State of New Jersey
Department of Environmental Protection

Richard J. Codey
Acting Governor

Bradley M. Campbell
Commissioner

Emil Baer, Inc.
c/o Steven A. Baer
1905 New Cut Road
Spartanburg, SC 29303

SEP 19 2005

RE: Remediation Agreement (RA)
In the Matter of The Elizabeth Site, Apex Chemical Corporation
And Emil Baer, Inc.
Apex Chemical Corp. (Apex)
200 South First Street, Elizabeth, Union County
ISRA Case #E97149

Dear Mr. Baer:

Please be advised that the New Jersey Department of Environmental Protection (NJDEP) has completed its review of the above referenced RAR. The NJDEP's comments regarding the referenced report are provided below.

I Off-Site Soil Requirements

A. Antimony

1. Antimony (Sb) was used in past operations at the Apex facility. During soil sampling events, that compound was determined to be present throughout the Apex site. Although the Apex site has been determined to have received historic fill in the past, antimony is not typically found in historic fill and due to its presence in historic operations, is assumed to have been introduced to site soils due to discharge.

2. Previous operations on the second and third floors of the "Process Building" included staging and mixing of raw materials, many of which were in powder form. The third floor of that building also housed a dust collector that reportedly received raw materials along with process dust. During the February 10, 1998 NJDEP site inspection, the NJDEP case manager toured the upper floors. Weather conditions during the site inspection were clear, with gusts of wind at an estimated 25 to 30 miles per hour. During the inspection of the upper floors, it was noticed that the walls were not finished in great detail and gaps existed throughout, especially the third floor where the dust collector was housed. In addition, doors were present for the loading of raw materials from ground level. Process powders were observed on the floors of the mixing rooms and dust collector and gusts of wind were not only lifting the powders from the floors but blowing them out of the structure.

3. Due to the observed airborne release of process powders from the upper floors of the Process Building, the NJDEP verbally required that off-site sampling be performed for antimony on sites immediately adjacent to the northern and southern borders of Apex.

The property immediately to the west, across South First Street, was investigated via a contaminated site search and found to be another ISRA site that had its own metals investigation on-going. The Elizabeth River borders the Apex site to the east.

Off-site sampling for antimony was performed on the adjacent property to the south of Apex and results reported in the July 2005 "Offsite Remedial Investigation Report & Remedial Action Workplan", currently under review. However, the adjacent northern property was not addressed.

4. *NJDEP Comments/Requirements* - The NJDEP requires that the adjacent property immediately to the north of Apex, also be sampled for the presence of antimony. A minimum of two soil samples shall be collected in the 0 to 6 inch soil horizon below ground surface and analyzed for antimony by an accredited laboratory. Sample locations shall be a minimum of 50 feet apart and may be chosen at random. The NJDEP case manager may be consulted on sample location prior to the sampling event if so desired.

II July 2005 Remedial Investigation Report (RIR)

A. Off-site Antimony Sampling

The RIR documents the soil sampling performed on the adjacent property to the south of Apex. The NJDEP is currently reviewing that report and shall respond, with comments and all necessary requirements upon the conclusion of that review.

III Reporting Requirements

Apex shall implement the remedial activities and submit the results of the required off-site soil sampling, 90 days from the date access was granted to the off-site property in question. Failure to implement the remedial activities and submit the results in accordance with the required timeframe, may result in enforcement action.

IV Electronic Data Deliverable Requirements

Pursuant to the Technical Requirements for Site Remediation (TRSR), N.J.A.C. 7:26E-3.13(c)3v, Apex shall submit all analytical data both as a hard copy and an electronic deliverable using the database format outlined in detail in the current HAZSITE application or appropriate spreadsheet format specified in the NJDEP's electronic data interchange manual. Please note that the electronic deliverables may be submitted directly to the Case Manager via email: alphonse.inserra@dep.state.nj.us

The Electronic Data Submittal Application (EDSA) is a software program which will perform an administrative and completeness check on electronic data prior to that data being reviewed, evaluated or used by NJDEP personnel. Apex shall ensure that it performs this check on all electronic data submitted to the NJDEP in the .txt, .wk1, or .dbf format to determine if the basic required information is included and correct. This routine is intended to decrease the occurrence of the NJDEP rejecting data for administrative errors or omissions.

For further information related to electronic data submissions, please refer to the Site Remediation Program's (SRP's) home page at the following Internet address: **http://www.state.nj.us/dep/srp/hazsite/** This website includes downloadable files, an explanation of how to use these files to comply with the NJDEP's requirements, the SRP's Electronic Data Interchange (EDI) manual, and Guidance for the Submission and Use of Data In GIS Compatible Formats Pursuant to "Technical Requirements for Site Remediation".

V General Requirements

A. Apex shall submit the report or additional proposals in duplicate. Please note that only one copy of the Quality Assurance/Quality Control Deliverables and one disk of electronic deliverables are needed.

B. Apex shall submit summarized analytical results in accordance with the Technical Requirements For Site Remediation (TRSR), N.J.A.C. 7:26E.

C. Apex shall collect and analyze all samples in accordance with the sampling protocol outlined in the August 2005 edition of the NJDEP's "Field Sampling Procedures Manual" and the TRSR, N.J.A.C. 7:26E.

D. Apex shall notify the assigned BNCM Case Manager at least 14 calendar days prior to implementation of all field activities.

VI Remediation Funding Source Requirements

Pursuant to N.J.S.A. 58:10B-3, a remediation funding source is to be established in an amount equal to or greater than the cost estimate of the implementation of the remediation and shall be in effect for a term not less than the actual time necessary to perform the remediation at the site. N.J.S.A. 58:10B-3 allows for a change of the amount in the remediation funding source as the cost estimate changes. Please provide the current estimated cost of the remaining remediation required at the site. Any increases in the estimated cost will require an increase in the amount in the Remediation Funding Source to an amount at least equal to the new estimate. Any requests to decrease the amount in the remediation funding source will be reviewed and approved by the NJDEP upon a finding that the current remediation cost estimate will be sufficient to fund all necessary remediation.

If you have any questions, please contact the Case Manager, Alphonse Inserra, at (609) 633-1413.

Sincerely,

Ann H. Wolf

Ann H. Wolf, Supervisor
Bureau of Northern Case Management

c: Elizabeth Division of Health Department
Ken Goski, Current Property Owner
Karen Murphy, Bressler, Amery & Ross
Ken Nieuwenhuis, PEAK Environmental, Inc.

Bureau of Environmental Evaluation,
Cleanup And Responsibility Assessment
Industrial Site Recovery Act

REPORT OF INSPECTION

ISRA Case #E97149 Date of Inspection: 2/10/98

Inspection Category: Preliminary

NJDEP Inspector: Alphonse J. Inserra

Industrial Establishment: Apex Chemical Corp.

Location: 200 South 1st Street, Elizabeth City, Union County

Individuals Involved: Jane Kim - Bressler, Amery & Ross
Joseph Mendryk - Apex Chemical Corp.

A. NARRATIVE DESCRIPTION

I arrived at the facility at 10:38 a.m. and departed the premises at 12:10 p.m. The inspection encompassed the interior of the facility as well as the exterior of the facility to the property perimeters. Operations performed at this facility are those related to the textile industry and have been relatively the same since 1917 to the present. Operations consist of chemical blending from raw materials shipped to the site, in order to produce customized chemical compounds which are drummed and shipped to various manufacturers. The chemicals are used to treat various products such as clothing, sheets, pillow cases, curtains, draperies, curtains, office furnishings, and other consumer goods. The site is surrounded by industry except to the southeast in which the site borders the Elizabeth River.

The operation begins on the third floor of the three story process building. Raw materials are poured into kettle drums on the third floor of the process building and mixed and blended on their way to the first floor. The chemical products are then drummed and stored for shipping.

An aboveground tank farm is present at the facility. The tank farm consisted of eleven aboveground tanks in the past, however, currently only six remain. An aboveground, diked, fuel oil tank is also present outside of the boiler room. This site was assigned four NJDEP air pollution permits and one "D.E.P." permit #A-003557 for storm water discharge. The site has reportedly been connected to the local municpal sanitary sewer since 1950 and storm water discharge was reported to be to the Elizabeth River since 1972.

B. DEFICIENCIES NOTED

1. The Warehouse Building and Cold Room floors were observed to be composed of wood and staining was observed on the wooden surface. It could not be determined what surface exists beneath the wooden floor during the inspection.

2. Boiler room floor trench which holds piping for product transfer, contained sediment which inhibited integrity verification.

3. The aboveground fuel oil tank has a dike surrounding it. However, the base of the diked area was mostly covered by liquid. The liquid was noticed to have a sheen on its surface.

A pipe was noticed to be leading from the Boiler room to inside the above mentioned dike. The pipe discharged into a depression/hole in the base of the dike. The pipe was reported to contain Boiler room blowdown.

4. The Flammable Storage Shed, which is labeled on the site plan as the Garage, contained old machinery, gasoline cans, drums and other unlabeled containers. Although the floor had good integrity and all cans were stored in shallow diked areas, rain water had accumulated in some of the diked areas. The shed walls and base of the shed floor were non-contiguous and at least the northern border of the shed was not paved.

5. A dust collector is situated on the Process Building roof. The said dust collector collects the dust from various stages of the blending operation.

6. The aboveground tank farm dike base had good integrity, however, the sumps (at least seven) had accumulated sediment and their integrity could not be checked. In addition, a trench harboring pipes, lead from the tank farm to the facility. The trench integrity could not be documented due to an accumulation of sediment.

7. The Research and Development (R&D) Laboratory contained many small containers of unmarked substances. The laboratory sinks were reported to discharge to the sanitary sewer during the inspection.

8. An emergency blowdown pipe runs the exterior of the eastern face of the Process Building from the third floor to a plastic drum on the ground. The integrity of the drum could not be verified due to liquid in the drum.

C. ACTIONS REQUIRED ON THE PART OF THE RESPONSIBLE PARTY

1. Apex Chemical Corp. shall document that the surface which lies beneath the wooden floor of the Warehouse and Cold Room, is an impermeable surface. It appears that product has been stored at this location for at least 80 years and possibly longer.

2. Apex Chemical Corp. shall clean the sediment from the Boiler Room trench and document the integrity of said trench. Integrity verification may be performed via photograph.

3. Apex Chemical Corp. shall pump the liquid from the diked area mentioned in deficiency three above, and dispose of the said liquid properly. The base of the dike shall have its integrity documented. This may be done by photograph, however, care shall be taken to document the entire length of the base and all area between the cradles. Apex Chemical Corp. shall amend the PA to include the oil stored in the tank as a hazardous substance, the type of oil stored (i.e. #4 fuel oil) and list the size of the tank as well.

Apex Chemical shall collect a sample at the blowdown discharge point mentioned in deficiency three above and analyze the sample for all relevant parameters.

4. Apex Chemical Corp. shall identify all containers in the Flammable Storage Shed and list all substances which are hazardous, in an amendment to the Preliminary Assessment (PA), unless the March 1998 PA amendment has all ready done so. Apex Chemical Corp. shall characterize all exposed soils which border the shed as per the Technical Requirements for Site Remediation, N.J.A.C. 7:26E.

5. Apex Chemical Corp. shall document the amount of dust which is collected by the dust collector mentioned in deficiency five above. In addition, the method of disposal of the collected dust shall be documented. The NJDEP may require the discharge point of the roof drains associated with this unit to be sampled, based on all additional information for this unit. Also, please identify which of the air permits included with the PA, was designated for this unit. The PA shall be amended to include this unit.

6. Apex Chemical Corp. shall document the integrity of the aboveground tank farm sumps and trench. Integrity shall be documented via photograph upon removal of all sediment and/or debris.

7. Apex Chemical Corp. shall determine all hazardous substances used at the R&D portion of the facility and report those substances on an amended PA. Although the March 1998 listed general chemical groups, a more specific list of hazardous compounds shall be submitted. The sink discharge points shall be documented. The R&D Laboratory was not marked on the site plan for the PA; the site plan shall be amended to depict the location of the laboratory.

8. Apex Chemical Corp. shall document the integrity of the plastic blowdown drum mentioned in deficiency eight, via photograph. The drum shall first be cleaned of all material and the material shall be disposed of in a proper fashion.

9. Apex Chemical Corp. shall amend the site plan to include all storage pads, chemical storage closets, hazardous material storage areas and any additional catch basins and associated discharge points. The PA referenced all of these areas to be on the site plan, however, they were not depicted as referenced.

10. Apex Chemical Corp. shall amend the PA to include all tanks which contained hazardous substances. As required in item B.3 above, the fuel oil tank is required to be listed on the PA. In addition, all tanks located in the tank farm which contained hazardous substances, past and present, shall be listed in the PA.

11. Apex Chemical Corp. reported in the PA that the production well has been capped. Please determine if the well has been closed properly and if the well decommissioning has been reported to the NJDEP, Bureau of Water Allocation (BWA). Please contact BWA at (609) 292-2957, in order to acquire the necessary reporting forms to report well decommissioning. Also, please disclose the use of the production well water as it pertained to operations and report any additional production wells that may be in operation. Please copy this office on all correspondence.

12. Apex Chemical Corp. reported in the PA that municipal sanitary sewer connection was accomplished in 1950. Apex Chemical Corp. shall determine how the sanitary sewerage was disposed of at this site prior to that date. In particular, the discharge point of the floor drains which are located in the Process Building and the discharge point of the sinks in the R&D Laboratory.

In addition, the storm water at this site was reported to be discharged to the Elizabeth River in 1972. Was the D.E.P. permit #A-003557 acquired for this discharge? Apex Chemical Corp. shall determine where the previous storm water discharge was directed and report that discharge point.

13. The NJDEP performed an aerial review of this site dating back to 1940 and up to 1991. The site was not paved in the 1961 photo and exhibited partial pavement in the 1977 photo; the site still did not appear to be completely paved in the 1991 aerial photo. The following questions were raised during the aerial review:

a. The diked aboveground fuel oil tank does not appear until the September 9, 1997 aerial photo. Since the boiler room appears in all photos dating back to the 1940 photo and the NJDEP assumes this room was always a boiler room, please provide the fuel source for the boilers prior to the installation of the diked aboveground tank. A small tank like structure was noticed just west of the Boiler Building in the April 23, 1961 and September 9, 1977 photo. Please comment on the purpose of this tank like structure and if it was used to serve the Boiler Building in the past.

b. The April 23, 1961 photograph revealed two white, rectangular, tank-like structures at the northeastern section of the site, near the river. A line appeared to connect the two structures which also ran to the current Flammable Storage Building. Please determine the purpose of these tank-like structures.

c. Storage of materials was performed on a consistent basis in two areas of the site throughout the history of this facility. The area east of the Shipping Building and north of the Process Building was used as a storage area for materials. In addition, the outcove west of the Boiler Building was also historically used for staging of materials and the September 9, 1977 photo depicted three tanker trailers backed up to the loading dock in that area. These two areas shall have additional sampling performed in order to characterize any contamination that may have been caused by the storage operations.

d. A small tank-like structure is evident outside the northeast corner of the Shipping Building in the April 23, 1961 and September 9, 1977 aerial photos. Please disclose the purpose of this structure.

e. The first observation of the aboveground tank farm is in the September 9, 1977 aerial photo. This photo and the subsequent photos up to 1991, reveal that there were eleven tanks composing the tank farm. Although the Figure in section D of the March 1998 PA addendum reveals the two missing tanks as circular tanks, the six missing tanks that are currently not present were laying side-by-side as they are currently positioned. Please disclose the contents of the six tanks and amend the PA accordingly. Please provide the material safety data sheets (MSDS) for **ALL** chemicals stored in these tanks, including the tanks identified in the March 1998 PA addendum. The northwest corner of the tank farm exhibited staining in the September 9, 1977 aerial photo. Sampling at this area may be required based on the above information and information pertaining to the Process Building south end loading bay.

f. Three small tank-like structures appear to be staged on the northern property boundary, approximately 50 to 75 feet west of the current Flammable Storage Building. Please disclose the purpose of these structures and contents if they are determined to be tanks.

g. Two truck trailers are staged at the Process Building south loading bay in the September 9, 1977 photo and one trailer is present in the March 3, 1991 photo. Please disclose the purpose that the truck trailers served at this location.

14. The NJDEP has reviewed the historic soil borings and recent soil borings which have been installed to confirm fill material at this site. Based on the boring logs submitted with the Historic Fill Use report dated September 28, 1997, the NJDEP concurs that historic filling of this site has been performed in the past, although visual verification may be required in the future. Although a Declaration of Environmental Restrictions (DER) may be appropriate for this site, the information required in this Inspection Report will have to be reviewed prior to granting this site a no further action based on the presence of historic fill. Therefore, the draft DER submitted with the October 27, 1997 letter has not been reviewed.

15. Pursuant to the Technical Requirements for Site Remediation (TRSR), N.J.A.C. 7:26E-3.13(c)3v, all analytical data shall be presented both as a hard copy and an electronic deliverable using the database format outlined in detail in the current HAZSITE application or appropriate spreadsheet format specified in the NJDEP's electronic data interchange manual.

For further information related to electronic data submissions, please refer to the Site Remediation Program's (SRP's) home page at the following internet address: **http://www.state.nj.us/dep/srp** The **Regulations and Guidance** page of this web site has a section dedicated to HazSite which includes downloadable files, an explanation of how to use these files to comply with the NJDEP's requirements, the SRP's Electronic Data Interchange (EDI) manual, and **Guidance for the Submission and Use of Data In GIS Compatible Formats Pursuant to "Technical Requirements for Site Remediation".**

16. Please be advised that amendments to the Technical Rules for Site Remediation (N.J.A.C. 7:26E) appeared in the New Jersey Register on May 19, 1997. These amendments became effective on July 18, 1997. Additional amendments to N.J.A.C. 7:26E were promulgated on October 23, 1997 and appeared in the November 17, 1997 edition of the New Jersey Register. Additionally be advised that P.L. 1997 c. 278 was signed by Governor Whitman on January 6, 1998. P.L. 1997 c. 278 amends portions of P.L. 1993 c. 139. All submissions to the NJDEP on or after the effective date shall be made in accordance with the referenced amended rules, regulations and statute.

17. Pursuant to the Technical Requirements for Site Remediation (N.J.A.C. 7:26E), a detailed Remedial Action Schedule is required for all cases in the remedial investigation and remedial action phases.

Therefore, Apex Chemical Corp. shall submit a Remediation Schedule which incorporates the remediation of all remaining areas of environmental concern in accordance with the N.J.A.C. 7:26E-4.2/6.5 within 30 calendar days of the receipt of this letter. Apex Chemical Corp. shall note the implementation and completion date for each remedial phase, submission dates of any workplans or interim reports for which Apex Chemical Corp. requests the NJDEP's review and the submission dates for all workplans and reports that require the NJDEP's approval, including any report in support of a no further action proposal. Be advised that, in accordance with N.J.S.A. 58:10B, Apex Chemical Corp. may remediate the site without prior submission or approval from the NJDEP; however, prior approval must be obtained from the NJDEP for a remedial action involving ground water, surface water, or for the closure of an underground storage tank subject to N.J.S.A. 58:10A.

D. ACTIONS REQUIRED ON THE PART OF BEECRA

1. The NJDEP shall review the above required information upon submittal.

Inspector/Case Manager Signature _____

Approved: _____, Supervisor
Bureau of Environmental Evaluation,
Cleanup and Responsibility Assessment

Site Investigation Report

Apex Chemical Corporation
200 First Street
Elizabeth, Union County, NJ
ISRA Case #97149

Volume I of II

Prepared For:

Emil Baer, Inc.
200 First Street
Elizabeth, NJ 07206

Prepared By:

A. T. Cameron, PG
273 Thompson Ave
Middletown, NJ 07748

May 21, 1999

Remedial Investigation Work Plan
For
Apex Chemical Corporation
200 First Street
Elizabeth, NJ

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Appendixes

1.0 INTRODUCTION

This Site Investigation Report (SIR) documents the soil investigation conducted by A.T. Cameron, P.G. at the property located at 200 First Street, Elizabeth, New Jersey (the Property). This report is submitted on behalf of the owner of the Property, Emil Baer, Inc. (EBI), in connection with Industrial Site Recovery Act (ISRA) Case number 97149. The ISRA case was triggered by the shutdown of more than 90 percent of the operations of the tenant, the Apex Chemical Corporation.

In April 1997, Nicholas A. Compagna, PE submitted a Preliminary Assessment (PA) in connection with this ISRA Case. The PA reported on the results of 5 soil samples collected and analyzed for volatile organic compounds (VOCs) and heavy metals. No VOCs were detected but metals were present in soil at concentrations consistent with historic fill. On September 28, 1997 A.T. Cameron submitted a Historic Fill Use report documenting soil borings at the Property and historic fill use data.

On February 10, 1998, the New Jersey Department of Environmental Protection (NJDEP) case manager for this ISRA case, Mr. Alphonse J. Inserra, conducted a site inspection. The report of the February 10, 1998 inspection identified and requested additional information on areas of concern (AOCs) based upon present and historic operations. Preliminary Assessment Addenda were subsequently submitted in April 1998 and June 1998 providing available information in response to the Report of Site Inspection.

On October 20, 1998 Mr. Inserra conducted a second site inspection. Based upon the results of the October 20, 1998 Site Inspections, the PA Addenda and joint review of aerial photographs, Mr. Inserra and A.T. Cameron, P.G., identified the following AOCs which required further soil investigation:

AOC A -	Wooden Floors Located in Warehouse Area
AOC B -	Former Above Ground Tank Located Behind Shipping Building
AOC C -	Empty New Drum Storage Area
AOC D -	Volatiles Storage Building
AOC E -	Former Structure Located Along the Elizabeth River
AOC F -	Boiler Room Blow Down
AOC G -	Storage and Loading Area South of Raw Materials Warehouse
AOC H -	Former Aboveground Tank Located West of Boiler Room
AOC I -	Diked Aboveground Storage Tank Field

In addition, the Department conditionally concurred with the designation of Historic Fill (AOC J) at the Property pending priority pollutant metals (PP-metals) and polyaromatic hydrocarbon ("PAH") testing in connection with the investigation of the above AOCs.

On December 8, 1998 A.T. Cameron, PG submitted to the NJDEP on behalf of EBI

a Remedial Investigation Work Plan setting forth the soil investigation which would be conducted to further evaluate AOCs A through J (RIW). The RIW also documented the AOCs which were resolved by visual inspection. NJDEP approved the schedule of investigation set forth in the RIW. This SIR reports on the implementation of the RIW. In addition, the SIR reports on soil excavation conducted at one AOC and post excavation sampling results. This SIR also identifies a groundwater investigation, which will be conducted in connection with certain AOCs.

1.1 Environmental Setting

This site is located in an area of Elizabeth, New Jersey that is predominantly heavy industrial. The Facility is bordered by other industrial sites to the north, south, and west. The Elizabeth River borders the property to the east. See Figure 1, the site location map. The topography of the area slopes gently to the east towards the Elizabeth River and Arthur Kill, with site drainage in the same direction.

Ground water was detected at a relatively shallow depth of between 3.5 feet to 6 feet below grade. Based on the topography of the site and location of the nearby Elizabeth River and Arthur Kill, the direction of ground water flow is most likely from the west to the east towards these water bodies.

Based on the results of soil borings previously conducted at this facility by A.T. Cameron, Nicholas A. Compagna, PE and Warren George, an upper layer of fill is present across the site. Fill used to level the site has an observed thickness of between 3.5 to 10 feet below grade and is described as a poorly sorted clayey and silty fine sand consisting of ash, cinders, coal fragments, wood, glass and brick fragments.

Further descriptions of the environmental setting and location of historic fill at the site can be found in the September 28, 1997 A.T. Cameron, P.G. report entitled Historic Fill Use at Apex Chemical Corp.

1.2 Sample Collection Procedures and Analysis

This investigation was conducted in accordance with currently applicable Technical Requirements for Site Remediation N.J.A.C. 7:26E (Tech Regs) and the proposed Cleanup Standards for Contaminated Sites, N.J.A.C. 7:26D latest revision. In addition, the following NJDEP guidance documents were utilized: Field Sampling Procedures Manual, dated May 1992, Field Analysis Manual, dated July 1994 and the Guide for Alternative Ground Water Sampling Techniques, dated July 1994.

Except where otherwise specified and except where samples were to be analyzed for VOCs, samples were collected from the 0-6 inch interval below grade where the surface

was soil, from the 0-6 inch interval below covering material (asphalt, concrete or wood) or from the 0-6 inch interval at the bottom of sumps. In samples where volatile organic analyses were to be run, the soil samples were collected from the interval with the highest field screening results or in the 18 inch to 24 inch interval below the top of soil.

Soil samples were collected by the Geoprob® system or by hand auguring where appropriate. A standard 2 inch by either 2 foot or 4 foot sample collection probe was driven into the ground. Soil samples were collected in dedicated sleeves. Field screening was conducted by the use of a photoionization organic vapor detector (PID). Soil logs/descriptions have been prepared for each soil sample and are set forth at Appendix A.

Laboratory analytical methods included total petroleum hydrocarbons (TPHC) by USEP method 418.1, priority pollutant volatile organic compounds with a forward library search to tentatively identify the next 10 most abundant compounds (VO+10), priority pollutant base neutral extractable semi-volatile organic compounds plus a forward library search to tentatively identify the next 15 most abundant compounds (BN+15), and priority pollutant metals (PP-metals).

2.0 Investigation Conducted by Areas of Concern

2.1 AOC-A - Wooden Floors Located in Warehouse Building

The warehouse building is used to house raw materials and orphaned or excess finished product. The warehouse has wooden floors that have some visual evidence of staining but no accumulation of substances on the wood. Two types of wooden floors are present in the warehouse. In the western end of Warehouse Building, the wooden floor is level with the main ground level processing area. The eastern portion of the warehouse has an older wooden floor, which is approximately 3 feet below the level of the raised floor in the western section of the warehouse.

In the area of the raised floor, holes were cut through the floor to inspect the area beneath the floor. Visual inspection revealed the presence of concrete slab below the wooden floor. No staining or structural problems were identified with the concrete. Photographs of the concrete floor are annexed as Appendix B. Based on this physical inspection of the concrete below the raised wooden floor, no further action is proposed for the raised floor section of AOC-A.

In the older wooden floor in the eastern portion of the warehouse, three holes were cut to inspect the area beneath the wooden floor. Inspection revealed a crawl space beneath this portion of the building. The crawl space floor has no covering. The soil in the crawl space was observed to be covered with one to three inches of water depending on the tides. Thus, the water in the crawl space beneath the Western Section wooden floor is tidally affected.

Three samples were collected from the 0 to 6 inch interval of the saturated soil in the crawl space. The 0 to 6 inch interval of soil beneath the old wooden floor consists of a surficial film of dark organic matter and a fine, silty material which is not consistent with either native soils or fill seen at other locations at the Property. Each of the three samples was tested for TPHC and VO-10. Samples were labeled A-1 through A-3. The location of each soil sample is shown on Figure 2. The sample with the highest TPHC results was additionally analyzed for BN+15 and PP-metals. Summary analytical results are reported on Table 1 and the complete laboratory report is annexed as part of Appendix C.

TPHC was found in all three samples with the highest concentration in A-1 at 12,800 mg/kg. Tetrachloroethene (PCE) was slightly elevated (1.56 mg/kg) above the impact to ground water cleanup criteria (IGWCC) of 1 mg/kg in sample A-1. No target VOCs were detected in samples A-2 and A-3. Sample A-1 was also analyzed for BN+15 and PP-metals. The following metals were detected above the residential direct contact cleanup criteria (RDCCC) but below the non-residential direct contact cleanup criteria (NRDCCC): antimony, cadmium, lead and mercury (see Table 1).

Based on the slightly elevated results of TPHC and PCE and the non-native appearance of the surface soil interval, a second sample was collected from locations adjacent to each of the three previous sample points. Soil samples were collected in the 1 to 1.5 foot interval below the soil/water surface and analyzed for VO+10 and TPHC. The results of TPHC analysis were all below 500 mg/kg and no target volatile compounds were detected. See Table 2.

Given that a slightly elevated level of PCE was found at the soil/water interface in sample A-1, EBI intends to collect a ground water sample from the rear of the warehouse building along the down-gradient side of the building. See Figure 3 for proposed groundwater sample locations. The ground water sample will be collected by an alternate ground water collection method utilizing a temporary well point. The ground water sample collected will be analyzed for VO+10. No further soil investigation is proposed for this AOC.

The metals detected at this AOC are consistent with historic fill identified at the Property. See discussion of Historic Fill AOC at section 3.0 of this report.

2.2 AOC B - Former Above Ground Tank Located Behind Shipping Building

A tank cradle for an above ground storage tank is located on the east side of the Shipping Building (see Figure 2). This tank contained castor oil. The area under and around the tank is paved with asphalt in good condition. The RIW proposed no further action at this AOC except for the collection and analysis of a soil sample from the bottom of

the sump located at this AOC.

A soil boring was installed through the bottom of the sump. No PID readings were detected in the soil boring. A soil sample was collected in the interval between 0 and six inches (sample B-1). Consistent with the RIW, the sample was only analyzed for TPHC since no staining, odor or PID readings were found in this soil boring. The result was 1,580 mg/kg TPHC. See Table 3.

Field screening of soil from beneath this sump found no evidence of a discharge. A high percentage of coal and coal fragments were visible in the sample. Based on these observations it is believed that the TPHC results are due to coal/ash present in historic fill at this AOC. No further action is proposed for this AOC.

2.3 AOC C - Empty New Drum Storage Area

This AOC consists of an unpaved area where three trailers are located. These trailers are used to store empty new drums and shipping materials. Historical aerial photographs indicate that this area may at one point have been used for drum storage outside the trailers. Two soil borings were installed at this AOC. The location of the soil borings is shown on Figure 2. One soil sample was collected from each of the borings. The two samples (C-1 and C-2) were analyzed for TPHC and VO+10. In addition, the sample with the highest TPHC result (C-1) was also analyzed for BN+15 and PP-metals. Samples were collected in the 0-6 inch interval for the TPHC, BN+15 and PP-metals testing and the 18 to 24 inch interval for the VO+10 analysis.

During field screening of the borings, no staining, odor or organic vapor readings were detected. TPHC levels in samples C-1 and C-2 were 958 mg/kg and 669 mg/kg, respectively. No target volatile organic compounds (VOCs) were detected in sample C-2. PCE and Trichloroethene (TCE) were detected above the IGWCC but below the RDCCC in sample C-1. Sample C-1 was additionally analyzed for BN+15 and PP-metals. Certain PAH's were detected above the RDCCC and NRDCCC. Antimony, arsenic and lead were detected above the RDCCC and arsenic was detected above the NRDCCC. Analytical results for AOC-C are summarized at Table 4.

EBI is presently conducting excavation in the area of AOC-C to remove soils that exceed the IGWCC. Post excavation samples will be analyzed for VO+10. In addition, EBI intends to collect a ground water sample in the area of sample C-1. See Figure 3 for proposed groundwater sample locations. The ground water sample will be collected by an alternate ground water collection method utilizing a temporary well point. Analytical testing will be for the VO+10.

Metals and PAH's detected above the RDCCC in sample C-1 are consistent with historic fill identified at the Property. See discussion of Historic Fill AOC at section 3.0 of

this report.

2.4 AOC D - Volatile Storage Building

The Volatile Storage Building is located at the northeastern corner of the site. This building has a concrete floor with a diked area (six inch dike wall) located inside the building. The concrete floor was observed to be in good condition during the October 20, 1998 inspection. However, some areas of the floor were not diked and the metal building's sidewalls have deteriorated such that gaps are present between the wall and the floor along the northern and eastern walls. Two samples were collected from this AOC. Sample D-1 was collected along the north side of the building and sample D-2 was collected along the eastern side of the building. Sample locations are shown on Figure 2. Soil observed in each boring was typical of fill identified at this site but with a lower percentage of ash and coal.

One soil sample was collected from each boring. The samples were analyzed for TPHC and VO+10. During installation of borings no staining, odors or organic vapors were detected. Soil samples were collected in 0 to 6 inch interval for TPHC analysis and in the 18 to 24 inch interval for VO+10 analysis. TPHC results were 470 and 365 mg/kg respectively from samples D-1 and D-2. No target VOCs were detected in either sample. See Table 5.

Based on the analytical results from the two soil samples collected from AOC-D no further action is proposed for this AOC.

2.5 AOC E - Former Structures Located Along the Elizabeth River

Two white rectangular structures were noted on the 1961 aerial photograph approximately 50 feet to the south of the Volatile Storage Building and along the river. These structures appear to be pads. However, a small shadow was noted on the aerial photograph indicating that these structures may have been diked. A path/pipe run is indicated between the two structures and the Volatile Storage Building. A further review of the files by EBI since the joint review of aerial photographs indicates that the structures may have been used to stage metal storage boxes for nitrocellulose which was used in the facility's operations at that time.

The entire area of the southern-most structure and most of the northern-most structure was removed during the US Army Corp. of Engineers widening of the Elizabeth River. The eastern end of the warehouse building was also shown to have been removed during the widening of the river. Since the area of the southern pad has been removed, no further action was proposed and conditionally accepted for the southern pad.

Two soil borings were installed in the area of the northern structure and the

path/pipe run observed between this structure and the Volatile Storage Building. The location of the soil borings is shown on Figure 2. Soil observed in each boring was typical of fill identified at this site but with a lower percentage of ash and coal.

A soil sample was collected from each boring (E-1 and E-2). Each sample was analyzed for TPHC and VO+10. The sample with the highest TPHC results was also analyzed for BN+15 and PP-metals. Sample E-1 had a TPHC result of 316 mg/kg and sample E-2 had a result of 208 mg/kg. No target VOCs were detected in either sample. Sample E-1 was analyzed for BN+15 and PP-metals. No base neutral extractable semi-volatile organic compounds or PP-metals were detected above the RDCCC or the IGWCC at E-1. See Table 6. Based on these results no further action is proposed for AOC-E.

2.6 AOC F - Boiler Room Blow Down

The boiler blow down is piped from the boiler room to the diked containment area for the #4 heating oil tank located on the east side of the boiler room. The boiler blow down pipe discharges directly into heating oil tank containment area. The containment area is constructed of concrete walls and a concrete floor. The concrete floor is in good condition except for a small area under the blow down pipe discharge. While it is not clear that the integrity of the containment area has been compromised under the blow down pipe, the concrete immediately below the blow down pipe discharge showed sufficient wear that a soil sample was collected from the degraded area under the discharge pipe. This sample was labeled F-1. During installation of this boring no staining, odors or organic vapors were detected. The soil sample was collected in the 0 to six inch interval below the concrete floor of the containment area.

Sample F-1 was tested for TPHC, BN+15, and PP-metals. The TPHC concentration in F-1 was 2,460 mg/kg. Several PAH's were detected above the RDCCC and some PAHs were detected above the NRDCCC. Several metals were detected above the RDCCC and NRDCCC. Analytical results are summarized on Table 7.

Soil was observed to be typical of Historic Fill at this site with abundant ash and coal present. The slightly elevated levels of TPHC is likely associated with the ash and coal. Metals and PAH's detected in sample F-1 are most likely related to historic fill. See the Historic Fill AOC discussion.

2.7 AOC G and AOC H - Storage and Loading Area South of Raw Materials Warehouse and Above Ground Storage Tank Located West of Boiler Room

This area includes the raw materials storage area located west of the boiler room

and the former location of an ammonium bromide solution tank. The ammonium bromide tank was present on the 1961 and 1977 aerial photographs and is shown just west of the boiler room. Two soil borings were installed at this AOC, one at the location of the ammonium bromide tank (labeled G-2) and one to the west in the raw materials storage area (labeled G-1). The location of soil borings is shown on Figure 2. During installation of these borings no staining, odors or organic vapors were detected.

The samples were collected from each soil boring for TPHC and VO+10 analysis. The sample with the highest TPHC results was also analyzed for BN+15 and PP-metals. Soil samples for TPHC, BN+15 and PP-metals analysis were collected in the 0 to six inch interval below the asphalt paving in each boring. The VO+10 samples were collected in the 18 to 24 inch interval.

TPHC was found in sample G-1 at 206 mg/kg and in G-2 at 3,600 mg/kg. No target VOCs were detected in sample G-1. Chlorinated solvents, including, PCE (205 mg/kg) and TCE (176 mg/kg) were detected above the RDCCC, NRDCC and IGWCC in sample G-2. Antimony and copper were detected above the NRDCC and cadmium was detected above the RDCCC in sample G-2. Analytical results are summarized on Table 8 and the laboratory report is annexed as Appendix C.

Based on the relatively high levels of PCE and TCE an area of approximately 10 feet by 10 feet surrounding soil boring G-2 was excavated. Excavated soil was staged on heavy gauge plastic sheeting and was covered with the same. During excavation each sidewall was screened from the surface to the top of ground water with a PID. No organic vapor readings were detected during the screening. Post excavation soil samples were collected from the excavation sidewalls in the 18 to 24 inch interval and from the bottom of the excavation in the 3.5 to 4.0 foot interval. The post-excavation samples were analyzed for VO+10. Post excavation sample analyses showed no targeted compounds above the RDCCC or IGWCC. See Table 9. Locations of post-excavation samples GA-1 through GA-5 are depicted on Figure 2.

Based on the results of post excavation soil sampling conducted after soil affected with chlorinated solvents was removed no further action is proposed for soil at the location of boring G-2. Due to the shallow groundwater at this location, EBI intends to collect a ground water sample on the down gradient side of this excavation. The sample will be collected by an alternate ground water collection method (temporary well point). The sample will be analyzed for VO+10.

Soil was observed to be typical of historic fill at this site with abundant ash and coal present. The elevated levels of metals detected in sample G-2 are consistent with historic fill identified at the site. See discussion of the Historic Fill AOC at Section 3.0.

2.8 AOC I - Diked Above Ground Storage Tank Field South Side Property

A concrete diked above ground storage tank field is located on the southern side of the property. All of the tanks are reported to be out of service. The concrete dike was found to be in good condition. The above ground tank field has six horizontal tanks and one vertical tank (three 3,000 gallon and three 6,000 gallon horizontal and one 11,000 gallon vertical tanks). There are cradles present within the tank field for 3 additional tanks. Tank piping runs above ground to the northwest corner of the diked area. Piping then passes from the diked area under the driveway to the process building in a concrete lined trench. The grating covering the trench was removed so that the trench's concrete lining could be inspected during the October 20, 1998 inspection. The concrete walls and bottom of the trench were observed to be in good condition with no staining. However, the end of the trench located at the Process Building was observed to be unenclosed.

Samples were collected from seven soil boring that were installed at this AOC, five within the concrete diked area (A-1 through A-5), one at the western end of the diked area where an older tank may have been located (A-6) and one at the Process Building end of the pipe trench (A-7). The location of soil borings is shown on Figure 2. During installation of these borings no staining, odors or organic vapors were detected in soil from any of the borings.

One sample was collected from each soil boring and analyzed for TPHC and VO+10. The sample within the diked area with the highest TPHC results was additionally analyzed for BN+15 and PP-metals. The sample collected at outside the diked area at the western end of the diked area was also analyzed for BN+15 and PP-metals (sample I-6). Soil samples for TPHC analysis were collected in the O to 6 inch interval below the concrete dike base, asphalt paving, or in the case of the sample at the end of the piping trench from O to 6 inch interval in soil. The VO+10 samples were collected in the 18 to 24 inch interval since no organic vapors were detected during field screen at the seven borings.

Sample I-2 had the highest TPHC result (708 mg/kg) of the samples collected within the diked area. Sample I-6 had a TPHC result of 1,600 mg/kg and sample I-7 had a TPHC result of 1,600 mg/kg. Laboratory results are summarized on Table 10 and the laboratory report is annexed as Appendix C.

PCE was detected above the RDCCC, NRDCC and IGWCC at sample I-1. EBI is presently excavating soil in the area of sample I-1. Post-Excavation samples will be analyzed for VO+10. A ground water sample is proposed to be collected on the down gradient side of this the location of this boring. The sample is proposed to be collected by an alternate ground water collection method (temporary well point). See Figure 3 for proposed sampling points. Analysis will be for VO+10.

Soil was observed to be typical of historic fill at this site with abundant ash and

coal present. Samples I-2 and I-6 were analyzed for the BN+15 and PP-metals. No semi volatile compounds were found in concentrations exceeding RDCCC or IGWCC. A few metals (antimony and cadmium) exceeded the RDCCC but were below the NRDCCC in sample A-6. The elevated levels of antimony and cadmium are consistent with historic fill present throughout the Property. See discussion of Historic Fill AOC at section 3.0.

3.0 AOC J - Historic Fill

As demonstrated in the Historic Fill Use Report, historic soil borings document the presence of historic fill throughout the site. Testing conducted at several AOC have shown that PAH's and metals including antimony, arsenic, cadmium, mercury, and lead, are present in historic fill at the property above the RDCCC and, in some cases above the NRDCC. Table 11 lists PAH's and PP-metals that exceed the RDCCC from across the site.

Based on these results EBI proposes to record a Deed Notice for historic fill at the entire site which prohibits residential use of the property and requires the maintenance of a cap in those areas where metals or PAHs exceed the NRDCCC.

4.0 Ground Water

A ground water investigation is proposed based on the results of soil analysis where PCE and TCE were detected above the IGWCC. Both of these compounds have been detected up gradient of the Apex Chemical site. Based on the shallow depth to ground water and the frequent flooding of this area it is likely that both the PCE and TCE are related to the up gradient source.

Several ground water samples have been proposed for specific AOC's where PCE and/or TCE have been detected above the IGWCC criteria (AOC-A, AOC-C, AOC-G and AOC-I). In addition to each of these proposed ground water collection points two additional points are proposed on the up gradient side of the Apex site. The location of the proposed sample points are shown on Figure 3. Ground water samples at these points are proposed to be collected by an alternate ground water collection method (temporary well points). Analysis will be for VO+10.

5.0 Implementation Schedule

	Interval Time	Total Time
Remedial Investigation Time Table		
	90 Days	90 Days

Collection of Ground water samples (30 days)
Laboratory Sample analysis (30 days)
Review data and submission of remedial investigation Report (30 days)

Times listed start upon approval by the NJDEP

Table 1
Area of Concern A
Warehouse Under-Floor Samples

Sample/Parameter	A-1 1340749	A-2 1340750	A-3 1340751	Cleanup Criteria
TPHC	12,800.0	10,100.0	3,920.0	10000
VO's				
Tetrachloroethene	1.560	ND	ND	4/6/1
TIC's	5.875(4)	3.632(3)	1.227(2)	1000
BN's		NT	NT	
Pyrene	6.630			1,700/10000/100
1,2,4-Trichhlorobenzne	4.090			68/1200/100
TIC's	35.821(13)			10000
PP-Metals		NT	NT	
Antimony	297.000			14/340
Arsenic	17.100			20/20
Beryllium	ND			1/1
Cadmium	8.480			1/100
Chromium	123.000			
Copper	237.000			600/600
Lead	534.000			400/600
Mercury	17.700			14/270
Nickel	22.900			250/2400
Selenium	2.610			63/3100
Silver	2.280			110/4100
Thallium	ND			2/2
Zinc	618.000			1500/1500

All results in mg/kg or parts per million (ppm). Laboratory ID number is listed under field ID number
ND - Not detected..
NT - Not tested
NL - No cleanup criteria is listed
TIC - Tentatively Identified Compound for library search. Total of all compounds is listed with the number of compounds in parentheses ( ).
Cleanup criteria are listed as residential direct contact/non-residential/impact to ground water. For metals no impact to ground water criteria is listed

Table 2
Area of Concern A
Warehouse Under-Floor Samples
Second Round 12"-18"

Sample/Parameter	A-1B 1351544	A-2B 1351545	A-3B 1351546	Cleanup Criteria
TPHC	171.0	25.0	328.0	10000
VO's				
Tetrachloroethene	ND/1.700	ND/0.850	ND/2.000	4/6/1
TIC's	0.939J(1)	0.887JB(2)	1.303JB(2)	1000
BN's	NT	NT	NT	
PP-Metals	NT	NT	NT	

All results in mg/kg or parts per million (ppm). Laboratory ID number is listed under field ID number
ND - Not detected..
NT - Not tested
NL - No cleanup criteria is listed
TIC - Tentatively Identified Compound for library search. Total of all compounds is listed with the number of compounds in parentheses ( ).
Cleanup criteria are listed as residential direct contact/non-residential/impact to ground water. For metals no impact to ground water criteria is listed

Table 3
Area of Concern B
Sump at Former Caster Oil Tank

Sample/Parameter	B-1 1340598	Cleanup Criteria
TPHC	1,580.0	10000
VO's	NT	
BN's	NT	
PP-Metals	NT	

All results in mg/kg or parts per million (ppm).
Laboratory ID number is listed under field ID number
ND - Not detected.
NT - Not tested
NL - No cleanup criteria is listed

Table 4
Area of Concern C
New Drum Storage Area

Sample/Parameter	C-1 1340586	C-2 1340587	Cleanup Criteria
TPHC	958.0	669.0	1000/10000
VO's			
1,2 Dichloroethene	0.974	ND	79/1000/1
Tetrachloroethene	3.250	ND	4/6/1
Trichloroethene	1.620	ND	23/54/1
TIC's	2.341(2)	1.360(2)	1000
BN's		NT	
Benzo(a)anthracene	1.010		0.9/4/500
Benzo(b)fluoranthene	0.890		0.9/4/50
Benzo(a)pyrene	1.350		0.66/0.66/100
Bis(2ethylhexyl)phthalate	0.790		49/210/100
Chrysene	1.710		9/40/500
Fluoranthene	1.500		2300/10000/100
Ideno(1,2,3-cd)pyrene	1.700		0.9/4/500
Phenanthrene	1.460		NL
Pyrene	4.760		1700/10000/100
1,2,4-Trichhlorobenzne	0.680		68/1200/100
TIC's	8.003(12)		10000
PP-Metals		NT	
Antimony	107.000		14/340
Arsenic	41.900		20/20
Beryllium	0.254		1/1
Cadmium	0.910		1/100
Chromium	24.800		
Copper	134.00		600/600
Lead	520.00		400/600
Mercury	1.360		14/270
Nickel	18.900		250/2400
Selenium	3.490		63/3100
Silver	0.969		110/4100
Thallium	0.598		2/2
Zinc	89.000		1500/1500

All results in mg/kg or parts per million (ppm). Laboratory ID number is listed under field ID number
ND - Not detected.
NT - Not tested
NL - No cleanup criteria is listed
TIC - Tentatively Identified Compound for library search. Total of all compounds is listed with the number of compounds in parentheses ( ).
Cleanup criteria are listed as residential direct contact/non-residential/impact to ground water. For metals no impact to ground water criteria is listed

Table 5
Area of Concern D
Volatile Storage Building

Sample/Parameter	D-1 1340582	D-2 1340583	Cleanup Criteria
TPHC	470.0	365.0	1000/10000
VO's	ND	ND	
TIC's	1.390(2)	1.382(2)	1000
BN's	NT	NT	
PP-Metals	NT	NT	

All results in mg/kg or parts per million (ppm).
Laboratory ID number is listed under field ID number
ND - Not detected.
NT - Not tested
TIC - Tentatively Identified Compound for library search. Total of all compounds is listed with the number of compounds in parentheses ( ).
Cleanup criteria are listed as residential direct contact/non-residential/impact to ground water. For metals no impact to ground water criteria is listed

Table 6
Area of Concern E
Area of Concrete Pads

Sample/Parameter	E-1 1340584	E-2 1340585	Cleanup Criteria
TPHC	316.0	208.0	10000
VO's	ND	ND	
TIC's	0.531J(1)	0.984NJ(2)	1000
BN's	ND	NT	
TIC's	ND		10000
PP-Metals		NT	
Antimony	9.550		14/340
Arsenic	3.040		20/20
Beryllium	0.218		1/1
Cadmium	ND		1/100
Chromium	4.560		
Copper	25.50		600/600
Lead	56.900		400/600
Mercury	0.132		14/270
Nickel	9.080		250/2400
Selenium	0.583		63/3100
Silver	ND		110/4100
Thallium	ND		2/2
Zinc	341.000		1500/1500

All results in mg/kg or parts per million (ppm).
Laboratory ID number is listed under field ID number
ND - Not detected.
NT - Not tested
NL - No cleanup criteria is listed
TIC - Tentatively Identified Compound for library search. Total of all compounds is listed with the number of compounds in parentheses ( ).
Cleanup criteria are listed as residential direct contact/non-residential/impact to ground water. For metals
no impact to ground water criteria is listed

Table 7
Area of Concern F
Boiler Blow Down Discharge

Sample/Parameter	F-1 1340595	Cleanup Criteria
TPHC	2,460.0	1000/10000
VO's	NT	
BN's		
Acenaphthene	0.640	3400/10000/100
Anthracene	1.950	10000/10000/100
Benzo(a)anthracene	4.800	0.9/4/500
Benzo(b)fluoranthene	5.070	0.9/4/50
Benzo(k)fluoranthene	0.900	0.9/4/500
Benzo(a)pyrene	6.120	0.66/0.66/100
Benzo(g,h,I)perylene	5.510	NL
Chrysene	6.710	9/40/500
Dibenzo(a,h)anthracene	2.720	0.66/0.66/100
Fluoranthene	13.400	2300/10000/100
Fluorene	0.570	2300/10000/100
Ideno(1,2,3-cd)pyrene	5.460	0.9/4/500
Phenanthrene	11.400	NL
Pyrene	13.300	1700/10000/100
TIC's	36.771(13)	10000
PP-Metals		
Antimony	501.000	14/340
Arsenic	128.000	20/20
Beryllium	1.640	1/1
Cadmium	1.120	1/100
Chromium	48.100	
Copper	218.000	600/600
Lead	1,000.000	400/600
Mercury	0.780	14/270
Nickel	58.800	250/2400
Selenium	5.750	63/3100
Silver	2.320	110/4100
Thallium	1.560	2/2
Zinc	327.000	1500/1500

All results in mg/kg or parts per million (ppm). Laboratory ID number is listed under field ID number
ND - Not detected.
NT - Not tested
NL - No cleanup criteria is listed
TIC - Tentatively Identified Compound for library search. Total of all compounds is listed with the number of compounds in parentheses ( ).
Cleanup criteria are listed as residential direct contact/non-residential/impact to ground water. For metals no impact to ground water criteria is listed

Table 8
Area of Concern G
Storage and Loading/Unloading Area

Sample/Parameter	G-1 1340596	G-2 1340597	Cleanup Criteria
TPHC	206.0	3,600.0	1000/10000
VO's			
Toluene	ND	2.660	1000/1000/500
Xylenes	ND	38.900	410/1000/10
Chlorobenzene	ND	22.300.	37/680/1
1,4 Dichlorobenzene	ND	1.900	570/1000/100
1,2 Dichloroethene	ND	471.000	5100/10000/50
1,1 Dichloroethene	ND	2.020	8/150/10
Tetrachloroethene	0.735	205.000	4/6/1
Trichloroethene	ND	176.000	23/54/1
TIC's	ND	171.578(18)	1000
BN's	NT		
Bis(2ethylhexyl)phthalate		0.630	49/210/100
Bis(2chloroisopropyl)ether		0.930	2300/10000/10
1,4 Dichlorobenzene		0.790	570/1000/100
2,6 Dinitrotoluene		1.010	NL
Fluoranthene		0.490	2300/10000/100
Naphthalene		3.100	NL
n-Nitrosodiphenylamine		10.000	140/600/100
Phenanthrene		0.750	NL
Pyrene		1.170	1700/10000/100
1,2,4-Trichhlorobenzne		13.800	68/1200/100
TIC's		86.797(19)	10000
PP-Metals	NT		
Antimony		498.000	14/340
Arsenic		3.540	20/20
Beryllium		0.329	1/1
Cadmium		2.250	1/100
Chromium		6.510	
Copper		653.000	600/600
Lead		171.000	400/600
Mercury		0.219	14/270
Nickel		7.350	250/2400
Selenium		0.855	63/3100
Silver		ND	110/4100
Thallium		ND	2/2

Table 9
Area of Concern G
Storage and Loading/Unloading Area
Analytical Summary Table Post Excavation Soil Samples

Sample/Parameter	GA-1 1349724	GA-2 1349725	GA-3 1349726	GA-4 1349727	GA-5 1349728	Cleanup Criteria
TPHC	NT	NT	NT	NT	NT	1000/10000
VO's	ND	ND	ND	ND	ND	
TIC's	0.758J(1)	0.568J(1)	2.430J(2)	0.610j(1)	2.782J(3)	1000
BN's	NT	NT	NT	NT	NT	
PP-Metals	NT	NT	NT	NT	NT	

All results in mg/kg or parts per million (ppm). Laboratory ID number is listed under field ID number
ND - Not detected.
NT - Not tested
NL - No cleanup criteria is listed
TIC - Tentatively Identified Compound for library search. Total of all compounds is listed with the number of compounds in parentheses ( ).
Cleanup criteria are listed as residential direct contact/non-residential/impact to ground water. For metals no impact to ground water criteria is listed

Table 10
Area of Concern I
Tank Farm

Sample/Parameter	I-1 1340588	I-2 1340589	I-3 1340590	I-4 1340591	Cleanup Criteria
TPHC	442.0	708.0	337.0	128.0	1000/10000
VO's					
Ethylbenzene	ND	7.920	ND	ND	1000/1000 100
Chloroform	ND	ND	1.200	ND	19/28/1
Tetrachloroethene	20.700	ND	ND	ND	4/6/1
TIC's	16.54(2)	12.753(5)	ND	ND	1000
BN's	NT	ND	NT	NT	
TIC's					10000
PP-Metals	NT		NT	NT	
Antimony		3.630			14/340
Arsenic		2.740			20/20
Beryllium		ND			1/1
Cadmium		ND			1/100
Chromium		1.180			
Copper		123.000			600/600
Lead		223.000			400/600
Mercury		ND			14/270
Nickel		2.460			250/2400
Selenium		0.557			63/3100
Silver		ND			110/4100
Thallium		ND			2/2
Zinc		48.900			1500/1500

All results in mg/kg or parts per million (ppm). Laboratory ID number is listed under field ID number
ND - Not detected.
NT - Not tested
NL - No cleanup criteria is listed
TIC - Tentatively Identified Compound for library search. Total of all compounds is listed with the number of compounds in parentheses ( ).
Cleanup criteria are listed as residential direct contact/non-residential/impact to ground water. For metals no impact to ground water criteria is listed

Table 10 - Continued
Area of Concern I
Tank Farm

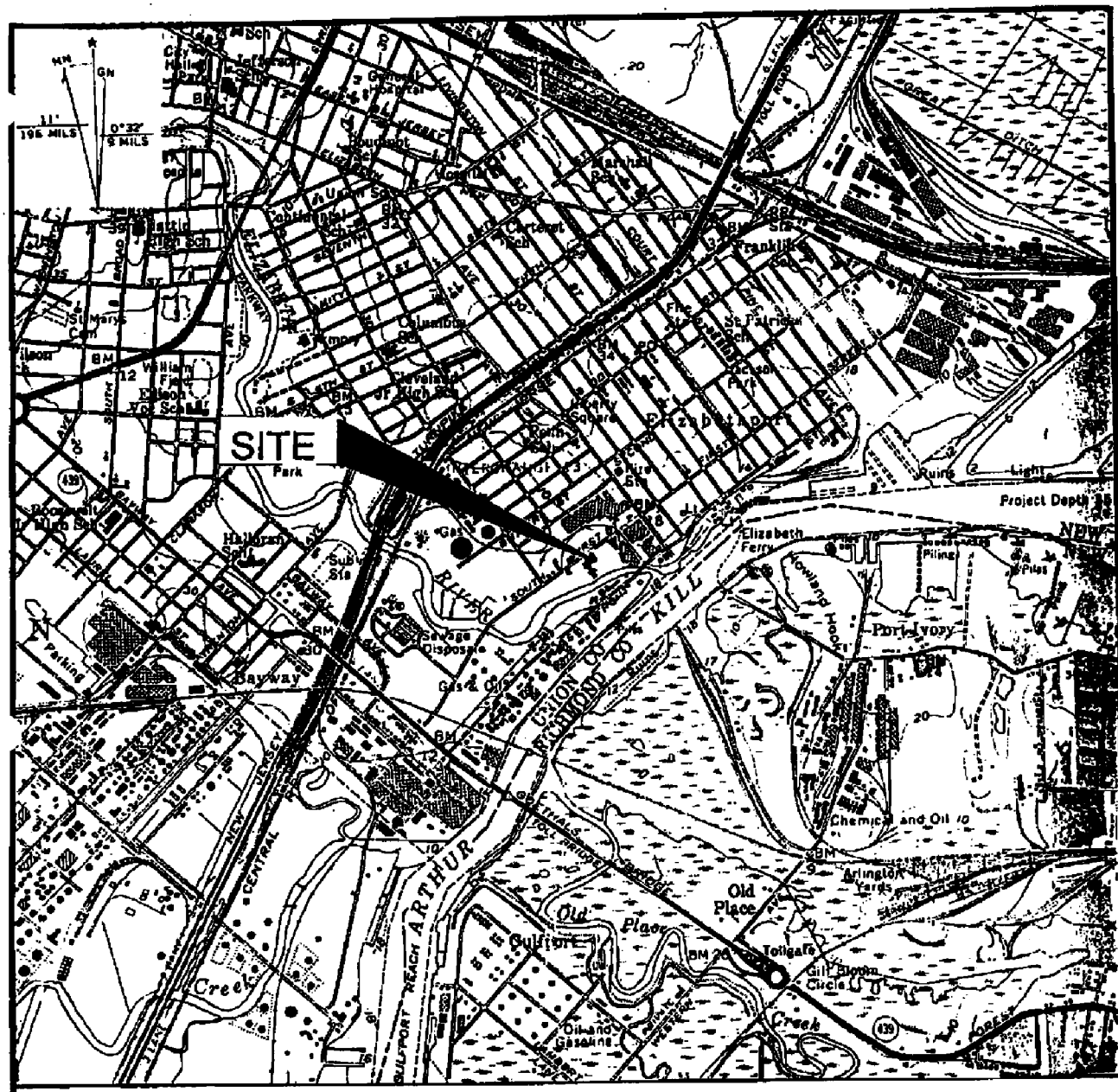
Sample/Parameter	I-5 1340592	I-6 1340593	I-7 1340594	Cleanup Criteria
TPHC	330.0	1,600.0	1,600.0	1000/10000
VO's			NT	
Ethylbenzene	0.894	ND		1000/1000/100
Xylenes (total)	5.060	ND		410/1000/67
TIC's	1.442(2)	1.318(3)		1000
BN's	NT		NT	
Chrysene		0.490		9/40/500
Fluoranthene		0.570		2300/10000/100
Phenanthrene		0.850		NL
Pyrene		2.070		1700/10000/100
TIC's		17.332(5)		10000
PP-Metals	NT		NT	
Antimony		41.600		14/340
Arsenic		3.840		20/20
Beryllium		0.101		1/1
Cadmium		2.780		1/100
Chromium		2.890		
Copper		51.400		600/600
Lead		168.000		400/600
Mercury		0.350		14/270
Nickel		9.550		250/2400
Selenium		0.989		63/3100
Silver		ND		110/4100
Thallium		ND		2/2
Zinc		76.700		1500/1500

All results in mg/kg or parts per million (ppm). Laboratory ID number is listed under field ID number
ND - Not detected.
NT - Not tested
NL - No cleanup criteria is listed
TIC - Tentatively Identified Compound for library search. Total of all compounds is listed with the number of compounds in parentheses ( ).
Cleanup criteria are listed as residential direct contact/non-residential/impact to ground water. For metals no impact to ground water criteria is listed

Table 11
Summary of PAH's and Metals in Historic Fill

Sample/Parameter	A-1	C-1	E-1	F-1	G-2	I-2	1-6	Cleanup Criteria
PAH's								
Benzo(a)anthracene	ND/1.7	1.010	ND/0.35	4.800	ND/0.42	ND/0.60	ND/0.40	0.9/4/500
Benzo(b)fluoranthene	ND/1.7	0.890	ND/0.35	5.070	ND/0.42	ND/0.60	ND/0.40	0.9/4/50
Benzo(k)fluoranthene	ND/1.7	ND/0.43	ND/0.35	0.900	ND/0.42	ND/0.60	ND/0.40	0.9/4/500
Benzo(a)pyrene	ND/1.7	1.350	ND/0.35	6.120	ND/0.42	ND/0.60	ND/0.40	0.66/0.66/100
Benzo(g,h,I)perylene	ND/1.7	ND/0.43	ND/0.35	5.510	ND/0.42	ND/0.60	ND/0.40	NL
Dibenzo(a,h) anthracene	ND/1.7	ND/0.43	ND/0.35	2.720	ND/0.42	ND/0.60	ND/0.40	0.66/0.66/100
Ideno(1,2,3-cd)pyrene	ND/1.7	1.700	ND/0.35	5.460	ND/0.42	ND/0.60	ND/0.40	0.9/4/500
PP-Metals								
Antimony	297.0	107.00	9.55	501.00	498.00	3.63	41.60	14/340
Arsenic	17.1	41.90	3.04	128.00	3.54	2.74	3.84	20/20
Cadmium	8.48	0.91	ND	1.120	2.25	ND	2.78	1/100
Lead	534.0	520.00	56.90	1,000.0	171.00	223.00	168.00	400/600
Mercury	17.7	1.360	0.13	0.780	0.219	ND	0.35	14/270

All results in mg/kg or parts per million (ppm)



SOURCE: USGS ELIZABETH, NJ QUAD

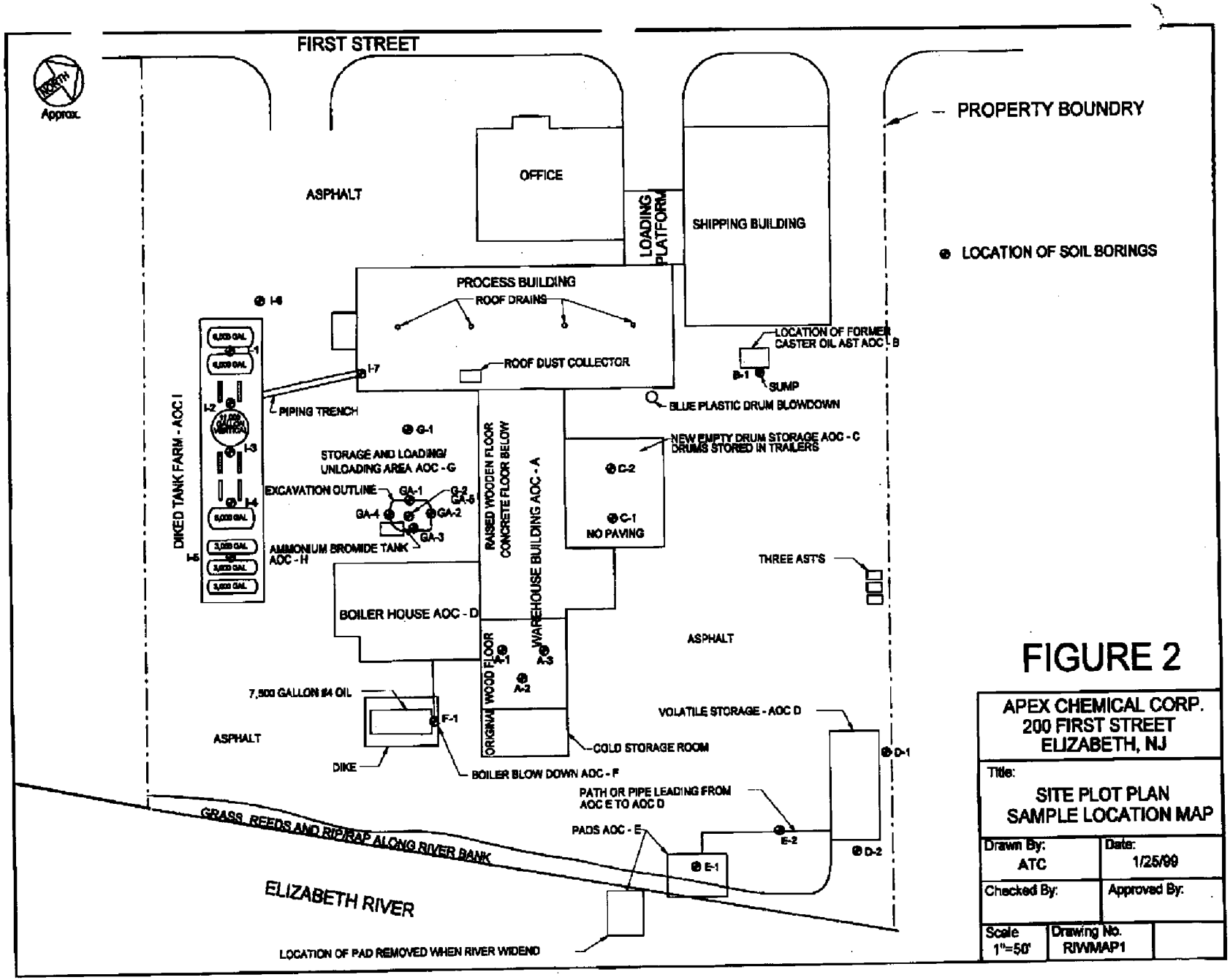
FIGURE 1

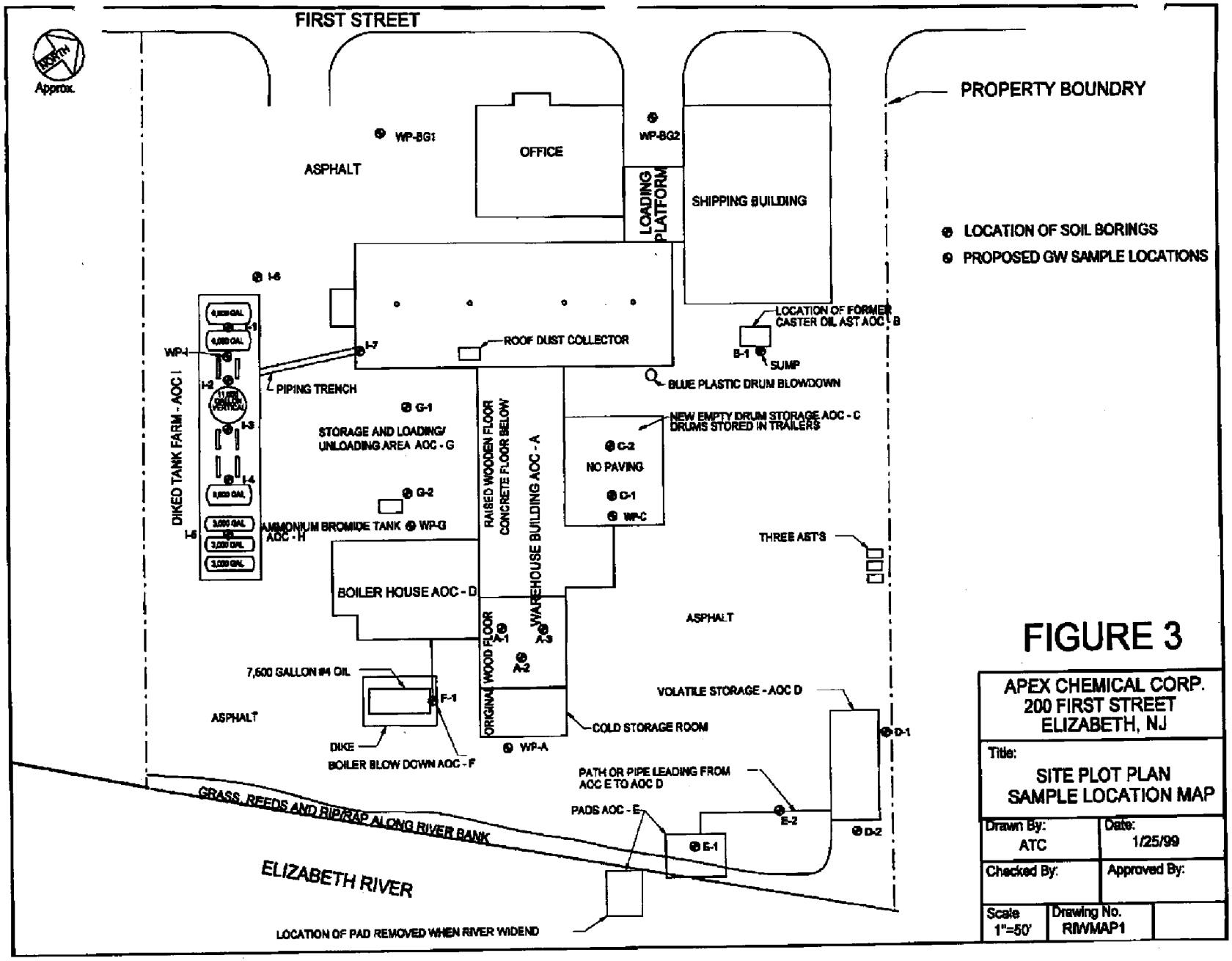
APEX CHEMICAL CORP.
200 FIRST STREET
ELIZABETH, NJ

A. T. CAMERON, PG
273 THOMPSON AVE.
MIDDLETOWN, NJ 07748

LONG.

LAT.


FIRST STREET
Approx.
PROPERTY BOUNDRY
OFFICE
ASPHALT
LOADING PLATFORM
SHIPPING BUILDING
LOCATION OF SOIL BORINGS
PROCESS BUILDING
ROOF DRAINS
I-6
LOCATION OF FORMER CASTER OIL AST AOC - B
B-1
SUMP
I-7
ROOF DUST COLLECTOR
PIPING TRENCH
BLUE PLASTIC DRUM BLOWDOWN
G-1
NEW EMPTY DRUM STORAGE AOC - C
DRUMS STORED IN TRAILERS
STORAGE AND LOADING/ UNLOADING AREA AOC - G
DIKED TANK FARM - AOC I
I-2
I-3
I-4
I-5
EXCAVATION OUTLINE
GA-1
G-2
G-5
GA-4
GA-2
GA-3
AMMONIUM BROMIDE TANK AOC - H
RAISED WOODEN FLOOR CONCRETE FLOOR BELOW
WAREHOUSE BUILDING AOC - A
C-2
C-1
NO PAVING
THREE AST'S
BOILER HOUSE AOC - D
ASPHALT
ORIGINAL WOOD FLOOR
A-1
A-3
A-2
7,500 GALLON #4 OIL
F-1
VOLATILE STORAGE - AOC D
D-1
ASPHALT
COLD STORAGE ROOM
DIKE
BOILER BLOW DOWN AOC - F
PATH OR PIPE LEADING FROM AOC E TO AOC D
GRASS, REEDS AND RIPRAP ALONG RIVER BANK
PADS AOC - E
E-2
D-2
E-1
ELIZABETH RIVER
LOCATION OF PAD REMOVED WHEN RIVER WIDENS
FIGURE 2
APEX CHEMICAL CORP.
200 FIRST STREET
ELIZABETH, NJ
Title:
SITE PLOT PLAN
SAMPLE LOCATION MAP
Drawn By: ATC
Date: 1/25/99
Checked By:
Approved By:
Scale 1"=50'
Drawing No. RIVMAP1


FIRST STREET
Approx.
PROPERTY BOUNDRY
WP-BG1
WP-BG2
OFFICE
ASPHALT
LOADING PLATFORM
SHIPPING BUILDING
LOCATION OF SOIL BORINGS
PROPOSED GW SAMPLE LOCATIONS
I-6
LOCATION OF FORMER CASTER OIL AST AOC - B
B-1
SUMP
ROOF DUST COLLECTOR
I-7
WP-I
PIPING TRENCH
BLUE PLASTIC DRUM BLOWDOWN
DIKED TANK FARM - AOC I
I-1
I-2
I-3
I-4
I-5
G-1
STORAGE AND LOADING/ UNLOADING AREA AOC - G
NEW EMPTY DRUM STORAGE AOC - C DRUMS STORED IN TRAILERS
RAISED WOODEN FLOOR CONCRETE FLOOR BELOW
WAREHOUSE BUILDING AOC - A
C-2
NO PAVING
C-1
WP-C
G-2
AMMONIUM BROMIDE TANK WP-G
AOC - H
THREE ASTS
BOILER HOUSE AOC - D
ASPHALT
WOOD FLOOR
ORIGINAL
1
2
3
7,600 GALLON #4 OIL
F-1
ASPHALT
VOLATILE STORAGE - AOC D
D-1
COLD STORAGE ROOM
DIKE
BOILER BLOW DOWN AOC - F
WP-A
PATH OR PIPE LEADING FROM AOC E TO AOC D
GRASS, REEDS AND RIPRAP ALONG RIVER BANK
PADS AOC - E
E-2
D-2
E-1
ELIZABETH RIVER
LOCATION OF PAD REMOVED WHEN RIVER WIDEND
FIGURE 3
APEX CHEMICAL CORP.
200 FIRST STREET
ELIZABETH, NJ
Title:
SITE PLOT PLAN
SAMPLE LOCATION MAP
Drawn By: ATC
Date: 1/25/99
Checked By:
Approved By:
Scale 1"=50'
Drawing No. RIVMAP1

NICHOLAS A. CAMPAGNA, P.E.
Engineering Consultant
522 Union Ave.
Bridgewater, N.J. 08807
Home 908-302-0682
Office 908-354-0138
Fax 908-820-9505

April 3, 1997

N.J. Dept. of Environmental Protection
Bureau of Field Operations
401 East State Street
Trenton, N.J. 08625-0435

Attn.: Joshua Gradwohl, Supervisor

Re: Emil Baer, Inc.
Apex Chemical Corp.
Elizabeth, N.J.

Dear Mr. Gradwohl:

On behalf of my client, Emil Baer, Inc./Apex Chemical Corp., I am resubmitting the General Information Notice (GIN), the Negative Declaration Affidavit, and the Preliminary Assessment Report.

Also included in this report is a letter from Apex Chemical Corp. stating that the operations at the plant have been reduced by more than 90%; therefore, it meets the conditions to trigger ISRA. Most of the operations have been transferred to its new plant in So. Carolina. The balance of the operations will be transferred when the property is sold.

As per your instructions, a second set of soil samples were taken and each sample was analyzed for heavy metals instead of doing a composite as per the first sampling. The heavy metals content of the soil is indigenous to the area and not caused by any operations of Apex Chemical. This entire industrial area was reclaimed in the late 1800's and early 1900's by filling the low areas with construction debris and ashes from industrial coal burning funaces.

We are requesting a negative declaration with a deed restriction that the property be used only for industrial or commercial purpose.

A check of $1,000 was submitted with the initial report.

Please direct all questions and correspondence to my attention at the above address.

Sincerely,

Nicholas A. Campagna

Nicholas A. Campagna, P.E.

cc: Steven A. Baer, V.P.
Emil Baer, Inc./Apex Chemical

BAA000072

Phone: (800) 552-7399
Fax: (908) 354-2640
Southern Regional Office:
Phone: (803) 587-0999
Fax: (803) 587-9390

APEX CHEMICAL CORPORATION

Flame retardants
Finishing agents
Dyeing auxiliaries

March 20, 1997

State of New Jersey
Department of Environmental Protection
Bureau of Field Operations
401 East State Street
Trenton NJ 08625-0435

Attention: Joshua Gradwohl, Supervisor

Dear Mr. Gradwohl:

Please be advised that Apex Chemical Corporation has reduced the use of its office and manufacturing facility and processes by 90 %. We understand that this event will trigger the Industrial Site Recovery Act and that Apex Chemical Corporation can, therefore, complete its obligations under ISRA.

We await your further instructions and review. Thank you for your cooperation.

Sincerely,

Steven A. Baer
Vice President
Apex Chemical Corp.

SAB/mb

200 South First Street • P.O. Box 254—E'Port Station • Elizabeth, New Jersey 07206-0254 U.S.A.

State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.
Commissioner

Division of Responsible Party Site Remediation

Industrial Site Recovery Act (ISRA)

INITIAL NOTICE FEE SUBMITTAL FORM

Case # (if known) —

Case Name (Active Case) —

Check drawn from account of APEX CHEMICAL CORP. Check/M.O.# 0032252

Amount Enclosed $1000.00 NOTE: CHECK SUBMITTED WITH THE ORIGINAL REPORT. - 12/16/96.

Put an "X" in the appropriate payment location(s)

		Normal Fee	Small Business Fee
1.	Initial Notice Review Fee *	$1000 ___	$750 X
	* Fee due with the General Information Notice (GIN)		
2.	Negative Declaration Processing Fee	$500 ___	$250 X
3.	Negative Declaration Amendment	$100 ___	$100 ___
4.	ISRA Applicability Determination	$200 ___	$200 ___
5.	Deminimus Quantity Exemption	$300 ___	$300 ___
6.	Limited Conveyance	$500 ___	$500 ___
7.	Remediation Agreement (Formerly Administrative Consent Order)	$2000 ___	$2000 ___
8.	Remediation Agreement Amendment	$500 ___	$500 ___
9.	Confidentiality Claim	$350 ___	$350 ___
10.	Underground Storage Tank Closure Plan Approval	$300 ___	$300 ___

Note: All applicable fees are due with the submission of each document. A case will remain with the Initial Notice Section up through the submission of a Remedial Investigation Report or the submission of a schedule to implement a Remedial Investigation or Remedial Action at peril. At such time, all further NJDEPE oversight costs will be billed in accordance with the ISRA fee rules as they appeared in the February 22, 1994 New Jersey Register at 26 N.J.R. 1142(a).

3/94

EMIL BAER, INC./ APEX CHEMICAL CORP.

ENVIRONMENTAL ASSESSMENT

TABLE OF CONTENTS:

Submitted by:

Nicholas A. Campagna, P.E.
522 Union Ave.
Bridgewater, N.J. 08807

ISRA-001
1/94

FOR DEP USE ONLY
Date Rec'd. _____
Notice No. _____

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION
INDUSTRIAL SITE EVALUATION ELEMENT
CN028, TRENTON, NJ 08625-0028

INDUSTRIAL SITE RECOVERY ACT (ISRA)

GENERAL INFORMATION NOTICE (GIN)

This information must be submitted within 5 days following any applicable situation as specified at N.J.A.C. 7:26B-1.5 or any triggering event as specified at N.J.A.C. 7:26B-1.6. Please refer to the instructions and N.J.A.C. 7:26B-3.2 before filling out this form. Answer all questions. Should you encounter any problems in completing this form, we recommend that you discuss the matter with a representative from the Element. Submitting insufficient data may cause processing delays and possible postponement of your transaction. Please call (609) 633-7141 between the hours of 8:30 a.m. and 4:30 p.m. to request assistance.

PLEASE TYPE OR PRINT

Date Dec. 6, 1996

1. A. Industrial Establishment

Name Apex Chemical Corp. Telephone# (908) 354-5420

Street Address 200 So. First Street

City of Town Elizabeth State N.J. Zip Code 07206

Municipality Elizabeth County Union

B. Tax Block Number(s) 855 Tax Lot Number(s) 2

C. Standard Industrial Classification (SIC) Number 2899

D. Current Property Owner(s)

Name Emil Baer, Inc. Telephone# (908) 354-5420

Firm _____

Street Address 200 So. First Street

Municipality Elizabeth State N.J. Zip Code 07206

E. Current Business Owner (if different from 1.A above)

Name _____ Telephone# ( )

Firm _____

Street Address _____

Municipality _____ State _____ Zip Code _____

F. Have there been any previous ISRA/ECRA submissions (including Applicability Determinations) by this Industrial Establishment or another Industrial Establishment which occupied the same tax block and lot number?

_____ Yes ___X___ No

If Yes, Name of Industrial Establishment _____

ISRA\ECRA Case No. _____ Date Submitted _____

Current Status _____

G. Has this Industrial Establishment received a No Further Action Letter or Negative Declaration Approval?

_____ Yes (please provide copy) ___X___ No

If Yes, was the No Further Action Letter or Negative Declaration Approval for the entire establishment?

_____ Yes (please provide copy) _____ No

2. Indicate the transaction(s) which initiates the ISRA review. Please check all that apply (see N.J.A.C. 7:26B-1.5 & 1.6):

Expected Sale of Property _____ Sale of Business

_____ Bankruptcy _____ Cessation

_____ Stock Transfer/Corporate Merger _____ Foreclosure

_____ Sale of Assets _____ Partnership Situation Change

_____ Other (attach documentation to explain)

3. If a cessation of operation is involved at this location, was a Public Release made? _____ Yes ___X___ No

If Yes, give the date of public release of the decision to close the facility. Date _____/_____/_____

4. If the transaction initiating an ISRA review is an agreement of sale or execution of an option to purchase, fill in the date of execution of that instrument below and provide one (1) copy of the document.

A. Is a sale involved? _____ Yes _____ No (If no, skip 4B and C.)

B. Date of Agreement/Letter of Intent/Notifications of Option to Purchase _____/_____/_____

C. Please complete the following:

NAME OF PARTY/PURCHASER: (Property is being placed on the market.)

ADDRESS: _____

_____

PHONE: _____

5. A. Date proposed for closure of operations _____

B. Date proposed for transfer of title _____

6. A. Authorized agent designated to work with the Department

Name Nicholas A. Campagna,P.E. Telephone # (908 354-0138
908 302-0682

Firm _____

Street Address 522 Union Ave.

Municipality Bridgewater State N.J. Zip Code 08807

7. Is this Industrial Establishment a Small Business? X Yes _____ No

Note: Small Business means any business which is:

-- resident in this state

-- independently owned and operated

-- not dominant in its field

-- employs fewer than 100 full time employees

CERTIFICATIONS:

A. The following certification shall be signed by the highest ranking individual at the site with overall responsibility for that site or activity. Where there is no individual at the site with overall responsibility for that site or activity, this certification shall be signed by the individual having responsibility for the overall operation of the site or activity.

I certify under penalty of law that the information provided in this document 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.

Typed/Printed Name Emil Baer Title President

Signature Emil Baer Date Nov. 26, 1996

Sworn to and Subscribed Before Me

on this 26th

Date of November 1996

Kathleen F. Korte

Notary

OFFICIAL NOTARY SEAL
KATHLEEN F KORTE
COMMISSION NUMBER
CC627114
MY COMMISSION EXPIRES
JAN. 14,2000

B. The following certification shall be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
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; or
4. For persons other than 1-3 above, by the person with the legal responsibility for the site.

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately 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.

Typed/Printed Name Emil Baer Title President

Signature Emil Baer Date Nov. 26, 1996

Sworn to and Subscribed Before Me

on this 26th

Date of November 1996

Kathleen F. Korte

Notary

OFFICIAL NOTARY SEAL
KATHLEEN F KORTE
COMMISSION NUMBER
CC627114
MY COMMISSION EXPIRES
JAN. 14,2000

INDUSTRIAL SITE RECOVERY ACT
NEGATIVE DECLARATION AFFIDAVIT

1. Industrial Establishment: Emil Baer, Inc.
Operating as Apex Chemical Corp.

Facility Address: 200 So. First Street
Elizabeth, N.J. 07206

Municipality: Elizabeth, N.J.

County: Union County

Tax Block(s): 855

Tax Lot(s): 2

ISRA Case No.:

ISRA Trigger: Owner to place property on the market.

Seller(s): Emil Baer, Inc.

Buyer(s):

2. I, Emil C. Baer, as President
(Name) (Business Entity Affiliation/Title)
of the industrial establishment, have specific knowledge of the operations of

Emil Baer, Inc./Apex Chemical Corp. and
(Industrial Establishment)

3. hereby state that:

X a. there have been no discharge(s) of hazardous substances or hazardous wastes from the industrial establishment, as verified by the completion of a Preliminary Assessment and, if required, a Site Investigation, that require remediation per N.J.A.C. 7:26E (Technical Requirements for Site Remediation)

or

___b. any discharge(s) of hazardous substances or hazardous wastes on or from the industrial establishment have been remediated in accordance with N.J.A.C. 7:26E (Technical Requirements for Site Remediation) and approved by the Department.

CERTIFICATIONS:

A. The following certification shall be signed by the highest ranking individual at the site with overall responsibility for that site or activity. Where there is no individual at the site with overall responsibility for that site or activity, this certification shall be signed by the individual having responsibility for the overall operation of the site or activity.

I certify under penalty of law that the information provided in this document 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.

Typed/Printed Name Emil Baer Title President

Signature Emil Baer Date Nov. 26, 1996

Sworn to and Subscribed Before Me

on this 26th

Date of November 1996

Kathleen F. Korte

Notary

NOTARY PUBLIC STATE OF FLORIDA
OFFICIAL NOTARY SEAL
KATHLEEN F KORTE
COMMISSION NUMBER
CC527114
MY COMMISSION EXPIRES
JAN. 24,2000

The following certification shall be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president
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; or
4. For persons other than 1-3 above, by the person with the legal responsibility for the site.

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately 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.

Typed/Printed Name Emil Baer Title President

Signature Emil Baer Date Nov. 26, 1996

Sworn to and Subscribed Before Me

on this 26th

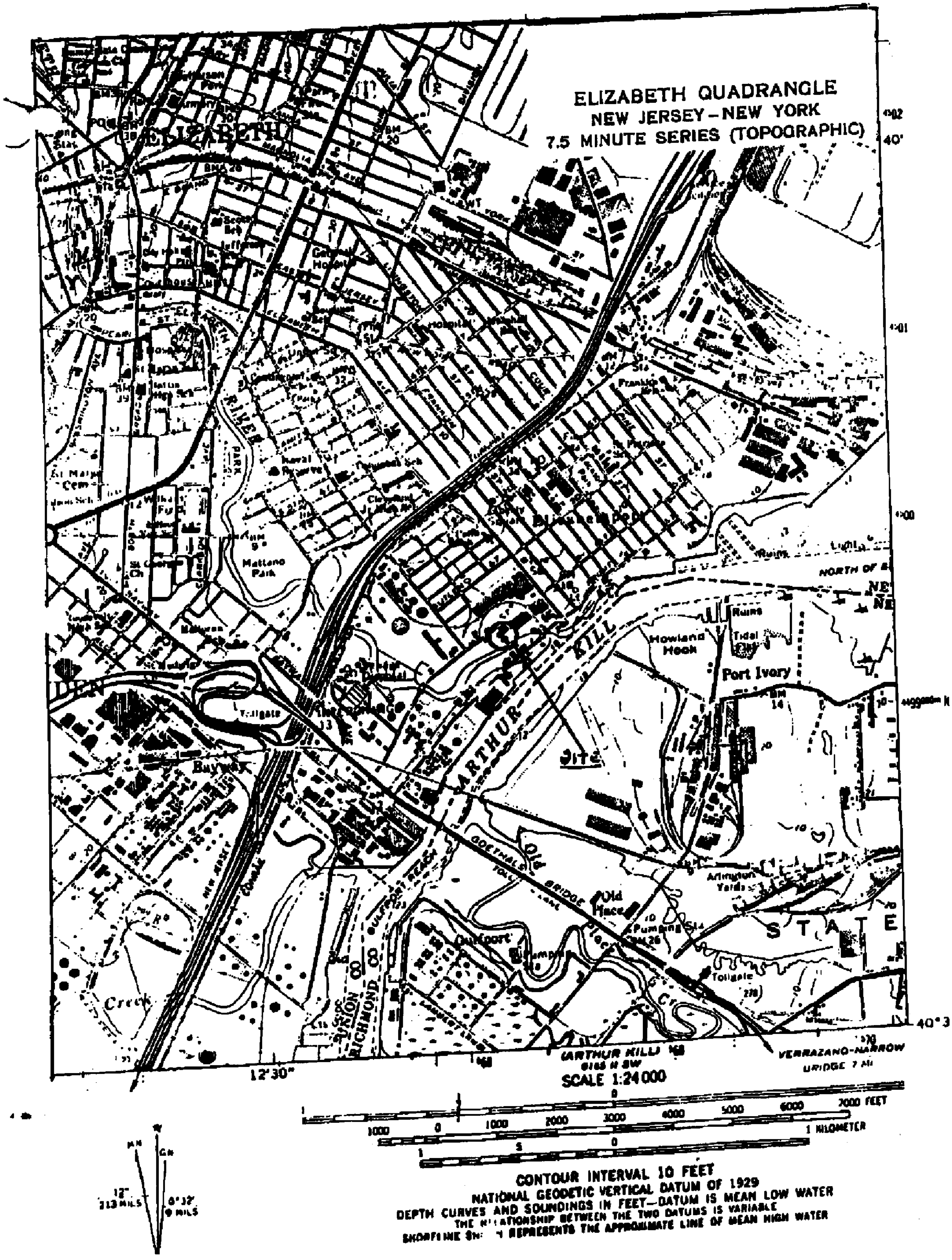
Date of November 1996

Kathleen F. Korte

Notary

NOTARY PUBLIC STATE OF FLORIDA
OFFICIAL NOTARY SEAL
KATHLEEN F KORTE
COMMISSION NUMBER
CC527114
MY COMMISSION EXPIRES
JAN. 24,2000

PRELIMINARY


ELIZABETH QUADRANGLE
NEW JERSEY–NEW YORK
7.5 MINUTE SERIES (TOPOGRAPHIC)
ELIZABETH
ARTHUR KILL
Howland Hook
Port Ivory
Tidal Flat
Ruins
Site
Mattano Park
Naval Reserve
Tollgate
Bayway
GOETHALS BRIDGE
Old Place
Pumping Sta
Arlington Yards
Gulfport
RICHMOND
UNION
Creek
STATE
NORTH OF
40°37'
40'
12'30"
(ARTHUR KILL)
SCALE 1:24 000
VERRAZANO-NARROW BRIDGE 7 MI
7000 FEET
1 KILOMETER
CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER

7/95

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION
CN 028, TRENTON, NJ 08625-0028

PRELIMINARY ASSESSMENT REPORT

Please refer to the instructions and the Technical Requirements for Site Remediation, N.J.A.C 7:26E-3.1 through 3.2., before completing this form. Answer all questions. Should you encounter any problems in completing this form, we recommend that you discuss the matter with a representative from the Site Remediation Program. Submitting incorrect or insufficient data may cause processing delays and possible postponement of your transaction. Please call (609) 292-2943 between the hours of 8:00 a.m. and 4:00 p.m. to request assistance.

PLEASE PRINT OR TYPE

Date _____

Industrial Establishment/Site Name Emil Baer, Inc.

Address 200 So. First Street

City or Town Elizabeth, N.J. Zip Code 07206

Municipality Elizabeth, N.J. County Union

Block(s) 855 Lot(s) 2 Acreage 2.64

Site Remediation Program Case Number or EPA Identification Number

_____

1. Operational and Ownership History from the time the site was naturally vegetated or used as farmland. (Attach additional sheets if necessary).

Name	Operator	From	To
See page 1-A			

Name	Owner	From	To

Revision No:_____
Revision Date:_____

EMIL BAER, INC.

(Operating as APEX CHEMICAL CORP.)

OWNERSHIP HISTORY:

Prior to November 27, 1917, the property at 200 So. First Street, Elizabeth, N.J. was owned by Hygienic Chemical Co. At that time the company was in bankruptcy and in receivership. The plant was not in operation and it is not known what types of products were manufactured by this company. Apex Chemical Co.,Inc. took title to the property and began manufacturing chemicals compounds for the treatment of textile and leather goods.

In December, 1980, the name of the ownership of the property was changed from Apex Chemical Co.,Inc. to Emil Baer, Inc. At this time, Apex Chemical Co., Inc., which was a New York company, was terminated. Apex Chemical Corp. was incorporated as a New Jersey corporation. The site and plant is leased by Apex Checical Corp. from Emil Baer, Inc.

The owner of the property is considering selling the premises. Therefore, in anticipation of a sale, the owner has requested an Environmental Assessment of the property. Based on preliminary investigation, it does not appear that there has been any spillage or contamination of the soil or ground water. See details in the appendix.

2A. Provide a brief description of the past operation(s) (e.g., industrial/commercial) conducted on site by each owner and operator (Attach additional sheets if necessary).

There has been only one owner and operator of the property from 1917 intil 1980 known as APEX CHEMICAL CO.,INC. a New York corporation. Since the beginning of 1981, the operating company has been APEX CHEMICAL CORP. The same chemical operations as in the past were continued. They consist of blending, mixing, and reselling of textile purchased from other manufacturers and are espcially recommended for use in the textile industry.

2B. Include a detailed description of the most recent operations subject to this preliminary assessment (Attach additional sheets if necessary).

The various blends and formulations of chemical products are produced in stainless steel kettles and then placed in drums for shipment to textile mill customers. The end uses of the textile is for clothing, sheets , pillow cases, curtains, draperies, automotive interior fabrics, hospital gowns and curtains, theater curtains, office furnishings, and other consumer end uses. All products shipped are subject to laboratory approval and are accompanied by specific Material Safety Data Sheets conforming to regulations regarding toxicity and hazards.

3. Hazardous Substance/Waste Inventory: List all hazardous raw materials, finished products, formulations and hazardous substances, hazardous wastes, hazardous constituents and pollutants, including intermediates and by-products that are or were historically present on the site (attach additional sheets if necessary).

Material Name	Typical Annual Usage	Storage Method/ Container Type/Size	Location Reference Keyed to Site Map	To Remain on site? If yes, indicate quantity
See page 2-A				

Revision No:_____
Revision Date:_____

APEX CHEMICAL CORP.

SUBSTANCE	TYPICAL ANNUAL USAGE-LBS	STORAGE CONTAINER TYPE	STORAGE CONTAINER SIZE	AVERAGE QUANTITY ONHAND-LBS
AMMONIUM BROMIDE	103000	Plastic Bags	25 Kg	6000
*ANTIMONY COMPOUNDS (PRODUCT)	420000	Coated Fiber Drums	440 Lbs	2400
ANTIMONY TRIOXIDE	88000	Fabric Bags	25 Kg	5500
*DECABROMODIPHENYL OXIDE (PRODUCT)	385000	Coated Fiber Drums	440 Lbs	8700
DECABROMODIPHENYL OXIDE	205000	Paper Bags	25 Kg	5200
EPICHLOROHYDRIN	19000	Steel Drums	507 Lbs	2500
MALEIC ANHYDRIDE	600	Paper Bags	50 Lbs	400

*Usually combined

4. Summary of Wastewater Discharges of Sanitary and/or Industrial Waste and/or sanitary sludges: present and past production processes, including dates, and their respective water use shall be identified and evaluated, including ultimate and potential discharge and disposal points and how and where materials are or were received on-site. All discharge and disposal points shall be clearly depicted on a scaled site map.

A. Discharge Period:

From	To	Discharge Type & Quantity, if known	Discharge/Disposal Point
1950	Present	Sanitary Sewage	To city sewer
1972	Present	Storm Water	Elizabeth River

B. Provide a narrative of disposal processes for all process waste streams and disposal points. (attach additional sheets if necessary)

There are no process waste streams. All chemicals used become product and shipped out in drums to customers.

5. In accordance with N.J.A.C. 7:26E-3.2(a) 3.1, provide a scaled site plan, depicting the site boundaries, known limits of fill, paved and unpaved areas, structures and any of the potential areas of environmental concern listed below.

(See site plan in appendix)

In accordance with N.J.A.C. 7:26E3.1(c)1.v., a narrative shall be provided for each area of concern describing the (A) Type; (B) Age; (C) Dimensions of each container/area; (D) Chemical Content; (E) Volume; (F) Construction materials; (G) Location; (H) Integrity (i.e., tank test reports, description of drum storage pad); and (I) Inventory control records, unless a Department-approved leak detection system, pursuant to N.J.A.C. 7:1E or 7:14B, has always been in place and there is no discharge history. If sampling will not be completed for any area of concern, please explain why it is believed that the area of concern does not contain contaminants above the applicable remediation criteria.

Area of Concern	Currently/Formerly exists at facility Yes/No	Location Reference Keyed to Site Map	Sampling Proposed Yes/No	Page or Appendix # for Narrative
A. Bulk storage tanks and appurtenances, including, without limitation:				
Aboveground Tanks and associated piping	Yes	See Plan	No	
	The above ground storage tanks have out of service since 1970.			
Underground Tanks and associated piping	None			

Revision No:_____
Revision Date:_____

Area of Concern	Currently/Formerly exists at facility Yes/No	Location Reference Keyed to Site Map	Sampling Proposed Yes/No	Page or Appendix # for Narrative
Silos	No	___	___	___
Rail Spurs or Sidings	No	___	___	___
Above or below ground pump stations	No	___	___	___
Sumps	No	___	___	___
Pits	No	___	___	___
Rail/Truck loading and unloading areas	Yes	See Plan	No	___
Storage pads and areas including Drum and/or waste storage.	Yes	See Plan	No	___
Surface lagoons and impoundments	No	___	___	___
Dumpsters	No	___	___	___
Chemical storage cabinets or closets	Yes	See Plan	No	___

B. Drainage systems and areas, including, without limitation:

Floor drains or trenches and piping	Yes	See Plan	No	___
Process area sinks and piping which receive process waste	No	___	___	___
Roof leaders when process operations vent to roof	No	___	___	___
Drainage swales and culverts	No	___	___	___
Storm sewer collection systems	No	___	___	___

Revision No:_____
Revision Date:_____

Area of Concern	Currently/Formerly exists at facility Yes/No	Location Reference Keyed to Site Map	Sampling Proposed Yes/No	Page or Appendix # for Narrative
Storm water detention ponds & fire water ponds	No			
Surface water bodies	No			
Septic systems, leachfields or seepage pits	No			
Dry wells	No			
C. Discharge and disposal areas, including, without limitation:				
Waste piles	No			
Landfills or landfarms	No			
Sprayfields	No			
Incinerators	No			
Open Pipe Discharges	No			
D. Other areas of concern, including, without limitation:				
Electrical Transformers and capacitors	No			
Areas of stressed vegetation	No			
Underground piping, including industrial process sewers	No			
Compressor vent discharges	No			
Non-contact cooling water discharges	No			
Discolored areas or spill areas	No			
Active or inactive production wells	Yes	See Plan		Inactive Well is Capped.

Revision No:_____
Revision Date:_____

Area of Concern	Currently/Formerly exists at facility Yes/No	Location Reference Keyed to Site Map	Sampling Proposed Yes/No	Page or Appendix # for Narrative
E. Building interior areas with a potential for discharge to the environment, including, without limitation:				
Loading or transfer areas	Yes	See Plan	No	
Waste Treatment areas	No			
Boiler rooms	Yes	See Plan	No	
Air vents and ducts				
Hazardous material storage or handling areas	Yes	See Plan	No	
F. Any other site specific area of concern.				
None				

6. Protectiveness of past remedies, Order of Magnitude Analysis

A. Have any areas of environmental concern previously received a No-Further-Action approval from the Department or other equivalent government agency for which no additional remediation is proposed? Yes _____ No _____. If no, goto question #7. If yes, complete B.

B. In accordance with N.J.S.A 58:10B-13(e) the following evaluation of the protectiveness of past remedies shall be completed for all areas of environmental concern for which no further action was previously approved by the Department or other equivalent government agency and for which no additional remediation is proposed. All final sampling results shall be evaluated to determine if contaminant levels remaining on site are in compliance with current remediation standards. The applicant shall determine:

i. if contaminant levels remaining on site are greater than the current cleanup criteria by an order of magnitude (factor of 10) or more by tabulating all sampling results, including sample location, sample media, field and laboratory identification numbers, and method detection limits, as necessary, and analytical results for all individual contaminants; and

ii. compare each contaminant result to the current remediation criteria.

I hereby certify that I have completed the order of magnitude analysis required pursuant to N.J.S.A. 58:10B-13(e), since the issuance of a No-Further-Action approval, negative declaration approval or equivalent remediation approval; and

Based on the order of magnitude analysis there has been no discharge of a hazardous substance or hazardous waste, subsequent to the issuance of a No-Further-Action approval, negative declaration approval or equivalent remediation approval at the areas of environmental concern listed below and no levels of contamination remain which exceed the current applicable cleanup criteria by more than an order of magnitude.

Please list the areas of concern for which the previous certification applies.

Area of Concern	Location Reference Keyed to Site Map	Area of Concern	Location Reference Keyed to Site Map
1. N/A		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

7. Historical Data on environmental quality at the Industrial Establishment

A. Have any previous sampling results documenting environmental quality of the Industrial Establishment not received a no further action approval from the Department or been denied approval by the Department?

_____ Yes (See Attachment #_____) _____ No _X_ N/A (if No or N/A Goto #8)

B. Have there been any known changes in site conditions or new information developed since completion of previous sampling or remediation? If sampling results were obtained, but are not part of this application, please explain below:

N/A

Revision No:_____
Revision Date:_____

8. Discharge History of Hazardous Substances and Wastes:

A. Have there been any discharges of hazardous substances and wastes?

_____ Yes (Complete Items B-E) X No (If No go to #9)

B. Was the Department notified of the discharge? N/A

_____ Yes _____ No (Go to item 8D)

If yes, provide the case #_____

C. Was a no-further-action letter, negative-declaration approval or full-compliance letter issued as a result of the cleanup of this discharge?

_____ Yes (Submit N/A a copy and go to item 9E) _____ No

D. Were sample results obtained?

_____ Yes _____ No

If yes, submit the results

E. Provide a description of the discharge and the response and resolution.

N/A

9. Aerial Photographic interpretation for sites larger than two acres from 1932 to present or to the earliest photograph available . Note: You are not required to submit copies of aerial photographs only an interpretation of what was observed during the review. (Attach additional sheets if necessary)

Aerial photos from the year 1940 to 1987 were reviewed. The 1940 photo showed that the Apex warehouse extended to the edge of the water of the west bank. This section has since been removed. The nearest point of the building is now approx. 70 ft. from the river bank. It appears that the east bank was a loading/unloading area for barges. All photos showed that Apex Chemical is in an industrial area surrounded by both light and heavy industry. The closest residential area is approx. 800 ft. away. See photo on the next page.

Revision No:_____

Revision Date:_____

1987 Photo
Courtesy of D.E.P. Aerial Photography Library

10. List all federal, state and local environmental permits at this facility, including permits for all previous and current owners or operators, applied for, received, or both (Attach additional sheets if necessary).

Check here if no permits are involved X

A. New Jersey Air Pollution Control (See copies of permits in appendix)

Permit Number	Certificate Number	Date of Approval or Denial	Reason for Denial (if applicable)	Expiration Date
	112321	4/26/93		4/26/98
	112802	5/10/93		5/10/98
	115132	12/16/93		12/16/98
	116406	3/30/94		3/24/00

B. Underground Storage Tank Registration Number N/A

C. New Jersey Pollutant Discharge Elimination System (NJPDES) Permit

Number	Discharge Activity	Date Issued or Denied	Expiration Date	Body of Water Discharged Into
N/A				

D. Resource Conservation and Recovery Act (RCRA) permit # N/A

E. All other federal, state, local government permits.

Agency Issuing Permit	Permit #	Type of Permit	Date of Approval or Denial	Expiration Date
D. E. P.	A-003557	Stormwater	5/04/93	11/1/97

Revision No:_____
Revision Date:_____

11. Summary of enforcement actions (including but not limited to, Notice of Violations, Court Orders, official notices or directives) for violations of environmental laws or regulations (attach additional sheets if necessary):

A. Check here if no enforcement actions are involved X .

B. (1) Name and address of agency that initiated the enforcement action

N/A

(2) Date of the enforcement action N/A

(3) Section of statute, rule or permit allegedly violated

N/A

(4) Type of enforcement action N/A

(5) Description of the violation

N/A

(6) How was the violation resolved?

N/A

Revision No:_____
Revision Date:_____

12. Site Map

A. In accordance with N.J.A.C. 7:26E-3.2(a) 3.i, submit a scaled site plan, detailing the subject lot and block, property and or leasehold boundaries, location of current and former buildings, fill areas, paved and unpaved areas, vegetated areas, and all areas of concern identified above and all active or inactive wells.

B. Scaled historical site maps and facility as built drawings (if available).

C. A copy of the United States Geologic Survey (USGS) 7.5 minute topographical quadrangle that includes the site and an area of at least one mile radius around the site. The facility location shall be clearly noted. If a portion of the USGS quadrangle is used, the scale, north arrow, contour interval, longitude and latitude with the name and date of the USGS quadrangle shall be noted on the map.

13. List any other information you are submitting or which has been formerly requested by the Department:

Description	Attachment #
Laboratory analyses of soil and ground water.	See appendix.

Revision No:_____
Revision Date:_____

CERTIFICATIONS:

A. The following certification shall be signed by the highest ranking individual at the site with overall responsibility for that site or activity. Where there is no individual at the site with overall responsibility for that site or activity, this certification shall be signed by the individual having responsibility for the overall operation of the site or activity.

I certify under penalty of law that the information provided in this document 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.

Typed/Printed Name Steven A. Baer Title Vice President

Signature [signature] Date November 14, 1996

Sworn to and Subscribed Before Me on this 14th

Date of November 1996 [signature] Notary

EILEEN ECKER CASTILLO
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Nov. 16, 2000

B. The following certification shall be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
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; or
4. For persons other than 1-3 above, by the person with the legal responsibility for the site.

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that, based on my inquiry of those individuals immediately 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.

Typed/Printed Name Steven A Baer Title Vice President

Signature [signature] Date November 14, 1996

Sworn to and Subscribed Before Me on this 14th

Date of November 1996 [signature] Notary

EILEEN ECKER CASTILLO
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Nov. 16, 2000

Revision No:_____
Revision Date:_____

APPENDIX

APEX CHEMICAL CORP.

PRELIMINARY INVESTIGATION:

Although there hasn't been any history of spillage or disposal of raw materials or product on the property, an investigation was conducted to determine if any contamination exist on the property. Samples were taken in areas of concern where the greatest probability of contamination from plant operations. All samples were taken as per D.E.P. sampling procedures. Five soil samples were taken, labeled S-1 to S-5. Locations are shown on the site map. These samples were taken at the 2 foot level, approximately one foot above the water table. Each sample was analyzed for volatile organics plus library search. All samples showed results well below the acceptable limits. The certified analyses are attached.

Two water samples were taken from the water table, samples W-1 and W-2. Locations are shown on the site map. Again, the results show that the water table was not contaminated. The certified analyses are attached.

It was then decided to check the soil for heavy metals. Samples were taken at the same location as the previous soil samples. A composite of the five samples was analyzed with results as follows:

APEX CHEMICAL CORP.

Metals	Results in ppm	Allowable Limits (PPM) for non-residential area	
Silver	4.5	4100	
Arsenic	12.0	2	Note: Since this work was done, the limit for arsenic was revised to 20 ppm.
Barium	733	47000	
Cadmium	5.0	100	
Chromium	63	500	
Mercury	1.6	270	
Lead	515	600	
Selenium	<.06	3100	

Since arsenic was the only metal that exceeded the allowable limits, each sample was individually analyzed for arsenic to determine if there was a "hot" spot. Results were as follows:

Location	Results in ppm
S-1	13
S-2	13
S-3	5.3
S-4	9.6
S-5	5.6

The concentration of the arsenic seems to be fairly evenly distributed in the soil. Since the company has never purchased, stored, or used any arsenic compounds, we could not determine the source of the arsenic.We then decided to take background samples to determine if arsenic was indigenous

to the area. Samples were taken outside of the plant area. Location of samples B-1 and B-2 is shown on the site plan. Certified analysis show the following results:

Location	Arsenic, ppm
B-1	8.75
B-2	8.13

Based on the above results, it appears that arsenic is inherent to the soil in this area. Therefore, it is apparent that the arsenic content on the company's property is not the result of operations by the Apex Chemical Corp.

(Continued on the following pages.)

A second set of soil samples was taken at each location to determine the individual concentration of the metals. Samples S-1A to S-5A. Results are as follows:

Metal	S-1A (ppm)	S-2A (ppm)	S-3A (ppm)	S-4A (ppm)	S-5A (ppm)	Non-Residential Limits (ppm)
Silver	5.5	2.5	1.0	<0.5	<0.5	4100
Arsenic	12	25	5.0	3.7	5.2	20
Barium	382	1210	121	286	239	47000
Cadmium	2.0	1.5	<0.5	9.0	1.5	100
Chromiun	26	50	22	32	32	500
Mercury	0.59	0.67	0.13	5.3	0.61	270
Lead	251	1730	55	195	158	600
Selenium	0.43	0.27	0.17	0.26	0.44	3100

A comparison was made of the analysis of the composite sample, the average of the individual samples, and the background samples (B-1A & B-2A). Results are as follows:

Metal	Composite (ppm)	Avg. of S-1A-S-5A (ppm)	B-1A (ppm)	B-2A (ppm)	Non-residential Limits (ppm)
Silver	4.5	2.0	1.0	4.0	4100
Arsenic	12.0	10.2	52	7.0	20
Barium	733	448	89	143	47000
Cadmium	5.0	2.9	8.5	3.5	100
Chromium	63	32.4	14	18	500
Mercury	1.6	1.46	0.36	5.3	270
Lead	515	477	444	720	600
Selenium	<0.06	0.31	0.54	1.2	3100

Based on these comparisons, it is quite apparent that the entire area is fairly consistent in the content of the heavy metals. This entire industrial area was reclaimed in the late 1800's and early 1900's by filling the low areas with construction debris and ashes from industrial coal burning furnaces.

Since all the analyses show that the heavey metal content is indigenous to the area and not the results of any action or operations of Apex Chemical Corp., and the average content of the metals are below the non-residential limits, we are requesting a negative declaration with a deed restriction that the property be used only for industrial or commercial usage.

Copies of

Certified Analyses

for

Soil Samples S-1 to S-5

for VO plus 10

TOWNLEY
LABORATORIES, INC
ENVIRONMENTAL TESTING SERVICES

Date of Report: 05/31/96
Project Number: 96050685
Lab ID: 96-0007042
Date Sampled: 05/18/96 12:00
Sampled By: Customer
Date Received: 05/20/96 15:45

Attention:
Nicholas Campagna
Nicholas Campagna, PE
522 Union Avenue
Bridgewater NJ 08807

Sample Desc: Sample No. S1

	Result	Unit	Det Limit	Procedure	Test Date
ORGANICS					
Volatile Organics + Library Search	See Attached	ug/kg dry	5	8260	05/23
WET CHEMISTRY					
Total Petroleum Hydrocarbons	180	mg/kg dry	1	418.1	05/23
Total Solids	56	%	.0001	160.3	05/23

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20071

TOWNLEY
LABORATORIES INC

VOLATILE ORGANICS DATA SHEET

SW846 METHOD 8260

Sample No: 96-7042
Source: Sample No. S1

Matrix: Soil

Date Smpl: 5/16/96
Units: ug/kg dry

Date Anal: 5/23/96

Dil. Factor: 1.0
Percent Solids: 56

COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acrolein	7.5	U	trans-1,2-Dichloroethene	1.5	U
Acrylonitrile	3.9	U	1,2-Dichloropropane	2.3	U
Benzene	1.5	U	cis-1,3-Dichloropropene	2.0	U
Bromodichloromethane	2.3	U	trans-1,3-Dichloropropene	3.1	U
Bromoform	3.4	U	Diisopropyl Ether	1.1	U
Bromomethane	3.1	U	Ethyl Benzene	1.8	U
Carbon Tetrachloride	2.3	U	Methylene Chloride	2.1	20
Chlorobenzene	1.8	U	Methyl tert Butyl Ether	2.1	U
Chloroethane	5.8	U	Tertiary Butyl Alcohol	177.9	U
2-Chloroethylvinyl Ether	4.2	U	1,1,2,2-Tetrachloroethane	4.0	U
Chloroform	1.4	U	Tetrachloroethene	1.8	U
Chloromethane	1.5	U	Toluene	1.9	1.9
Dibromochloromethane	2.5	U	1,1,1-Trichloroethane	2.1	U
1,2-Dichlorobenzene	2.3	U	1,1,2-Trichloroethane	3.0	U
1,3-Dichlorobenzene	1.7	U	Trichloroethene	1.8	U
1,4-Dichlorobenzene	2.2	U	Trichlorofluoromethane	1.1	U
1,1-Dichloroethane	1.4	U	m & p-Xylene	1.5	U
1,2-Dichloroethane	2.6	U	o-Xylene	1.4	U
1,1-Dichloroethene	1.2	U	Vinyl Chloride	1.9	U

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

NJDEP Certification # 20071

TOWNLEY
LABORATORIES INC

51
Sample No.: 96-7042

VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

RT	AREA	CONC (ug/kg)	QUAL	REF NO.	LIB ENTRY CAS #
Acetone					
5.59	218032	99.01	95	-	000067-64-1
Carbon Disulfide					
7.02	1080139	17.73	96	-	000075-15-0
2-Butanone					
10.59	199863	12.79	94	-	000078-93-3
1,4-Dioxane					
16.49	55834	123.15	96	-	000123-91-1

TOWNLEY
LABORATORIES INC

SW846 METHOD 8260

VOLATILE ORGANICS DATA SHEET

Sample No: 96-7043 Matrix: Soil
Source: Sample No. S2

Date Smpl: 5/16/96 Date Anal: 5/23/96 Dil. Factor: 1.0
Units: ug/kg dry Percent Solids: 70

COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acrolein	6.1	U	trans-1,2-Dichloroethene	1.2	U
Acrylonitrile	3.1	U	1,2-Dichloropropane	1.8	U
Benzene	1.2	U	cis-1,3-Dichloropropene	1.6	U
Bromodichloromethane	1.9	U	trans-1,3-Dichloropropene	2.4	U
Bromoform	2.7	U	Diisopropyl Ether	0.9	U
Bromomethane	2.5	U	Ethyl Benzene	1.3	U
Carbon Tetrachloride	1.8	U	Methylene Chloride	1.6	3.8
Chlorobenzene	1.5	U	Methyl tert Butyl Ether	1.7	U
Chloroethane	4.6	U	Tertiary Butyl Alcohol	142.3	U
2-Chloroethylvinyl Ether	3.4	U	1,1,2,2-Tetrachloroethane	3.2	U
Chloroform	1.1	U	Tetrachloroethene	1.3	U
Chloromethane	1.2	U	Toluene	1.5	U
Dibromochloromethane	2.0	U	1,1,1-Trichloroethane	1.6	U
1,2-Dichlorobenzene	1.8	U	1,1,2-Trichloroethane	2.4	U
1,3-Dichlorobenzene	1.4	U	Trichloroethene	1.4	U
1,4-Dichlorobenzene	1.7	U	Trichlorofluoromethane	0.9	U
1,1-Dichloroethane	1.1	U	m & p-Xylene	1.2	U
1,2-Dichloroethane	2.1	U	o-Xylene	1.1	U
1,1-Dichloroethene	1.0	U	Vinyl Chloride	1.5	U

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

NJDEP Certification # 20071

TOWNLEY
LABORATORIES, INC

Date of Report: 05/31/96
Project Number: 96050685
Lab ID: 96-0007043
Date Sampled: 05/18/96 12:00
Sampled By: Customer
Date Received: 05/20/96 15:45

Attention:
Nicholas Campagna
Nicholas Campagna, PE
522 Union Avenue
Bridgewater NJ 08807
Sample Desc: Sample No. S2

	Result	Unit	Det Limit	Procedure	Test Date
ORGANICS					
Volatile Organics + Library Search	See Attached	ug/kg dry	5	8260	05/23
WET CHEMISTRY					
Total Petroleum Hydrocarbons	60	mg/kg dry	1	418.1	05/23
Total Solids	70	%	.0001	160.3	05/23

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani
Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20071

TOWNLEY
LABORATORIES INC

Sample No.: 96-7043

VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

RT	AREA	CONC (ug/kg)	QUAL	REF NO.	LIB ENTRY CAS #
Acetone					
5.60	50635	19.35	96	-	000067-64-1

TOWNLEY LABORATORIES INC

Date of Report: 05/31/96
Project Number: 96050685
Lab ID: 96-0007044
Date Sampled: 05/18/96 12:00
Sampled By: Customer
Date Received: 05/20/96 15:45

Attention:
Nicholas Campagna
Nicholas Campagna, PE
522 Union Avenue
Bridgewater NJ 08807

Sample Desc: Sample No. S3

	Result	Unit	Det Limit	Procedure	Test Date
ORGANICS					
Volatile Organics + Library Search	See Attached	ug/kg dry	5	8260	05/22
WET CHEMISTRY					
Total Petroleum Hydrocarbons	46	mg/kg dry	1	418.1	05/23
Total Solids	67	%	.0001	160.3	05/23

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO 20071

TOWNLEY
LABORATORIES, INC.

VOLATILE ORGANICS DATA SHEET

SW846 METHOD 8260

Sample No: 96-7044 Matrix: Soil
Source: Sample No. 83

Date Smpl: 5/16/96 Date Anal: 5/22/96 Dil. Factor: 1.0
Units: ug/kg dry Percent Solids: 67

COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acrolein	6.4	U	trans-1,2-Dichloroethene	1.3	U
Acrylonitrile	3.3	U	1,2-Dichloropropane	1.9	U
Benzene	1.2	U	cis-1,3-Dichloropropene	1.7	U
Bromodichloromethane	2.0	U	trans-1,3-Dichloropropene	2.6	U
Bromoform	2.9	U	Diisopropyl Ether	0.9	U
Bromomethane	2.6	U	Ethyl Benzene	1.3	U
Carbon Tetrachloride	1.9	U	Methylene Chloride	1.7	U
Chlorobenzene	1.5	U	Methyl tert Butyl Ether	1.6	U
Chloroethane	4.6	U	Tertiary Butyl Alcohol	148.7	U
2-Chloroethylvinyl Ether	3.5	U	1,1,2,2-Tetrachloroethane	3.3	U
Chloroform	1.1	U	Tetrachloroethene	1.4	U
Chloromethane	1.3	U	Toluene	1.6	U
Dibromochloromethane	2.1	U	1,1,1-Trichloroethane	1.7	U
1,2-Dichlorobenzene	1.9	U	1,1,2-Trichloroethane	2.5	U
1,3-Dichlorobenzene	1.4	U	Trichloroethene	1.5	U
1,4-Dichlorobenzene	1.6	U	Trichlorofluoromethane	0.9	U
1,1-Dichloroethane	1.1	U	m & p-Xylene	1.2	U
1,2-Dichloroethane	2.2	U	o-Xylene	1.2	U
1,1-Dichloroethene	1.0	U	Vinyl Chloride	1.6	U

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

NJDEP Certification # 20071

TOWNLEY
LABORATORIES INC

Sample No.: 96-7044

VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

None Found

TOWNLEY LABORATORIES INC

Date of Report: 05/31/96
Project Number: 96050685
Lab ID: 96-0007045
Date Sampled: 05/18/96 12:00
Sampled By: Customer
Date Received: 05/20/96 15:45

Attention:
Nicholas Campagna
Nicholas Campagna, PE
522 Union Avenue
Bridgewater NJ 08807

Sample Desc: Sample No. S4

	Result	Unit	Det Limit	Procedure	Test Date
ORGANICS					
Volatile Organics + Library Search	See Attached	ug/kg dry	5	8260	05/23
WET CHEMISTRY					
Total Petroleum Hydrocarbons	430	mg/kg dry	1	418.1	05/23
Total Solids	73	%	.0001	160.3	05/23

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20071

TOWNLEY
LABORATORIES INC

VOLATILE ORGANICS DATA SHEET

SW846 METHOD 8260

Sample No: 96-7045 Matrix: Soil
Source: Sample No. S4

Date Smpl: 5/16/96 Date Anal: 5/23/96 Dil. Factor: 1.0
Units: ug/kg dry Percent Solids: 73

COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acrolein	5.8	U	trans-1,2-Dichloroethene	1.2	U
Acrylonitrile	3.0	U	1,2-Dichloropropane	1.7	U
Benzene	1.1	U	cis-1,3-Dichloropropene	1.5	U
Bromodichloromethane	1.8	U	trans-1,3-Dichloropropene	2.3	U
Bromoform	2.6	U	Diisopropyl Ether	0.8	U
Bromomethane	2.4	U	Ethyl Benzene	1.2	10
Carbon Tetrachloride	1.7	U	Methylene Chloride	1.6	17
Chlorobenzene	1.4	U	Methyl tert Butyl Ether	1.6	U
Chloroethane	4.4	U	Tertiary Butyl Alcohol	136.5	42
2-Chloroethylvinyl Ether	3.2	U	1,1,2,2-Tetrachloroethane	3.1	U
Chloroform	1.0	U	Tetrachloroethene	1.2	52
Chloromethane	1.2	U	Toluene	1.5	U
Dibromochloromethane	1.9	U	1,1,1-Trichloroethane	1.6	U
1,2-Dichlorobenzene	1.8	U	1,1,2-Trichloroethane	2.3	U
1,3-Dichlorobenzene	1.3	U	Trichloroethene	1.3	10
1,4-Dichlorobenzene	1.7	U	Trichlorofluoromethane	0.9	U
1,1-Dichloroethane	1.0	U	m & p-Xylene	1.1	23
1,2-Dichloroethane	2.0	U	o-Xylene	1.1	5.9
1,1-Dichloroethene	0.9	U	Vinyl Chloride	1.5	U

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

NJDEP Certification # 20071

TOWNLEY
LABORATORIES INC

Sample No.: 96-7045

VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

None Found

TOWNLEY LABORATORIES, INC

Date of Report: 05/31/96
Project Number: 96050685
Lab ID: 96-0007046
Date Sampled: 05/18/96 12:00
Sampled By: Customer
Date Received: 05/20/96 15:45

Attention:
Nicholas Campagna
Nicholas Campagna, PE
522 Union Avenue
Bridgewater NJ 08807

Sample Desc: Sample No. S5

	Result	Unit	Det Limit	Procedure	Test Date
ORGANICS					
Volatile Organics + Library Search	See Attached	ug/kg dry	5	8260	05/23
WET CHEMISTRY					
Total Petroleum Hydrocarbons	250	mg/kg dry	1	418.1	05/23
Total Solids	56	%	.0001	160.3	05/23

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20071

TOWNLEY
LABORATORIES INC

VOLATILE ORGANICS DATA SHEET

SW846 METHOD 8260

Sample No: 96-7046
Source: Sample No. 85

Matrix: Soil

Date Smpl: 5/16/96
Units: ug/kg dry

Date Anal: 5/23/96

Dil. Factor: 1.0
Percent Solids: 56

COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acrolein	7.6	U	trans-1,2-Dichloroethene	1.5	U
Acrylonitrile	3.9	U	1,2-Dichloropropane	2.3	U
Benzene	1.5	U	cis-1,3-Dichloropropene	2.0	U
Bromodichloromethane	2.3	U	trans-1,3-Dichloropropene	3.1	U
Bromoform	3.4	U	Diisopropyl Ether	1.1	U
Bromomethane	3.1	U	Ethyl Benzene	1.6	U
Carbon Tetrachloride	2.3	U	Methylene Chloride	2.1	24
Chlorobenzene	1.8	U	Methyl tert Butyl Ether	2.1	U
Chloroethane	5.6	U	Tertiary Butyl Alcohol	177.9	U
2-Chloroethylvinyl Ether	4.2	U	1,1,2,2-Tetrachloroethane	4.0	U
Chloroform	1.4	29	Tetrachloroethene	1.6	948
Chloromethane	1.5	U	Toluene	1.9	2.6
Dibromochloromethane	2.5	U	1,1,1-Trichloroethane	2.1	U
1,2-Dichlorobenzene	2.3	U	1,1,2-Trichloroethane	3.0	U
1,3-Dichlorobenzene	1.7	U	Trichloroethene	1.8	79
1,4-Dichlorobenzene	2.2	U	Trichlorofluoromethane	1.1	U
1,1-Dichloroethane	1.4	U	m & p-Xylene	1.5	U
1,2-Dichloroethane	2.6	U	o-Xylene	1.4	U
1,1-Dichloroethene	1.2	U	Vinyl Chloride	1.9	U

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

NJDEP Certification # 20071

TOWNLEY
LABORATORIES INC

Sample No.: 96-7046

VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

None Found

Copies of

Certified Analyses

for

Water Samples W-1 & W-2

TOWNLEY LABORATORIES, INC

Date of Report: 05/31/96
Project Number: 96050685
Lab ID: 96-0007047
Date Sampled: 05/18/96 12:00
Sampled By: Customer
Date Received: 05/20/96 15:45

Attention:
Nicholas Campagna
Nicholas Campagna, PE
522 Union Avenue
Bridgewater NJ 08807

Sample Desc: Sample No. W1

	Result	Unit	Det Limit	Procedure	Test Date
ORGANICS Volatile Organics + 10	See Attached	ug/L	5	624	05/24

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20071

TOWNLEY
LABORATORIES INC

VOLATILE ORGANICS DATA SHEET

USEPA METHOD 624

Sample No: 96-7047 Matrix: Water
Source: Sample No. W1

Date Smpl: 5/18/96 Date Anal: 5/24/96 Dil. Factor: 1.0
Units: ug/l

COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acrolein	4.3	U	trans-1,2-Dichloroethene	0.9	U
Acrylonitrile	2.2	U	1,2-Dichloropropane	1.3	U
Benzene	0.8	U	cis-1,3-Dichloropropene	1.1	U
Bromodichloromethane	1.3	U	trans-1,3-Dichloropropene	1.7	U
Bromoform	1.9	U	Diisopropyl Ether	0.6	U
Bromomethane	1.8	U	Ethyl Benzene	0.9	U
Carbon Tetrachloride	1.3	U	Methylene Chloride	1.2	U
Chlorobenzene	1.0	U	Methyl tert Butyl Ether	1.2	U
Chloroethane	3.2	U	Naphthalene	0.4	U
2-Chloroethylvinyl Ether	2.4	U	1,1,2,2-Tetrachloroethane	2.2	U
Chloroform	0.8	U	Tetrachloroethene	0.9	U
Chloromethane	0.6	U	Toluene	1.1	U
Dibromochloromethane	1.4	U	1,1,1-Trichloroethane	1.2	U
1,2-Dichlorobenzene	1.3	U	1,1,2-Trichloroethane	1.7	U
1,3-Dichlorobenzene	1.0	U	Trichloroethene	1.0	U
1,4-Dichlorobenzene	1.2	U	Trichlorofluoromethane	0.6	U
1,1-Dichloroethane	0.8	U	m & p-Xylene	0.8	U
1,2-Dichloroethane	1.5	U	o-Xylene	0.8	U
1,1-Dichloroethene	0.7	U	Vinyl Chloride	1.1	U

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

NJDEP Certification # 20071

TOWNLEY
LABORATORIES INC

Sample No.: 96-7047

VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

RT	AREA	CONC (ug/l)	QUAL	REF NO.	LIB ENTRY CAS #
Acetone					
5.60	89036	30.62	88	-	000067-64-1
2-Butanone					
10.60	654411	31.71	98	-	000078-93-3

TOWNLEY
LABORATORIES, INC

Date of Report: 05/31/96
Project Number: 96050685
Lab ID: 96-0007048
Date Sampled: 05/18/96 12:00
Sampled By: Customer
Date Received: 05/20/96 15:45

Attention:
Nicholas Campagna
Nicholas Campagna, PE
522 Union Avenue
Bridgewater NJ 08807
Sample Desc: Sample No. W2

	Result	Unit	Det Limit	Procedure	Test Date
ORGANICS					
Volatile Organics + 10	See Attached	ug/L	5	624	05/24

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO 20071

TOWNLEY
LABORATORIES INC

VOLATILE ORGANICS DATA SHEET

USEPA METHOD 624

Sample No: 96-7048 Matrix: Water
Source: Sample No. W2

Date Smpl: 5/15/96 Date Anal: 5/24/96 Dil. Factor: 1.0
Units: ug/l

COMPOUND	MDL	AMOUNT	COMPOUND	MDL	AMOUNT
Acrolein	4.3	U	trans-1,2-Dichloroethene	0.9	U
Acrylonitrile	2.2	U	1,2-Dichloropropane	1.3	U
Benzene	0.6	U	cis-1,3-Dichloropropene	1.1	U
Bromodichloromethane	1.3	U	trans-1,3-Dichloropropene	1.7	U
Bromoform	1.9	U	Diisopropyl Ether	0.6	U
Bromomethane	1.6	U	Ethyl Benzene	0.9	U
Carbon Tetrachloride	1.3	U	Methylene Chloride	1.2	U
Chlorobenzene	1.0	U	Methyl tert Butyl Ether	1.2	U
Chloroethane	3.2	U	Naphthalene	0.4	U
2-Chloroethylvinyl Ether	2.4	U	1,1,2,2-Tetrachloroethane	2.2	U
Chloroform	0.6	U	Tetrachloroethene	0.9	1.0
Chloromethane	0.6	U	Toluene	1.1	U
Dibromochloromethane	1.4	U	1,1,1-Trichloroethane	1.2	U
1,2-Dichlorobenzene	1.3	U	1,1,2-Trichloroethane	1.7	U
1,3-Dichlorobenzene	1.0	U	Trichloroethene	1.0	U
1,4-Dichlorobenzene	1.2	U	Trichlorofluoromethane	0.6	U
1,1-Dichloroethane	0.8	U	m & p-Xylene	0.8	U
1,2-Dichloroethane	1.5	U	o-Xylene	0.8	U
1,1-Dichloroethene	0.7	U	Vinyl Chloride	1.1	U

NOTE: MDL = Method Detection Limit
If the result is equal to or greater than the MDL, the value is reported
U = compound analyzed for but not detected
J = estimated value
B = compound also found in Lab Blank

NJDEP Certification # 20071

TOWNLEY
LABORATORIES INC

Sample No.: 96-7048

VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

RT	AREA	CONC (ug/l)	QUAL	REF NO.	LIB ENTRY CAS #
Acetone					
5.64	71571	24.78	79	-	000067-64-1
2-Butanone					
10.60	1052314	51.32	99	-	000078-93-3

Copies of

Certified Analyses

for

Soil Samples S-1 to S-5

for heavy metals

TOWNLEY
LABORATORIES, INC
ENVIRONMENTAL TESTING SERVICES
SINCE 1900

Date of Report: 08/15/96
Project Number: 96081382
Lab ID: 96-0011960
Date Sampled: 08/03/96 10:00
Sampled By: Customer
Date Received: 08/05/96 15:02

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: Composite Sample

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Silver	4.5	mg/kg	.5	7760	08/09
Arsenic	12	mg/kg	.25	7060	08/13
Barium	733	mg/kg	5	7080	08/09
Cadmium	5.0	mg/kg	.5	7130	08/09
Chromium	63	mg/kg	.5	7190	08/09
Mercury	1.6	mg/kg	.01	7471	08/08
Lead	515	mg/kg	5	7420	08/09
Selenium	<.06	mg/kg	.06	7741	08/07
WET CHEMISTRY					
Total Solids	83	%	.0001	160.3	08/07

Note: < = Compound not found at Detection Limit.

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 Fax (908) 757-0535
NJ DEP LABORATORY CERTIFICATION NO. 30017

TOWNLEY
LABORATORIES INC
ENVIRONMENTAL TESTING SERVICES

Date of Report: 09/18/96
Project Number: 96090431
Lab ID: 96-0014578
Date Sampled: 08/03/96 10:00
Sampled By: Customer
Date Received: 08/05/96 15:00

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: Sample No. S-1

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Arsenic	13	mg/kg	.25	7060	09/16

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 12061

TOWNLEY
LABORATORIES, INC
ENVIRONMENTAL TESTING SERVICES
SINCE 1960

Date of Report: 08/15/96
Project Number: 96081382
Lab ID: 96-0011960
Date Sampled: 08/03/96 10:00
Sampled By: Customer
Date Received: 08/05/96 15:02

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: Composite Sample

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Silver	4.5	mg/kg	.5	7760	08/09
Arsenic	12	mg/kg	.25	7060	08/13
Barium	733	mg/kg	5	7080	08/09
Cadmium	5.0	mg/kg	.5	7130	08/09
Chromium	63	mg/kg	.5	7190	08/09
Mercury	1.6	mg/kg	.01	7471	08/08
Lead	515	mg/kg	5	7420	08/09
Selenium	<.06	mg/kg	.06	7741	08/07
WET CHEMISTRY					
Total Solids	83	%	.0001	160.3	08/07

Note: < = Compound not found at Detection Limit.

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 Fax (908) 757-0535
NJ DEP LAB CERTIFICATION NO. 20011

TOWNLEY
LABORATORIES, INC.

Date of Report: 09/18/96
Project Number: 96090431
Lab ID: 96-0014579
Date Sampled: 08/03/96 10:00
Sampled By: Customer
Date Received: 08/05/96 15:00

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: Sample No. S-2

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Arsenic	13	mg/kg	.25	7060	09/16

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20021

TOWNLEY LABORATORIES INC

Date of Report: 09/18/96
Project Number: 96090431
Lab ID: 96-0014580
Date Sampled: 08/03/96 10:00
Sampled By: Customer
Date Received: 08/05/96 15:00

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: Sample No. S-3

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Arsenic	5.3	mg/kg	.25	7060	09/16

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20013

TOWNLEY
LABORATORIES, INC

Date of Report: 09/18/96
Project Number: 96090431
Lab ID: 96-0014581
Date Sampled: 08/03/96 10:00
Sampled By: Customer
Date Received: 08/05/96 15:00

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: Sample No. S-4

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Arsenic	9.6	mg/kg	.25	7060	09/16

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20011

TOWNLEY LABORATORIES INC

Date of Report: 09/18/96
Project Number: 96090431
Lab ID: 96-0014582
Date Sampled: 08/03/96 10:00
Sampled By: Customer
Date Received: 08/05/96 15:00

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: Sample No. S-5

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Arsenic	5.6	mg/kg	.25	7060	09/16

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W Front Street, Plainfield, NJ 07063 · (908) 757-1137 Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20021

Copies of

Certified Analyses

for

Background Soil Samples

TOWNLEY LABORATORIES INC

Date of Report: 10/02/96
Project Number: 96091022
Lab ID: 96-0015827
Date Sampled: 09/25/96 00:00
Sampled By: Customer
Date Received: 09/25/96 16:30

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: B-1

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Arsenic	8.75	mg/kg	.25	7060	09/30

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20021

TOWNLEY LABORATORIES INC.

Date of Report: 10/02/96
Project Number: 96091022
Lab ID: 96-0015828
Date Sampled: 09/25/96 00:00
Sampled By: Customer
Date Received: 09/25/96 16:30

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: B-2

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Arsenic	8.13	mg/kg	.25	7060	09/30

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20171

Copies of

Certified Analyses

for

Soil Samples

S-1A to S-5A

and

B-1A & B-2A

TOWNLEY
LABORATORIES, INC

Date of Report: 03/14/97
Project Number: 97020850
Lab ID: 97-0003469
Date Sampled: 02/26/97 15:00
Sampled By: Customer
Date Received: 02/27/97 15:45

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: S1-A

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Silver	5.5	mg/kg	.5	7760	03/07
Arsenic	12	mg/kg	.25	7060	02/28
Barium	382	mg/kg	5	7080	03/07
Cadmium	2.0	mg/kg	.5	7130	03/07
Chromium	26	mg/kg	.5	7190	03/07
Mercury	0.59	mg/kg	.01	7471	03/03
Lead	251	mg/kg	5	7420	03/07
Selenium	0.43	mg/kg	.15	7741	03/05

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20021

TOWNLEY
LABORATORIES, INC
ENVIRONMENTAL TESTING SERVICES

Date of Report: 03/14/97
Project Number: 97020850
Lab ID: 97-0003470
Date Sampled: 02/26/97 15:00
Sampled By: Customer
Date Received: 02/27/97 15:45

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: S2-A

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Silver	2.5	mg/kg	.5	7760	03/07
Arsenic	25	mg/kg	.25	7060	02/28
Barium	1210	mg/kg	5	7080	03/07
Cadmium	1.5	mg/kg	.5	7130	03/07
Chromium	50	mg/kg	.5	7190	03/07
Mercury	0.67	mg/kg	.01	7471	03/03
Lead	1730	mg/kg	5	7420	03/07
Selenium	0.27	mg/kg	.15	7741	03/05

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 12027

TOWNLEY LABORATORIES, INC.

Date of Report: 03/14/97
Project Number: 97020850
Lab ID: 97-0003471
Date Sampled: 02/26/97 15:00
Sampled By: Customer
Date Received: 02/27/97 15:45

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: S3-A

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Silver	1.0	mg/kg	.5	7760	03/07
Arsenic	5.0	mg/kg	.25	7060	02/28
Barium	121	mg/kg	5	7080	03/07
Cadmium	<.5	mg/kg	.5	7130	03/07
Chromium	22	mg/kg	.5	7190	03/07
Mercury	0.13	mg/kg	.01	7471	03/03
Lead	55	mg/kg	5	7420	03/07
Selenium	0.17	mg/kg	.15	7741	03/05

Note: < = Compound not found at Detection Limit.

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20021

TOWNLEY
LABORATORIES, INC
ENVIRONMENTAL TESTING SERVICES

Date of Report: 03/14/97
Project Number: 97020850
Lab ID: 97-0003472
Date Sampled: 02/26/97 15:00
Sampled By: Customer
Date Received: 02/27/97 15:45

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: S4-A

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Silver	<.5	mg/kg	.5	7760	03/07
Arsenic	3.7	mg/kg	.25	7060	02/28
Barium	286	mg/kg	5	7080	03/07
Cadmium	9.0	mg/kg	.5	7130	03/07
Chromium	32	mg/kg	.5	7190	03/07
Mercury	5.3	mg/kg	.01	7471	03/03
Lead	195	mg/kg	5	7420	03/07
Selenium	0.26	mg/kg	.15	7741	03/05

Note: < = Compound not found at Detection Limit.

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20071

TOWNLEY LABORATORIES INC

Date of Report: 03/14/97
Project Number: 97020850
Lab ID: 97-0003473
Date Sampled: 02/26/97 15:00
Sampled By: Customer
Date Received: 02/27/97 15:45

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: S5-A

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Silver	<.5	mg/kg	.5	7760	03/07
Arsenic	5.2	mg/kg	.25	7060	02/28
Barium	239	mg/kg	5	7080	03/07
Cadmium	1.5	mg/kg	.5	7130	03/07
Chromium	32	mg/kg	.5	7190	03/07
Mercury	0.61	mg/kg	.01	7471	03/03
Lead	158	mg/kg	5	7420	03/07
Selenium	0.44	mg/kg	.15	7741	03/05

Note: < = Compound not found at Detection Limit.

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20071

TOWNLEY
LABORATORIES, INC

Date of Report: 02/19/97
Project Number: 97020143
Lab ID: 97-0002110
Date Sampled: 02/04/97 16:00
Sampled By: Customer
Date Received: 02/05/97 15:30

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: Apex Chemical - B-1 A

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Silver	1.0	mg/kg	.5	7760	02/07
Arsenic	52	mg/kg	.25	7060	02/06
Barium	89	mg/kg	5	7080	02/07
Cadmium	8.5	mg/kg	.5	7130	02/07
Chromium	14	mg/kg	.5	7190	02/07
Mercury	0.36	mg/kg	.01	7471	02/10
Lead	444	mg/kg	5	7420	02/07
Selenium	0.54	mg/kg	.15	7741	02/14

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO 20071

TOWNLEY
LABORATORIES, INC.

Date of Report: 02/19/97
Project Number: 97020143
Lab ID: 97-0002111
Date Sampled: 02/04/97 16:00
Sampled By: Customer
Date Received: 02/05/97 15:30

Attention: Office Manager
Nicholas Campagna, PE
522 Union Ave.
Bridgewater NJ 08807

Sample Desc: Apex Chemical - B-2 A

	Result	Unit	Det Limit	Procedure	Test Date
METALS					
Silver	4.0	mg/kg	.5	7760	02/07
Arsenic	7.4	mg/kg	.25	7060	02/06
Barium	143	mg/kg	5	7080	02/07
Cadmium	3.5	mg/kg	.5	7130	02/07
Chromium	18	mg/kg	.5	7190	02/07
Mercury	5.3	mg/kg	.01	7471	02/10
Lead	720	mg/kg	5	7420	02/07
Selenium	1.2	mg/kg	.15	7741	02/14

Distribution of Report:

Reviewed and Approved By:

Sharon Ercoliani

Sharon Ercoliani
Operations Manager

1750 W. Front Street, Plainfield, NJ 07063 · (908) 757-1137 · Fax (908) 757-0335
NJ DEP LAB CERTIFICATION NO. 20071

Copies of

Permits

Form VEM-017

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF ENVIRONMENTAL QUALITY
AIR POLLUTION CONTROL PROGRAM

All Correspondence must indicate your APC PLANT ID NUMBER

Certificate Number 112321 LOG NUMBER 931584A APC PLANT ID 40172

(Mailing Address)

APEX CHEMICAL CO., INC.
200 SOUTH FIRST STREET
ELIZABETHPORT NJ 07206

(Plant Location)

200 SOUTH FIRST STREET
ELIZABETH

Applicant's Designation of Equipment TANK - 11
N.J. Stack No. 002
Approval
No. of Stacks 001
Effective 04/26/93
No. of Sources 01
Expiration 04/26/98

CERTIFICATE TO OPERATE CONTROL APPARATUS OR EQUIPMENT

FIVE YEAR DIRECT

THIS FIVE YEAR CERTIFICATE IS BEING ISSUED UNDER THE AUTHORITY OF CHAPTER 106, P.L. 1967 (N.J.S.A. 26:2C-9.2). THE POSSESSION OF THIS DOCUMENT DOES NOT RELIEVE YOU OF THE OBLIGATION TO COMPLY WITH ALL PROVISIONS OF THE NEW JERSEY ADMINISTRATIVE CODE, TITLE 7, CHAPTER 27.

THE EQUIPMENT COVERED BY THIS CERTIFICATE MAY BE SUBJECT TO AT LEAST ONE PERIODIC COMPLIANCE INSPECTION, PURSUANT TO N.J.A.C. 7:27-8.8(C). YOU WILL BE NOTIFIED BY LETTER WITHIN 60 DAYS OF THE EFFECTIVE DATE OF THIS DOCUMENT OF THE MAXIMUM NUMBER OF THESE INSPECTIONS (IF GREATER THAN ONE). PURSUANT TO N.J.A.C. 7:27-8.11, YOU WILL BE INVOICED FOR A $200 FEE AFTER EACH PERIODIC INSPECTION THAT IS CONDUCTED. YOU MAY ALSO BE SUBJECT TO FEES FOR SERVICES THAT ARE PERFORMED BY THE DEPARTMENT IN ACCORDANCE WITH THE CONDITIONS OF APPROVAL OF THIS DOCUMENT. IF YOU FAIL TO PAY A FEE, THE DEPARTMENT MAY ASSESS CIVIL ADMINISTRATIVE PENALTIES AND/OR REVOKE THIS CERTIFICATE.

PURSUANT TO N.J.A.C.7:27-8.7(F), THE DEPARTMENT MAY MODIFY THE CONDITIONS OF APPROVAL OF THIS CERTIFICATE AT THE TIME OF RENEWAL OR AT ANY TIME WHEN THE CERTIFICATE IS IN FORCE, IF DEEMED NECESSARY TO PROTECT HUMAN HEALTH, WELFARE OR THE ENVIRONMENT.

IN ACCORDANCE WITH N.J.S.A. 54:4-3.56 TO 3.58, YOU MAY BE ENTITLED TO AN EXEMPTION FROM TAXATION IF YOUR EQUIPMENT IS TAXED AND IS CONSIDERED TO BE AN AIR POLLUTION CONTROL DEVICE. A TAX EXEMPTION APPLICATION MAY BE OBTAINED FROM THE BUREAU OF NEW SOURCE REVIEW (SEE OTHER SIDE).

IN ACCORDANCE WITH N.J.A.C. 7:27-8.3(D), YOU SHALL MAKE THIS CERTIFICATE READILY AVAILABLE FOR INSPECTION ON THE OPERATING PREMISES.

Approved by: Donald Patteron

05/26/93-05

MRO - CITY OF ELIZABETH
DEPT. OF HEALTH, WELFARE AND HOUSING

Form VEM-017

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF ENVIRONMENTAL QUALITY
AIR POLLUTION CONTROL PROGRAM

All Correspondence must indicate your APC PLANT ID NUMBER

Certificate Number 112802 LOG NUMBER 931700A APC PLANT ID 40172

(Mailing Address)

APEX CHEMICAL CO., INC.
200 SOUTH FIRST STREET
ELIZABETHPORT NJ 07206

(Plant Location)

200 SOUTH FIRST STREET
ELIZABETH

Applicant's Designation of Equipment BOILER "SUPERIOR" No. of Sources 01
N.J. Stack No. 004 No. of Stacks 001
Approval Effective 05/10/93 Expiration 05/10/98

CERTIFICATE TO OPERATE CONTROL APPARATUS OR EQUIPMENT

FIVE YEAR DIRECT

THIS FIVE YEAR CERTIFICATE IS BEING ISSUED UNDER THE AUTHORITY OF CHAPTER 106, P.L. 1967 (N.J.S.A. 26:2C-9.2). THE POSSESSION OF THIS DOCUMENT DOES NOT RELIEVE YOU OF THE OBLIGATION TO COMPLY WITH ALL PROVISIONS OF THE NEW JERSEY ADMINISTRATIVE CODE, TITLE 7, CHAPTER 27.

THE EQUIPMENT COVERED BY THIS CERTIFICATE MAY BE SUBJECT TO AT LEAST ONE PERIODIC COMPLIANCE INSPECTION, PURSUANT TO N.J.A.C. 7:27-8.8(C). YOU WILL BE NOTIFIED BY LETTER WITHIN 60 DAYS OF THE EFFECTIVE DATE OF THIS DOCUMENT OF THE MAXIMUM NUMBER OF THESE INSPECTIONS (IF GREATER THAN ONE). PURSUANT TO N.J.A.C. 7:27-8.11, YOU WILL BE INVOICED FOR A $200 FEE AFTER EACH PERIODIC INSPECTION THAT IS CONDUCTED. YOU MAY ALSO BE SUBJECT TO FEES FOR SERVICES THAT ARE PERFORMED BY THE DEPARTMENT IN ACCORDANCE WITH THE CONDITIONS OF APPROVAL OF THIS DOCUMENT. IF YOU FAIL TO PAY A FEE, THE DEPARTMENT MAY ASSESS CIVIL ADMINISTRATIVE PENALTIES AND/OR REVOKE THIS CERTIFICATE.

PURSUANT TO N.J.A.C.7:27-8.7(F), THE DEPARTMENT MAY MODIFY THE CONDITIONS OF APPROVAL OF THIS CERTIFICATE AT THE TIME OF RENEWAL OR AT ANY TIME WHEN THE CERTIFICATE IS IN FORCE, IF DEEMED NECESSARY TO PROTECT HUMAN HEALTH, WELFARE OR THE ENVIRONMENT.

IN ACCORDANCE WITH N.J.S.A. 54:4-3.56 TO 3.58, YOU MAY BE ENTITLED TO AN EXEMPTION FROM TAXATION IF YOUR EQUIPMENT IS TAXED AND IS CONSIDERED TO BE AN AIR POLLUTION CONTROL DEVICE. A TAX EXEMPTION APPLICATION MAY BE OBTAINED FROM THE BUREAU OF NEW SOURCE REVIEW (SEE OTHER SIDE).

IN ACCORDANCE WITH N.J.A.C. 7:27-8.3(D), YOU SHALL MAKE THIS CERTIFICATE READILY AVAILABLE FOR INSPECTION ON THE OPERATING PREMISES.

Approved by: Donald Patterson

07/01/93-05

MRO:- CITY OF ELIZABETH
DEPT. OF HEALTH, WELFARE AND HOUSING

Form VEM-017

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF ENVIRONMENTAL QUALITY
AIR POLLUTION CONTROL PROGRAM

All Correspondence must indicate your APC PLANT ID NUMBER

Certificate Number 115132 LOG NUMBER 934005A APC PLANT ID 40172

(Mailing Address)

APEX CHEMICAL CO., INC.
200 SOUTH FIRST STREET
ELIZABETHPORT NJ 07206

(Plant Location)

200 SOUTH FIRST STREET
ELIZABETH

Applicant's Designation of Equipment DC-1
N.J. Stack No. 005
Approval

No. of Stacks 001
Effective 12/16/93

No. of Sources 02
Expiration 12/16/98

CERTIFICATE TO OPERATE CONTROL APPARATUS OR EQUIPMENT

*-CONDITIONAL FIVE YEAR DIRECT *-

THIS CONDITIONAL FIVE YEAR CERTIFICATE IS BEING ISSUED UNDER THE AUTHORITY OF CHAPTER 106, P.L. 1967 (N.J.S.A. 26:2C-9.2) WITHOUT A FIELD INSPECTION. HOWEVER, FIELD INSPECTIONS ARE SCHEDULED FOR THE FUTURE AND APPROPRIATE ACTIONS WILL BE TAKEN IF SUCH INSPECTIONS DISCLOSE DEVIATIONS FROM YOUR APPROVED PERMIT.

THE EQUIPMENT COVERED BY THIS CERTIFICATE MAY BE SUBJECT TO AT LEAST TWO PERIODIC COMPLIANCE INSPECTIONS, PURSUANT TO N.J.A.C. 7:27-8.8(C). PURSUANT TO N.J.A.C 7:27-8.11, YOU WILL BE INVOICED FOR A $200 FEE AFTER EACH PERIODIC INSPECTION THAT IS CONDUCTED. YOU MAY ALSO BE SUBJECT TO FEES FOR SERVICES THAT ARE PERFORMED BY THE DEPARTMENT IN ACCORDANCE WITH THE CONDITIONS OF APPROVAL OF THIS DOCUMENT. IF YOU FAIL TO PAY A FEE, THE DEPARTMENT MAY ASSESS CIVIL ADMINISTRATIVE PENALTIES AND/OR REVOKE THIS CERTIFICATE.

IN ACCORDANCE WITH N.J.S.A. 54:4-3.56 TO 3.58, YOU MAY BE ENTITLED TO AN EXEMPTION OF TAXATION IF YOUR EQUIPMENT IS TAXED AND IS CONSIDERED TO BE AN AIR POLLUTION CONTROL DEVICE. A TAX EXEMPTION APPLICATION MAY BE OBTAINED FROM THE BUREAU OF NEW SOURCE REVIEW. (SEE OTHER SIDE)

IF IT IS NECESSARY TO AMEND YOUR EMERGENCY STANDBY PLANS, PLEASE CONSULT WITH THE APPROPRIATE REGIONAL OFFICE. (SEE OTHER SIDE)

IN ACCORDANCE WITH N.J.A.C. 7:27-8.3(D), THIS CERTIFICATE MUST BE READILY AVAILABLE FOR INSPECTION ON THE OPERATING PREMISES.

PLEASE REFER TO YOUR INITIAL PERMIT APPROVAL FOR OPERATING CONDITIONS.

Approved by: Donald Patterson

03/02/94-55

MRO - CITY OF ELIZABETH
DEPT. OF HEALTH, WELFARE AND HOUSING

Form VEM-017

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF ENVIRONMENTAL QUALITY
AIR POLLUTION CONTROL PROGRAM

All Correspondence must indicate your APC PLANT ID NUMBER

Certificate Number 116406

APC PLANT ID 40172

(Mailing Address)

APEX CHEMICAL CO., INC.
200 SOUTH FIRST STREET
ELIZABETHPORT NJ 07206

(Plant Location)

200 SOUTH FIRST STREET
ELIZABETH

Applicant's Designation of Equipment PRODUCTION BUILDING
N.J. Stack No. 006
Approval

No. of Stacks 001
Effective 03/30/94

No. of Sources 07
Expiration 03/24/00

• CERTIFICATE TO OPERATE CONTROL APPARATUS OR EQUIPMENT •

• FIVE YEAR •

THIS FIVE YEAR CERTIFICATE IS BEING ISSUED UNDER THE AUTHORITY OF CHAPTER 106, P.L. 1967 (N.J.S.A. 26:2C-9.2). THE POSSESSION OF THIS DOCUMENT DOES NOT RELIEVE YOU OF THE OBLIGATION TO COMPLY WITH ALL PROVISIONS OF THE NEW JERSEY ADMINISTRATIVE CODE, TITLE 7, CHAPTER 27.

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PURSUANT TO N.J.A.C. 7:27-8.7(F), THE DEPARTMENT MAY MODIFY THE CONDITIONS OF APPROVAL OF THIS CERTIFICATE AT THE TIME OF RENEWAL OR AT ANY TIME WHEN THE CERTIFICATE IS IN FORCE, IF DEEMED NECESSARY TO PROTECT HUMAN HEALTH, WELFARE OR THE ENVIRONMENT.

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IN ACCORDANCE WITH N.J.A.C. 7:27-8.3(D), YOU SHALL MAKE THIS CERTIFICATE READILY AVAILABLE FOR INSPECTION ON THE OPERATING PREMISES.

Approved by: Donald Patterson

01/17/95-04

MRO - CITY OF ELIZABETH
DEPT. OF HEALTH, WELFARE AND HOUSING

New Jersey Department of Environmental Protection and Energy
Bureau of Stormwater Permitting

Office of Land and Water Planning
CN-423
Trenton, New Jersey 08625-0423
(609) 633-7021

AUTHORIZATION TO DISCHARGE STORMWATER TO SURFACE WATER

Facility Name: Apex Chemical Corporation **SWG** A-003557

Facility Address: 200 South First Street
Elizabeth, NJ 07206

SIC Code: 2899

Type of Industrial Activity: Chemicals & Chemical Preparations, Not

	Owner	Operator
Name:	Emil Baer Incorporated	Apex Chemical Corporation
Legal Address:	200 South First Street	200 South First Street
	Elizabeth, NJ 07206	PO Box 254
		Elizabeth, NJ 07206-0254

EFFECTIVE DATE 5/04/93 **EXPIRATION DATE** 11/01/97

Your Request for Authorization under NJPDES General Permit No. NJ0088315 **has been approved by the N.J. Department of Environmental Protection and Energy.**

Barry Chajofsky, P.P., Manager
Bureau of Stormwater Permitting
N.J. Department of Environmental
Protection and Energy

Date 9/21/93

ADS-6/93

Form DWM-051
1/86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

INVESTIGATION

CASE #: 90-04-20-1145

DWM FILE #: 20-051-53

TIME ARRIVED:

INVESTIGATOR: Eddie L Dacosta JR

DATE: 5-31-90

TIME DEPARTED:

LOCATION: Apex Chemical

PROPERTY OWNER:

ADDRESS: 200 South First St.

MAILING ADDRESS:

Elizabeth County - Union

BLOCK: LOT:

RESPONSIBLE PARTY: Apex Chemical

LOCATION TELEPHONE #: (201)354-5420

ADDRESS: Same

EPA ID #: NJD002166403

LOCAL HEALTH DEPT. REP. N/A

TELEPHONE #: N/A

ORIGIN OF COMPLAINT: Angel Badriez

TELEPHONE #: (201)548-8230

NATURE OF COMPLAINT: Solvents / Flame Retardents leaking from pipes

PHOTOGRAPHS TAKEN: No

SAMPLE #: No

FINDINGS: Thursday, May 31, 1990 I responded to an incident reported to DEP by Angel Badriez of USEPA. Mr. Badriez reported repair a solvent and Flame retardent leak at Apex Chemical Corp 200 South First St. in Elizabeth, N.J. Upon my arrival at the facility I met with Vice President Steven Baer. Mr Baer informed me that the facility has been in operation since 1959. It is a privately owned Company which sell chemicals to textile industries and formulates and manufactures Fire retardents. The establishment is a three story manufacturing building whereby different stages of product production are carried out.

The operation/production begins on the third floor where several raw materials are placed into large mixing kettles. After mixing the material is piped down to the second floor for further mixing and steam heating. After the heating and mixing the material is piped down into another kettle on the first floor and cooled. The material is then removed from the kettles by opening a valve at the bottoms of the kettles.

The waste which is generated from this operation consist of wash waters. This waste water is a mild detergent and plain water solution use to clean kettles after a batch is completed. This waste water is circulated within the kettle for thorough cleaning and then discharged

M A Stelmis 6/7/90
Supervisor Signature

Eddie Dacosta
Investigator Signature

COPIES: White - DWM File Yellow - Local Health Dept. Pink - Investigator

BAA000084

TIERRA-B-000148

Form DWM-051 A
1/86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

INVESTIGATION

CASE # 90-05-20-1145

DATE: 5-31-90

FINDINGS AND SUMMARY:

to drain out of the kettles to the floor where it runs into floor drains. This waste water is then routed to the sewer where it is recieved by Joint Meeting and sampled regularly.

During this investigation there was no indication of pipes being connected and leaking. There were also no hazardous waste violations observed.

With this information gather during my Hazardous waste investigation I recomend no further action from this office.

M Terlaw 6/7/90
Supervisor Signature

Debra Lee Davis
Investigator Signature

COPIES: White - DWM File Yellow - Local Health Dept. Pink - Investigator

500 S. First St. Elizabeth, N.J. 07202 mailed
201-353-1313 April 25, 1990
w/ $100.00 fee

INDUSTRIAL WASTE QUESTIONNAIRE

Plant Name APEX CHEMICAL CORPORATION

Address 200 South 1st St. Elizabethport N.J. 07206

Person to whom further inquiries should be directed:

Steven A. Baer	Vice President	351-5120
Name	Title	Telephone

Number of employees at this location 23

Industrial waste type: Circle all which apply:

(Sanitary) (Process) (Cooling)

Type of industry Specialty chemicals for the Textile Industry

Primary S.I.C. Classification 2899

(4 digits from 1976 issue of the Standard Industrial Classification Manual)

Principal product: Flame Retardants Quantity: Varies

Principal raw material: _____ Quantity: _____

Days and hours per week of manufacturing operation: 5 days 10 hours/day

Do you have a standard vacation shutdown period? X yes ____ no

If yes, what are the dates of the shutdown? From 1st and/or To 2nd week of 5th

Indicate the date(s) of any additional shutdowns: _____

Flow: Indicate the volume of water discharged into the municipal system in gallons per day as well as millions of gallons per year and whether this discharge is intermittent or continuous.

13,016 gallons/day X Intermittent ____ Continuous

3.3 million gallons/year

Indicate the daily gallons or percent of flow discharged as wastewater from an industrial process 1000/.05 per cent gallons/percent

Is pretreatment practiced prior to discharge to the municipal system?

X yes ____ no

If yes, how is this accomplished 1st - equipment is pre-cleaning - Saving any excess / 2nd - discharge water is neutralized.

Plant water supply: Indicate water received in gallons or cubic feet in th most recent calendar quarter:

1,301,694 gallons-public supply _____ gallons-private well

174,000 cubic feet-public supply _____ cubic feet-private well

ASE ATTACH A PHOTO COPY OF YOUR MOST RECENT WATER BILL.

INDUSTRIAL WASTE CONTRIBUTION TO MUNICIPAL SYSTEM

I certify that I am familiar with the information contained in this questionnaire and that, to the best of my knowledge and belief, such information is true, complete and accurate.

Steven A. Baer
NAME (printed)

Vice President
TITLE

Steven A. Baer
SIGNATURE OF AUTHORIZED REPRESENTATIVE

1990 April 25
Yr. Mo. Day
DATE APPLICATION SIGNED

18. U.S.C. Section 1001 provides that:

Whoever, in any matter within the jurisdiction of any department, or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious or fraudulent statement or representation, or makes or uses any false writing or document knowing same to contain any false , fictitious or fraudulent statement or entry, shall be fined not more than $10,000 or imprisioned not more than five years, or both.

APEX CHEMICAL CO., Inc.

200 SOUTH FIRST STREET
ELIZABETHPORT, N. J. 07206
Telephone: (201) 354-5420

April 20, 1977

Mr. Robert Zederbaum
Elson T. Killam Associates Inc.
27 Bleeker Street
Millburn, New Jersey 07041

Dear Mr. Zederbaum:

Enclosed please find the completed Industrial Waste Questionnaire regarding the "Joint Meeting Maintenance in the Matter of an Outlet Sewer and Treatment Plant for Certain Municipalities in Essex and Union Counties" and the supporting analytical data as received from Princeton Aqua Science.

We are also enclosing an invoice from Princeton Aqua Science in the amount of $90.00 for which we would like to know if APEX is entitled to be reimbursed for this added expense.

We hope the attached complies with your request.

Very truly yours,

APEX CHEMICAL CO., INC.

Steven A. Baer

SB:rf
Enc.

BBB000002

INDUSTRIAL WASTE QUESTIONNAIRE

1. Plant Name Apex Chemical Co. Inc.

2. Address 200 South 1st Street, Elizabethport, N.J.

3. Person to whom further inquiries should be directed:

Steven A. Baer (Name) — Office Manager (Title) — 354-3420 (Telephone)

4. Type of waste or sewage discharge (place an X in applicable box):

a) ☐ Sanitary Wastes Only

b) ☐ Sanitary and Process Wastes

c) ☐ Cooling Water

d) ☐ All of the above

5. Number of employees as this location 40.

6 Industrial wastes information:

If 4a was checked, sign the questionnaire and return.
If 4b was checked, please answer the following questions.

Type of industry Specialty Chemicals for Textile Industry

8 Primary S.I.C. Classification _____.
(4 digits--from 1976 issue of the Standard Industrial Classification Manual)

9. Principal product: Surface active agents such as detergents and alkalies. Quantity: varies

10 Principal raw material: _____ Quantity: _____

Days & Hours per week of manufacturing operation 5 Days 8 hours

11. Flow: Indicate the volume of water discharged into the municipal system in thousands of gallons per day and whether this discharge is intermittent or continuous: 17653.8

approx 8000 gallons per day (Intermittent) Continuous

12. Is pretreatment practiced prior to entering the municipal system?

(Yes) No

If yes, indicate how this is accomplished discharged water is neutralized.

13. Plant water supply--water received (in gallons or cubic feet) in the most recent calendar quarter:

_____ gallons-public supply _____ gallons-private wells

141,600 cubic feet " _____ cubic feet "

-/77

Characteristics of Plant Discharge to Sanitary Sewer, River, or Ditch, a
reatment, if any. Indicate units of measure where applicable (e.g., mg/l).

a) pH: ~~7.2~~ 6.9 b) Turbidity: less than 5

c) Temperature: 16 °C d) Radioactive? Yes ____ No X

e) Solids Concentration:

1) Total Solids 169 Volatile 14 Mineral 155

2) Suspended Solids 43 Volatile 3 Mineral 40

f) Oil and Grease Concentration:

1) Floatable Oils 5.7

2) Emulsified Oils 0.5

g) Chlorides 33

h) Chemical Oxygen Demand (C.O.D.): 24

i. 5-day Bio-chemical Oxygen Demand (B.O.D.): 2.0

Metallic Ions - Name and concentration (Important-list each metal in wa
Cadmium, Chromium Hex. and Triv., Lead, Mercury, Copper, Vanadium, Nicke

None introduced

- Toxic Material - Name and concentration (e.g., cyanide salts, arsenic, ch
organics, etc).:

None introduced

Solvents - Name and concentration: Trace quantities of aromatic, aliphatic, and chlorinated solvents occasionally

m Resins - Name and concentration (Lacquers, Varnishes, Synthetics):

Trace quantities of aminoplasts occasionally

and time of sample: 4/12/77 9:00 AM

you pretreat any waste before discharge? Yes

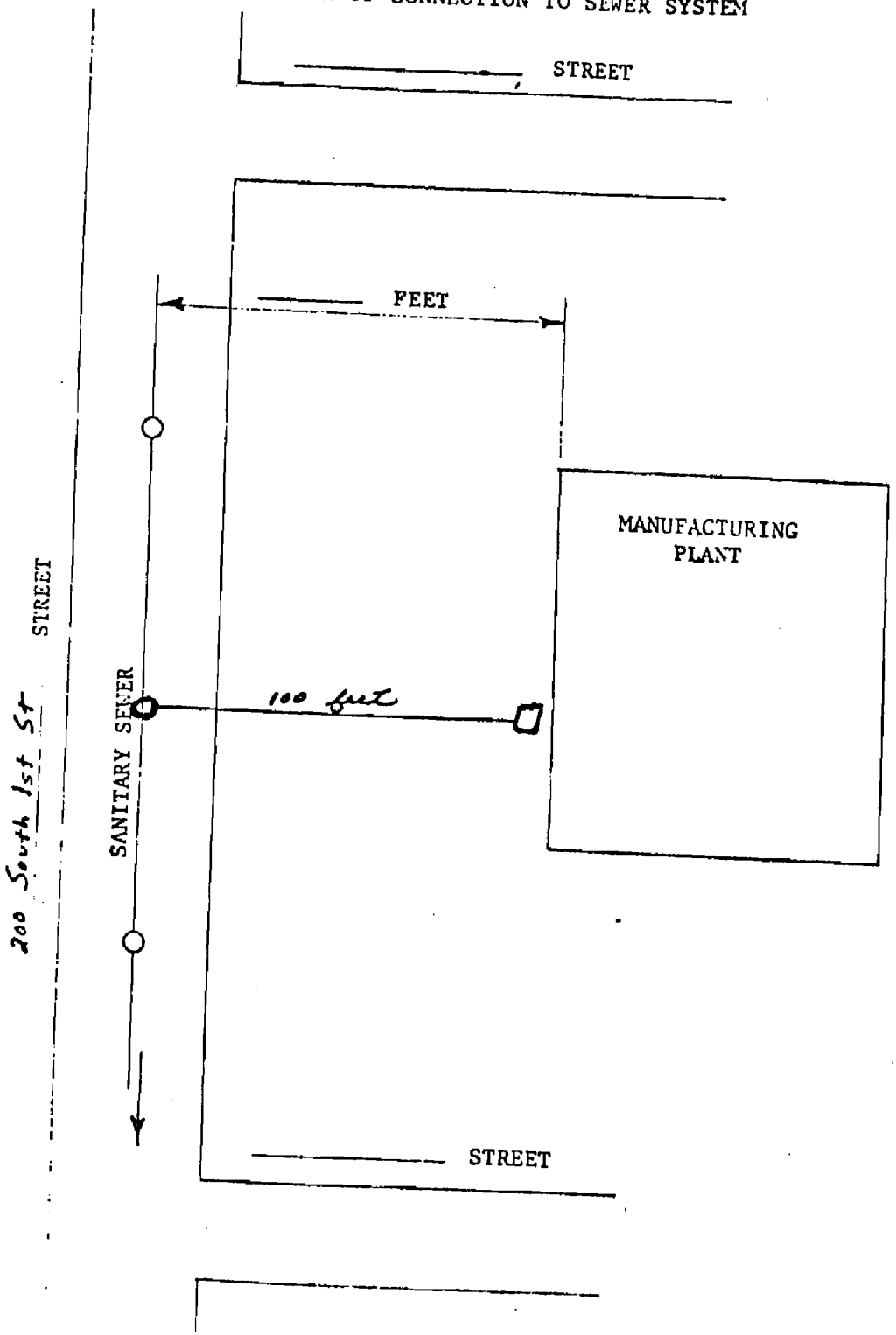
If so, describe process and disposal of residue removed:

Water is neutralized before discharge into system

ertification of Laboratory doing sampling and making analyses shall
cedures shall be those shown in the 14th edition of Standard Methods
ation of Water and Wastewater, where applicable. If no procedure is
laboratory is to describe method and procedure used in analysis.

Signature and title of person pre

SKETCH OF CONNECTION TO SEWER SYSTEM



PLEASE INDICATE ALL CONNECTIONS TO SANITARY SEWER AND LOCATION OF MANHOLES ON YOUR BUILDING CONNECTION

INDUSTRIAL WASTE CONTRIBUTION TO MUNICIPAL SYSTEM

I certify that I am familiar with the information contained in this questionnaire and that, to the best of my knowledge and belief, such information is true, complete and accurate.

Steven A. Baer
Name

Office Manager
Title

Steven A. Baer
Signature of
Authorized Representative

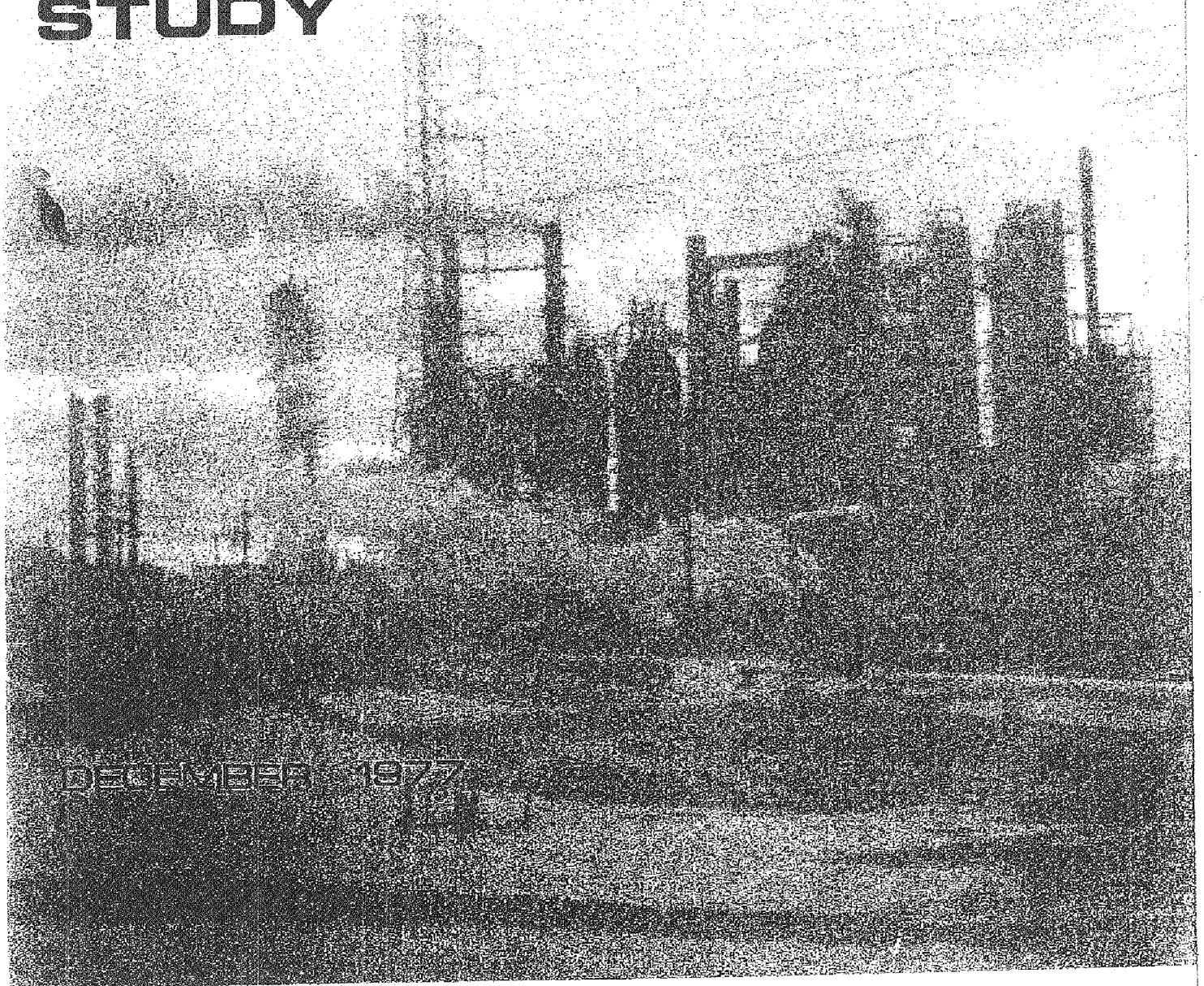
77 4 12
Yr Mo Day
Date Application Signed

18. U.S.C. Section 1001 provides that:

Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious or fraudulent statement or representation, or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than $10,000 or imprisoned not more than five years, or both.

JOINT MEETING OF ESSEX AND UNION COUNTIES
NEW JERSEY

HEAVY METALS SOURCE DETERMINATION STUDY



DECEMBER 1977

Elson T. Killam Associates, Inc.
Environmental and Hydraulic Engineers

REPORT UPON

HEAVY METALS SOURCE DETERMINATION

STUDY

December 1977

Elson T. Killam Associates, Inc.
Environmental and Hydraulic Engineers
Millburn, New Jersey 07041

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LETTER OF TRANSMITTAL

Elson T. Killam Associates Inc.

27 Bleeker Street, Millburn, New Jersey 07041
Telephone (201) 379-3400

Environmental and Hydraulic Engineers

Emil C. Herkert, P.E.
President

December, 1977

Mr. Edward P. Decher
Executive Director
Joint Meeting
105 Mill Road
Irvington, New Jersey 07111

Re: Letter of Transmittal - Joint Meeting of Essex and Union Counties, Heavy Metals Source Determination Study

Dear Mr. Decher:

In accordance with our Agreement with the Joint Meeting of Essex and Union Counties, we are submitting herewith a report entitled: "Heavy Metals Source Determination Study". Forming an integral portion of this report is Appendix D, under separate cover.

The results of the heavy metal analysis as contained in this submittal has been incorporated in the Land Based Sludge Management Plan upon which a public hearing was held on February 22, 1978.

Your attention is particularly directed to the Summary (pages S-1 through S-2) and Conclusions (pages XII-1 through XII-8).

Very truly yours,

ELSON T. KILLAM ASSOCIATES, INC.

Emil C. Herkert, P.E.
President

Robert B. Zederbaum, P.E.
Project Engineer

ECH:bvb
Enclosure

SUMMARY

JOINT MEETING OF ESSEX AND UNION COUNTIES

HEAVY METALS SOURCE DETERMINATION STUDY

SUMMARY

The goal of wastewater treatment is not to completely eliminate heavy metals but rather to reduce concentrations approximately to ambient levels. The purpose of this report is to show that metals are, in fact, present in the Joint Meeting of Essex and Union Counties (J.M.E.U.C.) Treatment Plant wastewater, determine the amounts of metals present, who the major contributors are, and if institution of pretreatment can reduce heavy metals concentrations to acceptable levels for ultimate land disposal of the sludge.

Industrial waste surveys, sampling, and laboratory analyses were utilized to determine industrial heavy metals quantities in the J.M.E.U.C. wastewater. Field sampling and laboratory analyses were also conducted to determine toxic organics in the wastewater stream, heavy metals contribution from residential sources, and urban runoff contribution of heavy metals.

Below is a summary of the findings of this study.

Metal	Total Heavy Metals (#/Day)	Indust. Heavy Metals (#/Day)	Resid. Heavy Metals (#/Day)	Urban Runoff Heavy Metals (#/Year)	Anticip.* Heavy Metals in Sludge (#/Day)	Maximum Permissable Concentrations NJ DEP (#/Day)
Cadmium	12.11	11.64	0.47	225.0	2.4	1.7
Chromium	80.03	79.61	0.42	1282.0	44.7	68.0
Copper	227.79	213.90	13.89	1985.0	106.2	68.0
Nickel	44.50	42.90	1.60	697.0	17.6	13.0
Lead	62.98	57.96	5.02	3670.0	44.0	68.0
Zinc	313.89	294.39	19.50	5907.0	148.2	171.0
Mercury	0.96	0.90	0.06	21.7	0.7	0.7

* Quantities based upon start-up of Secondary Treatment Facilities and institution of industrial pretreatment systems. Quantities do not include heavy metals contribution from urban runoff.

Based upon this study and the information located to date, the digested sludge which will be generated at the Joint Meeting of Essex and Union Counties Treatment Plant upon start-up of the new facilities and institution of pretreatment processes by major contributors will not meet the maximum permissable concentration limits as set forth by the New Jersey Department of Environmental Protection and will not be acceptable for land application.

APPENDIX C

JOINT MEETING OF ESSEX AND UNION COUNTIES - HEAVY METAL SOURCE DETERMINATION
INDUSTRIAL CONTRIBUTION
EAST ORANGE

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	TOTAL CADMIUM LBS/DAY	TOTAL CHROMIUM LBS/DAY	TOTAL COPPER LBS/DAY	TOTAL NICKEL LBS/DAY	TOTAL LEAD LBS/DAY	TOTAL ZINC LBS/DAY	TOTAL MERCURY LBS/DAY
120	HARVARD PRINTING CO 55 SANFORD ST EAST ORANGE	0.0102*	0.0000	0.0000	0.0000	0.0000	0.0002*	0.00000
195	TOP JOB CAR WASH 331 CENTRAL AVE EAST ORANGE	0.0000	0.0000	0.0046*	0.0063*	0.0513*	0.0304*	0.00002*
MUNICIPAL INDUSTRIAL HEAVY METAL SUB-TOTAL LBS/DAY		0.0102	0.0000	0.0046	0.0063	0.0513	0.0306	0.00002

* RESULTS OBTAINED FROM E.T. KILLAM ASSOCIATES, INC. LABORATORY ANALYSES

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JOINT MEETING OF ESSEX AND UNION COUNTIES - HEAVY METAL SOURCE DETERMINATION
INDUSTRIAL CONTRIBUTION
ELIZABETH

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	TOTAL CADMIUM LBS/DAY	TOTAL CHROMIUM LBS/DAY	TOTAL COPPER LBS/DAY	TOTAL NICKEL LBS/DAY	TOTAL LEAD LBS/DAY	TOTAL ZINC LBS/DAY	TOTAL MERCURY LBS/DAY
360	ALEXIAN BROTHERS HOSPITAL 655 E JERSEY AVE ELIZABETH	0.0000	0.0000	0.1056*	0.0000	0.0260*	0.2216*	0.00002*
420	ALPHA WIRE CORP 711 LIDGERWOOD AVE ELIZABETH	0.0000	0.0000	0.0231*	0.0000	0.0000	0.0046*	0.00000
540	APEX CHEMICAL CO INC 200 S 1ST ST ELIZABETH	0.0000	0.0000	0.0961*	0.0000	0.0067*	0.0334*	0.00014*
550	ARCHER-DANIELS-MIDLAND CO 554 S FRONT ST ELIZABETH	0.0000	0.0006	0.0000	0.0000	0.1751	0.0000	0.00000
670	BERKOWITZ PRESS 408 MORRIS AVE ELIZABETH	0.0000	0.0000	0.0026*	0.0002*	0.0006*	0.0065*	0.00000
860	BURRY DIVISION, QUAKER OATS CO 963 NEWARK AVE ELIZABETH	0.0000	0.0000	0.1782	0.0000	0.0049	0.7820	0.00000
1020	CHEVRON USA INC 330 S. FRONT ST ELIZABETH	0.0000	0.0000	0.0039*	0.0000	0.0043*	0.0094*	0.00001*
1110	CONNELLY-GPM,INC 200 S. SECOND ST ELIZABETH	0.0000	0.4258	0.3163*	0.2311*	0.6204*	0.0608*	0.00000
1120	CONTAINER RING CO INC 855 WOODRUFF LA ELIZABETH	0.0000	0.0000	0.0012*	0.0000	0.0000	0.0008*	0.00000
1180	COTT BOTTLING CO OF NJ INC 535 DOND AVE ELIZABETH	0.0000	0.0000	0.0417*	0.4504*	0.0000	0.3670*	0.00000
1280	DEKA PLASTICS INC 914 WESTFIELD AVE ELIZABETH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0040*	0.00000
1320	DIEBOLD CO 700 DOND AVE ELIZABETH	0.0009*	0.0000	0.0362*	0.0000	0.0054*	0.0226*	0.00000
1352	DRUGS INC 200 ELMORA AVE ELIZABETH	0.0000	0.0176	0.5415	0.0000	0.0000	4.9417	0.06725
1450	ELIZABETH GENERAL HOSPITAL 925 E JERSEY ST ELIZABETH	0.0000	0.0000	0.1110*	0.0000	0.0000	9.4369*	0.00000

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	TOTAL CADMIUM LBS/DAY	TOTAL CHROMIUM LBS/DAY	TOTAL COPPER LBS/DAY	TOTAL NICKEL LBS/DAY	TOTAL LEAD LBS/DAY	TOTAL ZINC LBS/DAY	TOTAL MERCURY LBS/DAY
1550	ENKAY CHEMICAL CO 319-325 2ND ST ELIZABETH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0041*	0.00002*
1805	GARDEN STATE CLARKLIFT INC 565 DOWD AVE ELIZABETH	0.0000	0.0000	0.0025*	0.0000	0.0000	0.0017*	0.00000
2075	HAYWARD MANUF CO-PLANTS 5 & 6 628 HENRY ST ELIZABETH	0.0000	0.0088	0.0248*	0.0039	0.0881*	0.0550*	0.00000
2390	JEFFERSON SCREW CORP 720 DOWD AVE ELIZABETH	0.0000	0.0053*	0.0159*	0.0000	0.0000	0.0064*	0.00003*
2880	MARVA INDUSTRIES INC 545 DOWD AVE ELIZABETH	0.0000	0.0000	0.0491*	0.0000	0.0000	2.0164*	0.00090*
2960	METAL LITHO CORP 582-612 PROGRESS ST ELIZABETH	0.0000	0.0027	0.0108	0.0000	0.0000	0.0309	0.00274
2970	METAL POWDER & CHEMICAL WORKS INC 701 SPRING ST ELIZABETH	0.0000	0.0000	42.4152*	0.0159	0.0000	24.3888	0.00000
3035	MILTON GEORGE A CAN CO INC 580 DIVISION ST ELIZABETH	0.0000	0.0000	0.0730*	0.0000	0.0000	0.0209*	0.00005*
3145	NATIONAL AUTO LAUNDRY 323 RAHWAY AVE ELIZABETH	0.0000	0.0000	0.0038*	0.0042*	0.0288*	0.0242*	0.00008*
3175	N J BELL TELEPHONE 1192-6 E GRAND ST ELIZABETH	0.0000	0.0021	0.0090	0.0000	0.0000	0.0196	0.00673
3250	O K TOWEL & UNIFORM CO 65 CHERRY ST ELIZABETH	0.0125*	0.0438*	0.1251*	0.0313*	0.4066*	0.6755*	0.00050*
3265	OGDEN FOOD SERVICE CORP 888 NORTH AVE ELIZABETH	0.0000	0.0000	0.0050*	0.0000	0.0000	0.0008*	0.00000
3350	PAPETTIS HYGRADE EGG CO 847 NORTH AVE ELIZABETH	0.0000	0.0000	0.0000	0.0000	0.0000	0.1718*	0.00013*
3370	PAR-WAY MFG CO 596 BERCIK ST ELIZABETH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0023*	0.00000
3470	PHARMA CAPS INC 1111 JEFFERSON AVE ELIZABETH	0.0015*	0.0000	0.0439*	0.0088*	0.0658*	0.1170*	0.00007*

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CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	TOTAL CADMIUM LBS/DAY	TOTAL CHROMIUM LBS/DAY	TOTAL COPPER LBS/DAY	TOTAL NICKEL LBS/DAY	TOTAL LEAD LBS/DAY	TOTAL ZINC LBS/DAY	TOTAL MERCURY LBS/DAY
3480	PHELPS-DODGE COPPER PRODUCTS CO 720 S FRONT ST ELIZABETH	0.1334	0.0000	46.3704	0.6672	1.3344	1.7681	0.04537
3510	PLASTIC EXTRUDED PRODUCTS 813 LIVINGSTON ST ELIZABETH	0.0000	0.0000	0.0000	0.0000	0.0000	0.0009*	0.00004*
3545	PORT AUTHORITY OF NY & NJ 1105 MCLESTER ST ELIZABETH	0.0000	0.0000	0.0694*	0.0000	0.0000	0.3931*	0.00051*
3700	REICHHOLD CHEMICALS INC 726 ROCKEFELLER ST ELIZABETH	0.0000	4.6704	0.2919*	0.4670*	1.1676*	2.5687*	0.00187*
3740	REYNAUD LTD 400 TRUMBULL ST ELIZABETH	0.0000	0.0000	0.0060*	0.0000	0.0045*	0.0092*	0.00000
4030	THE SINGER CO 321 FIRST ST ELIZABETH	0.0000	12.1633	0.4977	0.2402	0.0000	0.0384	0.00000
4310	TENNECO CHEMICALS INC 830 MAGNOLIA AVE ELIZABETH	1.3136*	0.0417	3.0024*	1.6680*	15.2622*	7.3392*	0.14595*
4360	THOMAS & BETTS CO 36 BUTLER ST ELIZABETH	0.1576	0.0000	0.6042	0.0000	0.0000	55.9572	0.02233
4480	TRINITY BAG & PAPER CO INC 750 DOWD AVE ELIZABETH	0.0000	0.4594*	0.0585*	0.0000	1.4051*	0.0991*	0.00000
4640	VERNON ROYAL INC 801 NEWARK AVE ELIZABETH	0.0000	0.0009	0.0151*	0.0018	0.0995*	0.0133	0.00002
4650	WAFEFERN FOOD CORP 600 YORK ST ELIZABETH	0.0047*	0.0189*	0.0629*	0.0126*	0.0472*	0.2075*	0.00005*
4720	WILSON JONES CO 1000 SO ELMORA AVE ELIZABETH	0.0000	0.0000	0.0116*	0.0000	0.0000	0.0310*	0.00002*
	MUNICIPAL INDUSTRIAL HEAVY METAL SUB-TOTAL LBS/DAY	1.6242	17.8612	95.2256	3.8025	20.7532	111.8521	0.29483

* RESULTS OBTAINED FROM E.T. KILLAM ASSOCIATES, INC. LABORATORY ANALYSES