out of service in June 1969 and these wastes will be diverted to the city sewer.

VII. PRESENT STATUS OF ENFORCEMENT

A. Abatement Orders

No pollution abatement orders or letters have been issued against Sun Oil Company's Newark Terminal.

VIII. RECOMMENDED ANALYSIS TO BE RUN ON SAMPLES

Samples should be analyzed for pH, BOD, COD, solids and ether soluble material.

IX. ACKNOWLEDGEMENTS

Joe Zabaga, Plant Engineer, was very cooperative in meeting with Fred Ulrich of the Interstate Sanitation Commission on February 27, 1969 and providing information for this report.

INTERSTATE SANITATION COMMISSION
10 Columbus Circle
New York, New York, 10019

TIERRA-D-020881

①

April 8, 1936.

Passaic Valley Sewerage Commissioners,
24 Branford Place,
Newark, New Jersey.

Gentlemen:-

The following is my report on river and bay conditions for the month of March, 1936:

PASSAIC RIVER:

In the month of March the dissolved oxygen content of the lower Passaic River usually attains the highest level of the year because of cool temperatures and increased river flow and dilution, and during March, 1936, exceptional river flow, resulting in flood conditions, helped to maintain high oxygen values despite the escape of polluting matter caused by flooded sewage systems and treatment plants.

During March, several pumping plants in the mills were stopped by or because of the floods, others received so much excess water that emergency overflows came into operation so that in some cases untreated wastes reached the streams in diluted condition, and the normal operations of pumps, collection tanks, settling tanks and filters in various riverside mills were somewhat disturbed.

All the municipal sewage disposal plants received exceptionally large flows, but Haverwood, Glen Rock, Wallbury, and East Paterson plants were able to handle the increase very satisfactorily. Rochelle Park disposal plant was completely under water and out of commission for a few days, the water rising to about two inches above the electric motors and switches. Hawthorne sewage disposal plant was completely under water, the operators having to move around in a rowboat, but the pump rooms were kept dry and in operation although a further rise of ten feet of four inches would have put the motors out of commission. The settling tanks being at high level were kept functioning, but the filters were entirely submerged and were put out of operation temporarily as far as their functions as filters were concerned. Lodi sewage pumping station received such heavy sewage that the combined pumps could handle it and it was necessary to bypass some of the diluted sewage. No damage to anti-pollution equipment does not appear to have been widespread along the streams of the lower Passaic Valley with the possible exceptions of the United Piece Dye Works at Hawthorne where one of the large waste storage tanks dropped 47 inches and broke off the 22 inch cover pipe leading to the river crossing, and the Hawthorne municipal sewage disposal plant where the cracked stone filters appear to have been closed with river mud as a result of being submerged.

BAA000001

TIERRA-D-020882

March 9. Grove St., Ridgewood. Sanitary sewer discharging to Hohokus Brook on account of flood conditions. Ceased as floods subsided.

March 9. Sun Oil Co., Dorcas Ave., Newark. Drainage of light fuel oil to river. Caused by drippings from tank cars and loading platform and yard drainage to a ditch. March 30, future occurrences of this nature eliminated by filling in trench with ashes and sand.

March 10. Lodi Municipal Sewage Pumping Station. Overflow of sewage to Saddle River caused by suction line of pumps becoming clogged. Eliminated at once by having line cleared of obstruction.

March 12. Ridgewood-Midland Park Washing Co., Ridgewood. Untreated laundry waste and some sludge washed to Saddle River Brook. Heavy floods submerged filters and sludge drying beds in treatment plant. March 16, floods have subsided, beds drained and plant functioning again.

March 12. Lodi Municipal Sewage Pumping Station. Overflow of sewage to Saddle River. All pumps running continuously and cannot handle flow. Pumps shut down from 2.00 to 3.00 P.M., March 12, to cool off. Conditions normal again at night as floods subside.

March 12. Sun Oil Co., River Drive, Passaic. Escape of several hundred gallons of light fuel oil to dock, some of which reached river. Caused by flange on oil line bursting. Further escape prevented by shutting off valve, spreading dirt on dock to seal up and hold back oil, and pulling oil back to drums.

March 12. Montclair sanitary sewers overflowing manholes and reaching Toncy's Brook. Caused by heavy rains and floods. Subsidence of floods caused overflows to stop and brook was flushed by opening dam in park pond.

March 12. Northern New Jersey Oil Co., Riverside Ave., Newark. About 30,000 gallons of heavy Number 3 Fuel Oil escaped from storage tank because automatic electric pump failed to shut off during night. Most of this oil was retained by concrete fire wall outside tank. Considerable quantities of oil seeped under foundation of fire wall and flowed over the land in rear in direction of Passaic River, and also on to the highway and down a street catchbasin to storm sewer and river. Much pollution of the river was prevented by having earth banks hastily erected to stop flow of oil to river, and by cleaning out the catchbasin and storm sewer, soaking up oil on dock and ground by ashes. The ashes were frequently removed and the oil-soaked ashes removed by trucks. The bulk of the oil retained within the firewall was later removed by tank trucks to refinery.

March 12. Ridgewood Municipal Sewage Disposal Plant. Expanding sewage to creek for two hours. This was caused by oil from pump to lower bearing on bucket chain in screenings pit requiring repairs. Normal operation resumed in two hours.

Apr. 26 Violation - Sun Oil Company, 436 Doremus Ave., Newark, N.J.

On April 26, 1961, it was found that the oil separator at the above company was not working properly, causing material to be discharged into the Passaic River.

Inspectors John B. McAteer and Van Volkenburgh notified Mr. Joseph Joerg, the terminal manager, of this condition. On May 5, 1961, Chief Engineer Lubetkin wrote to the company telling them that the discharge was highly polluting, and asked for a report as to why the condition exists, and what is being done to correct it.

Apr. 3-30 Violation - Ultra Chemical Works, Inc., Lowe & Shady Sts., Paterson, N.J.

The above violation is allowing industrial solvents to escape into the Passaic River. An investigation was conducted on April 18, 1961, Present were Chief Engineer Lubetkin, Assistant Engineer of the City of Paterson, Thomas Fitzmaurice, and Inspectors McAteer and Joseph V. Konikowski.

After making a thorough inspection of these premises, Mr. Lubetkin informed Mr. Judson M. Merl, Plant Engineer and Mr. William Donnelly, Plant Manager of the above company, that a portable type drip tank should be used to catch drippings when hoses are connected. This will eliminate most of the spillage which is causing pollution.

Daily inspections are being made and progress reports submitted. Mr. Merl wrote a letter to Mr. Lubetkin explaining in detail all changes to be made.

Apr. 20-30 Violation - Washington Street Storm Sewer, Orange, New Jersey

Intermittent polluting material discharged to Second River, continues Mr. Verderomo claims sewers are overloaded during this rainy period causing sanitary sewers to overflow to storm sewers. Mr. Verderamo has not been able to make repairs as promised due to heavy sewer flow.

On May 5, 1961, Chief Engineer Lubetkin wrote to Mr. F. E. Caspar, City Engineer of Orange, notifying him of this pollution. Mr. Lubetkin requested a report as to what is happening, and what is being done to correct the situation.

On May 8, 1961, Mr. Caspar wrote Mr. Lubetkin stating that an inspection on May 1st showed the sewer operating under pressure. This condition causes the laterals in certain flat areas on Hickory Street to back up. It is the intention of the City Engineer to have the weirs in these manholes raised to such a height as to prevent this overflow. Work to start as soon as present flooded conditions abate.

May 18 Violation & Elimination - Sonneborn Company, Hancox Avenue, Belleville, NJ

This violation was caused by a broken hose during a delivery by the Esso Company. About 100 gallons of Petroleum Sulphonate spilled on the ground which washed to a storm drain and eventually into a storm ditch. Inspector McAteer had the company spread sand to prevent any further pollution.

May 19 Violation & Elimination - Sun Oil Company, 436 Doremus Ave., Newark, N.J.

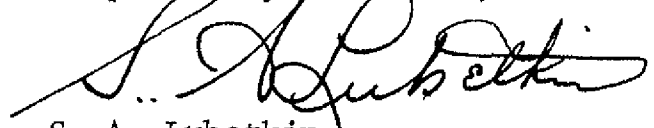
An oil separator not working properly caused this violation. Workmen have been installing a new concrete pit in the yard and cleaning the oil separator.

May 18 Violation & Elimination - Washington Street Storm Sewer, Orange, N.J.

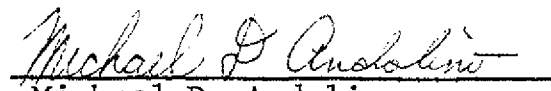
On May 18, 1961, Mr. Ferd E. Caspar, City Engineer of the City of Orange, reported by letter to Mr. Lubetkin, that work on raising the overflow weirs in three combination manholes on the Parrow Brook Storm Sewer, has been completed. These manholes are located on Hickory Street at Chapman, Taylor and Pierson Streets.

The elevation of the weirs has been raised nine inches, and will prevent the overflow which now takes place at these three locations, only when the sanitary sewer becomes surcharged.


Respectfully submitted,



S. A. Lubetkin,
Chief Engineer



Michael D. Andolino,
General Superintendent



Joseph Barcellona,
Chief River Inspector

SAL:lt

SUN OIL

MEMORANDUM

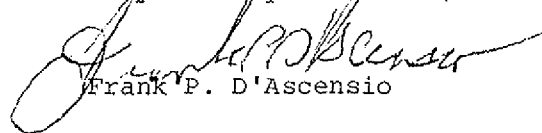
TO: S. A. Lubetkin
FROM: Frank P. D'Ascensio
DATE: October 5, 1976
SUBJECT: Gasoline Spill at Sun Oil Company

At 12:15 P.M. on October 5, 1976, I received a pollution complaint from Pat Zito at the Sludge Station. He stated that he observed an oil like slick in the river and detected an odor of gasoline. He also stated that he saw a fire boat near the Sun Oil Company dock (at 436 Doremus Ave.). I immediately notified Frank Cupo. Alex Goldberg, Ed Rys and I then proceeded to Sun Oil Company, after checking the P.V.S.C. dock area, and met Lou Cuccinello, Bill Fiore and Joe Colello. Also, we met reporters from the New York Times and the Star Ledger who were questioning Mr. Campbell, Supervisor for Sun Oil Co. He stated that between 4 AM on October 5 (when the area was checked last) and 7 AM (when the spill was discovered) an unknown boat or barge rammed the northern portion of their dock.

The force of the blow broke a section of the pier and caused a break in an 8 inch line. According to Mr. Campbell, the line was charged to about 100 PSI, and contained gasoline. As soon as the spill was discovered, employees rigged booms to contain the spill. He stated further that about 20,000 gallons of gasoline were spilled and the Modern Transportation Co. was already pumping the gasoline water mixture out of the containment area and, after separating it from the water, pumping the gasoline back into the storage tank. Finally, Mr. Campbell stated that the Coast Guard had been notified and they were attempting to identify the craft that did the damage. A small amount of gasoline was still visible inside the containment area and small slicks were visible around the P.V.S.C. dock (Low water was at 2:14 PM). We left the inspectors at Sun Oil and returned about 2 PM.

At 2:30 PM I received a call from Paul Brown, a reporter for the Star Ledger, who was at Sun Oil when we were there earlier. He questioned me concerning the above and I replied that P.V.S.C. was not notified by Sun Oil about the spill. I confirmed that the company is just within the PVSC district. When he asked me how much of this material would reach Newark Bay, I replied that we had no way of knowing, but, if the material was gasoline as stated by Mr. Campbell, it would readily evaporate. He finally asked me if PVSC was satisfied with the cleanup and I stated that it appeared that they were making reasonable efforts to clean up the spill, but it was not complete.

Respectfully Submitted,


Frank P. D'Ascensio

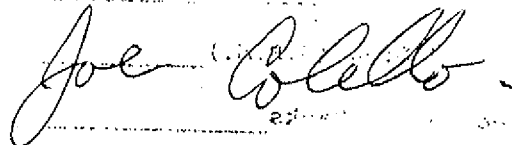
cc: A. Goldberg
F. Cupo

BAA000003

TIERRA-D-020888

Mr. Frank D'Ascensio called our office on October 5, 1976, to inform us that Pat Zito, of the P.V.S.C. sludge station, had reported oil coming thru and a possible large oil spill into the Passaic River from a company along Doremus Ave. in Newark. Supt. Cupo directed me to investigate. I arrived at Sun Oil Co. 436 Doremus Ave., Newark, N.J. at approximately 12:45 P.M. and was met by Asst. Supt. L. Cuccinello and Inspector Bill Fiore. Upon investigation we found that a barge or a boat hit the Sun Oil Co.'s bulk head which caused an 8 inch pipe line, containing gasoline that is carried from the storage tank area to the barge loading area, to crack, resulting in a considerable amount of gasoline to spill into Newark Bay. The company did not know when the accident occurred. Workmen noticed the spill around 7 A.M. that morning. They immediately shut the valves and stopped the pumps to cut the flow thru the broken pipe. The Coast Guard, Newark Fire Dept. and the E.P.A. were notified. Booms, float collars which contain oil spillage, were placed in the water. The Metropolitan Petroleum Company of Jersey City arrived at 8:30 A.M. and their tank truck vacuumed up the gasoline and emptied the truck into Sun Oils holding tanks. Approximately 20,000 gallons of gasoline was spilled from the broken pipe. The Newark Fire Dept's Fire Boat also assisted in this operation. They poured their high pressure hoses into the River to contain the gasoline to the Boom area.

On Wednesday, October 6, 1976 at 10:00 A.M. the Metropolitan Petroleum Co. completed vacuuming up the gasoline.



Joe Colello
River Inspector

STREAM CONTAMINATION REPORT & Elimination

District No. 9 Date: 10/5/76 Time: 1:00 P.M.

Weather: Cloudy

Company Name: SUN OIL COMPANY (SUNOCO)

Address: 436 Doremus Ave. Newark

Name & Title of Person Contacted: Mr. Leonard Campbell III

Terminal Supt. Telephone: 589-8300

Nature of Business: Gasoline Distributer

No. of Outlets: None

Method of Waste Disposal: Sanitary Sewer X

Combined Sewer	Storm Sewer, River or Ditch
<p>1. <input type="checkbox"/> 1.00</p> <p>2. <input type="checkbox"/> 2.00</p> <p>3. <input type="checkbox"/> 3.00</p> <p>4. <input type="checkbox"/> 4.00</p> <p>5. <input type="checkbox"/> 5.00</p> <p>6. <input type="checkbox"/> 6.00</p> <p>7. <input type="checkbox"/> 7.00</p> <p>8. <input type="checkbox"/> 8.00</p> <p>9. <input type="checkbox"/> 9.00</p> <p>10. <input type="checkbox"/> 10.00</p> <p>11. <input type="checkbox"/> 11.00</p> <p>12. <input type="checkbox"/> 12.00</p> <p>13. <input type="checkbox"/> 13.00</p> <p>14. <input type="checkbox"/> 14.00</p> <p>15. <input type="checkbox"/> 15.00</p> <p>16. <input type="checkbox"/> 16.00</p> <p>17. <input type="checkbox"/> 17.00</p> <p>18. <input type="checkbox"/> 18.00</p> <p>19. <input type="checkbox"/> 19.00</p> <p>20. <input type="checkbox"/> 20.00</p> <p>21. <input type="checkbox"/> 21.00</p> <p>22. <input type="checkbox"/> 22.00</p> <p>23. <input type="checkbox"/> 23.00</p> <p>24. <input type="checkbox"/> 24.00</p> <p>25. <input type="checkbox"/> 25.00</p> <p>26. <input type="checkbox"/> 26.00</p> <p>27. <input type="checkbox"/> 27.00</p> <p>28. <input type="checkbox"/> 28.00</p> <p>29. <input type="checkbox"/> 29.00</p> <p>30. <input type="checkbox"/> 30.00</p> <p>31. <input type="checkbox"/> 31.00</p> <p>32. <input type="checkbox"/> 32.00</p> <p>33. <input type="checkbox"/> 33.00</p> <p>34. <input type="checkbox"/> 34.00</p> <p>35. <input type="checkbox"/> 35.00</p> <p>36. <input type="checkbox"/> 36.00</p> <p>37. <input type="checkbox"/> 37.00</p> <p>38. <input type="checkbox"/> 38.00</p> <p>39. <input type="checkbox"/> 39.00</p> <p>40. <input type="checkbox"/> 40.00</p> <p>41. <input type="checkbox"/> 41.00</p> <p>42. <input type="checkbox"/> 42.00</p> <p>43. <input type="checkbox"/> 43.00</p> <p>44. <input type="checkbox"/> 44.00</p> <p>45. <input type="checkbox"/> 45.00</p> <p>46. <input type="checkbox"/> 46.00</p> <p>47. <input type="checkbox"/> 47.00</p> <p>48. <input type="checkbox"/> 48.00</p> <p>49. <input type="checkbox"/> 49.00</p> <p>50. <input type="checkbox"/> 50.00</p> <p>51. <input type="checkbox"/> 51.00</p> <p>52. <input type="checkbox"/> 52.00</p> <p>53. <input type="checkbox"/> 53.00</p> <p>54. <input type="checkbox"/> 54.00</p> <p>55. <input type="checkbox"/> 55.00</p> <p>56. <input type="checkbox"/> 56.00</p> <p>57. <input type="checkbox"/> 57.00</p> <p>58. <input type="checkbox"/> 58.00</p> <p>59. <input type="checkbox"/> 59.00</p> <p>60. <input type="checkbox"/> 60.00</p> <p>61. <input type="checkbox"/> 61.00</p> <p>62. <input type="checkbox"/> 62.00</p> <p>63. <input type="checkbox"/> 63.00</p> <p>64. <input type="checkbox"/> 64.00</p> <p>65. <input type="checkbox"/> 65.00</p> <p>66. <input type="checkbox"/> 66.00</p> <p>67. <input type="checkbox"/> 67.00</p> <p>68. <input type="checkbox"/> 68.00</p> <p>69. <input type="checkbox"/> 69.00</p> <p>70. <input type="checkbox"/> 70.00</p> <p>71. <input type="checkbox"/> 71.00</p> <p>72. <input type="checkbox"/> 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91.00</p> <p>92. <input type="checkbox"/> 92.00</p> <p>93. <input type="checkbox"/> 93.00</p> <p>94. <input type="checkbox"/> 94.00</</p>

If NPDES Permit is Required:		Draft Permit	Final Permit
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100

Violation: Gasoline spill into Passaic River from a rupture in

8" pipe line

1. Color Rainbow

2. Odor Gasoline

3. Turbidity Light

4. Estimated Flow (G.P.M.)

5. Collection on Banks Gasoline

6. Surface Scum, Foam or Oil	Gasoline
------------------------------	----------

7. Approximate Distance Extending into Stream or River: Width

Upstream of ~~Downstream~~ approx 300 Feet

8. pH Reaction with Test Paper	Sample Taken	Yes
--------------------------------	--------------	-----

9. Why Sample Not Taken

(Complete narrative on reverse side)

Docs
From
PVSC

INCIDENT REPORT

D.W.M. ASSIGNED CASE NUMBER		82-9-29-001		HOT LINE	<input type="checkbox"/>	INDEXED	<input type="checkbox"/>
DATE		9-24-82		TIME (Military)	0915		D.W.M. ID NO.
						1250	

INCIDENT REPORTED BY:

NAME		Kevin Brennan		PHONE		201-589-8300	
AFFILIATION		Sunoco		CODE		<input type="checkbox"/>	
STREET							
CITY				Newark		STATE	
				NJ		ZIP CODE	

INCIDENT LOCATION:

NAME				Sun Terminal				PHONE			
STREET				436 DOREMUS AVE				UTM VERT			
								UTM HORIZ			
CITY				NEWARK				COUNTY		STATE	
				NJ		NJ		ZIP CODE			

SOURCE OF SPILLED AND/OR DISCHARGED SUBSTANCE: Confirmed ☐ Alleged ☐ More Than 1 Source ☐

COMPANY NAME		TANK 42 - (1 x 10 ⁶ gal storage tank)		PHONE			
CONTACT		TITLE					
STREET		Sun Terminal		DEP COMPANY NO.			
CITY		Newark		COUNTY		STATE	
						NJ	
						ZIP CODE	

SUSPECTED SPILLED AND/OR DISCHARGED SUBSTANCE: ☐ Confirmed ☐ Alleged ☐ More Than 2 Substances ☐

SUBSTANCE				Economy GASOLINE - UNLEADED				SUBSTANCE NO.			
AMOUNT SPILLED				100-150 GALS				S/L/G/M			
				UNITS				BBLS			
				A/P/E				E			
SUBSTANCE NO.											
AMOUNT SPILLED								S/L/G/M			
				UNITS							
				A/P/E							

DATE OF INCIDENT		9-29-82		TIME (Military)		1600		TEMP.		WEATHER		WIND (Dir. & Vel.)	
LOCATION		Storage Tank		CODE									
USE		overflow of tank		CODE									
OTHER BODY AFFECTED		N/A		CODE									
ASSOCIATED FIRE AND/OR HAZARDS		explosive / flammable											

INCIDENT REFERRED TO:

AGENCY				PHONE			
CONTACT				AGENCY CODE			

PRIMARY D.W.M. INVESTIGATOR		SICKLES		FOLLOWUP		BAB000001	
FURTHER ACTION				DATE		TIERRA-D-020892	

ATER BODY AFFECTED		overfill of tank		CODE	
ASSOCIATED FIRE AND/OR HAZARDS		N/A		explosive / flammable	
INCIDENT REFERRED TO:					
AGENCY			PHONE		
CONTACT			AGENCY CODE		
PRIMARY D.W.M. INVESTIGATOR			FOLLOWUP		
SICKLES			[]		
DO FURTHER ACTION			DATE		
[]			[]-[]-[]		

OMMENTS:

in inspections like - most material
 evaporated at this time -
 Notification one day late.

~~CK FOR ACT
 SPIV VIOLATIONS~~

TIERRA-D-020894



Sun Refining and
Marketing Company
Ten Penn Center
1801 Market Street
Philadelphia PA 19103-169

March 14, 1983

Mr. Fred Sickles
New Jersey Dept. of Environ-
mental Protection
Division of Hazardous Mgmt.
120 Route 156
Yardville, NJ 08620

SUBJECT: Sun Refining and Marketing Co.
Incident Occurring on 9/23/83 at
Newark, New Jersey Terminal

Dear Mr. Sickles:

As per your telephone conversation of 3/4/83 with Mr. Kevin Brennan, Terminal Manager, and in accordance with Section 7:1E-2.2 of the DPCC Plans, Sun is required to submit a status report on the subject incident. Upon filling tank #42 on 9/23/83 at our Newark, NJ Terminal, an overfill occurred which resulted in a spill of approx. 52 bbls. of economy gasoline. The New Jersey D.E.P. was notified of this incident the following morning.

The spill was contained within the tank area. Clean-up of the area was performed by Elmwood Tank Cleaning with the use of a vacuum truck. To prevent a recurrence of this incident, repairs were made to a motor operated valve which was the most probable cause of this overfill.

Even though our DPCC Plans were submitted on 4/15/82 and still have not been approved as of this date, this letter will conform to Chapter 1E - Discharges of Petroleum and Other Hazardous Substances.

If you have any further questions regarding this matter, you can contact me at (215) 977-6202 or Kevin Brennan at (201) 589-8300.

Very truly yours,

Tina M. Smith
Environmental Specialist

TMS:sc



Attachment C



BAB000002

TIERRA-D-020896

MEMO

TO KARL DELANEY 
FROM FREDERICK A. SICKELS  DATE APRIL 5, 1983
SUBJECT SUNOCO TERMINAL - 436 DOREMUS AVE. - NEWARK - DWM #82-09-24-01

CONCLUSION: Due to overfill in Tank #42, approximately 52 bbls of economy gasoline were spilled. The spill was contained in the tank area. The site was cleaned up by Elmwood Tank Cleaning. The DPCC/DCR plan for the subject company has not been approved by this Department. The plan was submitted on April 15, 1982.

RECOMMENDATION: Because the spill remained in the dike area around the affected tank, there was no threat to waters of the State. This writer recommends that no further action be taken on this case.

dlt

Attachment B

BAB000003

TIERRA-D-020898

MEMO

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO George Smajda
FROM Karl J. Delaney *KJD* DATE APRIL 13, 1983
SUBJECT Case Review and Referral DWM # 82-09-24-01C

Please be advised that I have reviewed the attached case file and am forwarding same for your review and referral to the appropriate Bureau or Region.

This file constitutes a:

Recommendation for Case Closure
Directive Letter Referral
Notice of Violation Referral
Out of Region Case Referral
3.11 Procedure Referral

Other _____

*Discharge did not become a spill -
Cleanup effected by Co. -*

*NFA
4/12/83
[Signature]*

KJD:dg
Attachment

BAB000004

TIERRA-D-020900

USCG GROUP NEW YORK COMMS

84 JAN 24 23 25

GREENWICH MEAN TIME

84-1-24-02C SP 7-14 NFA

EDISON
YARDVILLE
2300Z WB

GROUP NEW YORK COMMUNICATIONS			
GROUP	COTP	SLOT	
COR/DEP	COXO	VTS NY	
PERS	WFO	ANT NY	
SUPP	HMO	SAUK	
ELEC	SMO	BARITAN	
ENG	WFO	MARLBURG	
A - ACTION OFFICE		TIME	
I - INFO OFFICE		WFO	
		HAWSCR	
000			

NC MS
NC MS DE N9
ISN-N9/28
P 242226Z JAN 84
FM COGARD COTP NEW YORK NY
TO CCGDINPH NEW YORK NY
COGARD MIO NEW YORK NY
ZEN/EPA REGION TWO EDISON NJ
ZEN/NEW JERSEY STATE DEP YARDVILLE NJ
BT

UNCLAS //R16466//
SUBJ: POLREP ONE /AND FINAL/ NR2 OIL MINOR DISCHARGE T/B NATHAN
BERMAN, SUN OIL, NEWARK, NEW JERSEY PASSAIC RIVER PIV 84-21-24/4/2047
1. SITUATION:

A. 241200Z JAN 84 RECEIVED REPORT OF OIL SPILL FROM MR. CURTIS
BROWN, OPERATIONS SUPERVISOR OF SUN OIL CO, NEWARK, NJ.
B. 1252Z JAN 84 PRIOR TO INVESTIGATORS ARRIVAL IT WAS DISCOVERED
THAT THE T/B NATHAN BERMAN HAD OIL BOUPLING UP FROM BELOW ITS STERN
AND CLEAN VENTURE WAS CONTRACTED FOR CLEAN-UP. T/B WAS DISCHARGED TO
FACILITY.

C. WX: TEMP 35 DEG F. WINDS CALM, SEAS CALM.
D. 1420Z CLEAN-UP COMPLETED.

2. ACTION TAKEN:

A. 241428Z JAN 84 NOTIFIED ADREP.
B. 1115Z INVESTIGATORS PARADES AND POWELL ARRIVED O/S AND WERE
INFORMED THAT THE T/B NATHAN BERMAN WAS THE PROBABLE SOURCE. CLEAN
VENTURE CLEAN-UP PERSONNEL WERE O/S. INVESTIGATORS OBSERVED OIL
BOUPLING UP FROM BELOW THE STERN OF THE T/B NATHAN BERMAN
C. 1130Z NOTIFIED MIO NEW YORK.
D. 1205Z DIVER O/S AND IN WATER.
E. 1212Z DIVER DISCOVERED A 4 INCH OVERBOARD DISCHARGE PIPE 7 FT
BELOW THE WATER LINE LEAKING OIL.
F. 1215Z DIVER PLUGGED DISCHARGE PORT OF LINE LEAKING OIL.
G. 1230Z INVESTIGATORS ISSUED FORMS CCGD3-13 AND CCGD3 15
RECOMMENDING SCREENS BE DEPLOYED, AND TO INSURE PLUG WAS COMPLETELY
PRIC TO T/B DEPARTURE FOR YARDS.
H. 1420Z ISSUED FORM CCGD3-15. SCREENS REMOVED. CLEAN UP COMPLETE.
VESSEL FREE TO SAIL.
I. 1415Z INVESTIGATIONS DEFERRED SCENE.

3. CASE CLOSED.

BT
NNNN
DE NC & AR TOR-21:24:23:25:36
NNNN

Attachment A

BAB000005

TIERRA-D-020902

Instructions: This form will be used in lieu of the normal polrep for ongoing seepage case follow-ups. This form is only to be used after the major events of the initial incident have occurred.

Reporting Unit: Captain of the Port, New York.
Bldg. 109, Governors Island
New York, N. Y. 10004
(212) 668-7920 (days)
(212) 668-7936 (nights/24 hrs.)

DATE: 7 MARCH 84

POLREP NO.: SEVENTEEN ON GOING CASE

IN: 81-07-0914/0445

REC:

SOURCE: SUN OIL COMPANY OF PENNSYLVANIA

LOCATION: JOREMUS AVE. NEWARK NEW JERSEY

AMOUNT RECOVERED TO DATE: UNKNOWN

WATERBODY: PASSAIC RIVER NEWARK BAY

SITUATION (A) 07 1100R MAR 84 SEEPAGE CONTINUES, CLEANUP CONTINUES.
(B) WX: TEMP: 38 DEG F, WINDS 2 KTS NW, TIDE HIGH

ION TAKEN: 07 1030R MAR 84 INVESTIGATORS CAMACHO, MAAS, AND GRAZIAN ARRIVED O/S; OBSERVED SATURATED SWEEP DEPLOYED ALONG SHORELINE.

(B) BROWN OIL AND SHEEN BEING CONTAINED BY SWEEP. OBSERVED OIL IN CONTAINMENT AREA AROUND TANKS.

(C) 1045R SPOKE TO MR. BROWN WHO STATED THAT WITHIN A WEEK ALL THE TANKS ON THE NORTH SIDE OF THE TERMINAL WOULD BE PERMANENTLY SHUT DOWN, ALL OILS WILL BE PUMPED OUT.

(D) 1050R ISSUED FORM CCGD 3-15 TO MR BROWN RECOMMENDING SWEEP BE REMOVED AND REPLACED.

(E) 1100R INVESTIGATORS DEPARTED SCENE

UTURE PLANS: COAST GUARD TO CONTINUE MONITORING CLEANUP.

(signature) *[Signature]*

Copy to: NRC _____ EPA REGION II XX NJDEP XX NYDEC _____ AIRSTA BKLYN: _____
OTHER _____

Instructions: This form will be used in lieu of the normal polrep for ongoing seepage case follow-ups. This form is only to be used after the major events of the initial incident have occurred.

Reporting Unit: Captain of the Port, New York.
Bldg. 109, Governors Island
New York, N. Y. 10004
(212) 668-7920 (days)
(212) 668-7936 (nights/24 hrs.)

DATE: 20 JAN. 84

POLREP NO.: SIXTEEN (16)

PIN: 81-07-09/4/0445

SOURCE: SUN OIL COMPANY OF PENNSYLVANIA

LOCATION: DOREMS AVE. NEWARK NEW JERSEY

AMOUNT RECOVERED TO DATE: UNKNOWN

WATERBODY: PASSAIC RIVER, NEWARK BAY

SITUATION: 20 1145R JAN 84 NO SEEPAGE OBSERVED AT LOW TIDE
CLEANUP CONTINUES USING SORBENT MATERIALS.

B. WX: TEMP 15 DEG. F, WINDS CALM, TIDE LOW

ACTION TAKEN: 20 115R JAN 84 INVESTIGATORS SCOTT, BROWN AND HANKINS
ARRIVED ON SCENE. OBSERVED SORBENT SWEEP DEPLOYED AND
FROZEN IN ICE. NO OIL OR SEEPAGE OBSERVED.
D. 1145R ISSUED FORM CCGD3-15 TO MR. C. BROWN, MANAGER,
RECOMMENDING TO DEPLOY AND MAINTAIN SORBENTS AS WEATHER
PERMITS.
E. 1150R INVESTIGATORS DEPARTED SCENE.

FUTURE PLANS: COAST GUARD TO CONTINUE MONITORING CLEANUP

(signature) [Signature]

Copy to: NRC _____ EPA REGION II XX NJDEP XX NYDEC _____ AIRSTA BKLYN: _____
OTHER _____

A-3

RECEIVED
DIVISION OF WATER RESOURCES
ENFORCEMENT ELEMENT
JUN 19 9 57 AM '84



Sun Refining and
Marketing Company
Ten Penn Center
1801 Market Street
Philadelphia PA 19103-1699

May 25, 1984

Regional Administrator, Region II
U. S. Environmental Protection Agency
26 Federal Plaza
New York, NY 10278
Attn: Permits Administration Branch

Subject: NPDES Permit NJ0002771, Sun Refining & Marketing Company
436 Doremus Avenue, Newark, NJ 07105

Dear Sir:

This is to inform you of the following noncompliance of the above referenced
NPDES Permit limitations:

<u>PSD No.</u>	<u>Date of Samples</u>	<u>Sample Type</u>	<u>Oil & Grease</u>	<u>Permit Limitations</u>
001	5/3/84	3 grabs 30 Min.	23.3 mg/l	15 mg/l

There does not seem to be any apparent reason for this noncompliance. The oil
water separator will be checked and skimmed. All of the appropriate people
have been notified to prevent a recurrence of this noncompliance. As an added
measure we notified the State Emergency Spill, Mr. Cabiella 201-548-8730.

If you should have any questions or require any additional information, please
contact me at (201) 465-3200.

Very truly yours,

Joe Flint

Joe Flint
Terminal Manager

cc: Assistant Director - Operations & Enforcement
Division of Water Resources
NJ Dept. of Environmental Protection
P. O. Box CN029
Trenton, NJ 08625

RECEIVED

JUN 22 1984

DEPT. OF ENVIRONMENTAL PROTECTION
NEWARK OFFICE

Attachment E

RMJS 1

BAB000006

TO: Dave Shotwell thru Vince Kinsah DATE: 3 Dec 84
FROM: Galen W McCreary thru B Compton REGION: Central
RE: Sun Pipe Line Company INTERSECTION Frelingheysen and Peddie
Name of Facility ID Number Location Address
Essex
Lot and Block Township County
907 S Detroit Ave Tulsa Okla 74102 Sun Pipe Line Company
Mailing Address Responsible Party

The attached inspection/investigation report(s) dated 30 Nov 84 is being referred and it is recommended a NOV / Fine / P50 be issued for violations of:

NJAC 7:26—

NJSA 58:10- 23.11c Hazardous Substance; discharge; prohibition

Suggested penalty: _____

ADDITIONAL COMMENTS:

[illegible]

REVIEWED AND APPROVED BY:

June 12-8-92

MEMONEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTIONTO Spill FileFROM Galen McCreary thru Bruce Comfort ^{Can} DATE 11-30-84SUBJECT Sun Pipeline Co, Frelinghuysen Avenue
DWM #: 84-11-08-04C

- 1530 Mike Proietti and I arrived on scene. The Newark Police Department cordoned off the area for a block in all directions. I met with the following personnel to determine the present status at the scene.

Deputy Fire Chief Carragher, Newark Fire Department
Ron Lindsey, Foreman, Sun Pipeline Co.
Ton O'Neil, Suburban Regional Health Department
John Malool, Clean Venture, Inc.
Kenny Lippay, Clean Venture, Inc.

When I arrived at the scene, Mr. Ron Lindsey, had the 14 inch pipeline shut down at Hillside. Gasoline still remained in the pipeline and some gasoline was still leaking. Clean Venture, Inc., had a Vac-Truck with 4500 gallon capacity on scene and the Vac Truck was used to pick up the gasoline from an excavated hole, approximately 50 ft. from the pipe. No attempt was made at this time to uncover the pipe at the point of rupture.

- 1545 I met Mark Gruzlovic. I briefed him on the events as I had reconstructed them. We called the Central Region Field Office and spoke with Bruce Comfort. I explained that Sun Pipeline Co., was taking full responsibility for the spill and had personnel and a contractor on scene to accomplish the work. I was given instruction to remain on scene until clean-up was complete.
- 1700 Mr. Lindsey began to use a jack-hammer to clean the asphalt and concrete from off the pipeline. From engineering drawings the 14" pipeline was to be 9" below the street surface. Sparks were coming from the jack-hammer bit. Mr. Gruzlovic explained the importance of not having sparks to Mr. Lindsey. The fire department sprayed water on the area to eliminate the sparks. Absorbent material was placed along the curb to absorb any gasoline. Only a small amount of gasoline came to the surface. Digging continued to remove the fill around the pipe.
- 1730 David Medows, Sun Pipeline Co Engineer, and I began to check manholes for the smell of gasoline. We had the fire department use their explosimeter to assist the check. Called the Newark Sewer Authority. Mr. George Piegano. He assisted in checking the sewer system. We could find only a small amount of product, a sheen on the water. We continued to monitor the sewer. Gave instruction to the sewer authority to vent the system.

- 2045 We checked a manhole that was said to be out of service and found a high explosimeter reading. We opened the manhole and found product in the manhole. Approximately 800 gallons was pumped from the manhole. I had the sewer authority check their engineering drawings and they could not give a good answer where the manhole connected to the sewer. We continued to check the manhole to insure product did not return to the manhole. A total of approximately 1500 gallons was recovered.
- 2200 Sun Pipeline Co., dug a hole approximately 50 - 100 ft. from the point where Clean Venture pumped the gasoline from the excavated hole. Water filled the bottom of the hole, but there was no product. They excavated the pipe to place a sleeve on to vent the pipeline. Sunoco continued to pump gasoline from the pipeline. Checked the manholes again and only an odor from a few existed. We checked the manhole that had product and it was still clean.
- 0000 Sun Pipeline Co. excavated a second area approximately 50 ft. in the other direction from the rupture. Excavation was two feet below the pipeline with the bottom of the hole filling with water but no product. A second sleeve was welded on the pipe and a second vent was tapped. No product was lost. Clean Venture connected a vac truck to the first vent and pumped 4500 gallons of product from the pipe as Sun Pipeline Co removed the two jack-hammer bits from the point of rupture.
- 0100 Sun Pipeline Co. began to remove the metal sleeve around the pipe. Clean Venture continued to pump product from the pipeline at the one vent, while the sleeve was being removed.
- 0300 Patch was put on the pipe. No product was lost during this process.
- 0400 Patch was bolted on the pipe and the process was complete. I followed the two Clean Venture Inc., Vac Trucks to the Sun Pipeline Co. plant on Doremus Avenue, Newark, where the product was pumped into Sun Pipeline Co. tanks. Site was secured and Sun Pipeline Co. continued to work. Newark Fire Department still on-scene and area was still cordoned off. Sewers were continued to be vented. Mr. Piegario would check the sewers to insure no gasoline fumes were present.

FOC23:efw

MEMONEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO Spill File
FROM Galen McCreary thru Bruce Comfort ^{Gum} DATE 11-30-84
SUBJECT Sun Pipeline Co., Frelinghuysen Avenue
DWM #: 84-11-08-04C

CONCLUSIONS:

Sun Pipeline Co., was attempting to find their 14" pipeline at the intersection of Frelinghuysen and Peddie Streets.

Sun Pipeline Co., put two jack-hammer bits thru the 14" gasoline pipeline.

Sun Pipeline Co., took responsibility for clean-up and repair.

Approximately 1500 gallons of product was recovered from the rupture.

RECOMMENDATION:

Recommend an NOV and fine ^{Gum} for unauthorized discharge.

FOC23:efw

MEMO

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO Vince Krisak and Spill FileFROM Mark S. Gruzlovic DATE November 13, 1984SUBJECT (07-14) #84-11-08-04C Emergency Spill Response to gasoline pipeline leak at Frelinghuysen Avenue and East Peddie Street, NewarkNovember 8, 1984

1420 hrs. - I was requested to respond to the gas line leak identified above by Vince Krisak of my office. I was requested to assist Galen McCreary (DWM), evaluate response and corrective actions implemented thus far, and make recommendations as necessary.

1532 hrs. - I arrived at site. Area was barricaded and a "hot line" was already established and manned by Newark police and fire departments. Clean Venture was already on site and working on spillages. I spoke with John Malool of Clean Venture, he gave me an update of status of spill. Sun Oil (pipeline owners) had a crew on site to work on repair of line. Line was punctured on south-west corner of intersection in the street less than two feet from curb. (The pipe line was excavated below the leak on the north-east side of street (Frelinghuysen Avenue) and a vacuum tank trailer was being used to vacuum gasoline currently flowing along outside of line at this point.

I was unable to determine leak rate at this location because of recovery by vac truck, but gasoline flow alongside line was constant while it was being recovered.

1540 hrs. - I met with Galen McCreary and Mike Proietti of my office. McCreary told me that he has already determined that excavation will be necessary above and below puncture to determine extent of spill. Fire department Captain Harry Carter was monitoring storm and sanitary lines with an explosimeter. Local Health, Tom O'Neill also on-site.

1600 hrs. - McCreary and I contacted Bruce Comfort at office to give update. McCreary will remain on site to inspect excavations and puncture repair on line. Proietti and I will secure.

Before securing, I spoke with Mr. Lindsay, foreman of Sun pipeline workers as he was already beginning excavating the area of the line puncture. I told him that if gasoline began flooding his excavation after the earth was uncovered from the line that I recommended that he stop work with his shovels and air hammer until gasoline drains from the hole or make other arrangements to keep sparking tools away.

He may be able to continue digging after vacuuming excavating and/or using foam to keep flammability down. I told him that I was concerned because

some gasoline was already seeping out of ground where they were digging and that a storm drain was taking excess water from their excavation. Mr. Lindsay disagreed with putting foam on the excavation if gasoline came in, as it would make footing slippery, but he placed more sorbent material on water draining from the excavation to the storm drain.

1620 hrs. - Mike Proietti and I secured from site.

FOC16:ar

cc: Galen McCreary
Mike Proietti
File

ruptured by construction in area		CODE
WATER BODY AFFECTED	unknown	CODE
ASSOCIATED FIRE AND/OR HAZARDS	yes	

INCIDENT REFERRED TO:

AGENCY	PHONE
CONTACT	AGENCY CODE

PRIMARY D.W.M. INVESTIGATOR	FOLLOWUP
E2052 11/8/84	
NO FURTHER ACTION	DATE

COMMENTS:

<p>- rupture of high pressure gasoline line Police have cordoned off area. Newark Engineering and Suburban Regional Health Dept. contacted at 1425 hrs. update from Newark Fire Dept. - the 14" high pressure pipe has been shut down. There is approx 40-50 gallons of gasoline in a hole in the ground. Explosive readings are in sewers.</p>
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INCIDENT REPORT

D.W.M. ASSIGNED CASE NUMBER	84-111-08-04C	HOT LINE	<input type="checkbox"/>	INDEXED	<input type="checkbox"/>
DATE	111-08-84	TIME (Military)	11415	D.W.M. ID NO.	2235

INCIDENT REPORTED BY:

NAME	Dispatcher 80	PHONE	201-733-7400
AFFILIATION	Newark Fire Dept.	CODE	<input type="checkbox"/>
STREET			
CITY		STATE	ZIP CODE

INCIDENT LOCATION:

NAME	Sun Pipeline	PHONE	215-964-2500
STREET	Frederickburg + E. Pottsville	UTM VERT	UTM HORIZ
CITY	Newark	COUNTY	Essex
		STATE	ZIP CODE

SOURCE OF SPILLED AND/OR DISCHARGED SUBSTANCE: Confirmed ☐ Alleged ☐ More Than 1 Source ☐

COMPANY NAME	Sun Pipeline	PHONE	215-964-2500
CONTACT	Dave Meadows	TITLE	
STREET	1275 Drummerstone	DEP COMPANY NO.	
CITY	Wayne, Pa.	COUNTY	STATE
		ZIP CODE	

SUSPECTED SPILLED AND/OR DISCHARGED SUBSTANCE: Confirmed ☐ Alleged ☐ More Than 2 Substances ☐

1.	gasoline leak	SUBSTANCE NO.	
AMOUNT SPILLED	unk	UNITS	unk
		A/P/E	<input type="checkbox"/>
2.		SUBSTANCE NO.	
AMOUNT SPILLED		UNITS	
		A/P/E	<input type="checkbox"/>

DATE OF INCIDENT	111-08-84	TIME (Military)	11400	TEMP.	WEATHER	WIND (Dir. & Vel.)
SPILL ORIGIN	high pressure pipeline	CODE				
CAUSE	ruptured by construction in area	CODE				
WATER BODY AFFECTED	unknown	CODE				
ASSOCIATED FIRE AND/OR HAZARDS	yes					

INCIDENT REFERRED TO:

AGENCY	PHONE
CONTACT	AGENCY CODE

PRIMARY D.W.M. INVESTIGATOR	E2052 11/8/84	FOLLOWUP	<input type="checkbox"/>
NO FURTHER ACTION		DATE	

COMMENTS:

TIERRA-D-020915

D.W.M. ASSIGNED CASE NUMBER	84-11-08-04C	Page ____ of ____
DATE	11-08-84	TIME 1445 D.W.M. ID NO. 2235

ECO 2057 is responding to spill. Dave Meadows of Sun Pipeline was contacted. (215-964-2500). He said that a repair crew was dispatched to the scene. He also said that Clean Venture has been contacted to cleanup the spill. He estimated their ETA to be 1500 hrs.

1455 hrs. John Miller - Sun Pipeline contacted our office to report the spill. I explained to him that we were already responding to the situation. I thanked him for reporting the spill.

D.W.M. ASSIGNED CASE NUMBER	84-11-08-04C	Page	1 of 1
DATE	11-08-84	TIME	1610
		D.W.M. ID NO.	2235

Walt Janick called. He left scene at 1530 hrs. Gasoline is still flowing, but at a reduced rate. Clean Venture and San Pipeline not on scene at this time.