



March 12, 1999

Attorney Mal A. Salvadore Sondler Salvadore & Associates 400 Reservoir Avenue Suite 3G Providence, Rhode Island 02907

RE:

Phase I Environmental Site Assessment

Springfield Avenue Lots Providence, Rhode Island ATC Project No. 17646.00005

Dear Mr. Salvadore:

ATC Associates Inc. (ATC) has completed a Phase I Environmental Site Assessment for the above referenced site. This report includes the results of our findings from a visual reconnaissance, historical ownership and land use review, records and regulatory review, and related sources. ATC realizes that this report is to be used exclusively by Sondler Salvadore and Associates and can be relied upon by such party.

ATC appreciates the opportunity to be of service to you for this project. If you have questions about information in this report or if we can be of further assistance, please contact the undersigned at 401-274-3955.

Sincerely,

ATC ASSOCIATES INC.

Adam D. Sullivan, P.E.

Project Engineer

Steven Tassinari

Branch Manager

enclosure:

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

Springfield Avenue Lots Providence, Rhode Island

ATC-Providence Project No. 17939.0001

1.0 INTRODUCTION

On February 8, 1999, Mr. Mal Salvador of Sondler Salvadore and Associates authorized ATC Associates Inc. (ATC), to conduct a Phase I Environmental Site Assessment (ESA) at several lots generally located along Springfield Avenue, Seton Street, Killingly Street and Hartford Avenue in Providence, Rhode Island (the "site" - See Appendix A - Figures). The lots that define this study area are all located on Plat Map No. 115. This evaluation was conducted in accordance with the most recent ASTM Standard Practice for Phase I Environmental Site Assessments (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, E 1527-97).

This assessment was undertaken to identify areas of potential environmental concern or evidence of chemical contamination within the limits of the site and/or as visually observed immediately adjacent to the site on the day of our field investigation. In accordance with the above referenced agreement, ATC performed a walk-through investigation of the site and structures, noted the use of adjacent properties, and conducted a historical and regulatory records search. A more detailed description of the scope of services follows:

1. Visual observations of the site buildings and grounds were made to identify potential sources or indications of chemical contamination such as underground storage tanks (USTs), aboveground storage tanks (ASTs), potential sources of polychlorinated biphenyls (PCBs), chemical and hazardous materials, areas with surface stains, or distressed vegetation. In addition, adjacent properties were observed from the site, without being

entered, for possible sources of contamination or environmental impairment which could migrate to the site via surface water runoff, groundwater transport, or other pathways.

- 2. Historical information was reviewed to identify previous owners/occupants who possibly used, generated, stored, treated, or disposed of chemicals or hazardous materials on site. A review of historical Sanborn Fire Insurance Maps covering the site area was conducted to evaluate previous land usage, which may have led to a potential environmental impact.
- 3. Site representatives and other persons familiar with the site were interviewed regarding the possible past or present use of potentially hazardous materials at the site.
- 4. The following regulatory databases were reviewed to identify use, generation, storage, treatment, or disposal of hazardous materials, or releases of such materials that may impact the site:
 - United States Environmental Protection Agency's (USEPA) National Priorities List (NPL):
 - Comprehensive Environmental Response, Compensation and Liability Act Information System (CERCLA);
 - Emergency Response Notification System (ERNS);
 - Resource Conservation and Recovery Act Information System Treatment, Storage and/or Disposal (RCRIS-TSD);
 - RCRIS Large Quantity Generators (LQG);
 - RCRIS Small Quantity Generators (SQG);
 - Rhode Island spills database;
 - ➤ Rhode Island Department of Public Safety's Underground Storage Tank (UST) database;
 - Rhode Island databases of sites that is equivalent to the Federal CERCLIS database;
 and
 - Rhode Island solid waste disposal facilities database.

A Site Locus Map (Figure 1) and Site Plan (Figure 2) are included in this report. Photographs documenting conditions encountered during the site visit are included in Appendix A. Section 8.0 includes a list of referenced documents.

2.0 PHYSICAL SITE DESCRIPTION

Mr. Adam Sullivan and Ms. Christine Keating conducted a site visit on February 10, 1999. At the time of the site visit the outdoor temperature was approximately 30 degrees Fahrenheit and sunny skies prevailed over the site area.

2.1 General Site Conditions

The site, located in the western end of the city of Providence, and is generally confined between Hartford Avenue, Springfield Street, and Killingly Street. A number of paper roads transect the site and are physically identified in some cases by footpaths. The paper roads are identified as Milo Road, Wright Street, Diana Road, Stanfield Street, Woodfall Street. Thornton Street, Emperor Street, Seton Street, and Buchard Street. One hundred and five individual lots, all of which are depicted on the Providence Tax Assessor's Plat Map No. 115, comprise the site. The lot numbers, addresses, and square footage of each lot are inventoried in Appendix B. The 105 lots combine for a total land area of 8.61 acres.

Since the site is undeveloped with no visual evidence of structures, ATC's site visit was performed by traversing the site by foot. Some areas of the site were not accessible due to heavy vegetation. The site visit commenced at the southern tip of the site, which was physically defined by the footpath demarking Seton Street. Evidence of yard waste dumping was observed in this area. Proceeding northerly, three piles of sandy gravel were observed to the north of Buchard Street. According to a nearby resident the gravel piles are clean fill taken from an off-site source by a landscaping company. No direct evidence (staining odors, etc) was observed to suggest that the soil is impacted. Additional areas of yard waste disposal mixed with wooden debris were observed on lots 117 through 126. These lots abut residential property and form, in part, the southwestern boundary of the site.

Further to the north is a sparsely vegetated clearing. The land surface in this area is sandy and is different in texture and vegetation than the surrounding area. Based on these visual observations and aerial photographic interpretation, this material is suspected to have been placed on the site rather than a naturally occurring surficial formation. Subsequent subsurface evaluations, however, refuted this observation.

The thickness of the vegetation increases beyond the sparsely vegetated cleared area to the north, but a number of footpaths provided access for our assessment. Within the northern area, ATC observed glass, wood, tires, empty drums, and miscellaneous debris in various locations. These areas were observed to be non-contiguous, limited in aerial extent, and limited in number. The debris and solid waste observed were not suggestive of dumping of an industrial nature, but rather of household waste. In addition to the surficial waste observed, half-buried tires were observed, which is suggestive of subsurface disposal.

2.2 Geology and Hydrogeology

According to the U.S.G.S. 7.5-minute series Topographical Map of the Providence, Rhode Island-Rhode Island Quadrangle, the elevation of the site is approximately 70 to 90 feet above mean sea level (MSL). Topography in the site area is generally flat. Overburden groundwater flow is expected to mimic the local topographic conditions and flow towards the northeast. Subsequent references to groundwater flow direction in this report are based on the anticipated northeasterly flow pattern estimated according to regional topography. Heterogeneous recharge conditions, subsurface geology, and subterranean conduits (pipelines, etc.), however, may influence groundwater gradients.

According to the "Geologic Map of the Providence Quadrangle, Rhode Island, Surficial Geology" the surficial geology in the site area is characterized as Valley Train deposits which are defined as stratified sand and gravel deposited by glacial streams in the valley bottom.

Beneath the Valley Train deposits is the Mussey Brook schist bedrock formation. According to the "Geologic Map of the Providence Quadrangle, Rhode Island, Bedrock Geology", the Mussey Brook schist formation consists of green to greenish-gray, fine-grained, thin-bedded chlorite-quartz schist, but includes thin beds of thorneblende schist, biotite schist, quartzite, marble, greenstone, steatite, and serpentine. The map includes a narrative of the geochemical components of the formations and details the results of reported bedrock observations. The following appears in the narrative:

"Discontinuous lenses of serpentine and impure asbestos were exposed in excavations for a housing development 700 feet southwest of Hartford Avenue at the Providence city line."

No additional information was available concerning the location of this observation. While it is possible that such conditions exist beneath the site area, it is unlikely that persons coming into contact with the site would be exposed to asbestos since approximately 60 feet of overburden material overlays the bedrock surface. Future development of the site should consider bedrock conditions with regard to the design of foundation elements.

2.2 Storage Tanks

2.2.1 Underground Storage Tanks (USTs)

ATC reviewed records at the Providence Fire Department pertaining to underground and aboveground storage tanks for the site and site area. With the exception tanks registered in conjunction with the operations at Tom and Fred's Service Station, neither the Providence Fire Department nor the Rhode Island Department of Environmental Management's database of underground storage tank sites (refer to Section 5.2) lists registered tanks for the site. Tom and Fred's Service Station operated at the southwestern corner of the intersection of Hartford

and Springfield Avenues.

According to the Providence Fire Department, four tanks were located at the site. Three tanks were in place approximately 43 years and one was in place for approximately 10 years prior to removal. The Rhode Island Department of Environmental Management issued a Certificate of Closure for the removal of tanks.

2.2.2 Aboveground Storage Tanks (ASTs)

Visual evidence that would indicate past or present ASTs on site, such as a concrete foundation or containment walls, pedestals, or steel support structure, was not apparent during the site visit.

2.3 Polychlorinated Biphenyls (PCBs)

Polychlorinated Biphenyls (PCBs) are toxic coolants or lubricating oils used in some electrical transformers, light ballasts, hydraulic equipment or other similar equipment. The federal government has categorized PCB content in electrical transformers in three groups:

0 - 50 ppm

non-PCB unit

50 - 500 ppm

PCB contaminated unit

>500 ppm

PCB unit

Utility companies often own transformer equipment and typically assume the responsibility for repair or replacement of damaged or leaking units and for required cleanup or remediation activities. Indications of damage or leakage should be immediately reported to the responsible utility company. No hydraulic containing equipment was observed at the site.

2.4 Asbestos-Containing Materials (ACMs)

Since no structures are present at the site an asbestos survey was not performed.

2.5 Utilities

The following utilities are located in the site area: electrical service is provided by Narragansett Electric, natural gas is provided by Providence Gas Company, sanitary and storm sewers are maintained by the Narragansett Bay Commission, and water is provided by the City of Providence. The sanitary and storm sewers are located beneath Stanfield Street, a paper road that transects the site.

2.6 Waste and Chemicals

Based on site observations, interviews, and historical information the site received municipal garbage from the mid-1960's to the mid-1970's. Most descriptions of the fill material characterize it as containing bottles and cans. The Rhode Island Department of Environmental Management has indicated that auto shredding waste material has also been deposited at the site. Auto shredding waste is known to contain polychlorinated biphenyls. Observations of the fill material were made possible through the excavation of test pits. Generally, the fill was observed to consist of bottles, shoes, cans, tires, mattress springs, appliances, and metallic debris.

2.7 Radon

According to Mr. Ed Arcand of the Rhode Island Department of Public Health's Radon Control Division, the likelihood of detecting radon in the State of Rhode Island at a concentration exceeding the USEPA exposure threshold of 4 pico-curies per liter is 23 %.

Mr. Arcand noted the RIDOH does not maintain records indicating community-specific radon levels throughout the state. Accordingly, ATC was unable to evaluate potential radon exposure for the project area or for the City of Providence.

3.0 PREVIOUS ASSESSMENTS

No previous environmental site assessment reports concerning the site were identified by ATC during this assessment.

4.0 ADJACENT LAND USE

The site is located in a commercial/residential area in western Providence. Commercial establishments including a restaurant, a community center, a church, and a former gasoline station are located along Hartford Avenue to the north of the site. Properties abutting the balance of the property are used for residential purposes.

No obvious environmental concerns were noted on the adjacent properties at the time of the site visit.

5.0 SITE HISTORY AND RECORDS REVIEW

Past land uses were investigated to identify historical practices or conditions which may have impacted the site. This included interviews with residents in the site area, a review of Sanborn Fire Insurance Maps, Polk City Directories, aerial photographs and Providence property records. Regulatory records were also reviewed to determine if the site or other facilities within ASTM-specified search distances are or have been subject to regulatory action by federal, state or local environmental agencies.

5.1 Prior Ownership and Usage

Prior ownership records were not reviewed as part of this assessment due to the number of lots that comprise the site. Providence Tax Assessor Plat Maps, however, were reviewed to evaluate if the individual lots were once part of one or several larger parcels. Based on the assessors maps reviewed the lots have been in their current configuration since at least 1910. The 1910 assessor's map, which was the earliest assessor's map identified in our research, depicts the site lots as they appear today.

Our review of the historical records identified below indicates that the site was primarily undeveloped wooded land. In approximately 1965, municipal solid waste was deposited beginning in the northern portion of the site and continuing to the south. It was at this time that the city of Providence closed a trash incinerator. The filling was substantially completed in the mid-1970's. From this time to the present, vegetation has grown over the filled area, taking root in the cover soil that was used to entrain the solid waste.

The following sections include our specific findings, relative to the historical records consulted.

5.1.1 Polk City Directories

Polk City Directories list occupants of properties by address for a specific year. ATC reviewed Polk City Directories for the years 1945, 1950, 1955, 1960, 1965, 1970, 1974-5, 1980, 1985, 1990, 1993, and 1998. These directories and others are maintained at the Rhode Island Historical Society Library. The information contained in the street directories is consistent with information identified in other historical records. Specifically, no occupants are listed for the individual lots that are located along the paper roads that comprise the site. Residential property is identified along the western, southern, and eastern perimeter of the site. A former gas station, "Tom and Fred's Service Station" (1960 to 1998) preceded by "Thomas A. Tarro Gas Station" (Prior to 1945 to 1955) occupied 618 Hartford Avenue. The address corresponds to the southwestern corner of the intersection of Hartford Avenue and Springfield Avenue.

5.1.2 Sanborn Fire Insurance Maps

ATC reviewed Sanborn Fire Insurance Maps covering the site area from various years ranging from 1921 to 1982. The maps were reviewed at the Rhode Island Historical Society Library. The Sanborn Maps correlate with the Polk City Directories in that no development is depicted in the site area, residential properties abut the site to the west south and east, and a gasoline or filling station is located at 618 Hartford Avenue. No additional information is identified on the Sanborn Maps.

5.1.3 Aerial Photographs

ATC conducted a review of aerial photographs maintained at the Rhode Island Department of Administration's Office of State-Wide Planning. The photographs reviewed were taken over the site area in 1939, 1951, 1965, 1970, 1981, and 1992. In general, the photographs show

that a significant amount of fill was placed on the site between the years 1965 and 1970. Prior to 1965 the site area is characterized on the photographs as undeveloped vegetated land. In the photographs dated 1970 through the most recent photograph dated 1992, a vegetated surface was gradually reestablished. The photographic interpretation was supplemented by a review of historic USGS topographic maps maintained at the Rhode Island Historical Society Library. The maps show a significant depression in the northern portion of the site, approximately 20 feet below the ground surface on Hartford Avenue. Elevations in the southern portion of the site are not substantially dissimilar to the elevation contours that could be drawn today. Based on the evidence of filling adduced from aerial photographs, the historical depiction of topography on USGS maps and observations at the time of our site visit, it is likely that the depth of the fill may be twenty feet in the central portion of the site and less thick over the balance of the site.

Specific observations for each aerial photograph reviewed is presented below. Copies of the portion of the aerial photographs pertaining to the site area are presented in Appendix C.

1939

The 1939 photograph shows the site to be undeveloped and substantially vegetated. Three features are immediately evident upon first examination of the photograph. First, an unvegetated strip of land is exposed in the general location of the paper street known as Stanfield Avenue. According to Narragansett Bay Commission records a sanitary sewer line and a storm sewer line are located within the paper street. Residents interviewed as part of this assessment (refer to Section 5.1.4) indicated that prior to the filling that occurred on site these lines were located aboveground. It is likely therefore that the strip of unvegetated land corresponds to these aboveground sewer lines. The second feature is a roughly circular unvegetated area in the southern portion of the site. Based on the appearance of these features it was theorized that this area could potentially be a fill area. However, subsurface

investigations in this area do not reveal the presence of fill. Based on the results of the subsurface assessments in this area and in further consideration of the site topography it is likely that this area is not a filled area but rather an area in which sandy materials were excavated from prior to 1939. The third feature of note is Springfield Avenue, which is depicted as a dirt road.

<u> 1951</u>

The features depicted in the 1951 aerial photograph are similar to that depicted in the 1939 photograph, with the notable exception that the exposed ground shown along Stanfield Avenue and the roughly circular area depicted in the southern portion of the site are considerably more vegetated.

1965

The 1965 photograph shows the beginnings of filling in the northern portion of the site. This photograph depicts fill along the southern boundary of Hartford Avenue. While most of the northern portion of the site remains vegetated and undeveloped, the encroachment of the fill appears to be in a southwesterly direction beginning at the intersection of Hartford Avenue and Springfield Avenue. In the southern portion of the site features appear to be substantially similar to those depicted in previous photographs.

<u> 1970</u>

The 1970 photograph shows the northern portion of the property to be filled from Stanfield Avenue in the south to Hartford Avenue to the north. Filling is also evident in the southern portion of the site to the east of the roughly unvegetated area. The site appears to be unchanged between Stanfield Avenue and this southern are of the site.

1981 and 1992

The 1981 and 1992 photographs show the return of vegetation in the northern portion of the site and continued dumping in the southern portion of the site. The 1992 photograph shows substantially more vegetation than the 1981 photograph and no additional areas of fill are discernable over that observed in the 1981 photograph.

5.1.4 Interviews

ATC spoke with several residents in the site area. Mr. Raymond Mandarelli resides along the eastern side of Springfield Avenue and slightly south of the site. He has resided in the site area since 1954, but not exclusively at his present address. Mr. Mandarelli witnessed the dumping that occurred at the site, which he indicated occurred primarily between 1965 and 1967. It was at that time that the City of Providence's trash incinerator located in South Providence was closed. Municipal waste previously sent to the incinerator was then landfilled by the city in several areas within the city limits. The site was one of these areas.

Mr. Mandarelli indicated that prior to this time, the northern portion of the site was approximately 15 to 20 below its current elevation. Additionally the northern portion of the site would often flood to the extent that standing water would be present for several weeks in the spring. Springfield Avenue was also considerably lower in elevation than it exists today. Manholes found within the street, were at one time extended approximately five feet above the ground surface.

Mr. Madarelli recalled common garbage trucks depositing garbage at a constant rate during those two years. When asked, Mr. Mandarelli could not recall tanker trucks or vehicles other than garbage trucks depositing fill at the site.

While Mr. Madarelli witnessed the development of the site from the east Ms. Ethyl Friedman witnessed the development from the West. Ms. Friedman resides adjacent to the site and along Woodfall Avenue. Ms. Friedman indicated that the filling generally occurred in the mid-1960's and early 1970's. The garbage dump created significant odors and was a breeding ground for rats. She on several occasions registered complaints to the city to that effect and lobbied for adequate cover material to mitigate odors and to control the rat population.

5.2 Regulatory Review

5.2.1 Federal and State

A review of database listings from federal, state, and local environmental regulatory agencies was conducted to identify use, generation, storage, treatment or disposal of hazardous substances and chemicals or release incidents of such substances which may impact the site. New England DataMap Technology Corporation (New England DataMap) provided the federal and state environmental database report to ATC. The environmental database report lists addresses of the properties located within the search radius and the approximate distance and direction. A copy of the database report is included in Appendix D. Records obtained from a non-government agency source should have been updated within 90 days of the date the government agency last made the information publicly available. Information is presented in the manner (and spelling) archived in the records as they are presented by the commercial database provider.

Please note that the potential for the facilities identified by the database review to environmentally impact the site was evaluated solely on the distance and presumed topographic orientation (with respect to groundwater flow) relative to the site. Each facility's presumed topographic orientation was determined solely by a review of available USGS topographic

maps. Attempts were made to verify the actual groundwater flow through review of regulatory agency files regarding the identified facilities.

The New England DataMap report includes a section entitled "non-geocoded". The locations of these facilities listed in this section cannot be mapped due to incomplete or inaccurate information contained in the respective government database. ATC reviews this section and compares the names and addresses (if available) with information generated during the neighborhood vehicular reconnaissance. If the cross-reference cannot be made, it is assumed that the facilities are not within the search radius.

The federal and state databases listed in the following table have been reviewed to obtained information pertaining to the site and properties within the listed approximate search distance. The month and year each database was last updated is also included.

Table I Regulatory Database Re	eference		
Government Database	Last Updated	Search Distance	Number Found
National Priority List (NPL)	1/19/99	1 mile	0_
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	9/30/98	0.5 miles	1
Resource Conservation and Recovery Act (RCRA) – Treatment, Storage and/or Disposal (TSD) facilities	1/19/99	1 mile	0
RCRA - Large and Small Quantity Generators (LQG & SQG)	1/19/99	Site and Abutters	1
Emergency Response Notification System (ERNS)	1/22/99	Site and Abutters	0
Rhode Island Department of Environmental Management (RIDEM) database of State sites	6/11/98	1 mile	9
Rhode Island Solid Waste Landfill Database	4/1/98	l mile	0
RIDEM database of Underground Storage Tanks	10/22/98	Site and Abutters	7
RIDEM database of Leaking Underground Storage Tanks	9/21/98	0.5 Miles	5

ATC evaluated the list of properties listed on the databases listed above for potential impacts to the site. Based on the review of the location and distance of these properties with respect to the site it likely that environmental liabilities located thereon will not impact the site.

One site listed on the database pertains to the site (Tom and Fred's Service Station). Tom and Fred's Service Station is listed as a leaking underground storage tank site and a registered underground storage tank facility. According to a report prepared by Szepatowski Associates Inc. four underground storage tanks were removed from the site. These tanks included two 275-gallon waste oil tanks containing waste oil and No.2 fuel oil and two 10,000-gallon tanks containing gasoline. All four tanks were removed from the site in 1997. During removal soil impacted by petroleum was encountered, stockpiled on site and removed from the site. Four monitoring wells were installed to assess the effectiveness of the removal action. The monitoring wells indicate that the groundwater gradient across the site is to the east. The Rhode Island Department of Environmental Management issued a letter stating no further action is required at the site to further investigate or remediate the petroleum release at the site.

The New England DataMap report contains a list of sites that are designated as non-geocoded sites. Non-coded sites are so designated due to the incompleteness of the information on file to plot an exact location on a map. ATC cross-referenced the addresses of the non-geocoded sites to the buildings and streets observed in the site area, if no correlation was made between the non-geocoded listing and the addresses in the site area, ATC assumed that the site was located beyond the site area and does not affect the site. Of the 66 non-geocoded sites one site was cross-referenced in the site area - The "Providence City Dump at Hartford, Eliza Street and Diana Street" site is a State site that potentially pertains in part to the subject property. ATC met with the Rhode Island Department of Environmental Management to discuss records the Department may have regarding the subject property. At the meeting, the Department produced maps that were generated in support of an investigation into the presence of auto fluff in the site area. The maps that were reviewed at the meeting showed areas of the nearby Eliza Street disposal area. No other records were produced at this meeting.

At the time of the printing of this report, the RIDEM notified ATC that additional records were recently found pertaining to the site. ATC has not extensively reviewed these records at this time, but will prepare an addendum to this report documenting our findings with respect to these records.

5.2.2 Local

ATC reviewed records maintained by the Providence Tax Assessors Office and Fire Department related to potential recognized environmental conditions at the site. Research at these municipal offices did not reveal evidence of potential environmental liabilities at the site or surrounding properties other than those identified elsewhere within this report.

6.0 LIMITED SUBSURFACE ASSESSMENT

Based on the substantial evidence that municipal solid waste was disposed at the site, ATC was authorized to complete a limited subsurface assessment that consisted of a metallic survey in the southern portion of the site and a subsurface sampling program that was completed via the excavation of approximately 20 test pits. The results of the study confirmed the evidence identified during this assessment that municipal solid waste was disposed at the site. The following describes the results of our subsurface assessments.

6.1 Magnetic Survey

During the initial stages of the Phase I Environmental Site Assessment ATC identified what appeared to be two distinct fill areas on the site. The first area included the entire northern half of the property, which appeared to be filled between 1965 and 1975. The second area was characterized in aerial photographs dating back to the late 1930's as a roughly circular area that was sparsely vegetated. Since the second area appeared different from the first, not only in age and location but also in appearance, ATC arranged for a magnetic survey. Coarse sand characterizes the surface of the southern suspected fill area. A magnetic survey was also planned for the northern half of the site, but due to inclement weather and the excavation of several test pits performed by a geotechnical engineering company that qualified the characteristics of the fill, the magnetic survey was not performed in the northern area.

The results of the magnetic survey, performed by Hager-Richter Geoscience Inc. of Salem, New Hampshire, in the southern portion of the site revealed two reflective anomalies located to the north and east of the circular suspected fill area. No magnetic anomalies were identified in the center of the suspected fill area. The location of the anomalies and the suspected fill area were further evaluated during the limited subsurface

assessment. The anomalies corresponded to metallic debris similar to that found in municipal waste landfills (i.e. white goods, metal trashcans, appliances, etc.). No waste was identified in the suspected fill area.

Upon further review of the topographic features¹ in this area coupled with the results of the metallic survey it is likely that this area was excavated and used as a material source prior to 1940. It is also likely that fill (garbage) was deposited at the northern and eastern perimeter of this circular area. The Hager-Richter Geoscience, Inc. report is included in Appendix E.

6.2 Limited Subsurface Assessment

The limited subsurface assessment was performed to identify the extent of the waste materials at the site and to qualify its chemical composition. Twenty test pits, located throughout the site, were excavated on March 3 and 4, 1999. Fleet Construction Company of Greenville, Rhode Island excavated the test pits. An ATC engineer was present to record observations of the fill material and to collect samples. From each test pit, one soil sample was collected for laboratory analysis for the following constituents:

- RCRA 8 Metals,
- Volatile Organic Compounds (EPA Method 8260),
- Polychlorinated Biphenyls (EPA Method 8080), and
- Total Petroleum Hydrocarbons (EPA Method 8015)

The samples were submitted to Con-Test Analytical Laboratory located in East Longmeadow, Massachusetts. Certificates of Analysis are presented in Appendix F and are summarized in the Table attached to this report.

Since the date of ATC's initial site visit, the site area has been cleared of vegetation. ATC Project No. 17646.00005

An analysis of the analytical results reveals the following:

- Total petroleum hydrocarbons, lead, and arsenic have been detected at concentrations exceeding the Method 1 Residential Direct Exposure Criteria. These criteria, which are applicable to school property, are used to evaluate risks to human health through contact (ingestion, inhalation, absorption through the skin, etc.). The GB Leachability Criteria is used to evaluate the risk to the environment that exists through the leaching of contaminants from the soil to groundwater. Of the constituents evaluated, none exceed the GB Leachability Criteria.
- Volatile organic compounds and polychlorinated biphenyls have been detected in the
 test pit soil samples, but at concentrations that do not exceed the Method 1 Residential
 Direct Exposure Criteria or the GB Leachability Criteria.

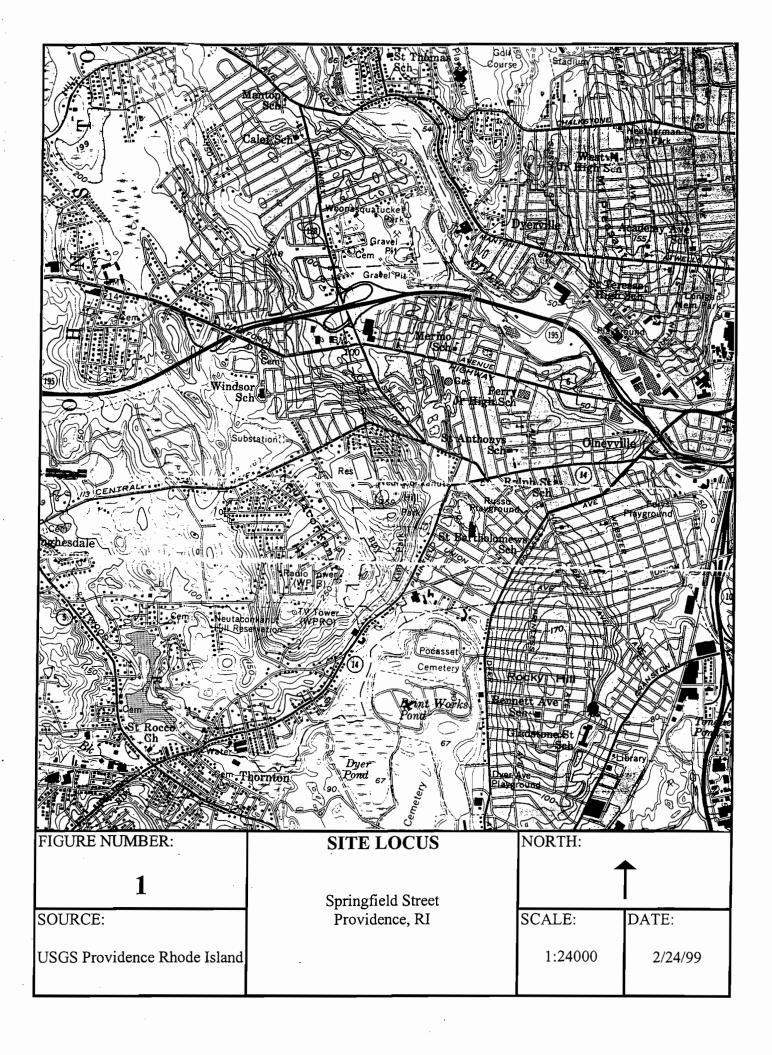
The samples were generally collected from a depth of 4 to 8 feet below the ground surface except in test pits where no fill was identified (ATC-2, ATC-4, ATC-5, and ATC-6). Despite the depth of the samples collected in the fill area, it is likely that similar concentrations would be detected in samples collected from a shallower or deeper depth as the fill material observed appeared to be similar throughout the excavation.

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APPENDIX A

FIGURES AND PHOTOGRAPHS

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7.0 CONCLUSIONS AND RECOMMENDATIONS

ATC has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E-1527 of the Springfield Avenue Lots (refer to Appendix B). This assessment has revealed no evidence of recognized environmental conditions with the property, except for the direct evidence of dumping that occurred from the mid-1960's through the mid-1970's.

To further evaluate the nature and extent of the fill material ATC performed a subsurface assessment that consisted of a magnetic survey and a test pit program. The results of this study indicated that lead, arsenic and total petroleum hydrocarbons were detected at concentrations exceeding the residential direct exposure criteria.

Based on these findings, ATC offers the following recommendations:

- 1. Pursuant to Rule 5.01 of the Remediation Regulations², the analytical results of the test pit samples should be provided to the Rhode Island Department of Environmental Management ("the Department"). Specifically, the results of the lead, arsenic and total petroleum hydrocarbon analysis that exceed Method 1 Residential Direct Exposure Criteria should be conveyed to the Department in the manner prescribed under Rule 5.02 of the Remediation Regulations.
- The results of the environmental studies performed to date should be incorporated into
 a Site Investigation report submitted to the Department. In addition to the information
 collected to date, ATC recommends that groundwater quality and soil gas be further
 evaluated.

ATC Project No. 17646.00005

² "Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases, Dated March 31, 1993 as Amended in August 1996.

8.0 QUALIFICATIONS

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with customary principles and practices in the fields of environmental science and engineering. This statement is in lieu of other statements either expressed or implied. This company is not responsible for the independent conclusions, opinions or recommendations made by others based on the records review, site observations and laboratory test data presented in this report.

It should be noted that environmental evaluations are inherently limited in the sense that conclusions are drawn and recommendations developed from information obtained from limited research and site evaluation. Subsurface conditions were not field investigated as part of this study and may differ from the conditions implied by surficial observations. Additionally, the passage of time may result in a change in the environmental characteristics at this site and surrounding properties.

The work performed in conjunction with this assessment and the data developed, are intended as a description of available information at the dates and locations given. This report does not warrant against future operations or conditions, nor does this warrant operations or conditions present of a type or at a location not investigated. This report is not a regulatory compliance audit.

ATC reviewed accessible public documents and publications addressing the general vicinity. Portions of the reviewed materials have been addressed, referenced, or incorporated into this assessment. ATC did not assess, as part of the project scope, the validity of, or necessarily concur with, the findings and recommendations of the above-referenced materials except where directly so stated. ATC did not ascertain any items or data during the reconnaissance and report preparation that was contradictory to the above referenced reports.

9.0 REFERENCES

City of Providence

- Building Department Records
- Tax Assessor's Office
- Fire Department

New England DataMap Technology Corporation, Environmental FirstSearch Report, "Springfield Avenue Lots, Providence, Rhode Island", dated February 10, 1999.

United States Department of Interior, Geological Survey, Providence, Rhode Island-Rhode Island Quadrangle Map 1987.

United States Environmental Protection Agency Records:

- National Priorities List (NPL)
- Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)
- Resource Conservation and Recovery Act (RCRA)
- Emergency Response Notification System (ERNS)

United States Geological Survey (USGS) "Bedrock Geologic Map of the Providence-Rhode Island Quadrangle"

Table

Soil Analytical Results **Test Pit Sampling**

Volatile Organic Compounds, Total Petroleum Hydrocarbons, RCRA 8 Metals, Polychlorinated Biphenyls

Analytes	TP-1	TP-3	TP-4	RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT METHOD I SOIL OBJECTIVES ¹	RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT METHOD I SOIL OBJECTIVES ¹
				Direct Exposure Criteria²	GB Leachability Criteria ³
Volatile Organic Compounds	ND	ND	ND	Analyte Specific	Analyte Specific
Polychlorinated Biphenyls	0.191	0.305	0.840	10	10
Total Petroleum Hydrocarbons	I,700	315	117	500 or 1000	2,500
RCRA 8 Metals					
Arsenic	2.46	8.23	8.27	1.7	No Standard
Barium	138	117	212	5,500	No Standard
Cadmium	2.01	2.52	3.66	39	No Standard
Chromium	38	134	33	390	No Standard
Lead	205	362	739	150	No Standard
Mercury	0.21	1.65	0.28	23	No Standard
Selenium	<1.16	0.69	1.02	390	No Standard
Silver	<2.23	<1.15	2.04	200	No Standard

¹ State of Rhode Island and Providence Plantations, Department of Environmental Management, Division of Site Remediation, Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases, March 31, 1993, (as amended August 1996).

² The Residential Direct Exposure Criteria applies to vadose zone soil.

³ The site is located in a GB Groundwater Classification Area

Analytes	ATC-1	ATC-1 ATC-2 ATC-3		ATC-4	ATC-5	ATC-6	ENVIRONMENTA METHOD 1 SO	RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT METHOD 1 SOIL OR IECTIVES
					•		Direct Exposure	GB Leachability
							Criteria ⁵	Criteria ⁶
Volatile Organic Compounds								
m-xylene	ND ⁷	ND	ND	ND	ND	ND	110	No Standard
Isopropylbenzene	ND	ND	ND	ND	ND	ND	27	No Standard
p-isopropyltoluene	ND	ND	ND	ND	ND_	ND	No Standard	No Standard
Propylbenzene	ND	ND	ND	ND	ND	DN	No Standard	No Standard
Sec-butylbenzene	ND	ND	ND	ND	ND	DN	No Standard	No Standard
1,2,4 Trimethylbenzene	0.006	ND	ND	ND	ND	ND	No Standard	No Standard
1,3,5 Trimethylbenzene	ND	ND	ND	ND	ND	ND	No Standard	No Standard
Butylbenzene	ND	ND	ND	ND	ND	ND	No Standard	No Standard
Polychlorinated Biphenyls							10	10
Total Petroleum Hydrocarbons	$1,050^{8}$	724	339	284	179	147	500 or 1000	2,500
RCRA 8 Metals								
Arsenic	30.6	ND	7.5	ND	5.9	ND	1.7	No Standard
Barium	102	14.1	34.6	13.2	21.3	18.3	5,500	No Standard
Cadmium	2.8	ND	0.38	ND	0.12	0.05	39	No Standard
Chromium	28	2.39	85.6	2.18	7.42	5.02	390	No Standard
Lead	877	5.3	291	4.5	44.8	7.5	150	No Standard
Mercury	0.227	ND	0.167	ND	0.070	ND	23	No Standard
Selenium	ND	ND	ND	ND	ND	ND	390	No Standard
Silver	ND	ND	ND	ND	ND	N N	200	No Standard

⁴ State of Rhode Island and Providence Plantations, Department of Environmental Management, Division of Site Remediation, Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases, March 31, 1993, (as amended August 1996).

⁵ The Residential Direct Exposure Criteria applies to vadose zone soil.

⁶ The site is located in a GB Groundwater Classification Area

⁷ ND Denotes not detected

⁸ Bold face type denotes an exceedence of the Residential Direct Exposure Criterion

Analytes	ATC-7	ATC-8	ATC-9	ATC-10	ATC-9 ATC-10 ATC-11 ATC-11	ATC-11	RHODE ISLAND	RHODE ISLAND DEPARTMENT OF
						09	ENVIRONMENT	ENVIRONMENTAL MANAGEMENT
							METHOD 1 SC	METHOD I SOIL OBJECTIVES
							Direct Exposure Criteria ¹⁰	GB Leachability Criteria ¹¹
Volatile Organic Compounds								
Ethyl Benzene	0.005	QΝ	QN	ND	ND	ND	27	1.6
xylene	0.017	ND^{12}	QΝ	ND	ND	ND	110	No Standard
Isopropylbenzene	0.005	αN	αN	ND	QN	ND	27	No Standard
p-isopropyltoluene	900'0	ND	ND	ND	ND	ND	No Standard	No Standard
Propylbenzene	0.010	ND	ND	ND	ND	ND	No Standard	No Standard
Sec-butylbenzene	0.009	ND	QΝ	ND	ND	ND	No Standard	No Standard
1,2,4 Trimethylbenzene	0.037	ND	ΩN	QN	0.016	0.004	No Standard	No Standard
1,3,5 Trimethylbenzene	0.020	an	QN	αN	QN	ND	No Standard	No Standard
Butylbenzene	0.007	QΝ	ΩN	αN	ND	ND	No Standard	No Standard
Napthalene	ND	ND	ND	ND	ND	0.004	No Standard	No Standard
Polychlorinated Biphenyls	1			1.44	ND	ND	01	10
Total Petroleum Hydrocarbons	320^{13}			98	11	17	500 or 1000	2,500
RCRA 8 Metals								
Arsenic	6.6	6.3	8.3	10.5	5.8	10.1	1.7	No Standard
Barium	92.2	85.0	206	\$8	44.1	129	2,500	No Standard
Cadmium	1.49	1.70	2.79	1.39	0.18	0.64	39	No Standard
Chromium	40.8	9.65	30	9.61	3.39	10.9	390	No Standard
Lead	728	163	594	848	92.6	256	150	No Standard
Mercury	0.267	0.293	0.315	0.171	0.095	0.099	23	No Standard
Selenium	10	ND	7.7	14.2	ND	6.4	390	No Standard
Silver	4	ND	2.4	ND	ND	ND	200	No Standard

⁹ State of Rhode Island and Providence Plantations, Department of Environmental Management, Division of Site Remediation, Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases, March 31, 1993, (as amended August 1996).

The Residential Direct Exposure Criteria applies to vadose zone soil.

The site is located in a GB Groundwater Classification Area

12 ND Denotes not detected

13 Bold face type denotes an exceedence of the Residential Direct Exposure Criterion

Analytes	ATC-12	ATC-13	ATC-13 ATC-14 ATC-15 ATC-16	ATC-15	ATC-16	6-HI	RHODE ISLAND	RHODE ISLAND DEPARTMENT OF
							ENVIKONMENI METHOD I SO	ENVIKONMEN I AL MANAGEMENI METHOD I SOIL OBJECTIVES ¹⁴
							Direct Exposure Criteria ¹⁵	GB Leachability Criteria ¹⁶
Volatile Organic Compounds								
m-xylene	ND ¹⁷	ND	ND	QN	ND	ND	110	No Standard
Isopropylbenzene	ND	QN	ND	ND	ND	ND	27	No Standard
p-isopropyltoluene	ND	ND	ND	ND	ND	ND	No Standard	No Standard
Propylbenzene	ND	QN	ND	ND	ND	ND	No Standard	No Standard
Sec-butylbenzene	ND	ND	ND	ND	ND	ND	No Standard	No Standard
1,2,4 Trimethylbenzene	ND	ND	ND	ND	ND	ND	No Standard	No Standard
1,3,5 Trimethylbenzene	ND	ND	ND	ND	ND	ND	No Standard	No Standard
Butylbenzene	ND	ND	ND	ND	ND	ND	No Standard	No Standard
Napthalene	ND	ND	ND	ND	ND	ND	No Standard	No Standard
Tetrachloroethene	ND	ND	ND	ND	ND	0.022	12	0.150
Polychlorinated Biphenyls	0.75	3.44	1.15	1.01	0.890	ND	01	10
Total Petroleum Hydrocarbons	12	120	21	54	75	19	500 or 1000	2,500
RCRA 8 Metals								
Arsenic	13	6.7	5.3	ND	ND	10.5	1.7	No Standard
Barium	288	85.4	28.1	27	121	425	5,500	No Standard
Cadmium	1.9	0.67	0.06	0.3	0.98	2.86	39	No Standard
Chromium	29.9	13.6	11.4	5.11	19.1	35.5	390	No Standard
Lead	474	115	11.9	48.8	376	2,860	150	No Standard
Mercury	0.262	0.078	0.022	0.052	0.062	0.240	23	No Standard
Selenium	QN	ND	ND	ND	ND	ND	390	No Standard
Silver	ND	ND	ND	ND	2.3	8.9	200	No Standard

State of Rhode Island and Providence Plantations, Department of Environmental Management, Division of Site Remediation, Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases, March 31, 1993, (as amended August 1996).
 The Residential Direct Exposure Criteria applies to vadose zone soil.
 The site is located in a GB Groundwater Classification Area
 MD Denotes not detected





Photograph One



Photograph Two



Photograph Three



Photograph Four

APPENDIX B

List of Lots that Comprise the Site _____ ‡ ------

Lot Number	Street Number	Street Name	Lot Area
97	618	Hartford Avenue	7510
114	65	Seton Street	333
115	61	Seton Street	1220
116	57	Seton Street	2120
117	53	Seton Street	3200
118	49	Seton Street	3200
119	45	Seton Street	3200
120	41	Seton Street	3200
121	37	Seton Street	3200
122	33	Seton Street	3200
123	29	Seton Street	3200
124	25	Seton Street	3200
125	21	Seton Street	3200
126	17	Seton Street	3200
131	2	Emperor Street	2560
132	6	Emperor Street	3200
133	10	Emperor Street	3200
134	14	Emperor Street	3200
135	18	Emperor Street	3200
136	22	Emperor Street	3200
137	26	Emperor Street	3200
138	30	Emperor Street	3200
139	34	Emperor Street	3200
140	38	Emperor Street	3200
141	32	Springfield Street	3065
142	24	Springfield Street	2280
143	18	Springfield Street	1400
144	12	Springfield Street	520
145	25	Emperor Street	1120
146	21	Emperor Street	1840
147	17	Emperor Street	2740
148	13	Emperor Street	3520
149	9	Emperor Street	1755
150	25	Thornton Street	1305
151	29	Thornton Street	2864
152	33	Thornton Street	2343
153	37	Thornton Street	925
154	41	Thornton Street	3183
155	45	Thornton Street	2827
156	51	Thornton Street	7192
169	11	Woodfall Street	3576
179	56	Wright Street	2912
180	52	Wright Street	4050
		•	

List of Lots Included in the Phase I Environmental Site Assessment Springfield Avenue Lots

<u>Lot Number</u>	Street Number	Street Name	Lot Area
181	48	Wright Street	5000
182	44	Wright Street	5000
183	40	Wright Street	5000
184	36	Wright Street	5000
185	34	Stanfield Street	6900
186	30	Stanfield Street	2640
187	26	Stanfield Street	3200
188	20	Stanfield Street	3200
215	19	Stanfield Street	4805
216	25	Stanfield Street	4175
217	3	Milo Road	4000
218	7	Milo Road	4000
219	11	Milo Road	4000
234	22	Wright Street	4000
235	26	Wright Street	4000
236	29	Stanfield Street	3545
237	33	Stanfield Street	2915
238	650	Hartford Avenue	3626
239	658	Hartford Avenue	2877
240	3	Wright Street	4000
241	7	Wright Street	4000
242	11	Wright Street	4000
243	15	Wright Street	4000
244	19	Wright Street	4000
245	23	Wright Street	4000
246	27	Wright Street	4000
247	31	Wright Street	3460
248	2	Diana Road	4074
249	6	Diana Road	5350
250	10	Diana Road	4000
251	14	Diana Road	4000
252	18	Diana Road	4000
253	22	Diana Road	4000
254	26	Diana Road	4000
255	30	Diana Road	4000
256	34	Diana Road	4000
257	636	Hartford Avenue	4129
258	632	Hartford Avenue	3381
259	630	Hartford Avenue	6503
261	39	Diana Road	4000
262	3 5	Diana Road	4000
263	31	Diana Road	4000
264	27	Diana Road	4000

List of Lots Included in the Phase I Environmental Site Assessment Springfield Avenue Lots

Lot Number	Street Number	Street Name	Lot Area
265	23	Diana Road	4000
266	19	Diana Road	4000
267	15	Diana Road	4000
268	11	Diana Road	4000
269	7	Diana Road	4000
270	3	Diana Road	4000
271	53	Wright Street	2850
272	92	Springfield Street	2800
273	98	Springfield Street	4600
274	106	Springfield Street	4000
275	112	Springfield Street	4000
276	118	Springfield Street	4000
277	124	Springfield Street	4000
278	130	Springfield Street	4000
279	136	Springfield Street	4000
280	142	Springfield Street	4000
281	152	Springfield Street	4000
282	158	Springfield Street	4000
283	164	Springfield Street	4000

Total Square Feet 374990 Total Acres 8.61

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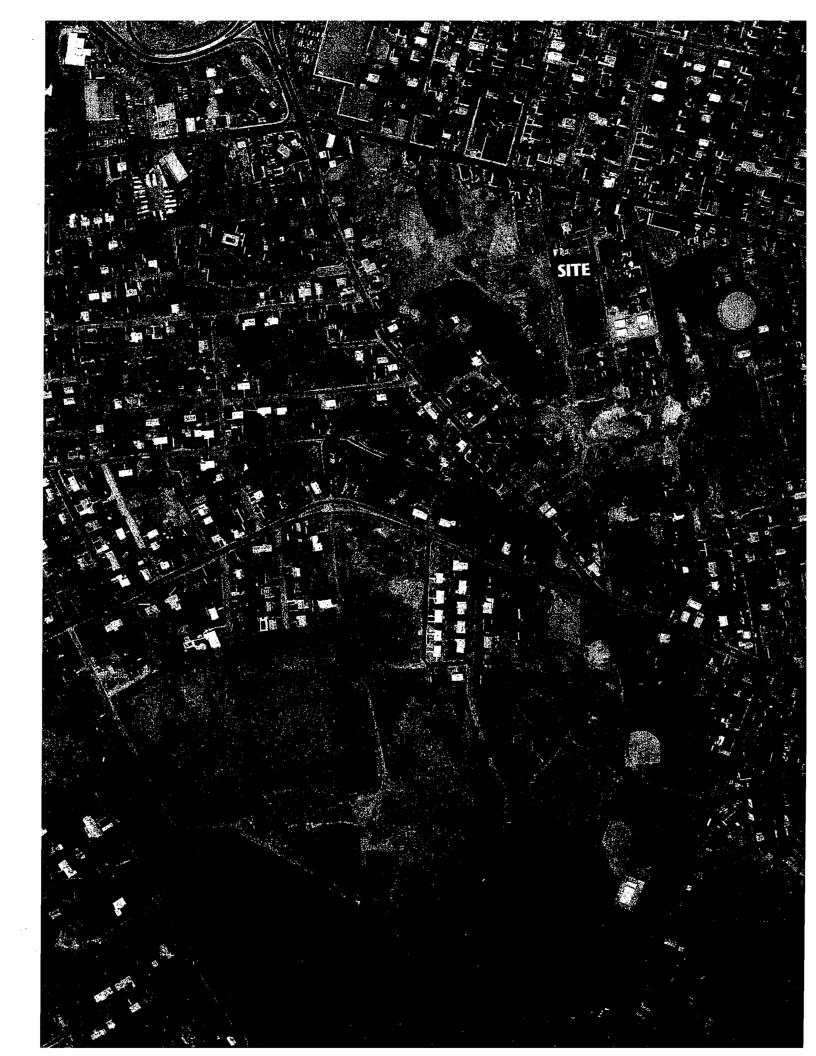
APPENDIX C

AERIAL PHOTOGRAPHS

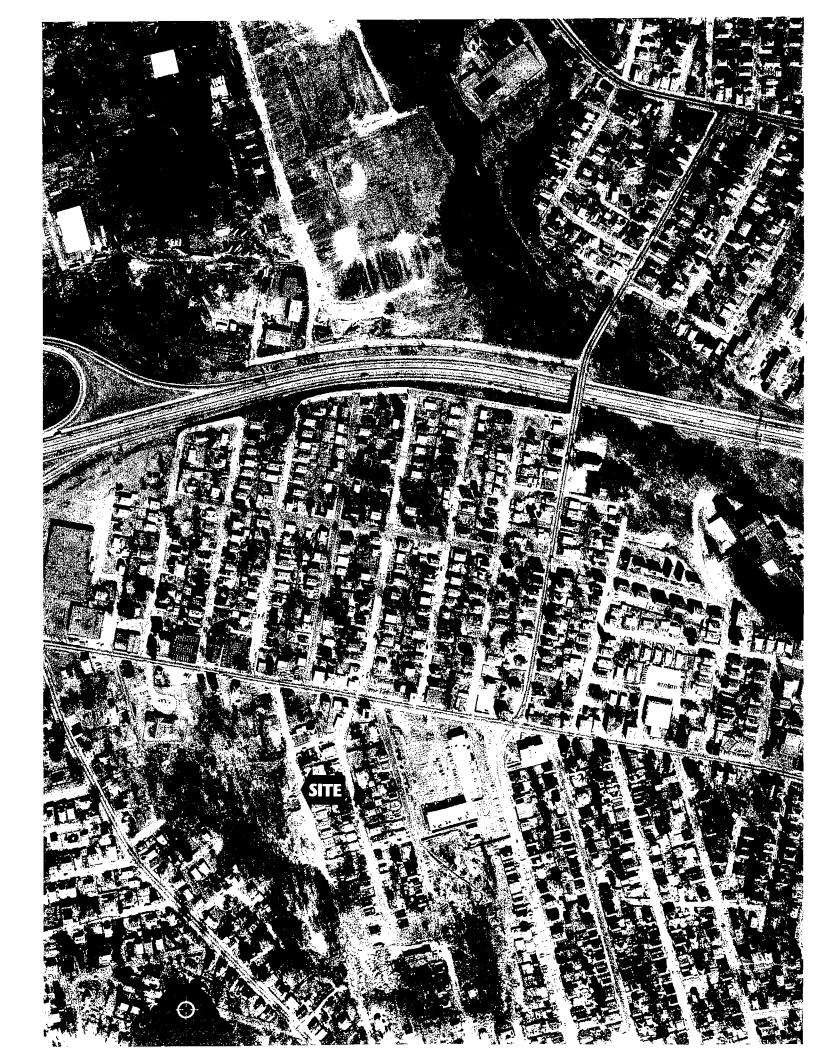
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_____ † ____

APPENDIX D

NEW ENGLAND DATAMAP REPORT

----- ‡ -----

DataMap Technology Corporation

Environmental FirstSearch™ Report

TARGET PROPERTY:

SPRINGFIELD AVE

PROVIDENCE RI 02909

Job Number: 00000.0000

PREPARED FOR:

ATC Associates, Inc.

2 Richmond Square

Providence, RI 02906

02-10-99

Tel: (781) 320-3720

Fax: (781) 320-3715

Target Site:

SPRINGFIELD AVE

PROVIDENCE RI 02909

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2 >	ZIP	TOTALS
NPL	Y	01-19-99	1.00	0	0	0	0	0	0	0
CERCLIS	Y	09-30-98	0.50	0	0	0	1	-	1	2
RCRA TSD	Y	01-19-99	0.50	0	0	0	0	-	0	0
RCRA COR	Y	01-19-99	1.00	0	0	0	0	0	0	0
RCRA GEN	Y	01-19-99	0.25	0	1	4	-	-	3	8
RCRA NLR	N	01-19-99	0.25	-	-	-	-	-	-	-
ERNS	Y	01-22-99	0.25	0	0	0	-	-	9	9
NPDES	N	06-16-98	0.25	-	-	-	-	-	-	-
FINDS	N	07-16-98	0.25	-	-	-	-	-	-	_
TRIS	N	01-20-99	0.25	-	-	-	-	-	-	-
STATE SITES	Y	06-11 - 98	1.00	0	0	0	1	8	47	56
SPILLS-1990	N	09-09-98	0.25	-	-	-	-	-	-	-
SPILLS-1980	N	NA	0.25	-	-	-	-	-	-	-
SWL	Y	04-01-98	0.50	0	0	0	0	-	0	0
PERMITS	N	NA	0.25	-	-	-	-	-	-	-
OTHER	N	NA	0.25	-	-	-	-	-	-	-
REG UST/AST	Y	10-22-98	0.25	0	1	6	-	-	4	11
LEAKING UST	Y	09-21-98	0.50	0	1	1	3	-	2	7
ACTIVE PWS	N	04-28-94	0.50	-	-	-	-	-	-	-
AQUIFERS	N	NA	0.50	-	-	-	-	_	-	-
ACEC	N	NA	0.50	-	-	-	-	-	-	-
WETLANDS	N	NA	0.50	-	-	-	-	-	-	-
FLOODPLAINS	N	09-01-96	0.50	-	-	-	-	-	-	-
- TOTALS -				0	3	11	5	8	66	93

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to DataMap Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in DataMap Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangl approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the norther and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although DataMap Technology Corp. uses its best efforts to research the actual location of each site, DataMap Technology Corp. does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of DataMap Technology Corp.'s services proceeding are signifying an understanding of DataMap Technology Corp.'s searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

Environmental FirstSearch Site Information Report

Request Date:

02-10-99

Search Type:

COORD

Requestor Name:

ADAM

Job Number:

00000.0000

Standard: ASTM

Target Address:

SPRINGFIELD AVE

PROVIDENCE RI 02909

Demographics

Sites:

93

Receptors: 0

Population: NA

Radon:

0.5 - 5.5 PCI/L

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)		<u>UTMs</u>
Longitude:	-71.465707	-71:27:57	Easting:	295200.899
Latitude:	41.817523	41:49:3	Northing:	4632242.274
			Zone:	19

Comment

Comment:

SPRINGFIELD AVENUE LOTS

Additional Requests

Adjacent ZIP Codes: 1.00 Mile(s)

Topo Map Boundaries:

1.00 Mile(s)

ZIP Code	City Nama	ST	Dist/Dir	Sel
Code	City Name	31	DISUDIF	Sei
02908	PROVIDENCE	RI	0.85 NE	Y
02919	JOHNSTON	RI	0.19 SW	Y
02920	CRANSTON	RI	0.85 SE	Y

Quadrant Name	Dist/Dir	Sel
PROVIDENCE	0.00	Y

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

JOB: 00000.0000 SPRINGFIELD AVENUE LOTS

TOTAL:

93

GEOCODED: 27

NON GEOCODED: 66

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
1	CERCLIS	LINCOLN LACE & BRAID RID001207489/NFRAP	50-55 PONAGANSETT AVENUE PROVIDENCE RI 02908	0.40 NE	1
28	CERCLIS	MENEMSHA RID982748774/NOT PROPOSED	(5 USCG STREET) PSEUDO PROVIDENCE RI	NON GC	
39	ERNS	D21546/HIGHWAY	PROVIDENCE RI	NON GC	
32	ERNS	ADMANTHOS SHIPPING AGENCY 487940/UNKNOWN	COASTAL TERMINAL PROVIDENCE RI	NON GC	
33	ERNS	AMTRAK	BETWEEN CRANSTON AND PROVIDE		
		550969/UNKNOWN	PROVIDENCE RI	NON GC	
34	ERNS	M/V ASPHALT COMMANDER	HUDSON TERMINAL ADDRESS UNKN		
		584363/UNKNOWN	PROVIDENCE RI	NON GC	
35	ERNS	MV ASPHALT CHAMPION 586290/UNKNOWN	HUDSON DOCK PROVIDENCE RI	NON GC	
36	ERNS	REINAUER TRANSPORTATION C 470557/UNKNOWN	COASTAL OIL DOCK PROVIDENCE RI	NON GC	
37	ERNS	STAR ENTERPRISE 567125/UNKNOWN	UNKNOWN PROVIDENCE RI	NON GC	
40	ERNS	UNKNOWN 584281/UNKNOWN	REAR OF 12 ROCHELA STREET JOHNSTON RI 02919	NON GC	
38	ERNS	UNKNOWN 596728/UNKNOWN	A PIER IN NARRAGANSETT BAY PROVIDENCE RI	NON GC	
26	LUST	TOM AND FRED S 28118-LS/ACTIVE	618 HARFORD AVENUE PROVIDENCE RI 02909	0.09 NE	21
27	LUST	WESTWOOD MANOR APARTMENTS 2877-LS/SOIL REMOVAL ONLY	WESTWOOD MANOR DRIVE PROVIDENCE RI 02919	0.23 NW	22
24	LUST	CONTINENTAL BAKING 2849-LS/SOIL REMOVAL ONLY	469 HARTFORD AVENUE PROVIDENCE RI 02909	0.34 NE	6
23	LUST	B AND D PLASTICS 1617-ST/INACTIVE	807 HARTFORD AVENUE JOHNSTON RI 02919	0.39 NW	15
25	LUST	PROVIDENCE WATER SUPPLY 1613-LS/ACTIVE	ASHBY STREET JOHNSTON RI 02919	0.44 SW	19
92	LUST	PORT OF PROVIDENCE 2833-LS/INACTIVE	PORT OF PROVIDENCE PROVIDENCE RI 99999	NON GC	
93	LUST	ROGER WILLIAMS HOUSING PROJECT 2820-LS/NO	PROVIDENCE RI	NON GC	
6	RCRAGN	TIRES R V S RI5000011965/SGN	613 HARTFORD AVE PROVIDENCE RI 02910	0.11 NE	7
4	RCRAGN	CRYSTAL CLEANERS RID055176895/SGN	571 HARTFORD AVE PROVIDENCE RI 02909	0.16 NE	4

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

JOB: 00000.0000 SPRINGFIELD AVENUE LOTS

TOTAL:

93

GEOCODED: 27

NON GEOCODED: 66

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
3	RCRAGN	CORYS CITGO RID982766214/SGN	716 HARTFORD AVE PROVIDENCE RI 02909	0.21 NW	3
5	RCRAGN	D & D PLATING INC RID987471927/SGN	202 KING PHILLIP ST PROVIDENCE RI 02909	0.25 NE	5
2	RCRAGN	BEDROCK FABRICATION & AUTO RID987480969/SGN	746 HARTFORD AVE JOHNSTON RI 02919	0.25 NW	2
29	RCRAGN	B & R AUTO CYCLE SALES RIR000015743/SGN	123B PUTNAM AVE JOHNSTON RI 02919	NON GC	
30	RCRAGN	DEPETRILLO THOMAS G DMD RIR000015735/SGN	2 MORGAN MILL RD STE 200 JOHNSTON RI 02919	NON GC	
31	RCRAGN	EURO CTR RI5000011643/SGN	15A BUCKHILL RD JOHNSTON RI 02919	NON GC	
9	STATE	LINCOLN LACE & BRAID (PONAGANSETT D PON-HWM/A	55-59 PONAGANSETT ST. PROVIDENCE RI 02909	0.40 NE	1
8	STATE	COOKSON AMERICA COOK-HWM/I	204 HARTFORD AVENUE PROVIDENCE RI 02909	0.82 SE	9
10	STATE	ONE HUNDRED BOSWORTH STREET BOSW-HWM/I	100 BOSWORTH STREET PROVIDENCE RI 02909	0.83 NE	10
7	STATE	COLONIAL FEDERAL SAVINGS BANK CFSB-HWM/A	1010 HARTFORD AVENUE JOHNSTON RI 02919	0.90 NW	8
12	STATE	RIVERSIDE MILLS (FORMER) RIM-HWM/I	50 ALEPPO STREET PROVIDENCE RI 02909	0.91 NE	12
13	STATE	WELCON-ACCORDE WCMA-HWM/I	99 HARTFORD AVENUE PROVIDENCE RI 02909	0.95 SE	13
14	STATE	WHELDON (CJ) TRUCKING COMPANY CJW-HWM/A	131 FARMINGTON AVENUE CRANSTON RI 02920	0.96 SE	14
15	STATE	WHELDON (CJ) TRUCKING COMPANY CJW-SFA/A	131 FARMINGTON AVENUE CRANSTON RI 02920	0.96 SE	14
11	STATE	RI FINISHING COMPANY RIFC-HWM/I	120 MANTON AVENUE PROVIDENCE RI 02909	0.98 NE	11
73	STATE	ABATE AND URSILLO A&U-HWM/I	115 RAILROAD AVENUE JOHNSTON RI 02919	NON GC	
74	STATE	ABATE AND URSILLO A&U-SFA/I	115 RAILROAD AVENUE JOHNSTON RI 02919	NON GC	
41	STATE	ALLEN S MANUFACTURING CO. INC. AMCI-HWM/A	89 SHIPYARD STREET PROVIDENCE RI	NON GC	
42	STATE	ARMED FORCES RESERVE CENTER AFRC-DOD/I	FIELDS POINT PROVIDENCE RI	NON GC	
43	STATE	ARMED SERVICES RESERVE CENTER ASRC-HWM/I	NARRAGANSETT ST-FIELDS POINT PROVIDENCE RI	NON GC	

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

JOB: 00000.0000 SPRINGFIELD AVENUE LOTS

TOTAL:

93

GEOCODED: 27

NON GEOCODED: 66

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
44	STATE	ARTIMUS SHIP ARTI-HWM/I	PORT OF PROVIDENCE PROVIDENCE RI	NON GC	
45	STATE	BROWN UNIVERSITY BRUN-HWM/A	THAYER AND GEORGE STREET PROVIDENCE RI	NON GC	
75	STATE	CENTRAL LANDFILL BARREL CLB-HWM/I	GREEN HILL ROAD PT 43 LOTS 59, 176 JOHNSTON RI 02919	NON GC	
76	STATE	CHEMLWN CHLW-HWM/I	MARIBETH DRIVE JOHNSTON RI 02919	NON GC	
46	STATE	CNC CHEMICAL CNCC-HWM/I	EDDY STREET PROVIDENCE RI	NON GC	
77	STATE	DISPOSAL PITS/PLAT 43 LOTS 43 AND 1 L43-HWM/A	SHUN PIKE JOHNSTON RI 02919	NON GC	
78	STATE	ED S AUTO PARTS EDA-HWM/I	83 RAILROAD AVENUE JOHNSTON RI 02919	NON GC	
47	STATE	EXCELL MANUFACTURING EXCL-HWM/A	ROYAL LITTLE DRIVE PROVIDENCE RI	NON GC	
48	STATE	GAUDETTE INDUSTRIAL RENTALS GAUR-HWM/A	3-9 MAGNOLIA STREET PROVIDENCE RI	NON GC	
49	STATE	GENERAL ACCIDENT INSURANCE GAIN-HWM/I	10 CHARLES STREET PROVIDENCE RI	NON GC	
50	STATE	HARBORSIDE PARK HARB-HWM/A	HARBORSIDE BLVD. PROVIDENCE RI	NON GC	
51	STATE	INGE (FORMER) INGE-HWM/I	FIELDS PT. PROVIDENCE RI	NON GC	
52	STATE	KOFFLER REALTY/RIVERVIEW PLACE KOFF-HWM/A	BUTLER AVE, PLAT 15/LOT 35 PROVIDENCE RI	NON GC	
79	STATE	LOT 66 LT66-HWM/M	SHUN PIKE JOHNSTON RI 02919	NON GC	
53	STATE	LUSS TRUCK CASE LTC-HWM/I	PROMFET STREET PROVIDENCE RI	NON GC	
81	STATE	M E ADAMS MEA-SFA/A	PECK HILL RD. JOHNSTON RI 02919	NON GC	
80	STATE	M E ADAMS MEA-HWM/A	PECK HILL RD. JOHNSTON RI 02919	NON GC	
82	STATE	MEHAN CONSTRUCTION MEH-HWM/I	79 PUTNAM AVE JOHNSTON RI 02919	NON GC	
54	STATE	NARR ELECTRIC-ADMIRAL STREET NEAS-HWM/I	ADMIRAL STREET PROVIDENCE RI	NON GC	
55	STATE	NARR ELECTRIC-ALASKA STREET NE1-HWM/I	ALASKA STREET PROVIDENCE RI	NON GC	

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

JOB: 00000.0000 SPRINGFIELD AVENUE LOTS

TOTAL:

93

GEOCODED: 27

NON GEOCODED: 66

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
56	STATE	NARR ELECTRIC-DYER ST NADS-HWM/I	DYER STREET PROVIDENCE RI	NON GC	
57	STATE	NARR ELECTRIC-FIELD S POINT SUBSTAT NEFP-HWM/I	EDDY STREET-FIELD S POINT DRIVE PROVIDENCE RI	NON GC	
83	STATE	NARR ELECTRIC-JOHNSTON SUBSTATION NEJS-HWM/I	CENTRAL AVENUE JOHNSTON RI 02919	NON GC	
84	STATE	NARR ELECTRIC-KILLINGLY RIGHT OF WA NERW-HWM/A	KILLINGLY STREET JOHNSTON RI 02919	NON GC	
58	STATE	NARR ELECTRIC-MANCHESTER MRP-HWM/A	POINT AND EDDY STREET PROVIDENCE RI	NON GC	
59	STATE	NARR ELECTRIC-MANTON INDUSTRIES NENI-HWM/A	OFF ALEPPO STREET PROVIDENCE RI	NON GC	
60	STATE	NARR ELECTRIC-OLNEYVILLE SUBSTATION NEOL-HWM/A	DIKE STREET PROVIDENCE RI	NON GC	
61	STATE	NARR ELECTRIC-TROOP NETW-HWM/I	TROOP ALLECY PROVIDENCE RI	NON GC	
62	STATE	NARR ELECTRIC-UNCAS MANUFACTURING NEUM-HWM/I	VALLEY STREET PROVIDENCE RI	NON GC	
85	STATE	NARR. BAY COMMISSION INTERCEPTOR NBCJ-HWM/A	GREENVILLE, LYMAN, NEWMAN,DYE JOHNSTON RI 02919	NON GC	
63	STATE	NARRAGANSETT VAY COMMISSION INTERCE NBCI-HWM/I	POWER AND GANO STREETS PROVIDENCE RI	NON GC	
64	STATE	OUTLET STORE (FORMER) NO FILE FODS-HWM/I	WEYBOSSETT STREET PROVIDENCE RI	NON GC	
65	STATE	PROVIDENCE CITY DUMP PCD-HWM/I	HARTFORD @ELIZA & DIANA ST PROVIDENCE RI	NON GC	
66	STATE	R. WILLIAMS HOME SITE (SEE MANDELLA RWHS-SFA/I	THURBER AVENUE PROVIDENCE RI	NON GC	
67	STATE	RI TELECOMMUNICATION RITE-HWM/I	PARK LANE PROVIDENCE RI	NON GC	
68	STATE	SHERWOOD AVE DUMP SHE-HWM/I	SHERWOOD AVE. PROVIDENCE RI	NON GC	
8 6	STATE	TOWN ASPHALT/AUTO FLUFF TAAF-HWM/I	100 ALLENDALE AVENUE JOHNSTON RI 02919	NON GC	
69	STATE	TRADE CASTINGS TCA-HWM/I	258 WOONASQUATUCKET AVE. PROVIDENCE RI	NON GC	
70	STATE	UNION PLAZA HOTEL UPLZ-HWM/A	FRANCIS STREET PROVIDENCE RI	NON GC	
71	STATE	UNITED STATES POSTAL SERVICE USPO-HWM/I	44 WEST RIVER DRIVE PROVIDENCE RI	NON GC	

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

JOB: 00000.0000 SPRINGFIELD AVENUE LOTS

TOTAL:

93

GEOCODED: 27

NON GEOCODED: 66

SELECTED:

18

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
72	STATE	WHELDON (CJ) SCRAP CJWS-HWM/A	61 PULSUDSKI STREET PROVIDENCE RI	NON GC	
87	STATE	WPRO TRANSMITTER SITE WPRO-HWM/I	JAQULINE DRIVE JOHNSTON RI 02919	NON GC	
21	UST	TARRO SERVICE(TOM & FRED S STN) 00962	618 HARTFORD AVENUE PROVIDENCE RI 02909	0.09 NE	21
19	UST	HOLY CROSS CHURCH 03728	<i>641 HARTFORD AVE PROVIDENCE RI 02909</i>	0.15 NW	18
18	UST	HENRY OIL COMPANY 00480	675 HARTFORD AVENUE PROVIDENCE RI 02909	0.18 NW	17
16	UST	CORY & SONS 03035	716 HARTFORD AVENUE PROVIDENCE RI 02909	0.21 NW	3
20	UST	RI CENTRAL CREDIT UNION 16449	518 HARTFORD AVENUE PROVIDENCE RI 02909	0.22 NE	20
22	UST	WESTWOOD MANOR APARTMENTS 16695	WESTWOOD MANOR DRIVE PROVIDENCE RI 02919	0.23 NW	22
17	UST	FRANK DEFRUSCIO (ARCO) 15082	729 HARTFORD AVENUE PROVIDENCE RI 02909	0.24 NW	16
88	UST	CARROL PRODUCTS 16713	447 CHURCH ST PROVIDENCE RI 02904	NON GC	
89	UST	EXPANSION INTAKE SERVICE CENTER 03256	100 SERVICE ROAD PROVIDENCE RI 02905	NON GC	
90	UST	MARWELL TRUCKING & NORTEAST BUSING 18436	85 EAST AVE PROVIDENCE RI	NON GC	
91	UST	URI BUILDING (FMR) 18247	PARK ST PROVIDENCE RI	NON GC	

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

JOB: 00000.0000 TELOT SPRINGFIELD AVENUE LOTS

SEARCH ID: 26

DIST/DIR:

0.09 NE

MAP ID:

21

NAME:

REV:

09/21/98

28118-LS

ADDRESS:

TOM AND FRED S 618 HARFORD AVENUE PROVIDENCE RI

ID1: ID2:

CONTACT:

STATUS: PHONE:

ACTIVE

PROJECT DATE:

11/22/95

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 27

DIST/DIR:

0.23 NW

MAP ID:

22

NAME: ADDRESS: WESTWOOD MANOR APARTMENTS WESTWOOD MANOR DRIVE

PROVIDENCE RI

REV: ID1:

09/21/98

ID2:

2877-LS

STATUS: PHONE:

SOIL REMOVAL ONLY

CONTACT: PROJECT DATE:

4/13/94

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 24

DIST/DIR:

0.34 NE

MAP ID:

6

NAME: ADDRESS:

CONTACT:

CONTINENTAL BAKING 469 HARTFORD AVENUE

PROVIDENCE RI

09/21/98 REV: ID1:

2849-LS

ID2: STATUS: PHONE:

SOIL REMOVAL ONLY

PROJECT DATE:

5/3/93

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

SEARCH ID: 23	DIST/DIR:	0.39 NW	MAP ID:	15	
NAME: B AND D PLASTICS ADDRESS: 807 HARTFORD AVENUE JOHNSTON RI		REV: ID1: ID2: STATUS:	09/21/98 1617-ST INACTIVE		
CONTACT:		PHONE:	INACTIVE		
PROJECT DATE: 11/14/94					

LEAKING UNDERGROUND STORAGE TANKS					
SEARCH ID: 25	DIST/DIR:	0.44 SW	MAP ID:	19	
NAME: PROVIDENCE WATER SUPPLY ASHBY STREET JOHNSTON RI CONTACT:		REV: ID1: ID2: STATUS: PHONE:	09/21/98 1613-LS ACTIVE		
PROJECT DATE: 4/23/94					

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

RCRA GENERATOR SITE					
SEARCH ID: 6	DIST/DIR:	0.11 NE	MAP ID: 7		
NAME: TIRES R V S ADDRESS: 613 HARTFORD AVE PROVIDENCE RI 02910		REV: ID1: ID2:	RI5000011965		
PROVIDENCE CONTACT: PR: VINCENT DISTIGMA		STATUS: PHONE:	SGN 4015551212		
ADDRESS: OWNERSTREET OWNERCITY RI 99999		NOTIFIE PART A:			
ACTIVITIES: SG: GENERATES 100-10	000 KG/MONTH OF HAZARDO	US WASTE			
CM+E LIST: VIOL DAT RAATS: ACTION D			PDATED: PDATED:		
VIOL:					
NUM: ENF:					

RCRA GENERATOR SITE							
SEARCH ID: 4		DIST/DIR:	0.16 NE		N	MAP ID:	4
ADDRESS: 571 HA				1:	RID0551 SGN 40155512		
OW	NERSTREET NERCITY RI 99999 : GENERATES 100-1000 KG/M	ONTH OF HAZARDOU	Ī	NOTIFIED PART A:	:		
CM+E LIST: RAATS:	VIOL DATE: ACTION DATE:	AGENCY: DOCKET:			ATED: ATED:	11-10-98 06-24-96	

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

SPRINGFIELD AVENUE LOTS

RCRA GENERATOR SITE					
SEARCH ID: 3	DIST/DIR:	0.21 NW	MAP ID: 3		
NAME: CORYS CITGO ADDRESS: 716 HARTFORD AVE PROVIDENCE RI 02909 PROVIDENCE CONTACT: CORY DOTTOR		REV: ID1: ID2: STATUS: PHONE:	RID982766214 SGN 4015551212		
ADDRESS: OWNERSTREET OWNERCITY RI 99999		NOTIFIE PART A:	- ·		
ACTIVITIES: SG: GENERATES 100-10	00 KG/MONTH OF HAZARDOUS	WASTE			

ASSESS:

AGENCY: CM+E LIST: VIOL DATE: UPDATED: 11-10-98 ACTION DATE: DOCKET: UPDATED: 06-24-96 RAATS:

VIOL: NUM: ENF:

DATE:

SETTLE:

RCRA GENERATOR SITE					
DIST/DIR:	0.25 NE	MAP ID:	5		
иднт	REV: ID1: ID2: STATUS: PHONE:	RID987471927 SGN 4015551212			
R		_			
1000 KG/MONTH OF HAZARDO	US WASTE				
SESS:	SETTLE:				
T	DIST/DIR: IGHT 000 KG/MONTH OF HAZARDO FE: AGENCY	DIST/DIR: 0.25 NE REV: ID1: ID2: STATUS: PHONE: NOTIFIE PART A: 000 KG/MONTH OF HAZARDOUS WASTE RE: AGENCY: UP	DIST/DIR: 0.25 NE MAP ID:		

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

RCRA GENERATOR SITE						
SEARCH ID: 2		DIST/DIR:	0.25 NW	MAP ID:	2	
ADDRESS: 746 HAN JOHNST PROVID	OCK FABRICATION & AUTO RTFORD AVE TON RI 02919 DENCE RT PITOU/STEPHEN PROTO		REV: ID1: ID2: STATUS: PHONE:	RID987480969 SGN 5082221544	_	
NOR	WEST MAIN ST TON MA 02766 GENERATES 100-1000 KG/MOI	NTH OF HAZARDOU	NOTIFII PART A US WASTE			
CM+E LIST:	VIOL DATE: ACTION DATE:	AGENCY: DOCKET:		PDATED: 11-10-98 PDATED: 06-24-96		
RAATS:	ACTION DATE:	DOCKET				

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

STATE SITE						
SEARCH	ID: 9	DIST/DIR:	0.40 NE		MAP ID:	1
NAME: ADDRESS: CONTACT:	LINCOLN LACE & BRAID (PONAGAN 55-59 PONAGANSETT ST. PROVIDENCE RI	ISETT DUM	II II S	REV: D1: D2: STATUS: PHONE:	06/11/98 PON-HWM A	
PROJECT DATE:						
PROJECT D	ATE:					

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

JOB: 00000.0000 SPRINGFIELD AVENUE LOTS

REGISTERED	LIMIDED	CRUIND	STOR A	CE TANKS
VEGUS I EKEL	UNDER	UKUUND	SIUKA	CIC LAINNS

SEARCH ID: 21

DIST/DIR:

0.09 NE

MAP ID:

21

TARRO SERVICE(TOM & FRED S STN) 618 HARTFORD AVENUE

REV: ID1:

10/22/98

ADDRESS:

00962

PROVIDENCE RI 02909

ID2:

CONTACT:

STATUS: PHONE:

TANKS

INSTALLED

CAPACITY

CURRENT:

REMOVED:

6

04-52

275-10,000

PERMANENT: UNKNOWN:

TEMP: CLOSED:

PRODUCT STORED: UNSPECIFIED GASOLINE, EMPTY NO CONTENTS

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 19

DIST/DIR:

0.15 NW

MAP ID:

18

NAME:

HOLY CROSS CHURCH

ADDRESS: 641 HARTFORD AVE PROVIDENCE RI

REV: ID1: ID2:

10/22/98

03728

CONTACT:

PHONE:

STATUS:

TANKS

INSTALLED

CAPACITY

CURRENT:

TEMP: CLOSED:

REMOVED: PERMANENT: UNKNOWN:

1

99-99

1,000

PRODUCT STORED: #2 FUEL OIL/HOME HEATING OIL

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

JOB: 00000.0000 SPRINGFIELD AVENUE LOTS

REGISTERED	TIMDERGROUND	STORAGE TANKS
	CHARLENCERCOLLARY	SICKACIE LAINS

SEARCH ID: 18

DIST/DIR:

0.18 NW

MAP ID:

17

NAME:

HENRY OIL COMPANY

REV: ID1:

10/22/98 00480

ADDRESS:

675 HARTFORD AVENUE PROVIDENCE RI 02909

ID2:

STATUS: PHONE:

CONTACT:

TANKS

INSTALLED

CAPACITY

CURRENT:

REMOVED:

1

04-52

500

04-46

500-10,000

UNKNOWN: TEMP: CLOSED:

PERMANENT:

PRODUCT STORED: UNSPECIFIED GASOLINE,#2 FUEL OIL/HOME HEATING OIL

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 16

DIST/DIR:

0.21 NW

MAP ID:

3

NAME:

ADDRESS:

CORY & SONS 716 HARTFORD AVENUE PROVIDENCE RI 02909

REV: ID1: ID2:

10/22/98

03035

STATUS:

CONTACT:

PHONE:

TANKS

INSTALLED

CAPACITY

CURRENT:

2 3 11-94 04-70

10,000 4,000-5,000

REMOVED: PERMANENT: UNKNOWN:

TEMP: CLOSED:

PRODUCT STORED: UNLEADED REGULAR/SUPER GASOLINE

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

JOB: 00000.0000 0000 TOT SPRINGFIELD AVENUE LOTS

	REGISTERED	LINDERGROUND	STORAGE TANKS
--	------------	--------------	---------------

SEARCH ID: 20

DIST/DIR:

0.22 NE

MAP ID:

20

NAME: ADDRESS: RI CENTRAL CREDIT UNION 518 HARTFORD AVENUE PROVIDENCE RI

REV: ID1:

10/22/98 16449

ID2:

CONTACT:

STATUS: PHONE:

TANKS

INSTALLED

CAPACITY

CURRENT:

REMOVED: PERMANENT:

1

99-99

750

UNKNOWN: TEMP: CLOSED:

PRODUCT STORED: WASTE OIL

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 22

DIST/DIR:

0.23 NW

MAP ID:

22

NAME: ADDRESS: WESTWOOD MANOR APARTMENTS WESTWOOD MANOR DRIVE PROVIDENCE RI 02909

REV: ID1: ID2:

10/22/98

16695

CONTACT:

STATUS:

PHONE:

TANKS

3

INSTALLED

99-99

CAPACITY

2,000

CURRENT:

REMOVED:

PERMANENT:

UNKNOWN: TEMP: CLOSED:

PRODUCT STORED: #2 FUEL OIL/HOME HEATING OIL

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

REGISTERED UNDERGROUND STORAGE TANKS								
SEARCH ID: 17	DI	ST/DIR:	0.24 NV	W MAP ID:	16			
NAME: FRANK I ADDRESS: 729 HAR PROVIDI	DEFRUSCIO (ARCO) TFORD AVENUE ENCE RI			REV: 10/22/98 ID1: 15082 ID2: STATUS: PHONE:				
	TANKS	INST	ALLED	CAPACITY				
CURRENT: REMOVED: PERMANENT: UNKNOWN: TEMP: CLOSED:	4	12	-73	200 - 6,000				
PRODUCT STORED:	UNSPECIFIED GASOLINE, WASTE	3 OIL						

Environmental FirstSearch Street Name Report for Streets within .25 Mile(s) of Target Property

TARGET SITE:

SPRINGFIELD AVE

PROVIDENCE RI 02909

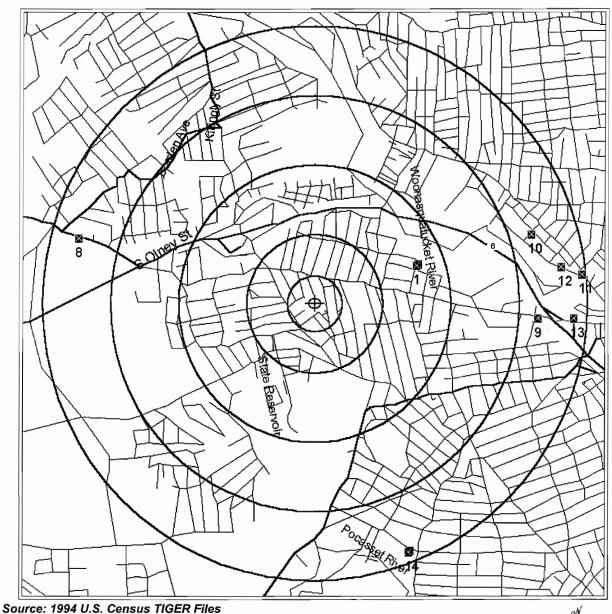
Street Name	Dist/Dir	Street Name	Dist/Dir
ANTHONY AVE	0.19 SW	MELISSA ST	0.24 NE
AURELIA DR	0.19 SW	MIDDLETON ST	0.15 NW
BARBARA ST	0.23 NE	MILO ROAD	0.07 NW
BOUNDARY AVE	$0.10~\mathrm{SW}$	MOTT ST	0.19 SW
BOWLET ST	0.18 NE	MYRA ST	0.13 SW
BUCHARD ST	0.13 SE	NEUTACONKANUT ROAD	0.22 SW
CELIA ST	0.18 NW	NYE ST	0.24 SE
CENTRAL AVE	0.23 SW	OPHELIA ST	0.08 NE
DEDHAM AVE	0.19 SE	PAOLINO ST	0.11 NW
DIANA ROAD	0.01 NE	PETTEYS AVE	0.20 NE
ELIZA ST	0.11 NE	RHODA DR	0.23 SW
EMILIA ST	0.24 SW	SCHOFIELD ST	0.25 SW
EUGENE ST	0.07 NE	SETON ST	0.04 SW
GLENBRIDGE AVE	0.21 NE	SPRINGFIELD ST	0.04 NE
HARTFORD AVE	0.10 N-	STANFIELD ST	0.00 SW
HILARITY ST	0.14 NE	STELLA ST	0.13 NW
HORACE ST	0.09 SW	SUMMIT AVE	0.25 SW
JACQUELINE DR	0.24 SW	SUNSET AVE	0.17 SW
KILLINGLY ST	0.09 SW	THORNTON ST	0.04 SW
KINFIELD ST	0.10 NE	VERDIE ST	0.10 SW
KING PHILIP ST	0.10 NW	WESTWOOD CT	0.21 NW
KITCHNER ROAD	0.17 NW	WESTWOOD MANOR DR	0.13 NW
LECIA DR	0.17 SW	WOLFE ST	0.20 SE
LEGION MEMORIAL ROAD	0.19 SW	WOODFALL ST	0.02 SW
LOWELL AVE	0.23 NE		

Environmental FirstSearch

1 Mile Radius

ASTM Map: NPL, RCRACOR, STATE Sites

SPRINGFIELD AVE, PROVIDENCE RI 02909



Target Site

Identified Site

Multiple Sites

Receptor

NPL, SWL or Haz. Waste

Target ZIP Boundary

Adjacent ZIP Boundary

Railroad

Black Rings Represent 1/4 Mile Radii Red Ring Represents 500 ft. Radius



Environmental FirstSearch

.5 Mile Radius

ASTM Map: CERCLIS, RCRATSD, SPILLS90, SWL, LUST

SPRINGFIELD AVE, PROVIDENCE RI 02909



Source: 1994 U.S. Census TIGER Files



Target Site



Identified Site



Multiple Sites

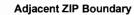


Receptor



NPL, SWL or Haz. Waste

Target ZIP Boundary



Railroad

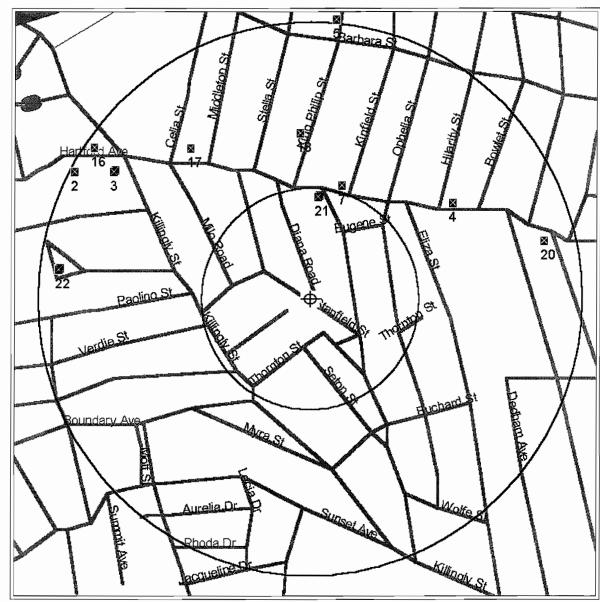
Black Rings Represent 1/4 Mile Radii Red Ring Represents 500 ft. Radius



Environmental FirstSearch

.25 Mile Radius ASTM Map: RCRAGEN, ERNS, UST

SPRINGFIELD AVE, PROVIDENCE RI 02909



Source: 1994 U.S. Census TIGER Files



Target Site



Identified Site



Multiple Sites



Receptor



NPL, SWL or Haz. Waste

Target ZIP Boundary

Adjacent ZIP Boundary

Railroad

Black Rings Represent 1/4 Mile Radii Red Ring Represents 500 ft. Radius



Environmental FirstSearch Sites Summary Report

TARGET SITE:

93

TOTAL:

SPRINGFIELD AVE

66

00000.0000 SPRINGFIELD AVENUE LOTS

PROVIDENCE RI 02909

GEOCODED: 27

NON GEOCODED:

SELECTED:

18

7

0.16 NE

DB Type Dist/Dir ID Site Name/ID/Status Address Map ID 50-55 PONAGANSETT AVENUE 0.40 NE 1 1 **CERCLIS** LINCOLN LACE & BRAID PROVIDENCE RI 02908 RID001207489/NFRAP MENEMSHA (5 USCG STREET) PSEUDO NON GC 28 **CERCLIS** RID982748774/NOT PROPOSED PROVIDENCE RI NON GC 39 **ERNS** D21546/HIGHWAY PROVIDENCE RI ADMANTHOS SHIPPING AGENCY COASTAL TERMINAL NON GC **ERNS** 32 PROVIDENCE RI 487940/UNKNOWN BETWEEN CRANSTON AND PROVIDENCE STA 33 **ERNS AMTRAK** NON GC 550969/UNKNOWN PROVIDENCE RI M/V ASPHALT COMMANDER HUDSON TERMINAL ADDRESS UNKNOWN 34 **ERNS** NON GC 584363/UNKNOWN PROVIDENCE RI

HUDSON DOCK NON GC **ERNS** MV ASPHALT CHAMPION 35 586290/UNKNOWN PROVIDENCE RI NON GC **ERNS** REINAUER TRANSPORTATION C COASTAL OIL DOCK 36 470557/UNKNOWN PROVIDENCE RI

37 **ERNS** STAR ENTERPRISE UNKNOWN NON GC 567125/UNKNOWN PROVIDENCE RI REAR OF 12 ROCHELA STREET NON GC **ERNS** UNKNOWN 40 584281/UNKNOWN JOHNSTON RI 02919

NON GC **ERNS** UNKNOWN A PIER IN NARRAGANSETT BAY 38 596728/UNKNOWN PROVIDENCE RI

618 HARFORD AVENUE 21 LUST TOM AND FRED S 0:09 NE 26 28118-LS/ACTIVE PROVIDENCE RT 02909 27 LUST WESTWOOD MANOR APARTMENTS WESTWOOD MANOR DRIVE 0.23 NW 22 2877-LS/SOIL REMOVAL ONLY PROVIDENCE RI 02919 CONTINENTAL BAKING 469 HARTFORD AVENUE 0.34 NE 6 **LUST** 24 2849-LS/SOIL REMOVAL ONLY PROVIDENCE RI 02909 807 HARTFORD AVENUE **B AND D PLASTICS** 0.39 NW 15 23 LUST 1617-ST/INACTIVE JOHNSTON RI 02919 ASHBY STREET PROVIDENCE WATER SUPPLY 0.44 SW 19 25 **LUST** 1613-LS/ACTIVE JOHNSTON RI 02919 PORT OF PROVIDENCE PORT OF PROVIDENCE NON GC 92 LUST PROVIDENCE RI 99999 2833-LS/INACTIVE

LUST ROGER WILLIAMS HOUSING PROJECT NON GC 93 PROVIDENCE RI 2820-LS/NO TIRES R V S 613 HARTFORD AVE 0.11 NE RCRAGN **PROVIDENCE RI 02910** RI5000011965/SGN

RCRAGN CRYSTAL CLEANERS **571 HARTFORD AVE** RID055176895/SGN PROVIDENCE RI 02909

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APPENDIX E

Hager - Richter Geoscience, Inc. Report

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GEOPHYSICAL SURVEY SPRINGFIELD AVENUE LOTS PROVIDENCE, RHODE ISLAND

Prepared for:

ATC Associates, Inc.
1 Richmond Square
Providence, Rhode Island 02906

Prepared by:

Hager-Richter Geoscience, Inc. 8 Industrial Way - D10 Salem, New Hampshire 03079

File 99G16 February, 1999

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HAGER-RICHTER GEOSCIENCE, INC.

CONSULTANTS IN GEOLOGY & GEOPHYSICS 8 INDUSTRIAL WAY - D10 SALEM, NEW HAMPSHIRE 03079 TELEPHONE (603) 893-9944 FAX (603) 893-8313

February 28, 1999 File 99G16

Mr. Adam Sullivan ATC Associates, Inc. 1 Richmond Square Providence, Rhode Island 02906

RE: Magnetic Survey

Springfield Avenue Lots Providence, Rhode Island

Dear Mr. Sullivan:

In this letter, we briefly report the results of a geophysical survey conducted by Hager-Richter Geoscience, Inc. at the Springfield Avenue Lots in Providence, Rhode Island for ATC Associates (ATC) on February 24, 1999. The scope of the project and area of survey were specified by ATC. The geophysical survey is part of an environmental investigation of the site by ATC.

Introduction

The subject site is a group of undeveloped lots located west of Springfield Avenue south of the intersection with Hartford Avenue. Figure 1 shows the general location of the Site. According to information provided by ATC, drums may have been disposed at the Site. ATC specified an area of interest at the Site approximately 140 feet by 100 feet in size, partially wooded, and covered with grass and brush. Figure 2 is a site sketch generated from field notes.

Objective

The objective of the geophysical survey was to detect possible buried metal within the area of interest at the Site, and if any were detected, to locate the areas.

The Survey

General. James Coffman and Steven Grant of Hager-Richter conducted the field operations on February 24, 1999. The project was coordinated with Mr. Adam Sullivan of ATC. Mr. Sullivan observed the field work and specified the area of interest.

Equipment. A Geometrics Model G858-G Cesium Vapor Magnetometer was used as the



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survey magnetometer. The G858-G uses two sensors with a vertical separation of 2.4 feet and the total magnetic field and the vertical magnetic gradient were both measured. The G858-G can record data at 0.1 second cycle rates with a 0.05 gamma sensitivity. Data are stored in non-volatile RAM for playback review in the field and downloading to a computer.

This magnetometer has two major advantages over conventional proton precession and fluxgate magnetometers: insensitivity to electromagnetic fields, such as those associated with power lines and high rate of data acquisition. With either the proton precession or fluxgate magnetometers, the electromagnetic field may affect the instrumentation and result in recording *incorrect* values of the magnetic field. Because the cesium vapor magnetometer is not effected by electromagnetic fields, high quality data can be collected directly beneath power lines. In addition, the cesium vapor magnetometer can collect data rapidly, allowing collection of data at short intervals, an important advantage where the target is small.

Data Presentation and Interpretation. Magnetic data are most commonly presented as contour maps. The total magnetic field data are contoured using the top sensor magnetic values. Gradiometer data are processed by subtracting the top sensor value from the bottom sensor value and dividing by the distance between the sensors. Because the magnetic data recorded by the base station magnetometer changed by only seven gammas during the survey, no correction of the survey data was necessary.

Total magnetic field signatures caused by one or more buried metal objects commonly consist of paired positive and negative anomalies, with the positive anomaly located slightly south of the mass and the negative anomaly located slightly toward the north. The width, gradient, and amplitude of a magnetic anomaly are functions of the mass of the causative object(s) and their distance from the magnetometer sensor.

Vertical magnetic gradient data, also commonly called gradiometer data, can be used to interpret the relative depth of burial of metal objects. In general, an object such as a drum located at or near the ground surface produces a much greater magnetic effect at the lower sensor than at the upper sensor. The result is a relatively large vertical magnetic gradient. If a magnetic object is deeply buried, the magnetic field measured by both sensors is nearly the same, and the vertical gradient is relatively small. Therefore, steep vertical magnetic gradients indicate the presence of near-surface metallic objects.

Limitations of the Method. The data recorded in magnetic surveys are affected by all ferrous metal objects. In particular, steel objects above ground, such as rails, fences, and vehicles, can so influence the magnetic field that the effects of buried metal objects, if any, at the same location are "masked." Thus, where magnetic anomalies can be attributed to surface objects, the presence or absence of buried metal objects cannot be determined from the magnetic data alone.

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Detection and identification should be clearly differentiated. Detection is the recognition of the presence of a magnetic object, and the magnetic method is excellent for such purposes. Identification, on the other hand, is determination of the nature of the causative body (i.e., what is the body -- a cache of drums, UST, automobile, white goods, etc.?), and the magnetic method cannot identify the buried metal object.

Results

The magnetic data are presented as color contour plots of the total magnetic field and vertical magnetic gradient data in Figure 3. Figure 4 shows the interpretation of the magnetic data.

As can be seen on Figure 3, the site is characterized by several large amplitude total magnetic field and vertical magnetic gradient anomalies located along the eastern and northern sides of the Site. Two of the anomalies, located near (90E,30N) and (10E, 110N) are related to observed surface metal. The presence or absence of buried metal in the vicinity of these locations cannot be determined on the basis of the magnetic data alone.

The anomaly located at (20E, 140N) and the linear anomaly in the northeast corner of the survey area are judged to be caused, at least in part, by buried metal. The locations of the anomalies are shown as hatched areas on Figure 4. The linear anomaly may be due to the presence of a buried metallic utility crossing the survey area.

Limitations

This letter report was prepared for the exclusive use of ATC Associates, Inc. (Client). No other party shall be entitled to rely on this Report or any information, documents, records, data, interpretations, advice or opinions given to Client by Hager-Richter Geoscience, Inc. (H-R) in the performance of its work. The Report relates solely to the specific project for which H-R has been retained and shall not be used or relied upon by Client or any third party for any variation or extension of this project, any other project or any other purpose without the express written permission of H-R. Any unpermitted use by Client or any third party shall be at Client's or such third party's own risk and without any liability to H-R.

H-R has used reasonable care, skill, competence and judgment in the performance of its services for this project consistent with professional standards for those providing similar services at the same time, in the same locale, and under like circumstances. Unless otherwise stated, the work performed by H-R should be understood to be exploratory and interpretational in character and any results, findings or recommendations contained in this Report or resulting from the work proposed may include decisions which are judgmental in nature and not necessarily based solely on pure science or engineering. It should be noted that our conclusions might be modified if subsurface conditions were better delineated with additional subsurface exploration including, but not limited to, test pits,

HAGER-RICHTER GEOSCIENCE, INC.

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soil borings with collection of soil and water samples, and laboratory testing.

Except as expressly provided in this limitations section, H-R makes no other representation or warranty of any kind whatsoever, oral or written, expressed or implied; and all implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed.

If you have any questions or comments on this letter report, please contact us at your convenience. It has been a pleasure to work with ATC on this project. We look forward to working with you again in the future.

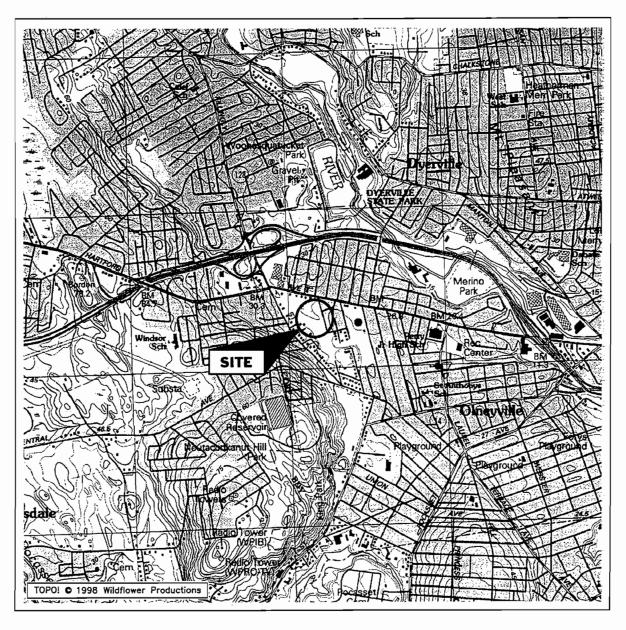
Sincerely yours,

HAGER-RICHTER GEOSCIENCE, INC.

Dorothy Richter

President

Attachments: Figures 1-4





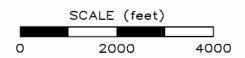
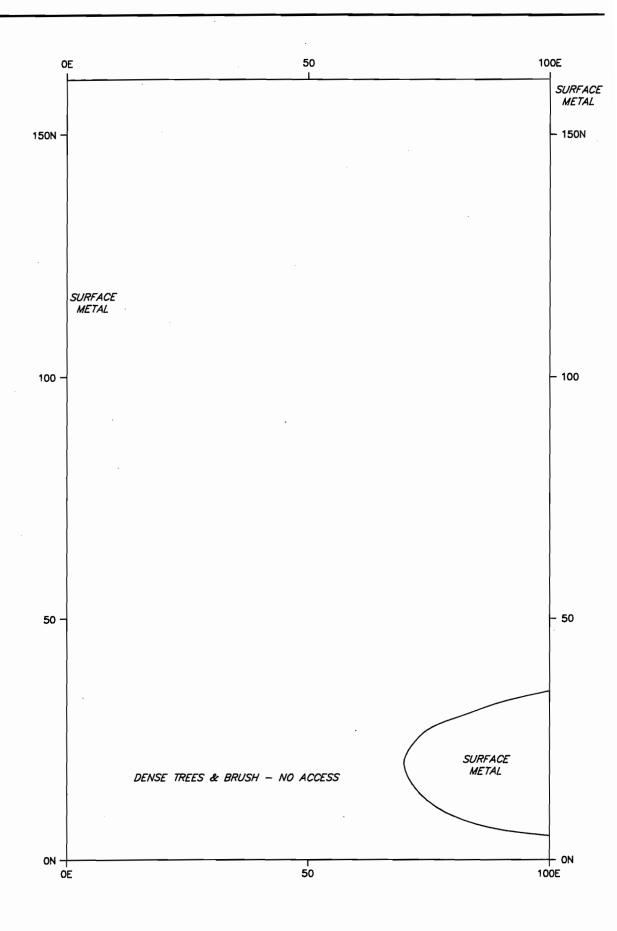


Figure 1 General Site Location Springfield Avenue Lots Providence, Rhode Island

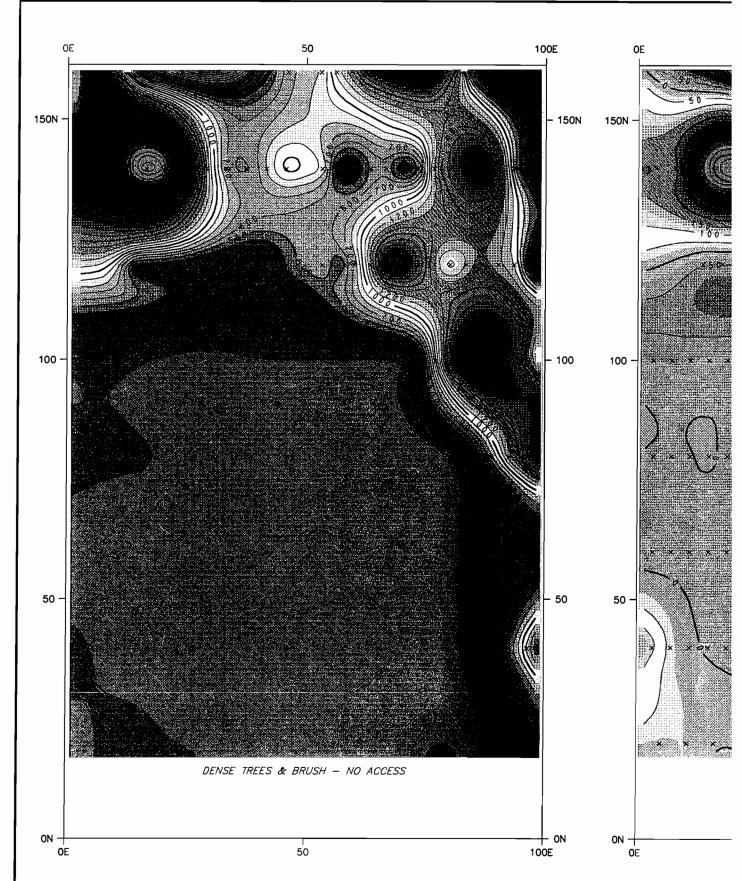
File 99G16

February, 1999

HAGER-RICHTER GEOSCIENCE, INC. Salem, New Hampshire



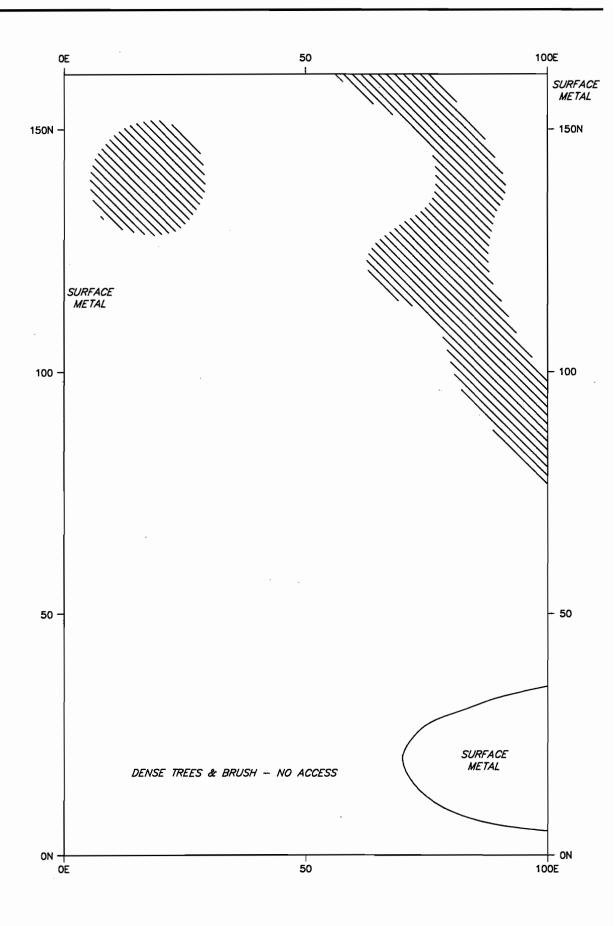
NOTE:
Site sketch generated from field notes.



TOTAL MAGNETIC FIELD

Contour Interval = 100 gammas

Total magnetic field valves shown relative to 54,000 gammas



NOTE:
Site sketch generated from field notes.

APPENDIX F

CERTIFICATES OF ANALYSIS

REPORT OF ANALYTICAL RESULTS

Case Number: J0301-12

Prepared for:

ATC Associates
One Richmond Square
Providence, RI 02906
Attn: Adam Sullivan

Report Date: MARCH 5, 1999

Reviewed by:

Mark H. Bishop Laboratory Director

mark XI Bishop is

NEW ENGLAND TESTING LABORATORY, INC.

1254 Douglas Avenue, North Providence, Rhode Island 02904-5392 PROVIDENCE (401) 353-3420 TOLL FREE: 1-888-863-8522

SAMPLES SUBMITTED:

The following samples were submitted to New England Testing Laboratory on 01 MARCH 1999:

"Springfield Ave."

Soil:

- 1. TP-1
- 2. TP-3
- 3. TP-4

Water:

4. TP-4

The samples were assigned an internal identification code for laboratory information management purposes. The case number for this sample submission is:

J0301-12

ANALYSIS PERFORMED:

The following table details the analyses performed on the samples at the request of the client:

Sample "Springfield Ave." J0301-12:	<u>Analysis</u>	<u>Method</u>
Samples 1-3	PCBs VOCs Total Petroleum Hydrocarbons Total Petroleum Hydrocarbons Total Metals Arsenic Barium Cadmium Chromium Lead Mercury Selenium Silver	8082 8260B 5030B/8015B mod. 3550B/8015B mod. 7060A 6010B 6010B 6010B 6010B 7471A 7740 6010B
4. TP-4	Total Petroleum Hydrocarbons	3510C/8015B mod.

Note: These methods are documented in:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW.

QUALITY ASSURANCE/CONTROL STATEMENTS

All samples were found to be properly preserved/cooled upon receipt. All analyses were performed within EPA designated holding-times. Procedure/calibration checks required by the designated protocols were within control limits.

ANALYTICAL RESULTS

TP-1

<u>Parameter</u>	<u>Result</u>	Reporting <u>Limit</u>
Total Petroleum Hydrocarbons "DRO", mg/Kg*	1700	5
Total Petroleum Hydrocarbons "GRO", mg/Kg*	N.D.	2.5
Arsenic, mg/Kg*	2.46	0.33
Barium, mg/Kg*	138	1.33
Cadmium, mg/Kg*	2.01	0.33
Chromium, mg/Kg*	38	1.33
Lead, mg/Kg*	205	3.33
Mercury, mg/Kg*	0.21	0.1
Selenium, mg/Kg*	<1.16	0.33
Silver, mg/Kg*	<2.23	0.66

N.D. = Not Detected

^{*}Dry Weight Basis

TP-3

<u>Parameter</u>	. <u>Result</u>	Reporting <u>Limit</u>
Total Petroleum Hydrocarbons "DRO", mg/Kg*	315	5
Total Petroleum Hydrocarbons "GRO", mg/Kg*	N.D.	2.5
Arsenic, mg/Kg*	8.23	0.33
Barium, mg/Kg*	117	1.33
Cadmium, mg/Kg*	2.52	0.33
Chromium, mg/Kg*	134	1.33
Lead, mg/Kg*	362	3.33
Mercury, mg/Kg*	1.65	0.1
Selenium, mg/Kg*	0.69	0.33
Silver, mg/Kg*	<1.15	0.66

N.D. = Not Detected

^{*}Dry Weight Basis

TP-4

<u>Parameter</u>	<u>Result</u>	Reporting <u>Limit</u>
Total Petroleum Hydrocarbons "DRO", mg/Kg*	117	5
Total Petroleum Hydrocarbons "GRO", mg/Kg*	N.D.	2.5
Arsenic, mg/Kg*	8.27	0.33
Barium, mg/Kg*	212	1.33
Cadmium, mg/Kg*	3.66	0.33
Chromium, mg/Kg*	33	1.33
Lead, mg/Kg*	739	3.33
Mercury, mg/Kg*	0.28	0.1
Selenium, mg/Kg*	1.02	0.33
Silver, mg/Kg*	2.04	0.66

TP-4

<u>Parameter</u>	Result	Reporting <u>Limit</u>
Total Petroleum Hydrocarbons "DRO", ug/L	997	50

N.D. = Not Detected

^{*}Dry Weight Basis

Case No. J0301-12 Date Analyzed: 3/2/99

Subject: Volatile Organic Compounds Method: EPA 8260B

Compound	Concentration ug/Kg (ppb)	Reporting <u>Limit</u>
Acetone Benzene	N.D. N.D.	250 50
Bromochloromethane	N.D.	50
Bromodichloromethane	N.D.	50
Bromoform	N.D.	50
Bromomethane	N.D.	50
2-Butanone	N.D.	250
n-Butylbenzene	N.D.	50
sec-Butylbenzene	N.D.	50
tert-Butylbenzene	N.D.	50
Carbon tetrachloride	N.D.	50
Chlorobenzene	N.D.	50
Chlorodibromomethane	N.D.	50
Chloroethane	N.D.	50
Chloroform	N.D.	50
Chloromethane	N.D.	50
2-Chlorotoluene	N.D.	50
4-Chlorotoluene	N.D.	50
Dibromomethane	N.D.	50
1,2-Dibromo-3-chloropropane	N.D.	50
1,2-Dibromoethane	N.D.	50
1,2-Dichlorobenzene	N.D.	50
1,3-Dichlorobenzene	N.D.	50 50
1,4-Dichlorobenzene	N.D.	50 50
Dichlorodifluoromethane	N.D.	50 50
1,1-Dichloroethane	N.D.	50 50
1,2-Dichloroethane	N.D.	50 50
1,1-Dichloroethene	N.D.	50 50
cis-1,2-Dichloroethene	N.D.	50 50
trans-1,2-Dichloroethene	N.D.	50·
1,2-Dichloropropane	N.D. N.D.	50
cis-1,3-Dichloropropene	N.D. N.D.	50
trans-1,3-Dichloropropene	N.D. N.D.	50 50
Ethylbenzene	N.D. N.D.	50 50
2-Hexanone	N.D. N.D.	50
Isopropylbenzene	N.D. N.D.	50 50
p-Isopropyltoluene	N.D.	150
Methylene chloride tert-Butylmethylether	N.D.	250
tert-butylinetriyletrici	14.0.	200

Compound	Concentration ug/Kg (ppb)	Reporting <u>Limit</u>
4-Methyl-2-pentanone	N.D.	250
Naphthalene	N.D.	100
n-Propylbenzene	N.D.	50
Styrene	N.D.	50
1,1,1,2-Tetrachloroethane	N.D.	50
1,1,2,2-Tetrachloroethane	N.D.	50
Tetrachloroethene	N.D.	50
Toluene	N.D.	50
1,2,3-Trichlorobenzene	N.D.	50
1,1,1-Trichloroethane	N.D.	50
1,1,2-Trichloroethane	N.D.	50
Trichloroethene	N.D.	50
Trichlorofluoromethane	N.D.	50
1,2,3-Trichloropropane	N.D.	50
1,2,4-Trimethylbenzene	N.D.	50
1,3,5-Trimethylbenzene	N.D.	50
Vinyl chloride	N.D.	50
Xylene, Total	N.D.	100

Compound	% Recovery	<u>Limits</u>
Toluene d8	105	81-117
1,2-Dichloroethane d4	99	70-121
4 BFB	101	74-121

Case No. J0301-12 Date Analyzed: 3/2/99

Subject: Volatile Organic Compounds Method: EPA 8260B

Compound	Concentration ug/Kg (ppb)	Reporting Limit
Acetone	N.D.	250
Benzene	N.D.	50
Bromochloromethane	N.D.	50
Bromodichloromethane	N.D.	50
Bromoform	N.D.	50
Bromomethane	N.D.	50
2-Butanone	N.D.	250
n-Butylbenzene	N.D.	50
sec-Butylbenzene	N.D.	50
tert-Butylbenzene	N.D.	50
Carbon tetrachloride	N.D.	50
Chlorobenzene	N.D.	50
Chlorodibromomethane	N.D.	50
Chloroethane	N.D.	50
Chloroform	N.D.	50
Chloromethane	N.D.	50
2-Chlorotoluene	N.D.	50
4-Chlorotoluene	N.D.	50
Dibromomethane	N.D.	50
1,2-Dibromo-3-chloropropane	N.D.	50
1,2-Dibromoethane	N.D.	50
1,2-Dichlorobenzene	N.D.	50
1,3-Dichlorobenzene	N.D.	50
1,4-Dichlorobenzene	N.D.	50
Dichlorodifluoromethane	N.D.	50
1,1-Dichloroethane	N.D.	50
1,2-Dichloroethane	N.D.	50
1,1-Dichloroethene	N.D.	50
cis-1,2-Dichloroethene	N.D.	50
trans-1,2-Dichloroethene	N.D.	50
1,2-Dichloropropane	N.D.	50
cis-1,3-Dichloropropene	N.D.	50
trans-1,3-Dichloropropene	N.D.	50
Ethylbenzene	N.D.	50
2-Hexanone	N.D.	50
Isopropylbenzene	N.D.	50
p-Isopropyltoluene	N.D.	50
Methylene chloride	N.D.	150
tert-Butylmethylether	N.D.	250

.Case No. J0301-12

Compound	Concentration ug/Kg (ppb)	Reporting <u>Limit</u>
4-Methyl-2-pentanone	N.D.	250
Naphthalene	N.D.	100
n-Propylbenzene	N.D.	50
Styrene	N.D.	50
1,1,1,2-Tetrachloroethane	N.D.	50
1,1,2,2-Tetrachloroethane	N.D.	50
Tetrachloroethene	N.D.	50
Toluene	N.D.	50
1,2,3-Trichlorobenzene	N.D.	50
1,1,1-Trichloroethane	N.D.	50
1,1,2-Trichloroethane	N.D.	50
Trichloroethene	N.D.	50
Trichlorofluoromethane	N.D.	50
1,2,3-Trichloropropane	N.D.	50
1,2,4-Trimethylbenzene	N.D.	50
1,3,5-Trimethylbenzene	N.D.	50
Vinyl chloride	N.D.	50
Xylene, Total	N.D.	100

<u>Compound</u> ·	% Recovery	<u>Limits</u>
Toluene d8	106	81-117
1,2-Dichloroethane d4	100	70-121
4 BFB	101	74-121

Case No. J0301-12 Date Analyzed: 3/2/99

Subject: Volatile Organic Compounds Method: EPA 8260B

Compound	Concentration ug/Kg (ppb)	Reporting <u>Limit</u>
Acetone	N.D.	250
Benzene	N.D.	50
Bromochloromethane	N.D.	50
Bromodichloromethane	N.D.	50
Bromoform	N.D.	50
Bromomethane	N.D.	50
2-Butanone	N.D.	250
n-Butylbenzene	N.D.	50
sec-Butylbenzene	N.D.	50
tert-Butylbenzene	N.D.	50
Carbon tetrachloride	N.D.	50
Chlorobenzene	N.D.	50
Chlorodibromomethane	N.D.	50
Chloroethane	N.D.	50
Chloroform	N.D.	50
Chloromethane	N.D.	50
2-Chlorotoluene	N.D.	. 50
4-Chlorotoluene	N.D.	50
Dibromomethane	N.D.	50
1,2-Dibromo-3-chloropropane	N.D.	50
1,2-Dibromoethane	N.D.	50
1,2-Dichlorobenzene	N.D.	50
1,3-Dichlorobenzene	N.D.	50
1,4-Dichlorobenzene	N.D.	50
Dichlorodifluoromethane	N.D.	50
1,1-Dichloroethane	N.D.	50
1,2-Dichloroethane	N.D.	50
1,1-Dichloroethene	N.D.	. 50
cis-1,2-Dichloroethene	N.D.	50
trans-1,2-Dichloroethene	N.D.	50
1,2-Dichloropropane	N.D.	50
cis-1,3-Dichloropropene	N.D.	. 50
trans-1,3-Dichloropropene	N.D.	50
Ethylbenzene	N.D.	. 50
2-Hexanone	N.D.	50
Isopropylbenzene	N.D.	50
p-Isopropyltoluene	N.D.	50
Methylene chloride	N.D.	150
tert-Butylmethylether	N.D.	250

Compound	Concentration ug/Kg (ppb)	Reporting <u>Limit</u>
4-Methyl-2-pentanone Naphthalene	N.D. N.D.	250 100
n-Propylbenzene	N.D. N.D.	50 50
Styrene 1,1,1,2-Tetrachloroethane	N.D.	50 50
1,1,2,2-Tetrachloroethane Tetrachloroethene	N.D. N.D.	50 50
Toluene	N.D.	50
1,2,3-Trichlorobenzene 1,1,1-Trichloroethane	N.D. N.D.	50 50
1,1,2-Trichloroethane	N.D.	50
Trichloroethene Trichlorofluoromethane	N.D. N.D.	50 50
1,2,3-Trichloropropane	N.D.	50 50
1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	N.D. N.D.	50 50
Vinyl chloride Xylene, Total	N.D. N.D.	50 100
7,7,0,10,		, 55

Compound	% Recovery	<u>Limits</u>
Toluene d8	108	81-117
1,2-Dichloroethane d4	102	70-121
4 BFB	102	74-121

Case No. J0301-12 Date Extracted: 3/2/99

Date Analyzed: 3/3/99

Subject: PCBs Method: EPA 8082

Concentration	Reporting		
ug/Kg (ppb)	<u>Limit</u>		
N.D.	100		
N.D.	200		
N.D.	100		
N.D.	100		
N.D.	100		
191	100		
N.D.	100		
	ug/Kg (ppb) N.D. N.D. N.D. N.D. N.D. 191		

Compound	% Recovery	<u>Limits</u>
TCMX	68	40-150
DCBP	73	40-150

^{*}The pattern for this sample is substantially similar to, but not an exact match for, Aroclor 1254

Case No. J0301-12 Date Extracted: 3/2/99 Date Analyzed: 3/3/99

Subject: PCBs Method: EPA 8082

Compound	Concentration ug/Kg (ppb)	Reporting <u>Limit</u>
PCB-1016	N.D.	100
PCB-1221	N.D.	200
PCB-1232	N.D.	100
PCB-1242	N.D.	100
PCB-1248	N.D.	100
PCB-1254*	305	100
PCB-1260	N.D.	100

Compound	% Recovery	<u>Limits</u>
TCMX	73	40-150
DCBP	68	40-150

^{*}The pattern for this sample is substantially similar to, but not an exact match for, Aroclor 1254

Case No. J0301-12 Date Extracted: 3/2/99 Date Analyzed: 3/3/99

Subject: PCBs Method: EPA 8082

Compound	Concentration ug/Kg (ppb)	Reporting <u>Limit</u>
PCB-1016	N.D.	100
PCB-1221	N.D.	200
PCB-1232	N.D.	100
PCB-1242	N.D.	100
PCB-1248	N.D.	100
PCB-1254*	840	100
PCB-1260	N.D.	100

Compound	% Recovery	<u>Limits</u>
TCMX	83	40-150
DCBP	68	40-150

^{*}The pattern for this sample is substantially similar to, but not an exact match for, Aroclor 1254

CUSTODY RECORD

71-10805

(413) 525-2332 FAX (413) 525-6405

con-test

39 SPRUCE ST. • 2ND FLOOR • EAST LONGMEADOW, MA 01028 **CHAIN OF CUSTODY RECORD**

Normal O = OTHER -- Date Required ਰ Metals Due 3/5 KES1 (Ne. 3/3) > Analysis Required 080 48-Hour 9 PRESERVATIVE CODE: $S = NaOH T = Na_2S_2O_3$ 7 ð PE PE ذ 3 **CKO** 24-Hour 1 0 Container (Use Code) 274-3955 Preservative (Use Code) H = HCI 421-080H Turnaround Requested: other $N = HNO_3$ ٦iA Remarks/Comments: MATRIX OTHER lios MATRIX 3/11/43 DKG DKG I = ICED 40 GHOUND Telephone 3TSAW R3TAW Project #: Batch #: Client P.O.#: Fax #: Grab You noderrhuss size) A = 1000 ml Amber 0 = Other Composite Jan 12 17/2 14/2 1.4c qot2 emiT\etsQ Received by: (Signature) Received by (Signature) Received by: (Şignature) Oate/Time Start 3/1/1930/PM CONTAINER CODE Lab 97206 Date Time Date Time Client Name: ATC Associates Inc Size) V = 40 ml vial G = Glass (Nar 707 20H 708 203 Yes ላes ጉ ンカト Sample Description Pélinquished by: (Signature) Relinquished by: (Signature) Relinguished by: (Signature ج رَّحَن Ŕ Site Location: 🗠 Sampled: By: __ Call Results: Fax Results: p-d-P: PLASTIC (Address: -Field Sample I.D.



39 Spruce Street • 2nd floor • East Longmedacw, MA 01928 • FAX 413 1525-6405 • TEL 413 1525-2332

ATC ASSOCIATES - PROVIDENCE ONE RICHMOND SQUARE TECH. CENTER

PROVIDENCE, RI 02906 ATTN: ADAM SULLIVAN

CONTACT: ADAM SULLIVAN

FIELD OFFICE: CR

REPORT DATE: 03/09/99

PROJECT NUMBER: 17676.00005

ANALYTICAL SUMMARY

LIMS BAT #: LIMS-40696

JOB NUMBER: 17676.00005

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this repo

PROJECT LOCATION: SPRINGFIELD AVE

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST
TH-9	99B04286	SOIL	NOT SPECIFIED	8260 - solid (a)
TH-9	99804286	SOIL	NOT SPECIFIED	8260 - solid (b)
TH-9	99804286	SOIL	NOT SPECIFIED	metals-8rcra sol
TH-9	99804286	SOIL	NOT SPECIFIED	pcb - soil
TH-9	99804286	SOIL	NOT SPECIFIED	tph gc (mg/kg)
TP-ATC-10	99804279	SOIL	NOT SPECIFIED	8260 - solid (a)
TP-ATC-10	99804279	SOIL	NOT SPECIFIED	8260 - solid (b)
TP-ATC-10	99804279	SOIL	NOT SPECIFIED	metals-8rcra sol
TP-ATC-10	99804279	SOIL	NOT SPECIFIED	pcb - soil
TP-ATC-10	99B04279	SOIL	NOT SPECIFIED	tph gc (mg/kg)
TP-ATC-11	99B04280	SOIL	NOT SPECIFIED	8260 - solid (a)
TP-ATC-11	99B04280	SOIL	NOT SPECIFIED	8260 - solid (b)
TP-ATC-11	99804280	SOIL	NOT SPECIFIED	metals-8rcra sol
TP-ATC-11	99804280	SOIL	NOT SPECIFIED	pcb - soil
TP-ATC-11	99804280	SOIL	NOT SPECIFIED	tph gc (mg/kg)
TP-ATC-11GO	99804281	SOIL	NOT SPECIFIED	8260 - solid (a)
TP-ATC-11GO	99804281	SOIL	NOT SPECIFIED	. 8260 - solid (b)
TP-ATC-11GO	99B04281	SOIL	NOT SPECIFIED	metals-8rcra sol
TP-ATC-11GO	99804281	SOIL	NOT SPECIFIED	pcb - soil
TP-ATC-11GO	99B04281	SOIL	NOT SPECIFIED	tph gc (mg/kg)
TP-ATC-12	99B04282	SOIL	NOT SPECIFIED	8260 - solid (a)
TP-ATC-12	99B04282	SOIL	NOT SPECIFIED	8260 - solid (b)
TP-ATC-12	99B04282	SOIL	NOT SPECIFIED	metals-8rcra sol
TP-ATC-12	99B04282	SOIL	NOT SPECIFIED	pcb - soil
TP-ATC-12	99B04282	SOIL	NOT SPECIFIED	tph gc (mg/kg)
TP-ATC-13	99B04283	SOIL	NOT SPECIFIED	8260 - solid (a)
TP-ATC-13	99804283	SOIL	NOT SPECIFIED	8260 - solid (b)
TP-ATC-13	99B04283	SOIL	NOT SPECIFIED	metals-8rcra sol
TP-ATC-13	99B04283	SOIL	NOT SPECIFIED	pcb - soil
TP-ATC-13	99804283	SOIL	NOT SPECIFIED	tph gc (mg/kg)
TP-ATC-14	99B04284	S01L	NOT SPECIFIED	8260 - solid (a)
TP-ATC-14	99804284	SOIL	NOT SPECIFIED	8260 - solid (b)
TP-ATC-14	99B04284	SOIL	NOT SPECIFIED	metals-8rcra sol
TP-ATC-14	99804284	SOIL	NOT SPECIFIED	pcb - soil
TP-ATC-14	99B04284	SOIL	NOT SPECIFIED	tph gc (mg/kg)
TP-ATC-15	99B04285	SOIL	NOT SPECIFIED	8260 - solid (a)
TP-ATC-15	99804285	SOIL	NOT SPECIFIED	8260 - solid (b)
TP-ATC-15	99B04285	SOIL	NOT SPECIFIED	metals-8rcra sol
TP-ATC-15	99804285	SOIL	NOT SPECIFIED	pcb - soil



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ATC ASSOCIATES - PROVIDENCE

CONTACT: ADAM SULLIVAN

REPORT DATE: 03/09/99

ONE RICHMOND SQUARE TECH. CENTER

PROVIDENCE, RI 02906 ATTN: ADAM SULLIVAN FIELD OFFICE: CR

PROJECT NUMBER: 17676.00005

ANALYTICAL SUMMARY

LIMS BAT #: LIMS-40696

JOB NUMBER: 17676.00005

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST
TP-ATC-15	99804285	SOIL	NOT SPECIFIED	tph gc (mg/kg)
TP-ATC-16	99804287	SOIL	NOT SPECIFIED	8260 - solid (a)
TP-ATC-16	99B04287	SOIL	NOT SPECIFIED	8260 - solid (b)
TP-ATC-16	99804287	SOIL	NOT SPECIFIED	metals-8rcra sol
TP-ATC-16	99804287	SOIL	NOT SPECIFIED	pcb - soil
TP-ATC-16	99804287	SOIL	NOT SPECIFIED	tph gc (mg/kg)

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

AIHA 308

AIHA ELLAP (LEAD) 6838

MASSACHUSETTS MA100

NEW HAMPSHIRE 2516

CONNECTICUT PH-0567 NEW YORK ELAP 10899 VERMONT DOH (LEAD) No. 15036 RHODE ISLAND (LIC. No. 112)

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Too Kopapara 3/9/90 SIGNATURE DATE Tod Kopyscinski Director of Operations

Edward Denson Technical Director



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ADAM SULLIVAN

ATC ASSOCIATES - PROVIDENCE
ONE RICHMOND SQUARE TECH. CENTER

PROVIDENCE, RI 02906

Contact: ADAM SULLIVAN

Field Office:CR

03/09/99

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Project Number: 17676.00005

Project Location: SPRINGFIELD AVE

Date Received: 03/04/99

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TH-9

			Date			SPEC	
	Units	99804286	Analyzed	Analyst	MDL	LIMIT	P/F
						••••	
Acetone	mg/kg	ND	03/06/99	WSD	0.250		
Acrolein	mg/kg	ND	03/06/99	WSD	0.100		
Acrylonitrile	mg/kg	ND	03/06/99	WSD	0.038		
Benzene	mg/kg	ND	03/06/99	WSD	0.003		
Bromobenzene	mg/kg	ND	03/06/99	WSD	0.002		
Bromochloromethane	mg/kg	ND	03/06/99	WSD	0.004		
Bromodichloromethane	mg/kg	ND	03/06/99	WSD	0.002		
Bromomethane	mg/kg	ND	03/06/99	WSD	0.006		
Bromoform	mg/kg	ND	03/06/99	WSD	0.006		
2-Butanone (MEK)	mg/kg	ND	03/06/99	WSD	0.060		
n-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
sec-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
tert-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
Carbon Disulfide	mg/kg	ND	03/06/99	WSD	0.002		
Carbon Tetrachloride	mg/kg	ND	03/06/99	WSD	0.002		
Chlorobenzene	mg/kg	ND	03/06/99	WSD	0.003		
Chlorodibromomethane	mg/kg	ND	03/06/99	WSD	0.002		
Chloroethane	mg/kg	ND	03/06/99	WSD	0.004		
2-Chloroethylvinylether	mg/kg	ND	03/06/99	WSD	0.048		
Chloroform	mg/kg	ND	03/06/99	WSD	0.004		
Chloromethane	mg/kg	ND	03/06/99	WSD	0.006		
2-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003		
4-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003		
1,2-Dibromo-3-Chloropropane	mg/kg	ND	03/06/99	WSD	0.008		
1,2-Dibromoethane	mg/kg	ND	03/06/99	WSD	0.004		
Dibromomethane	mg/kg	ND	03/06/99	WSD	0.006		
1,2-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,3-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.003		
1,4-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
cis-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.012		
trans-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.010		
Dichlorodifluoromethane	mg/kg	ND	03/06/99	WSD	0.005		

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured

SPEC LIMIT = a client specified, recommended, or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TH-9

			Date			SPEC	
,	Units	99804286	Analyzed	Analyst	MDL	LIMIT	P/F
1,1-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,2-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.003		
cis-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.004		
1,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.003		
1,3-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.002	-	
2,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.004		
1,1-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.007		
cis-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
Ethyl Benzene	mg/kg	ND	03/06/99	WSD	0.003		
Ethyl Methacrylate	mg/kg	ND	03/06/99	WSD	0.004		
Hexachlorobutadiene	mg/kg	ND	03/06/99	WSD	0.006		
2-Hexanone	mg/kg	ND	03/06/99	WSD	0.048		
Iodomethane	mg/kg	ND	03/06/99	WSD	0.004		
Isopropylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
p-Isopropyltoluene	mg/kg	ND	03/06/99	WSD	0.004		
MTBE	mg/kg	ND	03/06/99	WSD	0.004		
Methylene Chloride	mg/kg	0.114	03/06/99	WSD	0.075		
MIBK	mg/kg	ND	03/06/99	WSD	0.044		
Naphthalene	mg/kg	ND	03/06/99	WSD	0.005		
n-Propylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
Styrene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.002		
1,1,2,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.007		
Tetrachloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
Toluene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,4-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1,2-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		

MDL = Method Detection Limit

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BDL = Below Detection Limit

NM = Not Measured

SPEC LIMIT = a client specified, recommended, or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TH-9

			Date			SPEC	
	Units	99804286	Analyzed	Analyst	MDL	LIMIT	P/F
•••••			• • • • • • • • • • • • • • • • • • • •				
Trichloroethylene	mg/kg	ND	03/06/99	WSD	0.005		
Trichlorofluoromethane	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichloropropane	mg/kg	ND	03/06/99	WSD	0.006		
1,2,4-Trimethylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,3,5-Trimethylbenzene	mg/kg	ND	03/06/99	WSD	0.005		
Vinyl Acetate	mg/kg	ND	03/06/99	WSD	0.082		
Vinyl Chloride	mg/kg	ND	03/06/99	WSD	0.002		
m-Xylene	mg/kg	ND	03/06/99	WSD	0.006		
o + p Xylene	mg/kg	ND	03/06/99	WSD	0.002		

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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-10

			Date			SPEC	
	Units	99804279	Analyzed	Analyst	MDL	LIMIT	P/F
						• • • • •	
Acetone	mg/kg	ND	03/06/99	WSD	0.250		
Acrolein	mg/kg	ND	03/06/99	WSD	0.100		
Acrylonitrile	mg/kg	ND	03/06/99	WSD	0.038		
Benzene	mg/kg	ND	03/06/99	WSD	0.003		
Bromobenzene	mg/kg	ND	03/06/99	WSD	0.002		
Bromochloromethane	mg/kg	ND	03/06/99	WSD	0.004		
Bromodichloromethane	mg/kg	ND	03/06/99	WSD	0.002	•	
Bromomethane	mg/kg	ND	03/06/99	WSD	0.006		
Bromoform	mg/kg	ND	03/06/99	WSD	0.006		
2-Butanone (MEK)	mg/kg	ND	03/06/99	WSD	0.060		
n-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
sec-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
tert-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
Carbon Disulfide	mg/kg	ND	03/06/99	WSD	0.002		
Carbon Tetrachloride	mg/kg	ND	03/06/99	WSD	0.002		
Chlorobenzene	mg/kg	ND	03/06/99	WSD	0.003		
Chlorodibromomethane	mg/kg	ND	03/06/99	WSD	0.002		
Chloroethane	mg/kg	ND	03/06/99	WSD	0.004		
2-Chloroethylvinylether	mg/kg	ND	03/06/99	WSD	0.048		
Chloroform	mg/kg	ND	03/06/99	WSD	0.004		
Chloromethane	mg/kg	ND	03/06/99	WSD	0.006		
2-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003		
4-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003		
1,2-Dibromo-3-Chloropropane	mg/kg	ND	03/06/99	WSD	0.008		
1,2-Dibromoethane	mg/kg	ND	03/06/99	WSD	0.004		
Dibromomethane	mg/kg	ND	03/06/99	WSD	0.006		
1,2-Dichlorobenzene	mg/kg	ND	03/06/99	₩SD	0.004		
1,3-Dichlorobenzene	mg/kg	ND	03/06/99	₩SD	0.003		
1,4-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
cis-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.012		
trans-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.010		
Dichlorodifluoromethane	mg/kg	ND	03/06/99	WSD	0.005		

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured

SPEC LIMIT = a client specified, recommended, or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-10

	Units mg/kg	99804279	Date Analyzed	Analyst	MDL	LIMIT	P/F
	ma/ka						F / 1
	ma/ka						•
,1-Dichloroethane		ND	03/06/99	WSD	0.004		
,2-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
,1-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.003		
is-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
rans-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.004		
,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.003		
,3-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.002		
2,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.004		
,1-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.007		
is-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
rans-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
thyl Benzene	mg/kg	ND	03/06/99	WSD	0.003		
thyl Methacrylate	mg/kg	ND	03/06/99	WSD	0.004		
Mexachlorobutadiene	mg/kg	ND	03/06/99	WSD	0.006		
?-Hexanone	mg/kg	ND	03/06/99	WSD	0.048		
odomethane	mg/kg	ND	03/06/99	WSD	0.004		
sopropylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
o-Isopropyltoluene	mg/kg	ND	03/06/99	WSD	0.004		
ITBE	mg/kg	ND	03/06/99	WSD	0.004		
Methylene Chloride	mg/kg	BDL	03/06/99	WSD	0.075		
IIBK	mg/kg	ND	03/06/99	WSD	0.044		
laph tha lene	mg/kg	ND	03/06/99	WSD	0.005		
n-Propylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
Styrene	mg/kg	ND	03/06/99	WSD	0.004		
,1,1,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.002		
1,1,2,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.007		
Tetrachloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
Toluene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,4-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1,2-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		

MDL = Method Detection Limit

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BDL = Below Detection Limit

NM = Not Measured

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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

			Date			SPEC	
	Units	99804279	Analyzed	Analyst	MDL	LIMIT	P/F
				•••••			
Trichloroethylene	mg/kg	ND	03/06/99	WSD	0.005		
Trichlorofluoromethane	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichloropropane	mg/kg	ND	03/06/99	WSD	0.006		
1,2,4-Trimethylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,3,5-Trimethylbenzene	mg/kg	ND	03/06/99	WSD	0.005		
Vinyl Acetate	mg/kg	ND	03/06/99	WSD	0.082		
Vinyl Chloride	mg/kg	ND	03/06/99	WSD .	0.002		
m-Xylene	mg/kg	ND	03/06/99	WSD	0.006		
o + p Xylene	mg/kg	ND	03/06/99	WSD	0.002		



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-11

	17	-AIC-II	Date			SPEC	
	Units	99804280	Anatyzed	Analyst	MDL	LIMIT	P/F
Acetone	mg/kg	BDL	03/06/99	WSD	0.250		
Acrolein	mg/kg	ND	03/06/99	WSD	0.100		
Acrylonitrile	mg/kg	ND	03/06/99	WSD	0.038		
Benzene	mg/kg	ND	03/06/99	WSD	0.003		
Bromobenzene	mg/kg	ND	03/06/99	WSD	0.002		
Bromochloromethane	mg/kg	ND	03/06/99	WSD	0.004		
Bromodichloromethane	mg/kg	ND	03/06/99	WSD	0.002		
Bromomethane	mg/kg	ND	03/06/99	WSD	0.006		
Bromoform	mg/kg	N D	03/06/99	WSD	0.006		
2-Butanone (MEK)	mg/kg	ND	03/06/99	WSD	0.060		
n-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
sec-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
tert-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
Carbon Disulfide	mg/kg	ND	03/06/99	WSD	0.002		
Carbon Tetrachloride	mg/kg	ND	03/06/99	WSD	0.002		
Chlorobenzene	mg/kg	ND	03/06/99	WSD	0.003		
Chlorodibromomethane	mg/kg	ND	03/06/99	WSD	0.002		
Chloroethane	mg/kg	ND	03/06/99	WSD	0.004		
2-Chloroethylvinylether	mg/kg	ND	03/06/99	WSD	0.048		
Chloroform	mg/kg	ND	03/06/99	WSD	0.004		
Chloromethane	mg/kg	ND	03/06/99	WSD	0.006		
2-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003		
4-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003		
1,2-Dibromo-3-Chloropropane	mg/kg	ND	03/06/99	WSD	0.008		
1,2-Dibromoethane	mg/kg	ND	03/06/99	WSD	0.004		
Dibromomethane	mg/kg	ND	03/06/99	WSD	0.006		
1,2-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,3-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.003		
1,4-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
cis-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.012		
trans-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.010		
Dichlorodifluoromethane	mg/kg	ND	03/06/99	WSD	0.005		

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-11

			Date			SPEC	
	Units	99804280	Analyzed	Analyst	MDL	LIMIT	P/F
1,1-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,2-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.003		
cis-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.004		
1,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.003		
1,3-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.002		
2,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.004		
1,1-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.007		
cis-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
Ethyl Benzene	mg/kg	ND	03/06/99	WSD	0.003		
Ethyl Methacrylate	mg/kg	ND	03/06/99	WSD	0.004		
Hexachlorobutadiene	mg/kg	ND	03/06/99	WSD	0.006		
2-Hexanone	mg/kg	ND	03/06/99	WSD	0.048		
Iodomethane	mg/kg	ND	03/06/99	WSD	0.004		
Isopropylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
p-Isopropyltoluene	mg/kg	ND	03/06/99	WSD	0.004		
MTBE	mg/kg	ND	03/06/99	WSD	0.004		
Methylene Chloride	mg/kg	0.075	03/06/99	WSD	0.075		
MIBK	mg/kg	ND	03/06/99	WSD	0.044		
Naphthalene	mg/kg	N D	03/06/99	WSD	0.005		
n-Propylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
Styrene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.002		
1,1,2,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.007		
Tetrachloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
Toluene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,4-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1,2-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		

MDL = Method Detection Limit
ND = Not Detected

ND - NOT Detected

BDL = Below Detection Limit

NM = Not Measured

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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

			Date			SPEC	
	Units	99804280	Analyzed	Analyst	MDL	LIMIT	P/F
	•••••					••••	
Trichloroethylene	mg/kg	ND	03/06/99	WSD	0.005		
Trichlorofluoromethane	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichloropropane	mg/kg	ND	03/06/99	WSD	0.006		
1,2,4-Trimethylbenzene	mg/kg	0.010	03/06/99	WSD	0.004		
1,3,5-Trimethylbenzene	mg/kg	8DL	03/06/99	WSD	0.005		
Vinyl Acetate	mg/kg	ND	03/06/99	WSD	0.082		
Vinyl Chloride	mg/kg	ND	03/06/99	WSD .	0.002		
m-Xylene	mg/kg	8DL	03/06/99	WSD	0.006		
o + p Xylene	mg/kg	ND	03/06/99	WSD	0.002		

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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-11GO

			Date			SPEC		
	Units	99804281	Analyzed	Analyst	MDL	LIMIT	P/F	
		BDL	03/06/99	WSD	0.250			
Acetone	mg/kg		03/06/99	WSD	0.100			
Acrolein	mg/kg	ND ND	03/06/99	WSD	0.038			
Acrylonitrile	mg/kg	ND			0.003			
Benzene	mg/kg	ND	03/06/99	WSD	0.003			
Bromobenzene	mg/kg	ND	03/06/99	WSD				
Bromochloromethane	mg/kg	ND	03/06/99	WSD	0.004			
Bromodichloromethane	mg/kg	ND	03/06/99	WSD	0.002			
Bromomethane	mg/kg	ND	03/06/99	WSD	0.006			
Bromoform	mg/kg	ND	03/06/99	WSD	0.006			
2-Butanone (MEK)	mg/kg	ND	03/06/99	WSD	0.060			
n-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004			
sec-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.003			
tert-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004			
Carbon Disulfide	mg/kg	ND	03/06/99	WSD	0.002			
Carbon Tetrachloride	mg/kg	ND	03/06/99	WSD	0.002			
- Chlorobenzene	mg/kg	ND	03/06/99	WSD	0.003			
Chlorodibromomethane	mg/kg	ND	03/06/99	WSD	0.002			
Chloroethane	mg/kg	ND	03/06/99	WSD	0.004			
2-Chloroethylvinylether	mg/kg	ND	03/06/99	WSD	0.048			
Chloroform	mg/kg	ND	03/06/99	WSD	0.004			
Chloromethane	mg/kg	ND	03/06/99	WSD	0.006			
2-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003			
4-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003			
1,2-Dibromo-3-Chloropropane	mg/kg	ND	03/06/99	WSD	0.008			
1,2-Dibromoethane	mg/kg	ND	03/06/99	WSD	0.004			
Dibromomethane	mg/kg	ND	03/06/99	WSD	0.006			
1,2-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004			
1,3-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.003			
1.4-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004			
cis-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.012			
trans-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.010			
•	mg/kg	ND	03/06/99	WSD	0.005			
Dichlorodifluoromethane	ma/ va	745	,, . ,					

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-11GO

			Date			SPEC	
	Units	99804281	Analyzed	Analyst	MDL	LIMIT	P/F
1,1-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,2-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1-Dichloroethylene	mg/kg	ДИ	03/06/99	WSD	0.003		
cis-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.004		
1,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.003		
1,3-Dichloropropane	mg/kg	. ND	03/06/99	WSD	0.002		
2,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.004		
1,1-Dichloropropene	mg/kg	· ND	03/06/99	WSD	0.007		
cis-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
Ethyl Benzene	mg/kg	ND	03/06/99	WSD	0.003		
Ethyl Methacrylate	mg/kg	ND	03/06/99	WSD	0.004		
Hexachlorobutadiene	mg/kg	ND	03/06/99	WSD	0.006		
2-Hexanone	mg/kg	ND	03/06/99	WSD	0.048		
Iodomethane	mg/kg	ND	03/06/99	WSD	0.004		
Isopropylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
p-Isopropyltoluene	mg/kg	ND	03/06/99	WSD	0.004		
MTBE	mg/kg	ND	03/06/99	WSD	0.004		
Methylene Chloride	mg/kg	BDL	03/06/99	WSD	0.075		
MISK	mg/kg	ND	03/06/99	WSD	0.044		
Naphthal ene	mg/kg	0.008	03/06/99	WSD	0.005		
n-Propylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
Styrene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.002		
1,1,2,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.007		
Tetrachloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
Toluene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,4-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1,2-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 . Sample Matrix: SOIL

			Date			SPEC	
	Units	99804281	Analyzed	Analyst	MDL	LIMIT	P/F
Trichloroethylene	mg/kg	ND	03/06/99	WSD	0.005		
Trichlorofluoromethane	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichloropropane	mg/kg	ND	03/06/99	WSD	0.006		
1,2,4-Trimethylbenzene	mg/kg	0.004	03/06/99	WSD	0.004		
1,3,5-Trimethylbenzene	mg/kg	ND	03/06/99	₩SD	0.005		
Vinyl Acetate	mg/kg	ND	03/06/99	WSD	0.082		
Vinyl Chloride	mg/kg	ND	03/06/99	WSD	0.002		
m-Xylene	mg/kg	ND	03/06/99	WSD	0.006	•	
o + p Xylene	mg/kg	ND	03/06/99	WSD	0.002		

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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696

Job Number: 17676.00005

Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-12

			Date			SPEC		
	Units	99804282	Analyzed	Analyst	MDL	LIMIT	P/F	
	•••••							
Acetone	mg/kg	ND	03/06/99	WSD	0.250			
Acrolein	mg/kg	ND	03/06/99	WSD	0.100			
Acrylonitrile	mg/kg	ND	03/06/99	WSD	0.038			
Benzene	mg/kg	ND	03/06/99	WSD	0.003			
Bromobenzene	mg/kg	ND	03/06/99	WSD	0.002			
Bromochloromethane	mg/kg	ND	03/06/99	WSD	0.004			
Bromodichloromethane	mg/kg	ND	03/06/99	WSD	0.002			
Bromomethane	mg/kg	ND	03/06/99	WSD	0.006			
Bromoform	mg/kg	ND	03/06/99	WSD	0.006			
2-Butanone (MEK)	mg/kg	ND	03/06/99	WSD	0.060			
n-Butyl benzene	mg/kg	ND	03/06/99	WSD	0.004			
sec-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.003			
tert-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004			
Carbon Disulfide	mg/kg	ND	03/06/99	WSD	0.002			
Carbon Tetrachloride	mg/kg	ND	03/06/99	WSD	0.002			
Chlorobenzene	mg/kg	ND	03/06/99	WSD	0.003			
Chlorodibromomethane	mg/kg	ND	03/06/99	WSD	0.002			
Chloroethane	mg/kg	ND	03/06/99	WSD	0.004			
2-Chloroethylvinylether	mg/kg	ND	03/06/99	WSD	0.048			
Chloroform	mg/kg	ND	03/06/99	WSD	0.004			
Chloromethane	mg/kg	ND	03/06/99	WSD	0.006			
2-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003			
4-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003			
1,2-Dibromo-3-Chloropropane	mg/kg	ND	03/06/99	WSD	0.008			
1,2-Dibromoethane	mg/kg	ND	03/06/99	WSD	0.004			
Dibromomethane	mg/kg	ND	03/06/99	WSD	0.006			
1,2-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004			
1.3-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.003			
1,4-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004			
cis-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.012			
trans-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.010			
Dichlorodifluoromethane	mg/kg	ND	03/06/99	WSD	0.005			

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured

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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696
Job Number: 17676.00005
Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-12

			Date			SPEC	
	Units	99804282	Analyzed	Analyst	MDL	LIMIT	P/F
						••••	
1,1-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,2-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.003		
cis-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.004		
1,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.003		
1,3-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.002		
2,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.004		
1,1-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.007		
cis-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
Ethyl Benzene	mg/kg	ND	03/06/99	WSD	0.003		
Ethyl Methacrylate	mg/kg	ND	03/06/99	WSD	0.004		
Hexachlorobutadiene	mg/kg	ND	03/06/99	WSD	0.006		
2-Hexanone	mg/kg	ND	03/06/99	WSD	0.048		
Iodomethane	mg/kg	ND	03/06/99	WSD	0.004		
Isopropylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
p-Isopropyltoluene	mg/kg	ND	03/06/99	WSD	0.004		
MTBE	mg/kg	ND	03/06/99	WSD	0.004		
Methylene Chloride	mg/kg	BDL	03/06/99	WSD	0.075		
MIBK	mg/kg	ND	03/06/99	WSD	0.044		
Naphthalene	mg/kg	ND	03/06/99	WSD	0.005		
n-Propylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
Styrene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.002		
1,1,2,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.007		
Tetrachloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
Toluene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,4-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1,2-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		

MDL = Method Detection Limit
ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

			Date			SPEC	
	Units	99804282	Analyzed	Analyst	MDL	LIMIT	P/F
•••••							
Trichloroethylene	mg/kg	ND	03/06/99	WSD	0.005		
Trichlorofluoromethane	mg/kg	ND	03/06/99	₩SD	0.004		
1,2,3-Trichloropropane	mg/kg	ND	03/06/99	WSD	0.006		
1,2,4-Trimethylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,3,5-Trimethylbenzene	mg/kg .	ND	03/06/99	WSD	0.005		
Vinyl Acetate	mg/kg	ND	03/06/99	WSD	0.082		
Vinyl Chloride	mg/kg	ND	03/06/99	WSD	0.002		
m-Xylene	mg/kg	ND	03/06/99	WSD	0.006		
o + p Xylene	mg/kg	ND	03/06/99	WSD	0.002		



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-13

			Date		SPEC		
	Units	99804283	Analyzed	Analyst	MDL	LIMIT	P/F
Acetone	mg/kg	ND	03/06/99	WSD	0.250		
Acrolein	mg/kg	ND	03/06/99	WSD	0.100		
Acrylonitrile	mg/kg	ND	03/06/99	WSD	0.038		
Benzene	mg/kg	ND	03/06/99	WSD	0.003		
Bromobenzene	mg/kg	ND	03/06/99	WSD	0.002		
Bromochloromethane	mg/kg	ND	03/06/99	WSD	0.004		
Bromodichloromethane	mg/kg	ND	03/06/99	WSD	0.002		
Bromomethane	mg/kg	ND	03/06/99	WSD	0.006		
Bromoform	mg/kg	. ND	03/06/99	WSD	0.006		
2-Butanone (MEK)	mg/kg	ND	03/06/99	WSD	0.060		
n-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
sec-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
tert-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
Carbon Disulfide	mg/kg	ND	03/06/99	WSD	0.002		
Carbon Tetrachloride	mg/kg	ND	03/06/99	WSD	0.002		
Chlorobenzene	mg/kg	ND	03/06/99	WSD	0.003		
Chlorodibromomethane	mg/kg	ND	03/06/99	WSD	0.002		
Chloroethane	mg/kg	ND	03/06/99	WSD	0.004		
2-Chloroethylvinylether	mg/kg	ND	03/06/99	WSD	0.048		
Chloroform	mg/kg	ND	03/06/99	WSD	0.004		
Chloromethane	mg/kg	ND	03/06/99	WSD	0.006		
2-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003		
4-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003		
1,2-Dibromo-3-Chloropropane	mg/kg	ND	03/06/99	WSD	0.008		
1,2-Dibromoethane	mg/kg	ND	03/06/99	WSD	0.004		
Dibromomethane	mg/kg	ND	03/06/99	WSD	0.006		
1,2-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,3-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.003		
1,4-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
cis-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.012		
trans-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.010		
Dichlorodifluoromethane	mg/kg	ND	03/06/99	WSD	0.005		

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-13

			Date			SPEC	
	Units	99804283	Analyzed	Analyst	MDL	LIMIT	P/F
1,1-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,2-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.003		
cis-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.004		
1,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.003		
1,3-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.002		
2,2-Dichloropropane	mg/kg	NĐ	03/06/99	WSD	0.004		
1,1-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.007		
cis-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
Ethyl Benzene	mg/kg	ND	03/06/99	WSD	0.003		
Ethyl Methacrylate	mg/kg	ND	03/06/99	WSD	0.004		
Hexachlorobutadiene	mg/kg	ND	03/06/99	WSD	0.006		
2-Hexanone	mg/kg	ND	03/06/99	WSD	0.048		
Iodomethane	mg/kg	ND	03/06/99	WSD	0.004		
Isopropylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
p-Isopropyltoluene	mg/kg	ND	03/06/99	WSD	0.004		
MTBE	mg/kg	ND	03/06/99	WSD	0.004		
Methylene Chloride	mg/kg	BDL	03/06/99	WSD	0.075		
MIBK	mg/kg	ND	03/06/99	WSD	0.044		
Naphthalene	mg/kg	ND	03/06/99	WSD	0.005		
n-Propylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
Styrene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.002		
1,1,2,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.007		
Tetrachloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
Toluene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,4-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1,2-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 . Sample Matrix: SOIL

			Date			SPEC	
	Units	99804283	Analyzed	Analyst	MDL	LIMIT	P/F
						••••	
Trichloroethylene	mg/kg	ND	03/06/99	WSD	0.005		
Trichlorofluoromethane	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichloropropane	mg/kg	ND	03/06/99	WSD	0.006		
1,2,4-Trimethylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,3,5-Trimethylbenzene	mg/kg	ND	03/06/99	WSD	0.005		
Vinyl Acetate	mg/kg	ND	03/06/99	WSD	0.082		
Vinyl Chloride	mg/kg	ND	03/06/99	WSD	0.002		
m-Xylene	mg/kg	ND	03/06/99	WSD	0.006		
o + p Xylene	mg/kg	ND	03/06/99	WSD	0.002		



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-14

			Date			SPEC		
	Units	99804284	Analyzed	Analyst	MDL	LIMIT	P/F	
Acetone	mg/kg	ND	03/06/99	WSD	0.250			
Acrolein	mg/kg	ND	03/06/99	WSD	0.100			
Acrylonitrile	mg/kg	ND	03/06/99	WSD	0.038			
Benzene	mg/kg	ND	03/06/99	WSD	0.003			
Bromobenzene	mg/kg	ND	03/06/99	WSD	0.002			
Bromochloromethane	mg/kg	ND	03/06/99	WSD	0.004			
Bromodichloromethane	mg/kg	ND	03/06/99	WSD	0.002			
Bromomethane	mg/kg	ND	03/06/99	WSD	0.006			
Bromoform	mg/kg	ND	03/06/99	WSD	0.006			
2-Butanone (MEK)	mg/kg	ND	03/06/99	WSD	0.060			
n-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004			
sec-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.003			
tert-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004			
Carbon Disulfide	mg/kg	ND	03/06/99	WSD	0.002			
Carbon Tetrachloride	mg/kg	ND	03/06/99	WSD	0.002			
Chlorobenzene	mg/kg	ND	03/06/99	WSD	0.003			
Chlorodibromomethane	mg/kg	ND	03/06/99	WSD	0.002			
Chloroethane	mg/kg	ND	03/06/99	WSD	0.004			
2-Chloroethylvinylether	mg/kg	ND	03/06/99	WSD	0.048			
Chloroform	mg/kg	ND	03/06/99	WSD	0.004			
Chloromethane	mg/kg	ND	03/06/99	WSD	0.006			
2-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003			
4-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003			
1,2-Dibromo-3-Chloropropane	mg/kg	ND	03/06/99	WSD	0.008			
1,2-Dibromoethane	mg/kg	ND	03/06/99	WSD	0.004			
Dibromomethane	mg/kg	ND	03/06/99	WSD	0.006			
1,2-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004			
1,3-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.003			
1,4-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004			
cis-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.012			
trans-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	₩SD	0.010			
Dichlorodifluoromethane	mg/kg	ND	03/06/99	WSD	0.005			

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-14

			Date			SPEC	
	Units	99804284	Analyzed	Analyst	MDL	LIMIT	P/F
1,1-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		•
1,2-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.003		
cis-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.004		
1,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.003		
1,3-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.002		
2,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.004		
1,1-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.007		
cis-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
Ethyl Benzene	mg/kg	ND	03/06/99	WSD	0.003		
Ethyl Methacrylate	mg/kg	ND	03/06/99	WSD	0.004		
Hexachlorobutadiene	mg/kg	ND	03/06/99	WSD	0.006		
2-Hexanone	mg/kg	ND	03/06/99	WSD	0.048		
Iodomethane	mg/kg	ND	03/06/99	WSD	0.004		
Isopropylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
p-Isopropyltoluene	mg/kg	ND	03/06/99	WSD	0.004		
MTBE	mg/kg	ND	03/06/99	WSD	0.004		
Methylene Chloride	mg/kg	BDL	03/06/99	WSD	0.075		
MIBK	mg/kg	ND	03/06/99	WSD	0.044		
Naphthalene	mg/kg	ND	03/06/99	WSD	0.005		
n-Propylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
Styrene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.002		
1,1,2,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.007		
Tetrachloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
Toluene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,4-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1,2-Trichloroethane	mg/kg	ND	03/06/99	₩SD	0.004		

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

			Date			SPEC	
	Units	99804284	Analyzed	Analyst	MDL	LIMIT	P/F
•••••					• • • •		
Trichloroethylene	mg/kg	ND	03/06/99	WSD	0.005		
Trichlorofluoromethane	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichloropropane	mg/kg	ND	03/06/99	WSD	0.006		
1,2,4-Trimethylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,3,5-Trimethylbenzene	mg/kg	ND	03/06/99	WSD	0.005		
Vinyl Acetate	mg/kg	ND	03/06/99	WSD	0.082		
Vinyl Chloride	mg/kg	ND	03/06/99	WSD	0.002		
m-Xylene	mg/kg	ND	03/06/99	WSD	0.006		
o + p Xylene	mg/kg	ND	03/06/99	WSD	0.002		



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-15

	••	Date	SPEC				
	Units	99804285	Analyzed	Analyst	MDL	LIMIT	P/F
Acetone	mg/kg	ND	03/06/99	WSD	0.250		
Acrolein	mg/kg	ND	03/06/99	WSD	0.100		
Acrylonitrile	mg/kg	ND	03/06/99	WSD	0.038		
Benzene	mg/kg	ND	03/06/99	WSD	0.003		
Bromobenzene	mg/kg	ND	03/06/99	WSD	0.002		
Bromochloromethane	mg/kg	ND	03/06/99	WSD	0.004		
Bromodichloromethane	mg/kg	ND	03/06/99	WSD	0.002		
Bromomethane	mg/kg	ND	03/06/99	WSD	0.006		
Bromoform	mg/kg	ND	03/06/99	WSD	0.006		
2-Butanone (MEK)	mg/kg	ND	03/06/99	WSD	0.060		
n-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
sec-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
tert-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
Carbon Disulfide	mg/kg	ND	03/06/99	WSD	0.002		
Carbon Tetrachloride	mg/kg	ND	03/06/99	WSD	0.002		
Chlorobenzene	mg/kg	ND	03/06/99	WSD	0.003		
Chlorodibromomethane	mg/kg	ND	03/06/99	WSD	0.002		
Chloroethane	mg/kg	ND	03/06/99	WSD	0.004		
2-Chloroethylvinylether	mg/kg	ND	03/06/99	WSD	0.048		
Chloroform	mg/kg	ND	03/06/99	WSD	0.004		
Chloromethane	mg/kg	ND	03/06/99	WSD	0.006		
2-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003		
4-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003		
1,2-Dibromo-3-Chloropropane	mg/kg	ND	03/06/99	WSD	0.008		
1,2-Dibromoethane	mg/kg	ND	03/06/99	WSD	0.004		
Dibromomethane	mg/kg	ND	03/06/99	WSD	0.006		
1,2-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,3-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.003		
1,4-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
cis-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.012		
trans-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.010		
Dichlorodifluoromethane	mg/kg	ND	03/06/99	WSD	0.005		
D 1011101 0011 1001 01110110							

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-15

•			Date			SPEC	
	Units	99804285	Analyzed	Analyst	MDL	LIMIT	P/F
			03/06/99	WSD	0.004		
1,1-Dichloroethane	mg/kg	ND		WSD	0.004		
1,2-Dichloroethane	mg/kg	ND	03/06/99		0.004		
1,1-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.003		
cis-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD			
1,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.003		
1,3-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.002		
2,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.004		
1,1-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.007		
cis-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
Ethyl Benzene	mg/kg	ND	03/06/99	WSD	0.003		
Ethyl Methacrylate	mg/kg	ND	03/06/99	WSD	0.004		
Hexachlorobutadiene	mg/kg	ND	03/06/99	MSD	0.006		
2-Hexanone	mg/kg	ND	03/06/99	MSD	0.048		
Iodomethane	mg/kg	ND	03/06/99	WSD	0.004		
Isopropylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
p-Isopropyltoluene	mg/kg	ND	03/06/99	WSD	0.004		
MTBE	mg/kg	ND	03/06/99	WSD	0.004		
Methylene Chloride	mg/kg	BDL	03/06/99	WSD	0.075		
MIBK	mg/kg	ND	03/06/99	WSD	0.044		
Naphthalene	mg/kg	ND	03/06/99	WSD	0.005		
n-Propyl benzene	mg/kg	ND	03/06/99	WSD	0.004		
Styrene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.002		
1,1,2,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.007		
Tetrachloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
Toluene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,4-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1,2-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1,2-11 Tentor bethane	3/ ~3						

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696

Job Number: 17676.00005

Sample Matrix: SOIL

			Date			SPEC	
	Units	99804285	Analyzed	Analyst	MDL	LIMIT	P/F
•••••	• • • • • • • • • • • • • • • • • • • •					•••••	
Trichloroethylene	mg/kg	ND	03/06/99	WSD	0.005		
Trichlorofluoromethane	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichloropropane	mg/kg	ND	03/06/99	WSD	0.006		
1,2,4-Trimethylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,3,5-Trimethylbenzene	mg/kg	ND	03/06/99	WSD	0.005		
Vinyl Acetate	mg/kg	ND	03/06/99	WSD	0.082		
Vinyl Chloride	mg/kg	ND	03/06/99	WSD	0.002		
m-Xylene	mg/kg	ND	03/06/99	WSD	0.006		
o + p Xylene	mg/kg	ND	03/06/99	WSD	0.002		



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-16

			Date			SPEC	
	Units	99B04287	Analyzed	Analyst	MDL	LIMIT	P/F
Acetone	mg/kg	ND	03/06/99	WSD	0.250		
Acrolein	mg/kg	ND	03/06/99	WSD	0.100		
Acrylonitrile	mg/kg	ND	03/06/99	WSD	0.038		
Benzene	mg/kg	ND	03/06/99	WSD	0.003		
Bromobenzene	mg/kg	ND	03/06/99	WSD	0.002		
Bromochloromethane	mg/kg	ND	03/06/99	WSD	0.004		
Bromodichloromethane	mg/kg	ND	03/06/99	WSD	0.002		
Bromomethane	mg/kg	ND	03/06/99	WSD	0.006		
Bromoform	mg/kg	ND	03/06/99	WSD	0.006		
2-Butanone (MEK)	mg/kg	ND	03/06/99	WSD	0.060		
n-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
sec-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
tert-Butylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
Carbon Disulfide	mg/kg	ND	03/06/99	WSD	0.002		
Carbon Tetrachloride	mg/kg	ND	03/06/99	WSD	0.002		
Chlorobenzene	mg/kg	ND	03/06/99	WSD	0.003		
Chlorodibromomethane	mg/kg	ND	03/06/99	WSD	0.002		
Chloroethane	mg/kg	ND	03/06/99	WSD	0.004		
2-Chloroethylvinylether	mg/kg	ND	03/06/99	WSD	0.048		
Chloroform	mg/kg	ND	03/06/99	WSD	0.004		
Chloromethane	mg/kg	ND	03/06/99	WSD	0.006		
2-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003		
4-Chlorotoluene	mg/kg	ND	03/06/99	WSD	0.003		
1,2-Dibromo-3-Chloropropane	mg/kg	ND	03/06/99	WSD	0.008		
1,2-Dibromoethane	mg/kg	ND	03/06/99	MSD	0.004		
Dibromomethane	mg/kg	ND	03/06/99	WSD	0.006		
1,2-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,3-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.003		
1,4-Dichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
cis-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.012		
trans-1,4-Dichloro-2-Butene	mg/kg	ND	03/06/99	WSD	0.010		
Dichlorodifluoromethane	mg/kg	ND	03/06/99	WSD	0.005		

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-16

			Date				
	Units	99804287	Analyzed	Analyst	MDL	LIMIT	P/F
1,1-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,2-Dichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.003		
cis-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,2-Dichloroethylene	mg/kg	ND	03/06/99	WSD	0.004		
1,2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.003		
1,3-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.002		
2.2-Dichloropropane	mg/kg	ND	03/06/99	WSD	0.004		
1,1-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.007		
cis-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
trans-1,3-Dichloropropene	mg/kg	ND	03/06/99	WSD	0.002		
Ethyl Benzene	mg/kg	ND	03/06/99	WSD	0.003		
Ethyl Methacrylate	mg/kg	ND	03/06/99	WSD	0.004		
Hexachlorobutadiene	mg/kg	ND	03/06/99	WSD	0.006		
2-Hexanone	mg/kg	ND	03/06/99	WSD	0.048		
Iodomethane	mg/kg	ND	03/06/99	WSD	0.004		
Isopropylbenzene	mg/kg	ND	03/06/99	WSD	0.003		
p-Isopropyltoluene	mg/kg	ND	03/06/99	WSD	0.004		
MTBE	mg/kg	ND	03/06/99	WSD	0.004		
Methylene Chloride	mg/kg	0.096	03/06/99	WSD	0.075		
MIBK	mg/kg	ND	03/06/99	WSD	0.044		
Naphthalene	mg/kg	ND	03/06/99	WSD	0.005		
n-Propylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
Styrene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.002		
1,1,2,2-Tetrachloroethane	mg/kg	ND	03/06/99	WSD	0.007		
Tetrachloroethylene	mg/kg	0.022	03/06/99	WSD	0.002		
Toluene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,2,4-Trichlorobenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,1,1-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1,2-Trichloroethane	mg/kg	ND	03/06/99	WSD	0.004		
1,1,2 11 telled decilarie							

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



39 Spruce Street \cdot 2nd Floor \cdot Eost Longmeadow, MA 01028 \cdot FAX 413/525-6405 \cdot TEL. 413/525-2332

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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-16

			Date			SPEC	
	Units	99804287	Analyzed	Analyst	MDL	LIMIT	P/F
		• • • • • • • • • • • • • • • • • • • •	• • • • • • • •				
Trichloroethylene	mg/kg	ND	03/06/99	WSD	0.005		
Trichlorofluoromethane	mg/kg	ND	03/06/99	WSD	0.004		
1,2,3-Trichloropropane	mg/kg	ND	03/06/99	WSD	0.006		
1,2,4-Trimethylbenzene	mg/kg	ND	03/06/99	WSD	0.004		
1,3,5-Trimethylbenzene	mg/kg	ND	03/06/99	WSD	0.005		
Vinyl Acetate	mg/kg	ND	03/06/99	WSD	0.082		
Vinyl Chloride	mg/kg	ND	03/06/99	WSD	0.002		
m-Xylene	mg/kg	ND	03/06/99	WSD	0.006		
o + p Xylene	mg/kg	ND	03/06/99	WSD	0.002		

Analytical Method(s):

SW846 8260

SAMPLES ARE CONCENTRATED BY PURGE & TRAP, FOLLOWED BY GC/MS TARGET COMPOUND ANALYSIS.



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 . Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED

TH-9

			Date			SPEC	
	Units	99804286	Analyzed	Analyst	MDL	LIMIT	P/F
	••••						
Arsenic	mg/kg	ND	03/05/99	PM	5.00		
Barium	mg/kg	121	03/05/99	P M	0.10		
Cadmium	mg/kg	0.98	03/05/99	PM	0.05		
Chromium	mg/kg	17.1	03/05/99	P M	0.35		
Lead	mg/kg	376	03/05/99	P M	2.50		
Mercury	mg/kg	0.062	03/08/99	JER	0.008		
Selenium	mg/kg	BDL	03/05/99	P M	5.00		
Silver	mg/kg	2.34	03/05/99	PM	0.50		

			Date.			SPEC	
	Units	99804279	Analyzed	Analyst	MDL	LIMIT	P/F
Arsenic	mg/kg	16.5	03/05/99	PM	5.00		
Barium	mg/kg	85.0	03/05/99	PM	0.10		
Cadmium	mg/kg	1.39	03/05/99	P M	0.05		
Chromium	mg/kg	19.6	03/05/99	PM	0.35		
Lead	mg/kg	848	03/05/99	PM	2.50		
Mercury	mg/kg	0.171	03/08/99	JER	0.011		
Selenium	mg/kg	14.2	03/05/99	PM	5.00		
Silver	mg/kg	BDL	03/05/99	PM	0.50		



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 . Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-11

			Date			SPEC	
	Units	99804280	Analyzed	Analyst	MDL	LIMIT	P/F
	•••••						
Arsenic	mg/kg	5.80	03/05/99	P M	5.00		
Barium	mg/kg	44.1	03/05/99	PM	0.10		
Cadmium	mg/kg	0.18	03/05/99	PM	0.05		
Chromium	mg/kg	3.39	03/05/99	P M	0.35		
Lead	mg/kg	95.6	03/05/99	PM	2.50		
Mercury	mg/kg	0.095	03/08/99	JER	0.008		
Selenium	mg/kg	ND	03/05/99	PM	5.00		
Silver	mg/kg	ND	03/05/99	PM	0.50		

			Date			SPEC	
	Units	99804281	Analyzed	Analyst	MDL	LIMIT	P/F
Arsenic	mg/kg	10.1	03/05/99	P M	5.00		
Barium	mg/kg	129	03/05/99	PM	0.10		
Cadmium	mg/kg	0.64	03/05/99	PM	0.05		
Chromium	mg/kg	10.9	03/05/99	PM	0.35		
Lead	mg/kg	256	03/05/99	PM	2.50		
Mercury	mg/kg	0.099	03/08/99	JER	0.009		
Selenium	mg/kg	6.40	03/05/99	P M	5.00		
Silver	mg/kg	ND	03/05/99	PM	0.50		



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-12

			Date			SPĘC	
	Units	99804282	Analyzed	Analyst	MDL	LIMIT	P/F
	•						
Arsenic	mg/kg	12.7	03/08/99	PM	5.00		
Barium	mg/kg	288	03/08/99	PM	0.10		
Cadmium	mg/kg	1.86	03/08/99	PM	0.05		
Chromium	mg/kg	29.9	03/08/99	PM	0.35		
Lead	mg/kg	474	03/08/99	PM	2.50		
Mercury	mg/kg	0.262	03/08/99	JER	0.010		
Selenium	mg/kg .	10.7	03/08/99	PM	5.00		
Silver	mg/kg	ND	03/08/99	PM .	0.50		

•			Date			SPEC	
	Units	99804283	Analyzed	Analyst	MDL	LIMIT	P/F
				•••••			
Arsenic	mg/kg	6.72	03/05/99	PM	5.00		
Barium	mg/kg	85.4	03/05/99	PM	0.10		
Cadmium	mg/kg	0.67	03/05/99	PM	0.05		
Chromium	mg/kg	13.6	03/05/99	PM	0.35		
Lead	mg/kg	115	03/05/99	P M	2.50		
Mercury	mg/kg	0.078	03/08/99	JER	0.010		
Selenium	mg/kg	ND	03/05/99	PM	5.00		
Silver	mg/kg	ND	03/05/99	PM	0.50		



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-14

			Date			SPEC	
	Units	99804284	Analyzed	Analyst	MDL	LIMIT	P/F
	•				•••		
Arsenic	mg/kg	5.31	03/05/99	PM	5.00		
Barium	mg/kg	28.1	03/05/99	PM	0.10		
Cadmium	mg/kg	0.06	03/05/99	PM	0.05		
Chromium	mg/kg	11.4	03/05/99	PM	0.35		
Lead	mg/kg	11.9	03/05/99	PM	2.50		
Mercury	mg/kg	0.022	03/08/99	JER	0.010		
Selenium	mg/kg	ND	03/05/99	PM	5.00		
Silver	mg/kg	ND	03/05/99	PM ·	0.50		

:		• • • • • • • • • • • • • • • • • • • •						
				Date			SPEC	
		Units	99804285	Analyzed	Analyst	MDL	LIMIT	P/F
		• • • • • • • • • • • • • • • • • • • •						
	Arsenic	mg/kg	BDL	03/05/99	PM	5.00		
	Barium	mg/kg	27.0	03/05/99	PM	0.10		
	Cadmium	mg/kg	0.30	03/05/99	PM	0.05		
	Chromium	mg/kg	5.11	03/05/99	PM	0.35		
	Lead	mg/kg	48.8	03/05/99	PM	2.50		
	Mercury	mg/kg	0.052	03/08/99	JER	0.008		
	Selenium	mg/kg	ND	03/05/99	PM	5.00		
	Silver	mg/kg	ND	03/05/99	PM	0.50		



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696

Job Number: 17676.00005 .

Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-16

			Date			SPEC	
	Units	99804287	Analyzed	Analyst	MDL	LIMIT	P/F
,							
Arsenic	mg/kg	10.5	03/05/99	PM	5.00		
Barium	mg/kg	425	03/05/99	P M	0.10		
Cadmium	mg/kg	2.86	03/05/99	PM	0.05		
Chromium	mg/kg	35.5	03/05/99	PM	0.35		
Lead	mg/kg	2860	03/05/99	PM	2.50		
Mercury	mg/kg	0.240	03/08/99	JER	0.010		
Selenium	mg/kg	BDL	03/05/99	PM	5.00		
Silver	mg/kg	8.92	03/05/99	PM	0.50		

Analytical Method(s):

Arsenic SW846 3050/6010

SAMPLES ARE DIGESTED WITH NITRIC ACID AND THEN ANALYZED BY
INDUCTIVELY COUPLED PLASMA EMISSION SPECTROSCOPY.
Barium
SW846 3050/6010

SAMPLES ARE DIGESTED WITH NITRIC ACID AND THEN ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROSCOPY.
Cadmium
SW846 3050/6010

SAMPLES ARE DIGESTED WITH NITRIC ACID AND THEN ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROSCOPY.

Chromium

SW846 3050/6010

MDL = Method Detection Limit ND = Not Detected BDL = Below Detection Limit NM = Not Measured



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SAMPLES ARE DIGESTED WITH NITRIC ACID AND THEN ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROSCOPY.
Lead
SW846 3050/6010

SAMPLES ARE DIGESTED WITH NITRIC ACID AND THEN ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROSCOPY.

Mercury
SW846 3050/7471

SAMPLES ARE DIGESTED WITH ACIDS AND THEN ANALYZED BY COLD VAPOR (FLAMELESS) ATOMIC ABSORPTION SPECTROPHOTOMETRY Selenium SW846 3050/6010

SAMPLES ARE DIGESTED WITH NITRIC ACID AND THEN ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROSCOPY.
Silver
SW846 3050/6010

SAMPLES ARE DIGESTED WITH NITRIC ACID AND THEN ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROSCOPY.

MDL = Method Detection Limit
ND = Not Detected
BDL = Below Detection Limit
NM = Not Measured



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696

Job Number: 17676.00005

Sample Matrix: SOIL

P/F

Sampled: 03/03/99 NOT SPECIFIED

TH-9

	ın	- 7					
			Date			SPEC	
	Units	99в04286	Analyzed	Analyst	MDL	LIMIT	P/F
PCB-1221	mg/kg	ND	03/08/99	MFF			
PCB-1232	mg/kg	ND	03/08/99	MFF			
PCB-1242	mg/kg	ND	03/08/99	MFF			
PCB-1248	mg/kg	ND	03/08/99	MFF			
PCB-1254	mg/kg	ND	03/08/99	MFF			
PCB-1260	mg/kg	ND	03/08/99	MFF			
PCB's	mg/kg	ND	03/08/99	MFF	0.500		
						•	
	Sar	mpled: 03/03/	99				

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-10

			Date			SPEC
	Units	99804279	Analyzed	Analyst	MDL	LIMIT
PCB-1221	mg/kg	ND	03/08/99	MFF		
PCB-1232	mg/kg	ND	03/08/99	MFF		
PCB-1242	mg/kg	ND	03/08/99	MFF		
PCB-1248	mg/kg	ND	03/08/99	MFF		
PCB-1254	mg/kg	1.44	03/08/99	MFF		
PCB-1260	mg/kg	ND	03/08/99	MFF		
PCB's	mg/kg	1.44	03/08/99	MFF	0.500	

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-11

			Date			SPEC	
	Units	99804280	Analyzed	Analyst	MDL	LIMIT	P/F
					• • •		
PCB-1221	mg/kg	ND	03/08/99	MFF			
PCB-1232	mg/kg	ND	03/08/99	MFF			

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-11

	Units	99804280	Date Analyzed	Analyst	MDL 	SPEC LIMIT	P/F
PCB-1242	mg/kg	ND	03/08/99	MFF			
PCB-1248	mg/kg	ND	03/08/99	MFF			
PCB-1254	mg/kg	ND	03/08/99	MFF			
PCB-1260	mg/kg	ND	03/08/99	MFF			
PCB's	mg/kg	ND	03/08/99	MFF	0.500		

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-11GO

			Date			SPEC	
	Units	99B04281	Analyzed	Analyst	MDL	LIMIT	P/F
•••••	•••••						
PCB-1221	mg/kg	ND	03/08/99	MFF			
PCB-1232	mg/kg	ND	03/08/99	MFF			
PCB-1242	mg/kg	ND	03/08/99	MFF			
PCB-1248	mg/kg	ND	03/08/99	MFF			
PCB-1254	mg/kg	ND	03/08/99	MFF			
PCB-1260	mg/kg	ND	03/08/99	MFF			
PCB's	mg/kg	ND	03/08/99	MFF	0.500		

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-12

			Date			SPEC		
	Units	99B04282	Analyzed	Analyst	MDL	LIMIT	P/F	
••••••								
PCB-1221	mg/kg	ND	03/08/99	MFF				
PCB-1232	mg/kg	ND	03/08/99	MFF				
PCB-1242	mg/kg	ND	03/08/99	MFF				
PCB-1248	mg/kg	ND	03/08/99	MFF				

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured

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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

SPEC

P/F

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-12

			Date			SPEC		
	Units	99804282	Analyzed	Analyst	MDL	LIMIT	P/F	
		••••						
PCB-1254	mg/kg	0.750	03/08/99	MFF				
PCB-1260	mg/kg	ND	03/08/99	MFF				
PCB's	mg/kg	0.750	03/08/99	MFF	0.025			

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-13

		Date			SPEC
Units	99804283	Analyzed	Analyst	MDL	LIMIT
mg/kg	ND	03/08/99	MFF		
mg/kg	ND	03/08/99	MFF		
mg/kg	ND	03/08/99	MFF		
mg/kg	ND	03/08/99	MFF		
mg/kg	3.44	03/08/99	MFF		
mg/kg	ND	03/08/99	MFF		
mg/kg	3.44	03/08/99	MFF	0.500	
	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Units 99804283 mg/kg ND mg/kg ND mg/kg ND mg/kg ND mg/kg ND mg/kg 3.44 mg/kg ND	Units 99804283 Analyzed mg/kg ND 03/08/99 mg/kg 3.44 03/08/99 mg/kg ND 03/08/99	Units 99804283 Analyzed Analyst mg/kg ND 03/08/99 MFF mg/kg ND 03/08/99 MFF mg/kg ND 03/08/99 MFF mg/kg ND 03/08/99 MFF mg/kg 3.44 03/08/99 MFF mg/kg ND 03/08/99 MFF	Units 99804283 Analyzed Analyst MDL mg/kg ND 03/08/99 MFF mg/kg 3.44 03/08/99 MFF mg/kg ND 03/08/99 MFF

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-14

	Units	99804284	Date Analyzed	Analyst	MDL	SPEC LIMIT	P/F
PCB-1221	mg/kg	ND	03/08/99	MFF			
PCB-1232	mg/kg	ND	03/08/99	MFF			
PCB-1242	mg/kg	ND	03/08/99	MFF			
PC8-1248	mg/kg	ND	03/08/99	MFF			
PC8-1254	mg/kg	1.15	03/08/99	MFF			
PCB-1260	mg/kg	ND	03/08/99	MFF			

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured

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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

P/F

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-14

			Date			SPEC	
	Units	99804284	Analyzed	Analyst	MDL	LIMIT	P/F
PCB's	mg/kg	1.15	03/08/99	MFF	0.500		

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-15

	Units	99804285	Date Analyzed	Analyst	MDL	SPEC LIMIT
PCB-1221	mg/kg	ND	03/08/99	MFF		
PCB-1232	mg/kg	ND	03/08/99	MFF		
PCB-1242	mg/kg	ND	03/08/99	MFF		
PCB-1248	mg/kg	ND	03/08/99	MFF		
PCB-1254	mg/kg	1.01	03/08/99	MFF		
PCB-1260	mg/kg	ND	03/08/99	MFF		
PCB's	mg/kg	1.01	03/08/99	MFF	0.500	

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-16

		Date			SPEC		
	Units	99804287	Analyzed	Analyst	MDL	LIMIT	P/F
PCB-1221	mg/kg	ND	03/08/99	MFF			
PCB-1232	mg/kg	ND	03/08/99	MFF			
PCB-1242	mg/kg	ND	03/08/99	MFF			
PCB-1248	mg/kg	ND	03/08/99	MFF			
PCB-1254	mg/kg	0.890	03/08/99	MFF			
PCB-1260	mg/kg	ND	03/08/99	MFF			
PCB's	mg/kg	0.890	03/08/99	MFF	0.025		

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



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Analytical Method(s):

SW846 8080

SAMPLES ARE EXTRACTED INTO HEXANE AND ANALYZED BY GAS CHROMATOGRAPHY WITH ELECTRON CAPTURE DETECTION.



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED

TH-9

			Date			SPEC	
	Units	99804286	Analyzed	Analyst	MDL	LIMIT	P/F
		• • • • • • • •					
Fuels, diesel, no. 2	MG/KG	ND	03/08/99	MFF	8.3		
Fuel oil no. 6	MG/KG	ND	03/08/99	MFF	17		
Gasoline	MG/KG	ND	03/08/99	MFF	8.3		
Fuels, jet	MG/KG	ND	03/08/99	MFF	8.3		
Kerosene	MG/KG	ND	03/08/99	MFF	8.3		
Unknown Hydrocarbons	MG/KG	19	03/08/99	MFF	8.3		
unknown Hydrocarbons	MG/KG	19	03/08/99	MFF	8.3		

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-10

		Date				SPEC	
	Units	99804279	Analyzed	Analyst	MDL	LIMIT	P/F
•••••							
Fuels, diesel, no. 2	MG/KG	ND	03/08/99	MFF	42		
Fuel oil no. 6	MG/KG	ND	03/08/99	MFF	83		
Gasoline	MG/KG	ND	03/08/99	MFF	42		
Fuels, jet	MG/KG	ND	03/08/99	MFF	42		
Kerosene	MG/KG	ND	03/08/99	MFF	42		
Unknown Hydrocarbons	MG/KG	86	03/08/99	MFF	42		

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-11

			SPEC				
	Units	99804280	Analyzed	Analyst	MDL	LIMIT	P/F
•••••							
Fuels, diesel, no. 2	MG/KG	ND	03/08/99	MFF	8.3		
Fuel oil no. 6	MG/KG	ND	03/08/99	MFF	17		
Gasoline	MG/KG	ND	03/08/99	MFF	8.3		
Fuels, jet	MG/KG	ND	03/08/99	MFF	8.3		

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

P/F

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-11

		SPEC					
	Units	99B04280	Analyzed	Analyst	MDL	LIMIT	P/F
•••••	•••••						
Kerosene	MG/KG	ND	03/08/99	MFF	8.3		
Unknown Hydrocarbons	MG/KG	11	03/08/99	MFF	8.3		

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-11GO

		Date			SPEC		
Units	99804281	Analyzed	Analyst	MDL	LIMIT		
MG/KG	ND	03/08/99	MFF	8.3			
MG/KG	ND	03/08/99	MFF	17			
MG/KG	ND	03/08/99	MFF	8.3			
MG/KG	ND	03/08/99	MFF	8.3			
MG/KG	ND	03/08/99	MFF	8.3			
MG/KG	17	03/08/99	MFF	8.3			
	MG/KG MG/KG MG/KG MG/KG MG/KG	MG/KG ND MG/KG ND MG/KG ND MG/KG ND	Units 99804281 Analyzed MG/KG ND 03/08/99 MG/KG ND 03/08/99	Units 99804281 Analyzed Analyst MG/KG ND 03/08/99 MFF MG/KG ND 03/08/99 MFF	Units 99804281 Analyzed Analyst MDL	Units 99804281 Analyzed Analyst MDL LIMIT MG/KG ND 03/08/99 MFF 8.3 MG/KG ND 03/08/99 MFF 17 MG/KG ND 03/08/99 MFF 8.3 MG/KG ND 03/08/99 MFF 8.3 MG/KG ND 03/08/99 MFF 8.3 MG/KG ND 03/08/99 MFF 8.3	

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-12

			Date			SPEC	
	Units	99804282	Analyzed	Analyst	MDL	LIMIT	P/F
•••••	•••••	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •			
Fuels, diesel, no. 2	MG/KG	ND	03/08/99	MFF	42		
Fuel oil no. 6	MG/KG	ND	03/08/99	MFF	83		
Gasoline	MG/KG	ND	03/08/99	MFF	42		
Fuels, jet	MG/KG	ND	03/08/99	MFF	42		
Kerosene	MG/KG	ND	03/08/99	MFF	42		
Unknown Hydrocarbons	MG/KG	94	03/08/99	MFF	42		

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured



39 Spruce Street • 2nd Floor • East Longmeadow, MA 01028 • FAX 413/525-6405 • TEL. 413/525-2332

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Project Number: 17676.00005

- LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED

	TP	-ATC-13					
			Date			SPEC	
	Units	99804283	Analyzed	Analyst	MDL	LIMIT	P/F
Fuels, diesel, no. 2	MG/KG	ND	03/08/99	MFF	42		
Fuel oil no. 6	MG/KG	ND	03/08/99	MFF	83		
Gasoline	MG/KG	ND	03/08/99	MFF	42		
Fuels, jet	MG/KG	ND	03/08/99	MFF	42		
Kerosene	MG/KG	ND	03/08/99	MFF	42		
Unknown Hydrocarbons	MG/KG	120	03/08/99	MFF	42		
	San	mpled: 03/03/	'99				
	NOT	SPECIFIED					
	TP-	ATC-14					
			Date			SPEC	
	Units	99B04284	Analyzed	Analyst	MDL	LIMIT	P/F
Fuels, diesel, no. 2	MG/KG	ND	03/08/99	MFF	8.3		
Fuel oil no. 6	MG/KG	ND	03/08/99	MFF	17		
Gasoline	MG/KG	ND	03/08/99	MFF	8.3		
Fuels, jet	MG/KG	ND	03/08/99	MFF	8.3		
Kerosene	MG/KG	ND	03/08/99	MFF	8.3		
Unknown Hydrocarbons	MG/KG	21	03/08/99	MFF	8.3		
	Sam	pled: 03/03/	99				
	NOT	SPECIFIED					
	TP-	ATC-15					
			Date			SPEC	
	Units	99804285	Analyzed	Analyst	MDL	LIMIT	P/F
•••••		•••••				••••	

			Date			SPEC	
	Units	99804285	Analyzed	Analyst	MDL	LIMIT	P/F
•••••		• • • • • • • • • • • • • • • • • • • •				••••	
Fuels, diesel, no. 2	MG/KG	ND	03/08/99	MFF	42		
Fuel oil no. 6	MG/KG	ND	03/08/99	MFF	83		
Gasoline	MG/KG	ND	03/08/99	MFF	42		
Fuels, jet	MG/KG	ND	03/08/99	MFF	42		

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured

SPEC LIMIT = a client specified, recommended, or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.



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Project Number: 17676.00005

LIMS-BAT #: LIMS-40696 Job Number: 17676.00005 Sample Matrix: SOIL

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-15

			Date			SPEC	
	Units	99804285	Analyzed	Analyst	MDL	LIMIT -	P/F
	•			•			
Kerosene	MG/KG	ND	03/08/99	MFF	42		
Unknown Hydrocarbons	MG/KG	54	03/08/99	MFF	42		

Sampled: 03/03/99 NOT SPECIFIED TP-ATC-16

			Date			SPEC	
	Units	99804287	Analyzed	Analyst	MDL	LIMIT	P/F
			• • • • • • • • • • • • • • • • • • • •	••••			
Fuels, diesel, no. 2	MG/KG	ND	03/08/99	MFF	42		
Fuel oil no. 6	MG/KG	ND	03/08/99	MFF	83		
Gasoline	MG/KG	ND	03/08/99	MFF	42		
Fuels, jet	MG/KG	ND	03/08/99	MFF	42		
Kerosene	MG/KG	ND	03/08/99	MFF	42		
Unknown Hydrocarbons	MG/KG	75	03/08/99	MFF	42		

Analytical Method(s):

MODIFIED SW846 8015

SAMPLES ARE EXTRACTED INTO METHYLENE CHLORIDE, CONCENTRATED AND QUANTITATED AGAINST THE DIFFERENT PETROLEUM FRACTION STANDARDS. FINGERPRINTS OF SAMPLE AND STANDARD CHROMATOGRAMS ARE COMPARED.

THIS METHOD IS DESIGNED TO MEASURE MID RANGE PETROLEUM PRODUCTS SUCH AS DIESEL AND FUEL OIL. MOTOR OILS AND LUBRICATING OILS ARE DETECTABLE UNDER THE CONDITIONS OF THIS METHOD, HOWEVER RESULTS ARE NOT QUANTITATIVE. THESE COMPONENTS ARE REPORTED AS OTHER HYDROCARBONS AND QUANITIATED AS #2 FUEL OIL. RESULTS ARE NOT AN ACCURATE DETERMINATION OF THE AMOUNT OF MOTOR OR LUBRICATING OIL PRESENT IN THE SAMPLE.

MDL = Method Detection Limit
ND = Not Detected
BDL = Below Detection Limit
NM = Not Measured

SPEC LIMIT = a client specified, recommended, or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.



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The following notes were attached to the reported analysis:

Sample: 99B04286

Analysis: Methylene Chloride

SUSPECTED CONTRIBUTION FROM LABORATORY BACKGROUND CONTAMINATION

Sample: 99B04280

Analysis: Methylene Chloride

SUSPECTED CONTRIBUTION FROM LABORATORY BACKGROUND CONTAMINATION

Sample: 99B04287

Analysis: Methylene Chloride

SUSPECTED CONTRIBUTION FROM LABORATORY BACKGROUND CONTAMINATION

Analysis: PCB

SAMPLES 99B04282 AND 99B04287 CONTAIN TWO INCOMPLETELY RESOLVED AROCLORS. PATTERN DID NOT MATCH INSTRUMENT INDIVIDUAL STANDARD EXACTLY. AROCLOR WITH THE CLOSEST MATCHING PATTERN REPORTED.

MDL = Method Detection Limit ND = Not Detected BDL = Below Detection Limit NM = Not Measured SPEC LIMIT = a client specified, recommended, or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.



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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab Fortified Blanks and Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 03/09/99

Lims Bat #: LIMS-40696

Page 1 of 8

QC Batch Number: GC/ECD-2287

Sample Id	Analysis	QC Analysis	Values	Units	Limits
			•		
99804279	Dibutyl Chlorendate	Surrogate Recovery	43.0	%	·
99B04280	Dibutyl Chlorendate	Surrogate Recovery	31.0	%	
99804281	Dibutyl Chlorendate	Surrogate Recovery	26.0	%	
99804282	Dibutyl Chlorendate	Surrogate Recovery	34.0	%	
99804283	Dibutyl Chlorendate	Surrogate Recovery	68.0	%	
99804284	Dibutyl Chlorendate	Surrogate Recovery	46.0	%	
99804285	Dibutyl Chlorendate	Surrogate Recovery	70.0	%	
99B04286	Dibutyl Chlorendate	Surrogate Recovery	53.0	%	
99B04287	Dibutyl Chlorendate	Surrogate Recovery	29.0	%	
BLANK-17827	PCB-1232	Blank	0.000	mg/kg	
	PCB-1242	Blank	0.000	mg/kg	
	PCB-1254	Blank	0.000	mg/kg	
	PCB-1260	Blank	0.000	mg/kg	
	PCB-1248	Blank	0.000	mg/kg	
	PCB-1221	Blank	0.000	mg/kg	
	PCB's	Blank	<0.025	mg/kg	



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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab Fortified Blanks and Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 03/09/99

Lims Bat #: LIMS-40696

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QC Batch Number: GCMS/VOL-2	2657
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Sample Id	Analysis	QC Analysis	Values	Units	Limits
0000/070	4.0000000000000000000000000000000000000		72.000	~	
99804279	1,2-Dichloroethane-d		72.000	%	56.000-128.000
	Toluene-d8	Surrogate Recovery	104.000	%	65.000-113.000
	Bromofluorobenzene	Surrogate Recovery	84.000	%	62.000-137.000
99804280	1,2-Dichloroethane-d		72.000	%	56.000-128.000
	Toluene-d8	Surrogate Recovery	102.000	%	65.000-113.000
	Bromofluorobenzene	Surrogate Recovery	85.600	%	62.000-137.000
99804281	1,2-Dichloroethane-d		74.400	%	56.000-128.000
	Toluene-d8	Surrogate Recovery	104.400	%	65.000-113.000
	Bromofluorobenzene	Surrogate Recovery	85.200	%	62.000-137.000
99804282	1,2-Dichloroethane-d	Surrogate Recovery	70.800	%	56.000-128.000
	Toluene-d8	Surrogate Recovery	98.000	%	65.000-113.000
	Bromofluorobenzene	Surrogate.Recovery	86.000	%	62.000-137.000
9804283	1,2-Dichloroethane-d	Surrogate Recovery	74.000	%	56.000-128.000
	Toluene-d8	Surrogate Recovery	107.600	%	65.000-113.000
	Bromofluorobenzene	Surrogate Recovery	89.200	%	62.000-137.000
9804284	1,2-Dichloroethane-d	Surrogate Recovery	72.800	%	56.000-128.000
	Toluene-d8	Surrogate Recovery	103.200	%	65.000-113.000
	Bromofluorobenzene	Surrogate Recovery	84.000	%	62.000-137.000
9804285	1,2-Dichloroethane-d	Surrogate Recovery	76.800	%	56.000-128.000
	Toluene-d8	Surrogate Recovery	104.000	%	65.000-113.000
	Bromofluorobenzene	Surrogate Recovery	80.800	%	62.000-137.000
9804286	1,2-Dichloroethane-d	Surrogate Recovery	76.800	%	56.000-128.000
	Toluene-d8	Surrogate Recovery	103.200	%	65.000-113.000
	Bromofluorobenzene	Surrogate Recovery	81.200	%	62.000-137.000
9804287	Benzene	Sample Amount	<0.003	mg/kg	
		Matrix Spk Amt Added	0.250	mg/kg	
		MS Amt Measured	0.245	mg/kg	
		Matrix Spike % Rec.	98.000	%	
		Duplicate Sample Amt	<0.003	mg/kg	
		MSD Amount Added	0.250	mg/kg	
		MSD Amt Measured	0.225	mg/kg	
		MSD % Recovery	90.000	%	
		MSD Range	8.000	units	
	Toluene	Sample Amount	<0.004	mg/kg	
		Matrix Spk Amt Added	0.250	mg/kg	
		MS Amt Measured	0.155	mg/kg	
		Matrix Spike % Rec.	62.000	**************************************	
		Duplicate Sample Amt	<0.004	mg/kg	
		MSD Amount Added	0.250	""9/ ^ 9	



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SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates BATCH QC: Lab Fortified Blanks and Duplicates Standard Reference Materials and Duplicates

Method Blanks

Report Date: 03/09/99 Lims Bat #: LIMS-40696 Page 3 of 8

QC Batch Numbe	r: GCMS/VOL-2657				
Sample Id	Analysis	QC Analysis	Values	Units	Limits

		MSD Amt Measured	0.130	mg/kg	
		MSD % Recovery	52.000	%	
		MSD Range	10.000	units	
	Trichloroethylene	Sample Amount	<0.005	mg/kg	
		Matrix Spk Amt Added	0.250	mg/kg	
		MS Amt Measured	0.200	mg/kg	
		Matrix Spike % Rec.	80.000	%	
		Duplicate Sample Amt	<0.005	mg/kg	
		MSD Amount Added	0.250	mg/kg	
		MSD Amt Measured	0.165	mg/kg	
		MSD % Recovery	66.000	%	
		MSD Range	14.000	units	
	1,1-Dichloroethylene	Sample Amount	<0.003	mg/kg	
		Matrix Spk Amt Added	0.250	mg/kg	
		MS Amt Measured	0.280	mg/kg	
		Matrix Spike % Rec.	112.000	%	
		Duplicate Sample Amt	<0.003	mg/kg	
		MSD Amount Added	0.250	mg/kg	
		MSD Amt Measured	0. 2 50	mg/kg	
		MSD % Recovery	100.000	%	
		MSD Range	12.000	units	
	Chlorobenzene	Sample Amount	<0.003	mg/kg	
		Matrix Spk Amt Added	0.250	mg/kg	
		MS Amt Measured	0.150	mg/kg	
		Matrix Spike % Rec.	60.000	%	
		Duplicate Sample Amt	<0.003	mg/kg	
		MSD Amount Added	0.250	mg/kg	
		MSD Amt Measured	0.140	mg/kg	
		MSD % Recovery	56.000	%	
		MSD Range	4.000	units	
	1,2-Dichloroethane-d		74.000	%	56.000-128.0
	Toluene-d8	Surrogate Recovery	101.600	%	65.000-113.0
	Bromofluorobenzene	Surrogate Recovery	81.600	%	62.000-137.0
LANK-17807	Acetone	Blank	<0.250	mg/kg	52.505 13716
	Benzene	Blank	<0.003	mg/kg	
	Carbon Tetrachloride	Blank	<0.002	mg/kg	
	Chloroform	Blank	<0.004	mg/kg	
	1,2-Dichloroethane	Blank	<0.004	mg/kg	
	1,4-Dichlorobenzene	Blank	<0.004	mg/kg	



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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab Fortified Blanks and Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 03/09/99 Lims Bat #: LIMS-40696 Page 4 of 8

QC Batch Number: GCMS/VOL-2657

Sample Id	Analysis	QC Analysis	Values	Units	Limits
	Ethyl Benzene	Blank	<0.003	mg/kg	
	2-Butanone (MEK)	Blank	<0.060	mg/kg	
	MIBK	Blank	<0.044	mg/kg	
	Naphthalene	Blank	<0.005	mg/kg	
	Styrene	Blank	<0.004	mg/kg	
	Tetrachloroethylene	Blank	<0.002	mg/kg	
	Toluene	Blank	<0.004	mg/kg	
	1,1,1-Trichloroethan	Blank	<0.004	mg/kg	
	Trichloroethylene	Blank	<0.005	mg/kg	
	Trichlorofluorometha	Blank	<0.004	mg/kg	
	o + p Xylene	Blank	<0.002	mg/kg	
	m-Xylene	Blank	<0.006	mg/kg	
	1,2-Dichlorobenzene	Blank	<0.004	mg/kg	
	1,3-Dichlorobenzene	Blank	<0.003	mg/kg	
	1,1-Dichloroethane	Blank	<0.004	mg/kg	
	1,1-Dichloroethylene	Blank	<0.003	mg/kg	
	MTBE	Blank	<0.004	mg/kg	
	trans-1,2-Dichloroet	Blank	<0.004	mg/kg	
	Vinyl Chloride	Blank	<0.002	mg/kg	
	Methylene Chloride	Blank	<0.075	mg/kg	
	Chlorobenzene	Blank	<0.003	mg/kg	
	Chloromethane	Blank	<0.006	mg/kg	
	Bromomethane	Blank	<0.006	mg/kg	
	Chloroethane	Blank	<0.004	mg/kg	
	cis-1,3-Dichloroprop	Blank	<0.002	mg/kg	
	trans-1,3-Dichloropr	Blank	<0.002	mg/kg	
	Chlorodibromomethane	Blank	<0.002	mg/kg	
	1,1,2-Trichloroethan	Blank	<0.004	mg/kg	
	2-Chloroethylvinylet	Blank	<0.048	mg/kg	
	Bromoform	Blank	<0.006	mg/kg	
	1,1,2,2-Tetrachloroe	Blank	<0.007	mg/kg	
	2-Chlorotoluene	Blank	<0.003	mg/kg	
	Hexachlorobutadiene	Blank	<0.006	mg/kg	
	Isopropylbenzene	Blank	<0.003	mg/kg	
	p-Isopropyltoluene	Blank	<0.004	mg/kg	
	n-Propylbenzene	Blank	<0.004	mg/kg	
	sec-Butylbenzene	Blank	<0.003	mg/kg	
	tert-Butylbenzene	Blank	<0.004	mg/kg	
	1,2,3-Trichlorobenze	Blank	<0.004	mg/kg	
	•			J. J	



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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates
Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab Fortified Blanks and Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 03/09/99 Lims Bat #: LIMS-40696 Page 5 of 8

QC Batch Number: GCMS/VOL-2657

Sample Id Analysis	QC Analysis	Values	Units	Limits
1,2,4-Trichloro	benze Blank	<0.004	mg/kg	
1,2,4-Trimethyl	benze Blank	<0.004	mg/kg	
1,3,5-Trimethyll	benze Blank	<0.005	mg/kg	
Dibromomethane	Blank	<0.006	mg/kg	
cis-1,2-Dichlor	oethy Blank	<0.002	mg/kg	
4-Chlorotoluene	Blank	<0.003	mg/kg	
1,1-Dichloroprop	oene Blank	<0.007	mg/kg	
1,2-Dichloroprop	oane Blank	<0.003	mg/kg	
1,3-Dichloroprop	oane Blank	<0.002	mg/kg	
2,2-Dichloroprop	oane Blank	<0.004	mg/kg	
1,1,1,2-Tetrachl	oroe Blank	<0.002	mg/kg	
1,2,3-Trichlorop	propa Blank	<0.006	mg/kg	
n-Butylbenzene	Blank	<0.004	mg/kg	
Dichlorodifluoro	ometh Blank	<0.005	mg/kg	
Bromochlorometha	ane Blank	<0.004	mg/kg	
Bromobenzene	Blank	<0.002	mg/kg	
Iodomethane	Blank	<0.004	mg/kg	
Acrolein	Blank	<0.100	mg/kg	
Acrylonitrile	8 l ank	<0.038	mg/kg	
Carbon Disulfide	e Blank	<0.002	mg/kg	
Vinyl Acetate	Blank	<0.082	mg/kg	
2-Hexanone	Blank	<0.048	mg/kg	
trans-1,4-Dichlo	ro-2 Blank	<0.010	mg/kg	
Ethyl Methacryla	te Blank	<0.004	mg/kg	
cis-1,4-Dichloro	-2-B Blank	<0.012	mg/kg	
Bromodichloromet	hane Blank	<0.002	mg/kg	
1,2-Dibromo-3-Ch	loro Blank	<0.008	mg/kg	
1,2-Dibromoethan	e Blank	<0.004	mg/kg	



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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates
Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab Fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

Report Date: 03/09/99

Lims Bat #: LIMS-40696

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QC Batch	Number:	HG-1004
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Sample Id	Analysis	QC Analysis	Values	Units	Limits
99804282	Mercury	Sample Amount	0.262	mg/kg	
		Duplicate Value	0.260	mg/kg	•
		Duplicate RPD	0.895	%	
BLANK-17820	Mercury	Blank	<0.010	mg/kg	
LFBLANK-07858	Mercury	Lab Fort Blank Amt.	0.500	mg/kg	
		Lab Fort Blk. Found	0.470	mg/kg	
		Lab Fort Blk. % Rec.	94.000	%	
		Dup Lab Fort Bl Amt.	0.500	mg/kg	
		Dup Lab Fort Bl. Fnd	0.448	mg/kg	
		Dup Lab Fort Bl %Rec	89.500	%	
		Lab Fort Blank Range	4.500	units	
		Lab Fort Bl. Av. Rec	91.750	%	



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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab Fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

Report Date: 03/09/99

Lims Bat #: LIMS-40696

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	QC	Batch	Number:	ICP-3182
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QC Batch Number	: ICP-3182				
Sample Id	Analysis	QC Analysis	Values	Units	Limits
• • • • • • • • • • • • • • • • • • • •					
99804282	Silver	Sample Amount	<0.50	mg/kg	
		Duplicate Value	<0.50	mg/kg	
	Arsenic	Sample Amount	12.70	mg/kg	
		Duplicate Value	10.14	mg/kg	
		Duplicate RPD	22.42	%	
	Barium	Sample Amount	288.15	mg/kg	
		Duplicate Value	131.95	mg/kg	
		Duplicate RPD	74.36	%	
	Cadmium	Sample Amount	1.86	mg/kg	
		Duplicate Value	1.84	mg/kg	
		Duplicate RPD	1.08	%	
	Chromium	Sample Amount	29.90	mg/kg	
		Duplicate Value	32.96	mg/kg	
		Duplicate RPD	9.72	%	
	Lead	Sample Amount	474.45	mg/kg	
		Duplicate Value	350.35	mg/kg	
		Duplicate RPD	30.09	%	
	Selenium	Sample Amount	10.74	mg/kg	
		Duplicate Value	9.14	mg/kg	
		Duplicate RPD	16.05	%	
LFBLANK-07849	Silver	Lab Fort Blank Amt.	100.00	mg/kg	
		Lab Fort Blk. Found	93.25	mg/kg	
		Lab Fort Blk. % Rec.	93.25	%	
	Arsenic	Lab Fort Blank Amt.	100.00	mg/kg	
		Lab Fort Blk. Found	96.20	mg/kg	
		Lab Fort Blk. % Rec.	96.20	%	
	Barium	Lab Fort Blank Amt.	100.00	mg/kg ·	
		Lab Fort Blk. Found	102.12	mg/kg	
		Lab Fort Blk. % Rec.	102.12	%	
	Cadmium	Lab Fort Blank Amt.	100.00	mg/kg	
		Lab Fort Blk. Found	90.30	mg/kg	
		Lab Fort Blk. % Rec.	90.30	%	
	Chromium	Lab Fort Blank Amt.	100.00	mg/kg	
	•	Lab Fort Blk. Found	96.60	mg/kg	
		Lab Fort Blk. % Rec.	96.60	%	
	Lead	Lab Fort Blank Amt.	100.00	mg/kg	
		Lab Fort Blk. Found	94.40	mg/kg	
		Lab Fort Blk. % Rec.	94.40	%	
	Selenium	Lab Fort Blank Amt.	100.00	mg/kg	
				u. u	



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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

Selenium

. Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab Fortified Blanks and Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 03/09/99

Lims Bat #: LIMS-40696

Page 8 of 8

QC Batch Number	: ICP-3182				
Sample Id	Analysis	QC Analysis	Values	Units	Limits

		Lab Fort Blk. Found	93.25	mg/kg	•
		Lab Fort Blk. % Rec.	93.25	%	
LFBLANK-07850	Silver	Lab Fort Blank Amt.	100.00	mg/kg	
		Lab Fort Blk. Found	90.00	mg/kg	
		Lab Fort Blk. % Rec.	90.00	%	
	Arsenic	Lab Fort Blank Amt.	100.00	mg/kg	
		Lab Fort Blk. Found	97.50	mg/kg	
		Lab Fort Blk. % Rec.	97.50	%	
	Barium	Lab Fort Blank Amt.	100.00	mg/kg	
		Lab Fort Blk. Found	98.77	mg/kg	
		Lab Fort Blk. % Rec.	98.77	%	
	Cadmium	Lab Fort Blank Amt.	100.00	mg/kg	
		Lab Fort Blk. Found	93.00	mg/kg	
		Lab Fort Blk. % Rec.	93.00	%	
	Chromium	Lab Fort Blank Amt.	100.00	mg/kg	
		Lab Fort Blk. Found	99.70	mg/kg	
		Lab Fort Blk. % Rec.	99.70	%	
	Lead	Lab Fort Blank Amt.	100.00	mg/kg	
		Lab Fort Blk. Found	96.30	mg/kg	
		Lab Fort Blk. % Rec.	96.30	%	

100.00

94.60

94.60

mg/kg

mg/kg

Lab Fort Blank Amt.

Lab Fort Blk. Found

Lab Fort Blk. % Rec.



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CHAIN OF CUSTODY RECORD 39 SPRUCE ST. • 2ND FLOOR • EAST LONGMEADOW, MA 01028

	*MATRIX OTHER				
		Received by: (Signature)	Date Time Rece	Relinquished by: (Signature)	Relinqui
\	Hemarks/Comments:	12th Leaven	3)4/69-930 D	Helinquished by: (Signature)	Relinqui
at per Hat		0:	+	1	
24-Hour48-Hour	Turnaround Requested:	Received by: (Signature)	3/3/9/4:36 CO	Relinquished by: (Signature)	Relingui
PRESERVATIVE CODE: $S = NaOH T = Na_2S_2O_3 O =$	I = ICED N = HNO ₃ H = HCI S =	= 1000 ml Amber 0 = Other	∥ છુ	(C (Size) V = 40 ml vial G	P: PLASTIC (_
		285 4 4 7	99804285	-iS V	72-A1C-1S
	7	284	48240 gbs	-14	TP-ATZ-14
		83	28240966	Ö	TP-ATC-D
	7	82	99604282	-12	TP-477-
			99604281		TP- ATC-11
1	_	80	996 04780	Sort	TD-476-11
Captu				10 Marter	moth 10
	7	79 8 3 1	998 pr	6 51	TP ATC-10
RCRA8 TPH- 8260 8080	WASTE WATER GROUND WATER DKG WATER Soil Air *Other Preservative (Use Code) Container (Use Code)	Start Date/Time Stop Date/Time Composite	Lab #	Sample Description	Field Sample I.D.
8015	401-434-104	Fax #:	N N	ults: Yes	Call Results:
		Client P.O. #	he.	Jan Sull	Site Location: Sampled: By:
	#: 17676,00005	Project #:	06 1	16 029 12 L	
nequiii		balch #:	Sq,	One Richmond Sq	Address:
Analysis		Datab		_	/
	-5785 HZ(10H) :auc	Telephone:	tos lac.	Client Name: ATC ASSOCIULS	Client Na



(413) 525-2332 FAX (413) 525-6405

CHAIN OF CUSTODY RECORD 39 SPRUCE ST. • 2ND FLOOR • EAST LONGMEADOW, MA 01028

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	Relinquished	Helinquished	Win	Relinguished	P: PLASTIC (_					TP-A72-16	74-9	P-ARC-IN	Field Sample I.D.	Call Results: Fax Results:	Site Location: Sampled: By:	استخه	Address:		Client Name:
	Relinquished by: (Signature)	delinquishearby: (Signature)	Sull	Relinguished by: (Signature)	Size) V =	,				+	5011	water	Sample Description	Yes	Spainghill .	Bristdine, RI	ne Richmond :	Som SMilan	FI-FISSOCUS
	Date Time	Date Time 3/4/94 6430	3/3/91/4:20		CONTAINER CODE 40 ml vial G = Glass (siz					201	998		Lab #		1	106-10	X		ひ ねつ・
	Received by: (Signature)	Received by: (Signature)	(ooler	Received by: (Signature)	ODE _ size) A = 1000 ml Amber 0 =					78640287	998 04286	(1)	Start O	-					
	nature)	nature)	\	nature)	mber 0 = Other _					<u> </u>		2/8/8	Stop Date/Time Composite	1	ספר	P		ņ	
MATRIX OTHER		Remarks/		<u> </u>	I = ICED					<u> </u>	7	*	Grab WASTE WATER GROUND WATER DKG	Fax #: 401 - 4	Client P.O. #:	Project #: _176	Daton #	* (lelephone:/ 40/
OTHER		Remarks/Comments:		Turnaround Requested:	N = HNO ₃					7	7		DKG WATER AT Soil X	421-0814		1646,00005			1
			Other		PRESERVAT								Preservative (Use Code) Container			3		,	(
				24-Hour	PRESERVATIVE CODE: S = NaOH T = Na ₂ S ₂ O ₃								RCRA: 8260 8080 TPH801						
			Date Required	48-Hour	₂ O ₃ O = OTHER								77				Tedaned	Analysis	
			ğ	_ Normal	 									_					