Final Phase II Comprehensive Site Assessment

Former Lewis
Chemical Facility
Hyde Park, MA

MassDEP Release
Tracking Number
3-1616

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TABLE OF CONTENTS

SECTION **PAGE NO.**

1. INTRODUCTION 1-1

1.1 Objectives 1-1

2. GENERAL DISPOSAL SITE INFORMATION 2-1

2.1 Site Location 2-1
2.2 Site Description 2-1
2.3 Surrounding Land Use 2-2
2.4 Environmental Setting And Natural Resources 2-2
2.5 On-Site Workers And Residential Population 2-2
2.6 Site Soil And Groundwater Categories 2-3
2.6.1 Soil 2-3
2.6.2 Groundwater 2-3
2.7 Party Performing Response Action 2-4

3. RELEASE HISTORY AND PREVIOUS RESPONSE ACTIONS 3-1

3.1 Site Operations And Ownership History 3-1
3.2 Oil & Hazardous Materials (OHM) Use, Storage and Waste Management History 3-1
3.3 Release History And Compliance History 3-2

4. PHASE II COMPREHENSIVE SITE ASSESSMENT ACTIVITIES 4-1

4.1 Previous Investigations (2002 – 2007) 4-1
4.1.1 Phase I Brownfields Site Assessment (ES&M, 2003) 4-1
4.1.2 Interim Phase II CSA (ES&M, 2007) 4-2
4.1.3 Release Abatement Measure (ES&M, 2006) 4-3
4.2 Investigations completed by others: 2007-2015 4-3
4.2.1 Targeted Brownfield Site Assessment (Nobis, 2013) 4-3
4.2.2 Groundwater Sampling (CDW Consultants, 2014) 4-3
4.3 Investigations Completed by Woodard & Curran: 2007-2015 4-4
4.3.1 Limited Subsurface Evaluation (Woodard & Curran, 2008) 4-4
4.3.2 Release Abatement Measure (Woodard & Curran, 2010) 4-6
4.3.3 Groundwater Sampling (Woodard & Curran, 2012) 4-7
4.3.4 Groundwater Sampling (Woodard & Curran, 2014) 4-8
4.3.5 Supplement Soil Sampling (Woodard & Curran, 2015) 4-9

5. MCP REPRESENTATIVENESS EVALUATION AND DATA USABILITY ASSESSMENT 5-1

5.1 Representativeness Evaluation 5-2
5.1.1 Use of Field Screening Data 5-2
5.1.2 Sampling Rationale 5-2
5.1.3 Number, Spatial and Temporal Distribution, and Handling of Samples 5-2
5.1.4 Completeness 5-3
5.1.5 Inconsistency and Uncertainty 5-3
5.1.6 Information Considered Unrepresentative 5-3
5.2 Data Usability Assessment 5-3
5.2.1 Field Quality Control Assessment 5-3
5.2.2 Analytical Data Assessment 5-3

5.3 Conclusions 5-4
6. SITE GEOLOGY AND HYDROGEOLOGY 6-1
6.1 Topography and Surface Water 6-1
6.2 Overburden And Bedrock Geology 6-1
6.3 Hydrogeologic Conditions 6-1
7. NATURE AND EXTENT OF OHM AND CONCEPTUAL SITE MODEL 7-1
7.1 Soil 7-1
7.2 Groundwater 7-2
7.3 Soil Gas 7-3
7.4 Surface water and sediment 7-3
7.5 Conceptual Site Model And Disposal Site Boundary 7-5
8. ENVIRONMENTAL FATE AND TRANSPORT CHARACTERISTICS 8-1
8.1 Chemical/Physical Characteristics 8-1
8.2 Potential Migration Pathways 8-2
8.2.1 Soil 8-2
8.2.2 Groundwater 8-2
8.2.3 Surface Water and Sediment 8-3
8.2.4 Air 8-3
9. SUMMARY OF METHOD 3 RISK CHARACTERIZATION 9-1
9.1 Human Health 9-1
9.2 Safety, Public Welfare, And Environmental Risk Characterization 9-1
10. CONCLUSIONS 10-1
11. PHASE II COMPLETION STATEMENT 11-1
11.1 LSP Opinion 11-1
11.2 Certification of Submittal 11-1
12. LIMITATIONS 12-1
13. REFERENCES 13-1

FIGURES

Figure 1: Site Locus
Figure 2: Site Plan
Figure 3: MassDEP Priority Resource Map (21E)
Figure 4: Property Plan
Figure 5: SVE System Layout
Figure 6: Existing Conditions Plan
Figure 7: Geologic Cross Section (ESM-08 to PZ-01S)
Figure 8: Geologic Cross Section (ESM-15 to PZ-5)
Figure 9: UCL Exceedances in Soil
Figure 10: Water Table Elevation Map

TABLES

Table 1: Soil Analytical Summary
Table 2: Groundwater Summary Data
Table 3: Summary of Sediment Analytical Results
Table 4: Data Usability Evaluation – Nobis Engineering Data

APPENDICES

Appendix A: BWSC 108 Transmittal Form
Appendix B: Public Notification Letters
Appendix C: Supplemental Reports
Appendix D: Laboratory Reports
Appendix E: Boring Logs
Appendix F: Method 3 Risk Characterization

LIST OF ACRONYMS

ACEC	Areas of Critical Environmental Concern
ARA	Absolute Resource Associates
AST	Aboveground Storage Tank
BGS	Below Ground Surface
BEST	Boston Environmental Strike Team
BWSC	Bureau of Waste Site Cleanup
CAM	Compendium of Analytical Methods
COPC	Contaminant of Potential Concern
CSA	Comprehensive Site Assessment
CSM	Comprehensive Site Model
CVOC	Chlorinated Volatile Organic Compound
DCE	Dichloroethylene
DCR	Department of Conservation and Recreation
DCA	Dichloroethane
DND	City of Boston Department of Neighborhood Development
DSB	Disposal Site Boundary
EPH	Extractable Petroleum Hydrocarbon
ES&M	Environmental Strategies and Management, Inc.
FEMA	Federal Environmental Management Agency
IWPA	Interim Wellhead Protection Aquifers
Koc	Carbon/Water Partitioning Coefficient
Kow	Octanol/ Water Partitioning Coefficient
LSP	Licensed Site Professional
MassDEP	Massachusetts Department of Environmental Protection
MassGIS	Massachusetts Geographic Information Systems
MBTA	Massachusetts Bay Transportation Authority
MCP	Massachusetts Contingency Plan
MDL	Method Detection Limit
mg/kg	Milligram per Kilogram
NAPL	Non-Aqueous Phase Liquid
NOR	Notice of Release
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethylene
PID	Photoionization Detector
PPM	Parts per Million
OHM	Oil and/or Hazardous Materials
ORP	Oxidation Reduction Potential
RAM	Release Abatement Measure
RAP	Response Action Performance Standards
RC	Risk Characterization
RCRA	Resource Conservation and Recovery Act
RCS	Reportable Concentration Standards (Soils)
RCGW	Reportable Concentration Standards (Groundwater)
RTN	Release Tracking Number
SVE	Soil Vapor Extraction

SVOC	Semi-Volatile Organic Compounds
TBA	Targeted Brownfields Assessment
TCA	Trichloroethane
TCE	Trichloroethylene
TDS	Technical Drilling Services, Inc.
UCL	Upper Concentration Limit
ug/l	Microgram per Liter
ug/m3	Microgram per Cubic Meter
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
UTM	Universal Transverse Mercator
VC	Vinyl Chloride
VGAC	Vapor-phase Granulated Activated Carbon
VPH	Volatile Petroleum Hydrocarbon
VOC	Volatile Organic Compound
XRF	X-Ray Fluorescence

1. INTRODUCTION

The City of Boston Public Facilities Commission, through its Department of Neighborhood Development (DND), initially retained Environmental Strategies & Management, Inc. (ES&M) of Norton, Massachusetts to conduct Phase II Comprehensive Site Assessment (CSA) activities at the former Lewis Chemical Corporation site located in Hyde Park, Massachusetts (the "Site"). The Disposal Site is identified by the Massachusetts Department of Environmental Protection (MassDEP) as Release Tracking Number (RTN) 3-1616. An Interim Phase II CSA Report was subsequently prepared in February 2007 to comply with the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. The purpose of the Interim Phase II CSA Report was to document the results of initial CSA investigation activities, as described in 310 CMR 40.0835. The Interim Phase II CSA Report included relevant information, data, findings and opinions, which are presented herein. While the original Phase II site assessment activities were successful at defining the nature and extent of chlorinated solvents (primary contaminants of concern at the Site), a complex issue regarding the nature and extent of polychlorinated biphenyls (PCBs) was identified by ES&M and further investigations were recommended.

Woodard & Curran, Inc. (Woodard & Curran) was retained by the Boston DND to complete additional Phase II investigation activities to further define the presence of PCBs in soils and groundwater. Given the results of previous investigations, Woodard & Curran developed an assessment approach to delineate the nature and extent of the PCBs at the Site. These additional Phase II CSA activities were completed by Woodard & Curran from November 2008 to January 2015. The Final Phase II CSA, incorporating the 2007 Interim Phase II CSA, was prepared in accordance with the requirements of the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000) (MassDEP, 2014).

An updated Method 3 Risk Characterization (RC) was completed in support of the final Phase II CSA to characterize risk of harm to health, public welfare, safety, and the environment Site-wide, the results of which indicate that condition of No Significant Risk (NSR) does not exist at the Site for human health under current and restricted future use due to potential exposure to impacted soil and groundwater at the Site. A condition of NSR does not exist for public welfare due to the presence of Upper Concentration Limit (UCL) exceedances in both soil and groundwater at the Site. A condition of NSR of harm to the environment does not exist in Site soil and sediments.

1.1 OBJECTIVES

The objectives of this Phase II CSA were to collect, develop, and evaluate the information necessary to define and evaluate (1) the nature, extent, and potential impacts of the release at the Site; (2) the risk of harm posed by the Site to human health, safety, public welfare, and the environment; and (3) the need to conduct additional remedial actions at the Site (310 CMR 40.0833).

This Phase II CSA report was submitted via the eDEP website; copies of the unsigned Phase II CSA Transmittal Form (BWSC-108) are provided in **Appendix A**. Copies of notification letters to public officials are included in **Appendix B**.

2. GENERAL DISPOSAL SITE INFORMATION

2.1 SITE LOCATION

The Site is located at the dead end of Fairmount Court in Hyde Park, Massachusetts. The former Lewis Chemical Corporation (Lewis Chemical) facility had a corresponding street address of 12-24 Fairmount Court (the Property). The Site is located in a mixed commercial and residential area of the Hyde Park neighborhood of Boston, Suffolk County, Massachusetts. According to the City of Boston's Online Assessors Database, the former "Lewis Chemical Corp. property" consists of three (3) separate parcels identified as parcel 18-10601-000, parcel 18-10598-000 and parcel 18-10602-000 as shown in **Figure 4**. The City of Boston is listed as the current owner for the first two parcels listed, while the Commonwealth of Massachusetts is the current owner of the final given parcel (cityofboston.gov, 2014). The state owned parcel is the portion of land along the Neponset River at the southeastern extent of the Property and totals approximately 8,500 square feet. The Massachusetts Department of Conservation and Recreation (DCR) manages the state-owned parcel as environmental preservation land. The three parcels collectively comprise approximately 0.9 acres of land (39,116 square feet). The Site is defined as the area on parcels 18-10598 and parcel 18-10602-000 where the released contamination has come to be located. Based on results of previous investigations, the Site also includes a limited portion of the Neponset River (estimated to be approximately 0.13 acres).

The coordinates of the central portion of the Site are 42° 15' 11.5" N latitude and 71° 7' 13.0" W longitude. The Universal Transverse Mercator (UTM) coordinates for the Site are 325144 E and 4679831 N.

A Site Locus Map is provided as **Figure 1**. A Site Plan, including parcel boundaries, is provided as **Figure 2**.

2.2 SITE DESCRIPTION

The Site was historically developed with a one to three (1-3) story industrial manufacturing/ warehouse style structure. The concrete block, wood and brick building was noted to be constructed in several different phases.

From 1940 until the early 1960s, a leather manufacturing company reportedly occupied the Site, although little specific information was ever found relative to its operation. Lewis Chemical subsequently operated at the Site from 1963 until 1983 and was involved in the collection, transportation, storage, and processing of hazardous waste. Numerous violations of federal, state, and local laws regarding the safe handling, transport, storage, and treatment of hazardous materials, as well as complaints from local residents, were documented during Lewis Chemical's time of operation on the Property. Lewis Chemical was forced to terminate operations under a Court Order issued by MassDEP in 1983. According to information provided in the Phase I Addendum (ES&M, 2003), several different tenants leased the space from 1983 to 2000 following Lewis Chemical's departure, however, none of the operations involved known chemical handling or storage.

In October 2000, the City of Boston foreclosed on the property due to unpaid property taxes. The property has been unoccupied as of 2000. In June 2014, the former structure was razed. In efforts to limit the exposure to the underlying soil/ groundwater impacts, the concrete slab and certain slope-stabilizing retaining walls along the western extent of the building were left intact. All utilities connected to the building were cut and capped prior to demolition.

The Site is presently a vacant and mostly undeveloped lot with only the concrete slab footprint of the former Lewis Chemical facility remaining. With that being said, approximately 25% of the Site is impervious surfaces; the remaining portions consist primarily of exposed soils and/or ground covering vegetation. The western corner of the Site along with areas nearest the Neponset River are more heavily wooded than the central and northern portions of the property. Several small piles of discarded leather sheet goods are located in the southwestern corner of the Site behind the former building. **Figure 6** shows the existing surficial conditions at the Site.

Access to the Site is controlled through a locked gate at the dead end of Fairmount Court. Beyond the right-of-way, the Site is secured with perimeter chain-link fencing. The northernmost parcel of land, which is also referred to as "0" Fairmount Court, is unsecured but not part of the defined site.

A complete description of the Disposal Site Boundary (DSB) is presented in Section 6.4 and shown in **Figure 2**.

2.3 SURROUNDING LAND USE

The Site is located in a mixed residential and commercial area of Hyde Park, Massachusetts.

Active railroad tracks used by Massachusetts Bay Transit Authority (MBTA) commuter rail and associated with the Penn Central Railroad right-of-way are located adjacent to the Site to the north. The Fairmount MBTA commuter rail train station is located approximately 125 feet northeast of the Site. The Neponset River parallels the Site to the south, southwest. The Neponset River and railway cross to the west of the Site. The Fairmount Avenue right-of-way and overpass abuts the property to the east.

Although no residential or commercial properties directly abut the Site, commercial properties including a convenience store and pizza chain restaurant are located within 200 feet of the Site to the southeast beyond the Neponset River. The nearest residential lots are located within 200 feet of the Site to the north beyond the railroad right-of-way.

No institutions, which are defined by the MCP as publicly or privately owned hospitals, health care facilities, orphanages, nursing homes, convalescent homes, educational facilities, or correctional facilities that in whole or part provide overnight housing, are located within 500 feet of the Site.

The Parkwell House nursing home and rehabilitation center and the Fairmount Rest Home for senior living are both located at approximately 500 feet or slightly beyond from the central portion of the Site. The Parkwell House is located at 745 Truman Parkway southwest of the Site and the Fairmount Rest Home is located at 172 Fairmount Avenue east of the Site. Each location has overnight housing.

2.4 ENVIRONMENTAL SETTING AND NATURAL RESOURCES

Currently, as depicted on the Massachusetts Geographic Information Systems (MassGIS; 2014) MassDEP Priority Resource (21E) Map (**Figure 3**), the Site is not located within 500 feet of any public drinking water supply areas (Zone II, Interim Wellhead Protection Aquifers (IWPA), Zone A, and/or Potentially Productive Aquifers).

The nearest surface water feature is the Neponset River, which flows in an easterly direction directly adjacent to the southeastern most portion of the Site as shown in **Figure 6**.. As noted previously, the Site also includes a limited portion of the Neponset River due to the determined extent of chlorinate solvent contamination in the surface water and PCB contamination in the sediment. The Site is not located within Wetlands, Protected Open Space, Areas of Critical Environmental Concern (ACEC), MassDEP Permitted Solid Waste Facilities, Natural Heritage Endangered Species Program Habitats, or Certified Vernal Pools (MassGIS, 2014a). Bank lines of the Neponset River are identified as Federal Environmental Management Agency (FEMA) 100-year flood zones, however, the 100-year flood plain elevation does not extend beyond the banks of the Neponset River in the area of the Site.

Areas of Protected Open Space are situated within 500-feet of the Site to the west, southwest along the Neponset River. The major drainage basin division is located within 0.5-miles of the Site to the northwest.

2.5 ON-SITE WORKERS AND RESIDENTIAL POPULATION

The Site is currently vacant and secured with a perimeter chain-link fence.

The residential population within a ½-mile radius of the Site is estimated to be greater than 6,000.

2.6 SITE SOIL AND GROUNDWATER CATEGORIES

This section identifies and documents the soil and groundwater categories applicable to the Disposal Site, as described in 310 CMR 40.0930.

2.6.1 Soil

The MCP specifies three soil categories (S-1, S-2, and S-3). Category S-1 soil represents the highest potential for exposure because it assumes the unrestricted use of the soil (i.e., residential), whereas Category S-3 soil represents the lowest potential for exposure.

Under current conditions, the majority of impacted soils are located beneath unpaved surfaces. Only a limited concrete covered area, approximately 25% of the Site, is present within the DSB. Site soils located in unpaved areas at depths between 0 to 3 feet below ground surface (bgs) are considered to be accessible under current conditions as per 310 CMR 40.0933(9). However, given that children are not present at the Site with high intensity or frequency due to the presence of fencing around the perimeter of the Property, and that no workers are present at high frequency at the Site, these soils are classified as S-2 under current conditions. Soils located beneath the former building at depths between zero and 15 feet bgs are considered to be potentially accessible but are classified as S-3 under current Site uses because it is unlikely that receptors would currently be exposed to these soils. Under current conditions, children would typically never be present on Site, and workers would only be present at low frequencies. Soils beneath building foundations or deeper than 15 feet bgs are considered to be isolated and are, thus, classified as S-3.

Refer to Section 1.3 of the accompanying Method 3 RC for further information regarding the application of RC standards as they pertain to anticipated future Site use.

2.6.2 Groundwater

MassDEP has established three categories for groundwater, which may apply to a specified volume of groundwater at the Site or to an aquifer taken as a whole. These groundwater categories were established to identify groundwater associated with the following three distinct types of exposures:

- GW-1 applies to groundwater assumed to be a potential source of drinking water.
- GW-2 applies to groundwater considered to be a potential source of vapors that could migrate through the subsurface and concentrate in indoor air of on-site buildings.
- GW-3 applies to groundwater that is assumed to discharge to surface water.

Groundwater at the Site is not a current or potential source of drinking water, as demonstrated by the consideration of the seven MCP criteria for GW-1 classification: groundwater is not within a Zone II or an Immediate Wellhead Protection Area (IWPA) for a public water supply; groundwater is not within a Potentially Productive Aquifer (medium to high yield) that has not been excluded as a non-potential Drinking Water Source Area; groundwater is not within the Zone A of a Class A Surface Water Body used as a public water supply; and groundwater is not within an area designated by a municipality specifically for the protection of groundwater quality to ensure its availability for use as a source of potable water. The subject property was historically connected to municipal water. Therefore, groundwater is not classified as GW-1.

Depth to groundwater at the Site is shallow (i.e., less than 15 feet bgs) across the Site (between 8 and 12 feet bgs depending on surface elevation and ground slope). Currently, the Site does not contain an occupied building within 30 feet of shallow impacted groundwater and none of the groundwater monitoring points are within 30 feet of an occupied structure. As such, groundwater at the Site is not classified as GW-2 under current conditions. However, under future conditions, due to the shallow nature of groundwater, if a building is constructed in the vicinity of impacted groundwater, then groundwater at the Site could be classified as GW-2.

All groundwater in the Commonwealth is classified as GW-3, which assumes that site groundwater will ultimately migrate and discharge to a surface water body. The nearest surface water body is the Neponset River, which flows adjacent to the southeastern most portion of the Property and is included as part of the Site.

In summary, for the purposes of this evaluation, groundwater at the Site is classified as GW-3 under current conditions and potentially GW-2 and GW-3 under future conditions if an occupied building is constructed within 30 feet of an impacted groundwater monitoring location.

2.7 PARTY PERFORMING RESPONSE ACTION

The City of Boston Department of Neighborhood Development, the property owner, is the party that is currently performing response actions at the Site.

As noted in the Interim Phase II CSA report completed by ES&M in February 2007, the City of Boston acquired the Lewis Chemical property through foreclosure on October 18, 2000 due to failure of payment of back taxes. In accordance with Massachusetts General Law Ch. 21E, Section 2, the City of Boston is NOT deemed an “owner” or “operator” of the Site, and is therefore entitled to certain liability protection under the Statute, as well as exemptions under the MCP. Since further investigation of the Site was warranted in order to develop future re-use plans, the City elected to voluntarily conduct further response actions under the MCP. Investigation activities have thus been conducted through funding provided by a Brownfields Assessment grant through the United States Environmental Protection Agency (USEPA) and/or through grants obtained through the MassDevelopment Brownfields Redevelopment Fund.

3. RELEASE HISTORY AND PREVIOUS RESPONSE ACTIONS

3.1 SITE OPERATIONS AND OWNERSHIP HISTORY

From 1940 until the early 1960s, a leather manufacturing company reportedly operated at the Site. Lewis Chemical subsequently operated at the Site from 1963 until 1983 and was involved in the collection, transportation, storage, and processing of hazardous waste. Lewis Chemical was specifically involved in the reclamation of spent chlorinated solvents through a process of "flash distillation". Under a court order filed in 1983, Lewis Chemical was to cease all operations on site.

ES&M reviewed historical assessor's data, mortgages, and tax takings as part of the Phase I Site Assessment conducted in 2005. Additional site operations and ownership information was not readily available for review at that time. ES&M indicated that of the documents reviewed, a number of mortgage holders and/or owners with unspecified operations were linked to the property following 1983. Those of which included: Carl Sutera, an officer of Lewis Chemical Corporation; Ronald Gerhard of High Plains Mortgage Company; Segal Mortgage Company; Adrienne Smith; and Laurie A. McKeown, a Trustee of the Citadel Realty Trust.

As previously mentioned, the Property on which the Site is located, is comprised of three separate parcels of land identified by the City of Boston's Online Assessors Database as parcel 18-10601-000, parcel 18-10598-000 and parcel 18-10602-000 (see **Figure 4**). The City of Boston first acquired the central parcel of the Site, 18-10598-000, in October 2000 through tax foreclosure. Prior to foreclosure, Laurie A. McKeown, a trustee of the Citadel Realty Trust, owned the parcel.

The Property on which the Site is located is currently owned by the City of Boston and the Commonwealth of Massachusetts, with a portion of the former Lewis Chemical Company building being constructed on the parcel owned by the Commonwealth of Massachusetts. Respective affiliated government entities, Boston DND and Mass DCR, maintain and manage the different portions of the property.

3.2 OIL & HAZARDOUS MATERIALS (OHM) USE, STORAGE AND WASTE MANAGEMENT HISTORY

ES&M reviewed public records during the Phase I Site Assessment pertaining to the use and storage of chemicals on site. Although the Site has a history of industrial and commercial uses prior to 1960, there was little documentation of the leather manufacturing which occurred at the Property. Several documents reviewed provided information related to the daily operations of Lewis Chemical. The documents can be summarized as follows:

- City of Boston Commission on Licenses approved license for the storage and/or sale of oil and chemical materials. The list of approved materials included but are not limited to chemicals such as fuel oil, naphthalene, xylenes, toluene, ethyl acetate, methyl ethyl ketone, etc. The approved license was dated May 9, 1963.
- A property visit was conducted by a representative of the Division of Air-Quality on June 2, 1981 following the complaint of a leaking chemical storage tank polluting the Neponset River. Carl Sutera of the Lewis Chemical Corporation, informed the representative that solids collected from the solvent distillation process are drummed and disposed of at an approved facility in Alabama or Indiana. The site visit also noted that chemical storage tanks were located in a cement diked tank farm area and that used fuel oil was retrieved and disposed of by Cyn Oil.
- The City of Boston Fire Department completed an inventory of the hazardous materials located on site following a fire in a basement room, dated May 27, 1983. Materials noted on the premises included hundreds of chemical drums with a range of solvent materials, upwards of 20 storage tanks and two truck trailers loaded with 55-gallon drums. The inspection notes that the tanks were located in the tank farm at the

rear of the building and that the drums were mostly stored in the basement. Greater than 35,000 gallons of flammable chemicals were observed on the property.

These documents were appended to the Phase I Addendum submitted by ES&M to MassDEP on May 16, 2005.

ES&M also went on to note that local and State files contained many documents related to permit violations and non-compliance at the Lewis Chemical facility. The violations were numerous, and generally related to poor waste handling practices, spills of hazardous materials, and neighborhood complaints. Various government agencies were involved, including the Board of Health, Conservation Commission, Boston Environmental Strike Team (BEST), and the Massachusetts DEP. The actions of these agencies led to the cease and desist order, which eventually forced Lewis Chemical to stop their operation in June 1983 (ES&M, 2003).

3.3 RELEASE HISTORY AND COMPLIANCE HISTORY

Information available from the MassDEP's Waste Site/Reportable Releases Lookup database (http://db.state.ma.us/dep/cleanup/sites/search.asp) was used to identify releases at the Property. Reviews of these documents indicated that one RTN, 3-1616, was assigned to the Property in January 1987. Two additional RTNs, 3-31548 and 3-31697, were assigned to the Commonwealth of Massachusetts owned parcel in March, 2013 and August, 2013, respectively. The following is a summary of information pertaining to each RTN.

RTN 3-1616

Information provided in the documents associated with this RTN indicates that the persistent mishandling and improper storage of chemicals by Lewis Chemical during its time of operation has resulted in impacts to the soil, groundwater, sediment and surface water on Site.

Prior to the initial notice of responsibility (NOR) date, several documented complaints were filed with the MassDEP regarding the releases or potential releases due to Lewis Chemical malpractices. The following information was reviewed by ES&M as part of the Phase I investigation:

- A spill of approximately 75 to 100 gallons of water used to flush a tank reportedly overflowed and spilled to the Neponset River was noted to have occurred in April 1981.
- A spill of approximately 25 to 30 gallons of "waste flammable liquids" which overflowed a tank and the containment dike, impacting nearby surface soils, was noted to have occurred in March 1982.
- On April 22, 1983, a fire was reported at the Property. The fire started in a basement dryer on site while the facility was unmanned.
- On May 25, 1983, a second fire and resulting explosion occurred at the facility. Consequently, a cease and desist order was issued to Lewis Chemical by the Boston Fire Commissioner.

Because of the explosion, MassDEP revoked Lewis Chemical's hazardous waste license in June 1983. Lewis Chemical was forced to terminate operations under a Court Order issued in September 1983. Although individual instance of releases or potential releases have been identified, it is believed that these actions are more indicative of prolonged mishandling and misuse of hazardous materials by Lewis Chemical.

Several environmental investigations occurred at the Site from 1986 to 1991. The investigations concluded that there was likely a continued threat to the environment because of documented and/or undocumented spills and that a significant release of hazardous material had occurred at the Site. Further investigative activities were recommended as a result.

Through a Brownfields Assessment grant funded by the USEPA, the MassDEP contracted ES&M to conduct a Phase I Site Assessment. ES&M began Phase I Brownfields Site Assessment Activities in June 2002. Phase I/Phase II Site Assessment Activities and subsequent investigations are summarized in Section 4.

RTN 3-31548

Investigations completed to date at the Site have documented soil and groundwater concentrations at locations on the portion of the Site that is owned by the Commonwealth of Massachusetts and controlled by DCR that exceed the applicable soil and groundwater Reportable Concentrations (RCs). Site inspections have determined that a small (approximately 3" diameter) diameter pipe discharges onto the riverbank on the DCR parcel. The pipe was apparently the discharge point of the trench drain located in the basement of the former Lewis Chemical Company building. Upon receipt of knowledge of the exceedances, DCR submitted a release notification to MassDEP on May 17, 2013, listing the constituents in soil and groundwater from sample points located on the DCR parcel that exceeded the applicable RCs. MassDEP assigned RTN 3-31548 to the release. As the constituents were included in the chemicals of concern associated with the Lewis Chemical Site (RTN 3-1616) and there was no evidence of the use of the constituents on the DCR parcel, DCR submitted a Downgradient Property Status (DPS) submittal to MassDEP on January 24, 2014. MassDEP terminated the DPS with a Notice of Audit Findings (NOAF) on June 5, 2014, stating that the DPS did not meet the requirements of a DPS (310 CMR 40.0180).

On November 4, 2014, CDW Consultants, Inc., (CDW) on behalf of DCR, submitted a Phase I Initial Site Investigation Report and a Tier Classification for RTN 3-31548, classifying the site as a Tier II site.

The DCR parcel site (RTN 3-31548) is included within the Disposal Site Boundary of the Lewis Chemical Site (RTN 3-1616).

RTN 3-31697

On August 2, 2014, an additional release notification was submitted to MassDEP for the release of lead to the soil on the DCR parcel. RTN 3-31697 was assigned to the lead soil release. On August 8, 2014, CDW, on behalf of DCR, submitted a Summary Report and Method 1 Risk Characterization in Support of a Permanent Solution with No Conditions for the site. The Method 1 Risk Characterization documented that the calculated exposure point concentration for lead in the soil on the DCR parcel did not exceed the applicable Method 1 S-1/GW-3 standard and therefore the documented lead release did not pose a significant risk to human health or the environment. The site (RTN 3-31697) is currently listed on the MassDEP database as "PSNC" (Permanent Solution with No Conditions).

4. PHASE II COMPREHENSIVE SITE ASSESSMENT ACTIVITIES

This section describes investigation activities previously completed by others, and those conducted since November 2008 by Woodard & Curran in support of Phase II CSA activities. The objectives of investigation activities were to obtain sufficient data to delineate the nature and extent of chemicals of potential concern (COPC) identified in soil, groundwater, soil gas, surface water and sediment at the Site which include VOCs (primarily chlorinated solvents), PAHs, petroleum hydrocarbons (EPH and VPH), PCBs, and heavy metals (primarily lead) and to conduct an evaluation of the potential risk of harm to health, safety, public welfare, and the environment from the COPCs identified in environmental media. Supplemental investigations that were completed by Woodard & Curran and others following 2008 are also used in support of the Conceptual Site Model (CSM) as presented in Section 6 of this report.

4.1 PREVIOUS INVESTIGATIONS (2002 – 2007)

Subsurface investigations were completed between 2002 and 2006 by ES&M as documented in the Phase I Brownfield's Site Assessment (ES&M, 2003), Release Abatement Measure (RAM) Completion Report, (ES&M, 2006) and Interim Phase II Comprehensive Site Assessment (ES&M, 2007). These previous investigation reports are included in **Appendix C** of this report. Refer to the attached supplemental reports for specific details pertaining to investigation methodology, results and conclusions.

The investigations completed by ES&M are summarized in the following sections.

4.1.1 Phase I Brownfields Site Assessment (ES&M, 2003)

Subsurface investigations at the Property began in June 2002 to assess Site conditions and identify potential environmental conditions that may pose an Imminent Hazard or other time critical condition. As such, the Phase I investigation included the completion of soil borings and installation of monitoring wells, the collection of soil and groundwater samples on site, and the collection of surface water and sediment samples in the Neponset River.

The following actions were completed from June 2002 to July 2002:

- Eleven (11) soil borings were advanced using hollow-stem auger and split spoon methods;
- Ten (10) soil borings were completed as overburden groundwater monitoring wells;
- Analytical soil samples were collected at each boring based on field screening for analysis of VOCs, SVOCs, total metals, mercury, cyanide, PCBs and pesticides;
- Soil samples were collected from beneath two (2) breached locations underlying the basement trench drain;
- Analytical groundwater samples were collected from each installed well using low-flow sampling techniques for analysis of VOCs, SVOCs, total metals, mercury, and cyanide;
- Surface water and sediment samples were collected from four (4) locations within the Neponset River adjacent to the property. Samples collected were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total metals and mercury;
- Surficial soil samples with a maximum depth of 1.0" were evaluated with X-Ray Fluorescence (XRF) technology for the presence of metals. (MassDEP, 2003)

Results of the investigations determined that VOCs, SVOCs and PCBs exceeded Reportable Concentrations (RCS-1) in soils and that VOCs and SVOCs exceeded the Reportable Concentration in groundwater (RCGW-2), with TCE being the most significant constituent detected. VOCs and metals were also detected in the surface water and sediment media. A complete discussion of sampling activities and results are presented in the ES&M Phase I Brownfields Site Assessment as included in **Appendix C** of this report.

4.1.2 Interim Phase II CSA (ES&M, 2007)

Phase I investigation activities completed by ES&M determined that three (3) potential source areas may exist on the Property. Further investigations were completed to delineate the nature and extent of releases, specifically as it pertained to the potential source areas that were identified by ES&M as the "Fill Area" in the southern corner, the "Underground Storage Tank (UST) Area" adjacent to the northwest of the building and the "Suspected Drum Burial Area" to the northeast of the building.

The following actions were completed from June 2005 to May 2006:

- Eleven (11) test pits of varying dimensions and depths were completed in the three aforementioned areas of potential concern;
- Six (6) additional overburden groundwater monitoring wells were installed;
- Twenty-two (22) shallow soil borings were completed in a pre-determined Property grid using GeoProbe direct push technology;
- Two (2) shallow soil borings were completed within the garage bays at the southern extent of the facility;
- Soil samples, including those obtained during monitoring well installation, were submitted for VOCs, volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbons (EPH), Lead and PCB analysis;
- Three (3) piezometer couplets were installed along the bank of the Neponset River, with a shallow and deep designation;
- Four (4) bedrock monitoring wells were installed using a steel casing and diamond bit core barrel;
- Isolated groundwater sample were collected every ten feet into bedrock using the inflatable packer testing method and analyzed for VOCs;
- Analytical samples were collected from overburden monitoring wells, bedrock wells and piezometers using modified low-flow sampling approaches. Groundwater samples were submitted for a combination of VOC, PCB, Resource Conservation and Recovery Act (RCRA) 8 metals, EPH and/or VPH;
- Sediment and surface water samples were collected from nine (9) locations in the Neponset River and were submitted for VOC, PAH and RCRA 8 metals analysis;
- Six (6) sub-slab soil gas sampling points were installed in the basement of the vacant facility and analytical samples were collected for VOC analysis; and
- An aquifer slug test was completed at three (3) monitoring wells to calculate hydraulic conductivity.

Results of the Phase II investigation determined that chlorinated solvents in groundwater exceeded the established Upper Concentration Limits (UCLs) at several locations. Chlorinated solvents consequently have impacted shallow groundwater, have migrated into the bedrock aquifer northwest of the building and have migrated into the Neponset River. In addition, the solvents present beneath the building were determined to be volatilizing, resulting in elevated VOC concentrations in soil gas.

At the conclusion of the Phase II investigation activities, it was also noted that because of significant PCBs in the Neponset River sediments from upstream sources, it was not possible to determine whether PCBs on the Lewis Chemical site have contributed to, or have exacerbated the PCB levels in the river.

A complete discussion of sampling activities and analytical results are presented in the ES&M Interim Phase II Comprehensive Site Assessment as included in **Appendix C** of this report (ES&M, 2007). Sample locations are shown in **Figure 2**. Analytical results of soil samples, groundwater samples and sediment samples collected by ES&M in support of the Interim Phase II Report (ES&M, 2007) have been incorporated into Tables 1, 2 and 3, respectively.

4.1.3 Release Abatement Measure (ES&M, 2006)

In June 2005, during the Phase II test pitting activities, an approximately 8000-gallon steel tank containing approximately 600 gallons of an unidentified product was uncovered. This tank was later removed on April 7, 2006 under a RAM Plan (ESM, 2006a). Soil sampling as part of the RAM was completed in accordance with DEP Policy WSC-402-96 "UST Closure Assessment Manual". At the time of discovery, three (3) soil samples and one product sample were collected from the "UST Area" test pits.

Post excavation soil samples were collected from the sidewalls and bottom of the tank grave after removal. EPH, VPH, VOCs, PCBs and Lead were detected above laboratory reporting limits, however, all constituents were below the applicable MCP risk characterization standards. The UST grave was subsequently backfilled with the excavated material and additional clean fill was added to restore the work to the original grade.

A complete description of the UST location, RAM activities conducted and analytical results are presented in the ES&M RAM Completion Statement included in **Appendix C** of this report (ESM, 2006b). Analytical results of post-excavation soil samples collected during the RAM activities are included in **Table 1**.

4.2 INVESTIGATIONS COMPLETED BY OTHERS: 2007-2015

4.2.1 Targeted Brownfield Site Assessment (Nobis, 2013)

At the request of the USEPA, Nobis Engineering, Inc. (Nobis) of Lowell, Massachusetts completed a Targeted Brownfields Site Assessment (TBA) at the Site. Investigatory activities were completed following building demolition to assess soil and groundwater conditions in areas that previously had limited access.

The following actions were completed from September 2013 to December 2013:

- Twenty-eight (28) soil borings were completed in and around the former building footprint;
- Soil samples were collected for analysis of PCBs, VOCs, metals and total organic carbon (TOC) at pre-determined depth intervals;
- Seven (7) boring locations were completed as overburden monitoring wells;
- Newly installed monitoring wells were developed and purge water was containerized as Investigation Derived Waste.

Sampling results indicate that the highest concentrations of PCBs were detected in relatively shallow soils (0.5-2.5' bgs) located at the southern exterior corner of the former building structure. Deeper soils (5-10') in the same vicinity resulted in elevated chlorinated solvent concentrations. VOCs were also detected at sampling locations within the former building and locations collected between the former building and the Neponset River.

Groundwater was not sampled as part of this site assessment. A complete description of the sampling methods and analytical result summary tables are presented in the Nobis Targeted Brownfield Site Assessment Data Deliverable sent to Mr. Alan Peterson, Task Order Project Officer for the USEPA, on January 22, 2014 (Nobis, 2014). The document is included in **Appendix C** of this report. Analytical results of soil samples collected by Nobis are included in **Table 1**.

4.2.2 Groundwater Sampling (CDW Consultants, 2014)

On behalf of the MassDCR, CDW Consultants, Inc. of Framingham, Massachusetts collected groundwater samples from monitoring wells located on the Neponset River reservation parcel in September 2014. These monitoring wells included four (4) overburden monitoring wells (ESM-03, ESM-05, ESM-06, ESM-07) and three (3) bedrock monitoring wells (ESM-03B-S/D, ESM-05B).

Groundwater samples collected by CDW were collected in general accordance with the USEPA low-flow groundwater sampling methodologies and were submitted for VOC and PCB analysis. Results of this investigation indicated that VOC and PCB concentrations appeared to be decreasing or generally stable when compared to data collected during previous monitoring events. The most recent of which was a comprehensive groundwater sampling event completed by Woodard & Curran in June 2012.

One anomaly in the regression/ stabilization trend was observed at ESM-06, located at the southern exterior corner of the former facility. TCE was detected at a concentration of 11,500 mg/kg, which is a significant increase in comparison to the 1,200 ug/L concentration detected in 2012. Similarly, vinyl chloride had increased to a concentration of 1,750 ug/l when previously not detected above laboratory reporting limits. Other VOC constituents exhibited only minor increasing trends at ESM-06.

CDW's groundwater sampling was conducted in conjunction with a sampling event that was conducted by Woodard & Curran on the upland parcels of the Site. All groundwater data collected during the coinciding September 2014 sampling events is summarized in **Table 2**. See Section 4.3.4 for a discussion of Woodard & Curran's sampling methods and results.

4.3 INVESTIGATIONS COMPLETED BY WOODARD & CURRAN: 2007-2015

4.3.1 Limited Subsurface Evaluation (Woodard & Curran, 2008)

At the request of the City of Boston DND, Woodard & Curran completed a limited sub-surface soil evaluation to identify the source of elevated VOCs in sub-slab soil gas identified beneath the slab of the former Lewis Chemical facility during previous investigations and to investigate sub-surface soils in the eastern undeveloped portion of the Site in anticipation of potential future redevelopment.

On November 25 and 26, 2008, Woodard & Curran observed Technical Drilling Services (TDS) of Sterling, Massachusetts advance twenty (20) soil borings via hydraulic direct push methods. Twelve (12) soil borings were completed on the undeveloped portions of the property and were identified as GP-1 through GP-12. Eight (8) soil borings were completed inside the former building and were identified as SS-1 through SS-8. Subsurface materials encountered generally consisted of fine to coarse sands with some gravel, brick material (crushed), and crushed stone. Boring logs detailing soil intervals and composition are provided as **Appendix E**.

At each boring location, soil samples were collected from 0-3 feet bgs and from within the interval exhibiting the greatest impact below the surficial 3-foot interval. Soil samples were collected based visual and olfactory observations. All samples were submitted to Resource Laboratories, LLC of Portsmouth, New Hampshire to be analyzed for VOCs via USEPA method 8260, EPH and VPH with target compounds via MassDEP methods, PCBs via USEPA Method 8082 and RCRA 8 Metals.

The following samples and corresponding depth intervals were submitted for analysis:

Exterior Soil Samples:

- GP-1 (0-3' and 3-5' bgs)
- GP-2 (0-3' and 3-5' bgs)
- GP-3 (0-3' bgs)
- GP-4 (0-3' and 3-5' bgs)
- GP-5 (0-3' and 6-8' bgs)
- GP-6 (0-3' and 6-8' bgs)
- GP-7 (0-3' and 7-10' bgs)
- GP-8 (0-3' and 10-12' bgs)

- GP-9 (0-3' and 10-12' bgs)
- GP-10 (0-3' and 10-12' bgs)
- GP-11 (0-3' and 10-12' bgs)
- GP-12 (0-3' and 10-12' bgs)

Interior Sub-Slab Soil Samples:

- SS-1 (0-3' and 3-4' bgs)
- SS-2 (0-3' and 3-5' bgs)
- SS-3 (0-3' and 3-5' bgs)
- SS-4 (0-3' and 3-4' bgs)
- SS-5 (0-3' and 3-5' bgs)
- SS-6 (0-3' and 3-5' bgs)
- SS-7 (0-3' and 3-4' bgs)
- SS-8 (0-3' and 3-5' bgs)

The analytical data as summarized herein is discussed based on sampling location (i.e. interior vs. exterior).

Exterior (Outside Building Footprint) Sampling Results

Results indicate various low levels of EPH, polycyclic aromatic hydrocarbons (PAHs), and VPH including target analytes exist in samples collected from the exterior boring locations (G-1 through G-12). Benzo(a)pyrene was detected above the most stringent MCP soil standards (S-1/GW-2 and S-1/GW-3) in three analytical samples including samples GP-1 at 0-3 feet bgs (2.3 milligrams per kilograms (mg/kg)), GP-3 at 0-3 feet bgs (3.7 mg/kg), GP-5 at 6-8 feet bgs (3.2 mg/kg), and GP-10 at 0-3 feet bgs (4.2 mg/kg). Similarly VOCs constituents were detected at relatively low concentrations. Only 1,2-dichloroethane was detected above the most stringent soil standards at location GP-1 from a depth of 3-5 feet bgs. The 1,2-dichloroethane concentration was 0.3 mg/kg as opposed to the S-1 soil standard of 0.1 mg/kg.

Arsenic, barium, cadmium, chromium, lead, mercury, and silver were detected at low levels in the majority of the exterior soil boring samples. Notably, cadmium was detected above the S-1 soil standard (2 mg/kg) in soil boring samples GP-1 at 3-5 feet bgs (2.4 mg/kg) and GP-12 at 10-12 feet bgs (13 mg/kg). Chromium was also detected at or above the S-1 soil standard (30 mg/kg) in soil boring samples GP-1 at 0-3 feet bgs (30 mg/kg), GP-2 at 0-3 feet bgs (110 mg/kg), GP-2 at 3-5 feet bgs (110 mg/kg), GP-2 at 3-5 feet bgs (35 mg/kg), and GP-9 at 10-12 feet bgs (75 mg/kg). Lead was detected above the S-1 soil standard (300 mg/kg) in soil boring samples GP-3/0-3 feet bgs (470 mg/kg), GP-4 at 0-3 feet bgs (560 mg/kg), GP-5 at 6-8 feet bgs (1,500 mg/kg), GP-7 at 7-10 feet bgs (860 mg/kg), and GP-9 at 0-3 feet bgs (460 mg/kg).

PCB Aroclor 1248 was detected above the S-1 soil standard in place at the time of sampling (2 mg/kg) in soil boring samples GP-1 at 0-3 feet bgs (170 mg/kg), GP-2 at 0-3 feet bgs (300 mg/kg), GP-2 at 3-5 feet bgs (17 mg/kg), and GP-4 at 0-3 feet bgs (6.4 mg/kg). No other PCBs were detected above laboratory method detection limits (MDL). The concentration reported for samples GP-1 at 0-3' and GP-2 at 0-3' also exceeded the UCL (100 mg/kg) for PCBs as established by the MCP. It was concluded that PCB concentrations detected were not consistent with the results obtained during ES&M Phase II CSA investigations at the Site which generally documented lower concentrations (<20 mg/kg) of PCBs in the near surface soils at the Site.

Interior (Within Building Footprint) Sampling Results

Similar to the exterior sampling results, EPH and PAH compounds were detected at low levels at all interior sub-slab borings. Conversely, VPH constituents and target analytes were detected at elevated concentrations in comparison

to the exterior sampling results. C9-C10 aromatics were detected above the S-1 standard of 100 mg/kg in samples collected from borings SS-3 at 0-3 feet bgs (1,200 mg/kg) and SS-4 at 3-4 feet bgs (2,600 mg/kg). C9-C12 aliphatics were detected above the S-1 standard of 1,000 mg/kg in samples collected from borings s SS-3 at 0-3 feet bgs (1,700 mg/kg), SS-3 at 3-5 feet bgs (12,000 mg/kg), SS-4 at 3-4 feet bgs (1,000) and SS-6 at 3-5 feet bgs (1,300 mg/kg). C5-C8 aliphatics were also detected above the S-1 standard of 100 mg/kg in multiple soil boring samples with resulting concentrations ranging from 110 mg/kg to 11,000 mg/kg. However, the elevated C5-C8 aliphatic concentrations are most likely attributable to the elevated tetrachloroethene (PCE) and trichloroethene (TCE) concentrations in soil. PCE and TCE are chlorinated VOC compounds that fall within the C5-C8 aliphatic carbon range and are included within the reported C5-C8 aliphatic concentrations. Results of the VOC sampling confirm this. PCE was detected above the S-1 standard in use at the time of sampling of 10 mg/kg in multiple soil boring samples with resulting concentrations ranging up to 8,000 mg/kg. TCE was detected above the S-1 standard of 2 mg/kg in interior soil boring samples with resulting concentrations ranging up to 1,900 mg/kg.

Results indicate various low level detections of arsenic, barium, cadmium, chromium, lead, mercury, and silver in the majority of the interior soil boring samples that were collected. Cadmium, chromium and lead were the only metals detected above S-1 soil standards in place at the time of sampling. The detected exceedances were similar in magnitude to the same metals exceedances detected at exterior boring locations.

PCBs were not detected above laboratory method detection limits (MDLs) in any samples submitted for laboratory analysis from the interior sub-slab soil borings.

An analytical soils data summary is provided as **Table 1**. Sampling locations from the given limited sub-surface investigation are included on the Site Plan of this report (**Figure 2**). Analytical laboratory reports are provided in **Appendix D**.

Based on the subsurface investigation results, it was determined by Woodard & Curran that no new "reportable releases" existed at the Site that would require a MassDEP notification.

4.3.2 Release Abatement Measure (Woodard & Curran, 2010)

The results of the supplemental soil investigation conducted in 2008, as discussed above, indicated that significant VOC concentrations exist in soil below the building foundation. In addition, elevated soil gas concentrations were previously detected during March 2006 Phase II assessment activities. As a result, Woodard & Curran developed a Release Abatement Measure (RAM) Plan consistent with 310 CMR 40.0441, for accelerated response actions designed to reduce the VOC concentrations in soil and subsequently reduce soil gas concentrations that were most likely infiltrating into the ambient air inside the then existing vacant Site building.

As detailed in the RAM Plan submitted electronically to MassDEP on July 27, 2010, the objective of the RAM was to install an Soil Vapor Extraction (SVE) system inside the former Lewis Chemical facility that would operate until VOC concentrations in the sub-slab soil and soil gas had been reduced to levels that do not pose a significant risk or could not be feasibly reduced further by the SVE system.

The SVE system construction was completed at the Site on September 24, 2010. SVE system construction, including piping and other system component installation, was performed from July 21, 2010 to September 24, 2010. Ten extraction wells locations were completed to an approximate final depth of 3.5 feet bgs using a vactor and air hammer system. Each extraction point was identified as EP-1 through EP-10. The extraction wells were connected by a network of large diameter PVC piping to form three legs of the vapor extraction system, i.e. SVE-1, SVE-2 and SVE-3 (**see Figure 5**).

SVE system start-up occurred once all construction was completed on September 24, 2010. Following the start-up, grab air samples were collected from the vapor-phase granulated activated carbon (VGAC) unit's influent and SVE system effluent on the 1st, 7th, 14th, and 28th day of system operation. Samples were collected in laboratory supplied Summa canisters and were submitted to Alpha Analytical Laboratories (Alpha) of Westborough, Massachusetts for VOC TO-15 analysis. The SVE system was modified on October 20, 2010 to include a potassium permanganate filter to extract the vinyl chloride from the system effluent vapors prior to discharge to the atmosphere.

The system was to be continuously running following the start-up, however, severe weather (i.e. high water table events) and/or mechanical repairs required brief periods of inactivity. Under the RAM, the system, along with the existing sub-slab sampling points were monitored monthly through physical and chemical field measurements in order to help evaluate system performance. The SVE system was in operation for a total of 649.6 days between start-up in September 2010 and permanent shut down of the system in February 2013.

Quarterly laboratory analysis of the process air stream indicated that the main constituents (PCE and TCE) identified during historical subsurface evaluations were present in the process air stream during SVE use. Therefore, it was determined that the SVE system was able to successfully collect and capture the primary targeted constituents. Activated carbon filters on the air discharge were monitored and periodically replaced during the SVE system operation in order to mitigate the discharge of VOCs to the atmosphere.

The implementation of SVE resulted in the removal of approximately 1,500 pounds of VOCs from the subsurface below the foundation slab. The SVE system was dismantled in April 2013 in anticipation of the Lewis Chemical building being demolished. The goal of the RAM was to remove VOCs from the subsurface to a point where analysis of the cumulative mass removal curve indicted asymptotic conditions and it was no longer cost effective to operate the SVE system. These conditions were apparent during the final reporting period when process air sampling results collected in October 2012 indicated that a 96.4% total VOC removal efficiency was achieved. (Woodard & Curran, 2013)

A RAM Completion Report was submitted electronically to MassDEP on June 7, 2013. The RAM Completion Statement is included in **Appendix C**.

4.3.3 Groundwater Sampling (Woodard & Curran, 2012)

In June 2012, Woodard & Curran was contracted by Boston DND to locate and sample the existing groundwater monitoring wells on Site. This included the seventeen (17) overburden monitoring wells and four (4) bedrock aquifer monitoring wells installed as part of the Phase I and Phase II assessment activities completed by ES&M from 2002 to 2006. Woodard & Curran was able to locate all wells for sampling with the exception of monitoring wells ESM-10 and ESM-11.

On June 20 through June 22, 2012, Woodard & Curran collected groundwater samples from each accessible well. Prior to sampling, the wells were gauged for the presence of non-aqueous phase liquid (NAPL) and no NAPL was detected in any of the monitoring locations. Groundwater samples were collected in general accordance with the USEPA low-flow groundwater sampling guidance through the monitoring of water quality stabilization parameters. Water quality stabilization parameters including temperature, pH, conductivity, oxidation-reduction potential (ORP), and dissolved oxygen were monitored using a YSI multi-parameter device and flow through cell.

Analytical groundwater samples were submitted to Absolute Resource Associates (ARA), of Portsmouth, New Hampshire for the analysis of VOCs by EPA Method 8260. Groundwater samples obtained from ESM-05, ESM-06, ESM-08 and ESM-14 were also analyzed for PCBs via EPA Method 8082. The later of the given wells correspond to monitoring locations where detectable PCB concentrations were identified during previous groundwater sampling events.

Results of the sampling event indicated that VOCs were detected in each of the sampled groundwater monitoring wells, with the exception of well ESM-12. Furthermore, all the groundwater monitoring wells sampled in June 2012, with the exception of overburden wells ESM-12, ESM-14 and ESM-16 and bedrock well ESM-08B, reported groundwater concentrations in excess of the GW-2 concentrations.

The majority of wells sampled exhibited concentrations that were generally equal to or decreasing in VOC concentrations when compared to the April 2006 sampling results. However, four (4) wells (ESM-01, ESM-02, ESM-3B-D and ESM-05B) reported a generally increasing trend in VOC concentrations as compared to the April 2006 sampling results. The June 2012 sampling results documented that the TCE concentration in well ESM-03B-D had increased slightly from April 2006 and remains in excess of the UCL.

Monitoring well ESM-01 and ESM-02 are located at the northern end of the Site and are shallow overburden wells screened to an average depth of 21 feet below ground surface (bgs). Monitoring wells ESM-03B-D and ESM-05B are bedrock wells located between the building and the Neponset River and are screened at a depth of 70 feet bgs and 40 feet bgs, respectively.

PCBs were detected in two (2) of the five (5) groundwater samples submitted for analysis. PCB Aroclor 1242 was reported in well ESM-05 at a concentration of 35 ug/L and in well ESM-06 at a concentration of 5.0 ug/L. These reported PCB concentrations are similar to the PCB concentrations reported in the two wells in April 2006.

Refer to **Figure 2** for a complete Site Plan depicting all monitoring well locations. A groundwater data summary is provided as **Table 2** of this report. Analytical laboratory reports are provided in **Appendix D**.

4.3.4 Groundwater Sampling (Woodard & Curran, 2014)

On behalf of the Boston DND, Woodard & Curran completed a groundwater gauging and limited sampling event for wells located on the two upland parcels owned by the City of Boston. In September 2014, Woodard & Curran collected groundwater elevation data from the accessible monitoring wells. At the time of gauging, NAPL was not detected in any well gauged.

Woodard & Curran also evaluated the condition of existing monitoring wells during the gauging event and determined that groundwater samples could not be collected from locations ESM-1, ESM-8, ESM-8B, ESM-12 and ESM-16 because the location was dry and/or the integrity of the well had been compromised (i.e. down-well obstruction or well destroyed during building demolition). On September 25 and 26, 2014, Woodard & Curran collected groundwater samples from eight (8) overburden monitoring wells. Woodard & Curran sampled the seven (7) monitoring wells installed within the former building footprint by Nobis in 2013 (G-E-2, G-D-3, G-D-1, G-C-1, G-E-3, G-B-1, and G-A-2) and ESM-02.

Groundwater samples were collected in general accordance with the USEPA low-flow groundwater sampling guidance through the monitoring of water quality stabilization parameters, as detailed above. Analytical groundwater samples were collected in laboratory provided glassware and submitted under chain of custody protocols to ARA of Portsmouth, New Hampshire. All groundwater samples obtained were analyzed for VOCs via EPA Method 8260 and PCBs via EPA Method 8082, with the exception of the sample collected from location ESM-02, which was only analyzed for VOCs.

Results of the investigation indicated that PCBs are not present in groundwater beneath the former facility at concentrations above laboratory reporting limits. However, groundwater samples collected from the Nobis wells supported the previous findings that elevated concentrations of chlorinated solvents may exist beneath the building. TCE, DCE and VC, all of which are degradation products of PCE, were consistently detected above GW-2 RC standards. TCE, DCE and VC were detected in three (3), six (6), and five (5) of the seven (7) locations respectively.

Monitoring well G-B-1, located in the southern corner of the former building footprint, resulted in the highest concentrations of chlorinated solvents including PCE at 5,600 ug/l, TCE at 30,000 ug/l and DCE at 8,600 ug/l.

Resulting VOC concentrations collected from ESM-02 have generally decreased when compared to previous investigations. Most notably TCE decreased from 83 mg/kg in June 2012 to 3 mg/kg in September 2014 and vinyl chloride had decreased from 58 mg/kg to 21 mg/kg for that timeframe.

As noted in Section 4.2.2, CDW Consultants collected groundwater samples on behalf of DCR from monitoring wells located on the Neponset River reservation parcel during this same period. All groundwater analytical data collected during the coinciding September 2014 sampling events is summarized in **Table 2**. Laboratory reports for data collected by Woodard & Curran are located in **Appendix D**.

4.3.5 Supplement Soil Sampling (Woodard & Curran, 2015)

In January 2015, Woodard & Curran completed an additional subsurface soil investigation at the request of Boston DND to further evaluate the nature and extent of PCB contamination in subsurface soils on the Property. Woodard & Curran utilized the sampling grid utilized by Nobis Engineering in 2013 to locate areas at the building exterior that required additional data coverage or to locate areas for data replication.

On January 6, and January 15-16, 2015, Woodard & Curran observed the advancement of twenty (20) sub-surface soil borings. Geologic Earth Exploration (Geologic) of Norfolk, Massachusetts completed the drilling via hydraulic direct push GeoProbe methods. Continuous soil samples were collected in four (4) foot intervals to be screened for total organic vapors using a PID equipped with a 10.6 eV lamp and isobutylene correction factor, and to be characterized for soil composition.

Analytical soil samples were collected in laboratory provided glassware at pre-determined intervals for the analysis of PCBs via USEPA Method 8082. All soil samples were properly preserved and submitted under chain of custody protocols to Con-Test Analytical Laboratories (Con-Test) of East Longmeadow, Massachusetts. The intervals sampled were 0.5 feet bgs, 2.5 feet bgs, 5 feet bgs, 10 feet bgs, 15 feet bgs, and 20 feet bgs. Most borings were advanced to a final total depth of 20 feet bgs. The sample location in grid number G-18 was advanced to a final depth of 30 feet bgs and additional samples were collected at the 25 feet bgs and 30 feet bgs intervals.

At locations closer to the Neponset River, dense rocky drilling conditions were experienced as the boring depth approached 20 feet. Based on information reviewed in the previous ES&M investigations, as described in sections above, it was determined that competent bedrock underlies portions of the Site at approximately 20 feet bgs along the Neponset River. Due to these drilling conditions, the boring location at grid number G-21, immediately north of the former facility, hit refusal or collapse at approximately 17 feet bgs. Therefore, a 20-foot bgs sample was not collected at this location.

Overburden soils encountered during the January 2015 drilling were mostly widely graded fill material primarily containing medium to fine sand and gravel with varying degrees anthropogenic debris overlying dense silt and sands. Fill was observed at depths ranging from 0-13 feet bgs. Boring logs detailing soil intervals and composition are provided as **Appendix E**.

Sampling results from the soil borings located to the northeast of the former Lewis Chemical facility indicated that relatively low detectable PCB concentrations exist in shallow soils. The greatest impacts north of the former building footprint were observed at locations nearest the former basement garage entrance. These locations, G-10 and G-21 had corresponding PCB concentrations of 18 mg/kg and 15 mg/kg respectively at the 0.5 foot bgs interval.

When compared to the northern boring locations, samples collected from the southern portion (south of the former tank farm area) of the Site exhibited higher PCB concentrations at wider range of depths. Samples collected from the

boring location in grid number G-2 resulted in total PCB concentrations of 160 mg/kg at 2.5 feet bgs, 320 mg/kg at 5.0 feet bgs and 2.1 mg/kg at 20 feet bgs.

The highest detected total PCB concentration was collected from location G-18, which was installed adjacent to the historic steel fire escape on the northwestern side of the former building, where a resulting total PCB concentration of 350 mg/kg was detected at a corresponding depth of 2.5 feet bgs. The area adjacent to the fire escape was identified during previous investigations for elevated PCB concentrations.

Approximate sample locations are provided on the Site Plan included as **Figure 2** of this report. Individual interval results are presented on the Sampling Results Plan provided as **Figure 6** of this report. Analytical soil sampling results summary table is provided as **Table 1** of this report and analytical laboratory reports are provided in **Appendix D**.

5. MCP REPRESENTATIVENESS EVALUATION AND DATA USABILITY ASSESSMENT

A data quality review was performed to confirm that the appropriate Response Action Performance Standards (RAPs) have been achieved with respect to data quality and use in accordance with the MCP. The data quality review included both a limited data usability assessment and a representativeness evaluation as summarized below. The data quality review was performed in consideration of the MassDEP's Compendium of Analytical Methods (CAM) and MCP Representativeness Evaluations and Data Usability Assessments Policy #WSC-07-350 and revised CAM (WSC #10-320) effective date of July 1, 2010.

As part of this process, quality assurance indicators were utilized to evaluate sample collection and measurement error. These indicators have been examined in the context of the intended use of the data, and an overall assessment of the data for rendering a waste site cleanup opinion. The Licensed Site Professional (LSP) opinion of data quality and usability was rendered relative to an evaluation of current understanding of the nature and extent of the release at the Site, and the potential migration of contaminants within the subsurface attributable to the Property.

For the purposes of this Phase II CSA, a data usability assessment (DUA) was conducted for soil data collected by Nobis, and soil and groundwater analytical data collected by Woodard & Curran as part of the supplemental Phase II CSA activities. These data are contained in the following data packages, which are provided as **Appendix D** of this report:

Laboratory / Data Package No.	Medium	Sample Dates	No. Samples	Analyses
Resource Labs 15782	Soil	Nov. 25-26, 2008	40	VOCs, VPH/EPH, PCBs, metals
Absolute Resource 24374 31078	Groundwater	 Jun. 20-22, 2012 Sep. 25-26, 2014	 21 9	 VOCs, PCBs VOCs, PCBs
Con-Test 13I1053 13J0038 13K0538 13K0600 13K0659 13K0695 13K0792	Soil	 Sep. 26-27, 2013 Sep. 31-Oct. 1, 2013 Nov. 11-13, 2013 Nov. 13, 2013 Nov. 14, 2013 Nov. 15, 2013 Nov. 18, 2013	 51 37 19 19 12 20 8	 PCBs, VOCs, metals PCBs, VOCs, metals PCBs, VOCs, metals PCBs, VOCs, metals PCBs, VOCs, metals PCBs, VOCs, metals PCBs, VOCs, metals
Con-Test 15A0581 15A0582 15A0583 15A0584 15A0585 15A0586 15A0587	Soil	 Jan. 6, 2015 Jan. 6, 2015 Jan. 15, 2015 Jan. 15, 2015 Jan. 15, 2015 Jan. 15, 2015 Jan. 15, 2015	 20 20 20 20 20 20 8	 PCBs PCBs PCBs PCBs PCBs PCBs PCBs

Data collected before 2008 by Woodard & Curran and previous consultants were evaluated as part of the Interim Phase II CSA (ES&M), found to be usable to support decision-making, and are not reassessed here. In addition, influent and effluent samples collected as part of SVE system monitoring are no longer used to support decision-making for the Site since the SVE system was dismantled in 2012. Those data were reviewed and found to be usable, but a detailed DUA was not performed.

The purpose of the DUA is to evaluate the quality of the data and to determine its usability in a representativeness evaluation. A DUA includes a field component and an analytical component. The field component evaluates the sampling method, sample preservation, sample handling and holding times, to establish compliance with the applicable methods and protocols and thereby confirm that the samples analyzed at the laboratory are representative of the sampling point. The analytical DUA was used to evaluate whether the analytical data points are scientifically valid and defensible, and are representative of site conditions.

5.1 REPRESENTATIVENESS EVALUATION

A representativeness evaluation was performed to evaluate and demonstrate the adequacy of the spatial and temporal data sets used to support the decisions in the Phase II CSA, including the Risk Characterization. The representativeness evaluation is supported by text in several sections of this report, which discuss sampling objectives, the nature and extent of impacts, Disposal Site Boundary, and the Conceptual Site Model.

5.1.1 Use of Field Screening Data

Field screening of basic water quality data was performed during low-flow sampling of groundwater in 2012 and 2014. Water quality parameters (dissolved oxygen, temperature, specific conductivity, pH, oxidation-reduction potential, and turbidity) were measured continuously during sampling to evaluate parameter stability and determine the appropriate time to collect the sample.

5.1.2 Sampling Rationale

The number and location of samples are considered appropriate to delineate VOC, petroleum, PCB, and metals concentrations throughout the Site in support of the Phase II CSA. The rationale for selection of sample locations was based on information pertaining to the sources of releases, data from previous investigation activities, field screening data, and hydrogeological setting.

5.1.3 Number, Spatial and Temporal Distribution, and Handling of Samples

With respect to the spatial distribution of sample locations, samples were collected from locations where data gaps relating to delineation of VOCs and PCBs were identified during previous assessment activities. PCB sample locations for soil were chosen by dividing the Site into grids, thus ensuring an equal distribution of samples throughout the Site. Groundwater monitoring wells were installed in 2014 within the former building footprint in order to characterize groundwater conditions under the former building. The number and location of samples are sufficient to define the nature and extent of OHM impact as discussed in this Phase II CSA. The spatial variability exhibited in the combined data set is consistent with the locations of site features, known source areas, and the geologic configuration of the Property.

With respect to the temporal distribution of samples, two rounds of groundwater data are available to characterize conditions at the Site. Groundwater samples were collected in different seasons (June and September for the most recent rounds). The temporal distribution of samples is considered adequate for purposes of a Phase II CSA. All samples were handled, stored, and transported in accordance with the requirements of the specific method requirements, according to lab reports and field notes.

5.1.4 Completeness

Generally, the information collected for this report is complete, to the extent that it is sufficient to evaluate the Site based on its history, known sources of impact, site-specific characteristics, geology, topography, and hydrogeological characteristics. There are no significant data gaps for site characterization and the conceptual site model.

5.1.5 Inconsistency and Uncertainty

No information collected during investigation was found to be inconsistent or contribute significant uncertainty pertaining to the use of the existing datasets.

5.1.6 Information Considered Unrepresentative

As previously described, data from SVE system monitoring are not considered representative of current Site conditions since the SVE system was dismantled in 2012. Those data are not used to support decision-making and are therefore not included here.

5.2 DATA USABILITY ASSESSMENT

The purpose of the data usability assessment is to evaluate the quality of the dataset and to determine its usability in a representativeness evaluation. A data usability assessment includes a field component and an analytical component. The field component evaluates the sampling method, sample preservation, sample handling and holding times to establish compliance with the applicable methods and protocols and thereby confirm that the samples analyzed at the laboratory are representative of the sampling point. The analytical data usability assessment is used to evaluate whether the analytical data points are scientifically valid and defensible and of a sufficient level of precision, accuracy, and sensitivity to be used in the representativeness evaluation.

5.2.1 Field Quality Control Assessment

A review of the applicable field quality control elements was performed for the samples collected by Woodard & Curran in support of the Phase II CSA. Soil and groundwater sample containers were packed on ice in coolers immediately after collection and labeling and were accompanied by complete chain-of-custody forms from the time of sample collection until laboratory delivery. Soil and groundwater samples were received at the analytical laboratory on ice and were analyzed within the allowable holding times. Soil gas samples and process air samples were also packaged and handled appropriately prior to sampling and analysis. Therefore, there is no indication that handling may have negatively impacted soil, groundwater, soil gas, and process air sample quality.

Based upon the review of historical reports and/or laboratory reports (when available) for samples collected by previous consultants at the Property, general standard industry practices have been implemented. Woodard & Curran did not note laboratory narratives or other that would indicate improper sampling collection, handling, preservation, or transportation prior or during laboratory analysis. Therefore, condition that would bias any data such that data would not be usable are not expected.

5.2.2 Analytical Data Assessment

An analytical data assessment was performed for soil and groundwater data collected by Woodard & Curran from 2008 through 2015 and soil data collected by Nobis in 2013. The first step in the analytical data assessment was to review each data set to evaluate whether these data achieved Presumptive Certainty as defined in WSC-CAM-VII A. Data that have Presumptive Certainty are also referred to as “CAM Compliant” data. CAM Compliant means an analytical result: (1) determined using an MCP Analytical Method detailed in the CAM; (2) that complies with the method-specific QC analytical requirements specified in the CAM; (3) with an evaluation of the compliance with

method-specific performance standards with deficiencies narrated, as necessary; and (4) reported in the format specified in the CAM for MCP analytical data.

The report format for item (4) above requires the analytical laboratory to provide an Analytical Report Certification for each set of samples submitted for analysis. The Certification requires the laboratory to answer the following questions for data:

A. Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?
B. Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?
C. Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?
D. Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"
E. a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).
   b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?
F. Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?
G. Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?
H. Were all QC performance standards specified in the CAM protocol(s) achieved?
I. Were results reported for the complete analyte list specified in the selected CAM protocol(s)?

A positive response to questions A through F (if applicable) are required to achieve Presumptive Certainty. Note that, for data collected between 2007 (when the CAM policy was initially established) and 2010 (when the CAM was revised), the questions on the Certification form are slightly different from the above format.

The laboratory reports listed above for soil and groundwater data were reviewed for Presumptive Certainty requirements. All reports achieved Presumptive Certainty, and no data were rejected due to gross failure of quality control measures. Minor QC issues were noted in several of the data packages. **Table 4** summarizes these QC issues. Based on the foregoing, Woodard and Curran concluded that the data collected for the Phase II CSA are of sufficient quality and reliability and are therefore usable.

5.3 CONCLUSIONS

In summary, the overall representativeness of the data was evaluated qualitatively based on Site use information, information on the surrounding properties, information about the release that occurred at the Property, and observations made during field investigation activities. Based on these sources of information, the data collected are concluded to be adequately representative of soil, groundwater and soil gas conditions at the Property. During the investigation activities, CAM-compliance was achieved and data completeness goals were met. Based on a review of established standard methods and procedures for collection and analysis of data, the data collected by Woodard & Curran and other consultants used in support of the Phase II CSA and Risk Characterization are considered to be of comparable quality over the entire sampling period.

6. SITE GEOLOGY AND HYDROGEOLOGY

This section presents an assessment of the topography, overburden soil and bedrock geology, and hydrogeologic conditions at the Site.

6.1 TOPOGRAPHY AND SURFACE WATER

The Property is located at approximately 45 feet above mean sea level and is generally sloped towards the Neponset River, which abuts the upland portion of the property to the southeast. The property is mainly undeveloped and unpaved. The open areas of the property tend to be overgrown with groundcover vegetation while areas along the river and in the southwest corner of the property are more thickly vegetated with small trees and brush. Approximately 25% of the Site remains as impervious surfaces since the concrete foundation slab was left in place following building demolition in 2014. There is no subsurface stormwater collection system on-site. Stormwater is discharged via overland and sheet flow towards the Neponset River. Presently no mechanical erosion and sedimentation controls are in place around the property perimeter.

6.2 OVERBURDEN AND BEDROCK GEOLOGY

Based on the previous subsurface investigations conducted by ES&M in 2002, 2005 and 2006, and as confirmed by the observations made by Woodard & Curran in 2015, overburden soils are classified as widely graded fill material primarily containing medium to fine sand and gravel with varying degrees anthropogenic debris. Depending on the proximity of the boring location to the Neponset River, the aforementioned fill material ranges in depth from approximately 8 to 13 feet below ground surface. Below the fill, overburden material consists of organic silt and clay ranging that transitioned to coarse to fine sands. Denser fine sand material was encountered at greater depths (i.e. >20 feet bgs).

Boring locations completed during the 2015 investigation revealed extensive anthropogenic filling. Several feet of coal and ash debris were observed at borings in the northern portion of the Site, while several feet of leather material were observed at boring locations in the southern portion of the Site. Anthropogenic debris noted across the Site included but may not be limited to metal, brick, glass, asphalt, coal, plastic, porcelain, and textile. Descriptions of overburden soils encountered by Woodard & Curran during the 2015 field investigation activities at the Site are presented on the soil boring logs in **Appendix E**.

During Phase II investigation activities completed by ES&M, bedrock was encountered and classified as part of the bedrock well drilling. Competent bedrock was encountered at approximately 20 feet bgs along the Neponset River. Bedrock was encountered at more upland locations at an approximate depth of 40-45 feet bgs. The bedrock materials were classified as argillaceous shale, conglomerate, and schist with horizontal and diagonal fracturing. Components of granite were also identified. **Figures 7 and 8** depict geologic cross sections across the Site developed by ES&M in support of the Interim Phase II (ES&M, 2007).

According to the Bedrock Geologic Map of Massachusetts (Zen,1983), subsurface materials beneath the subject property belong to the "Mattapan Volcanic Complex" in the Milford-Dedham Zone (Boston Basin) and consist of rhyolite, melaphyre and agglomerates. These materials are primarily sedimentary and volcanic rocks of the Proterozoic Z era.

The Site is not considered part of a current or potential drinking water source area.

6.3 HYDROGEOLOGIC CONDITIONS

Depth to groundwater at the Site ranges from less than 4.0 feet bgs to greater than 14.0 feet bgs due to varying localized topography and seasonal fluctuation. Groundwater is shallowest at the base of slope along Neponset River,

which abuts the property to the southeast. The groundwater table is relatively uniform across the Site with depth fluctuations occurring due to seasonal variability.

Hydrologic contours have been developed using relative elevation surveys and groundwater level data collection prior to the groundwater sampling events both by Woodard & Curran and historically by ES&M. Results, based on September 25, 2014 depth to groundwater measurements, showed that groundwater flow in the overburden aquifer is to the south-southeast, towards the Neponset River, as shown in **Figure 10**. Historical data has shown groundwater flow in the bedrock aquifer is in the same general direction toward the Neponset River.

Across the majority of the Property, the horizontal gradients were relatively shallow indicating a uniform groundwater table. The Horizontal hydraulic gradients were approximately 0.03 feet/foot in the overburden aquifer and to 0.10 feet/foot in the bedrock aquifer. Hydraulic gradients between the overburden and the bedrock wells adjacent to the Neponset River indicate that the groundwater flows in a downward direction between aquifers.

An aquifer slug test was completed by ES&M as part of the Interim Phase II Assessment activities to calculate the hydraulic conductivity of overburden soils at the Site. The slug test was completed in April 2006 at monitoring well locations ESM-03, ESM-05, and ESM-15. As described in the Interim Phase II (ES&M, 2007), based on an average of the slug tests performed on wells ESM-03 and ESM-13, hydraulic conductivity was estimated around 1.9 gallons per day per square foot (gal/day/ft2). ESM-5 had a significantly larger hydraulic conductivity than ESM-03 and ESM-13, which was estimated to be around 192 gallons per day per square foot. This difference was noted during sample collection and during slug testing when it was observed how much more quickly water levels in ESM-5 recovered. It was noted that the results of the slug tests should only be considered an indication of the aquifer properties in the vicinity of the monitoring wells tested.

While exact hydraulic conductivity values were not obtained for every well through field measurements, the hydraulic conductivity for overburden soils at the Site was estimated based on observations from soil borings advanced during various sub-surface investigations. Soil characteristics would suggest that the approximate conductivity for the majority of overburden Site soils (consisting primarily of course to fine sand with varying amounts of fill materials) is 28 feet per day (Freeze and Cherry, 1979).

7. NATURE AND EXTENT OF OHM AND CONCEPTUAL SITE MODEL

OHM at the Site consists of VOCs, PCBs, petroleum constituents (VPH, EPH, and PAHs), and metals. It is presumed that the concentrations detected in soil, groundwater, soil gas, sediment, and surface water are the result of historic mishandling and misuse of hazardous materials specifically by the former Lewis Chemical Corporation. The results of subsurface investigations conducted at the Site from June 2002 and January 2015 were previously described in Sections 3 and 4 herein. Additional information regarding the nature and extent of OHM in the separate media, as well as a description of the conceptual site model (CSM), is presented below.

7.1 SOIL

The COPCs in soil at the Site include various VOCs, PCBs and to a lesser degree metals (e.g., arsenic, barium, cadmium, chromium, lead, mercury, and silver) and petroleum constituents (EPH, VPH and PAHs). Based on information obtained from previous Site investigations and supplemental Phase II activities, the extent of impacted soils is estimated to cover the majority of the upland portion of the Site. The thickness of impacted soil over this area is estimated to range between the ground surface and approximately 20 feet bgs. Twenty feet bgs corresponds to the approximate top of bedrock for areas along the Neponset River. Minimal overburden investigations have been completed at depths greater than 20 feet bgs. However, the most significant impacts are generally observed within the top ten (10) feet of ground surface.

Analytical results indicate that concentrations of detected COPCs are variable across the Site and across varying depth intervals. The highest concentrations of consistently detected VOCs (mainly PCE, TCE, DCE and vinyl chloride) were generally found in soils collected at the southern extent of the Property, including in and around the former tank farm containment area, inside the former building footprint and between the former building and the Neponset River. For example, samples collected at SS-03 from 0-3 feet below the building slab exhibited significant coinciding chlorinated solvent concentrations of PCE (1,600 mg/kg), TCE (1,400 mg/kg), DCE (130 mg/kg), and vinyl chloride (370 mg/kg). Furthermore, TCE exceeded the established UCL (600 mg/kg) in four sampling locations (SS-3, SS-4, G-B-1, and II-A-03-M), all of which are generally located at the southern/ southeastern extent of the Site, both in and adjacent to the building. TCE was detected at SS-03 from 0-3 feet bgs and 3-5 feet bgs at concentrations of 1,600 mg/kg and 780 mg/kg, respectively. Samples collected from locations SS-04 at 3-4 feet bgs and II-A-03-M at 5-7 feet bgs both had a resulting TCE concentration of 1,900 mg/kg. A soil sample collected at G-B-1 at 5-10 feet bgs reported a TCE concentration of 1,900 mg/kg. SS-03, SS-04, and G-B-1 were located within the building footprint and II-A-03-M was collected at the southern building exterior as shown in **Figure 2**.

For the aforementioned interior samples, SS-03 and SS-04, the increased TCE levels corresponded to elevated C5-C8 aliphatic concentrations, a VPH carbon range. C5-C8 Aliphatics were detected in excess of the established UCL of 5,000 mg/kg at concentrations of 6,600 mg/kg and 11,000 mg/kg at SS-03 (0-3') and SS-04 (3-4'), respectively. However as noted previously, the elevated C5-C8 aliphatic concentrations are most likely attributable to the elevated concentrations of PCE and TCE in soils underlying. PCE and TCE are chlorinated VOC compounds that fall within the C5-C8 aliphatic carbon range and are included within the reported C5-C8 aliphatic concentrations. In general petroleum compounds (EPH/VPH/PAHs) were detected at comparatively low levels at the exterior portions of the Site. Only Benzo(a)pyrene was detected above the most stringent MCP soil standards (S-1/GW-2 and S-1/GW-3) in three analytical samples including samples GP-1 at 0-3 feet bgs (2.3 mg/kg), GP-3 at 0-3 feet bgs (3.7 mg/kg), GP-5 at 6-8 feet bgs (3.2 mg/kg), and GP-10 at 0-3 feet bgs (4.2 mg/kg). Previous investigations had determined that residual petroleum impacts were confined to the former UST area and were likely the result of minor spills during tank filling operations.

Arsenic, barium, cadmium, chromium, lead, mercury, and silver were detected at low levels in the majority of the exterior and interior soil boring samples as well as in the surficial soils. Notably, cadmium, chromium, and lead were detected in relatively shallow soils (0-5 feet bgs) above the corresponding S-1 soil standards. The detected metals and resulting concentrations were similar in magnitude throughout the Site, including soils under the building, which

may indicate that metals concentrations are generally attributable to the fill materials on Site since knowledge of historic site operations do not provide an explanation for the presence of heavy metals in soils.

Lastly, significant PCB impacts were identified in relatively shallow soils (0-5 feet bgs) south, southwest of the former tank farm containment area. Deeper samples (5-20 feet bgs) typically resulted in diminishing impacts. Total PCBs exceeded the established UCL of 100 mg/kg at six (6) boring locations in the vicinity of the former tank farm and the southern portion of the Site. PCB UCL exceedances in the southern portion of the Site ranged from 13,000 mg/kg at a depth of 0.5-2.5 feet bgs to 320 mg/kg at a depth of 5.0 feet bgs. Additionally, samples collected from G-18 and G-18N, located west of the building adjacent to the former fire escape, also exceeded the established UCL. Total PCB concentrations of 190 mg/kg, 400 mg/kg and 360 mg/kg were collected from boring G-18N at depths of 0-0.5 feet bgs, 0.5-2.5 feet bgs, and 2.5-5 feet bgs, respectively. **Figure 9** shows the location of the UCL exceedances in soil at the Site.

It is known that PCBs are more soluble in the presence of chlorinated solvents and will therefore migrate more readily. The distribution of PCBs and VOCs at the Site appear to be linked, with the most significant impacts for each contaminant observed at the southern extent of the former facility and around the former tank farm. However, PCBs were not detected above laboratory method detection limits (MDLs) in samples collected from interior sub-slab soil borings within the footprint of the former Site building.

7.2 GROUNDWATER

Depth to groundwater at the Site ranges from approximately 4 feet bgs along the Neponset River to approximately 15.0 feet at more upland portions of the Site. The groundwater table is relatively uniform across the Site groundwater depths varying due to ground surface topography. Hydrologic contours developed using a relative elevation survey, showed that groundwater flow is to the south-southeast, across the Site towards the Neponset River. Sixteen (16) overburden monitoring wells, four (4) bedrock monitoring wells and three (3) shallow and deep piezometer couplets were installed on Site during Phase I and Phase II activities conducted by ES&M. Seven (7) additional overburden monitoring wells were installed within the former building footprint in 2012 by Nobis Engineering. Presently, only nineteen (19) overburden monitoring wells, including those installed by Nobis, and four (4) bedrock monitoring wells are accessible and viable at the Site. The remaining monitoring locations that could not be located (ESM-04, ESM-09, ESM-10 and ESM-16) are presumed to be destroyed.

Phase II investigation activities identified significant VOC concentrations in overburden and bedrock monitoring wells along with PCB concentrations greater than the solubility limits in groundwater. Concentrations of VPH and EPH constituents in groundwater were relatively low compared to Method 1 standards and were confined to mainly the former UST area. It was presumed that the low-level presence of EPH and VPH was attributed to possible overflows during UST filling activities. Additionally, metals were detected in groundwater throughout the Site. However, concentrations were consistent with or below MassDEP-identified concentrations occurring in “natural soils”. Therefore, subsequent activities completed in support of this CSA focused on the nature and extent of VOCs and PCBs in groundwater.

A comprehensive groundwater sampling event was completed in June 2012. Groundwater samples were collected from each available monitoring well using modified low-flow sampling procedures and were submitted for the analysis of VOCs. Only select wells were also analyzed for PCBs based on Interim Phase II (ES&M, 2007) results. Analytical results for groundwater collected in 2012 indicate that the reported contaminant concentrations in the majority of the groundwater monitoring wells sampled in June 2012 were generally equal to or at decreased concentrations as compared to the previous April 2006 concentrations. However, the bedrock wells located adjacent to the Neponset River (ESM-03B-D and ESM-05B) reported increasing concentrations of chlorinated solvent-related compounds, which signifies that the compounds are migrating deeper into the bedrock aquifer. TCE concentrations in ESM-05 (screened within the overburden aquifer) and ESM-03B-D remain in excess of the established UCL.

PCBs were reported in two (2) of the five (5) groundwater samples submitted for analysis. PCB Aroclor 1242 was reported in well ESM-05 at a concentration of 35 ug/L and in well ESM-06 at a concentration of 5.0 ug/L. Monitoring well locations ESM-03, ESM-05, ESM-06 are located southeast of the former Lewis Chemical facility between the building footprint and Neponset River.

A second groundwater sampling event was completed in 2014, which included shallow monitoring wells installed within the former building footprint. Results of the investigation indicated that PCBs are not present in groundwater beneath the former facility at concentrations above laboratory reporting limits. However, shallow groundwater results supported the previous findings that elevated concentrations of chlorinated solvents may exist beneath the building. TCE, DCE and VC, all of which are degradation products of PCE were consistently detected above GW-2 groundwater standards. Monitoring well G-B-1, located in the southern corner of the former building footprint, resulted in the highest concentrations of chlorinated solvents including PCE at 5,600 ug/l, TCE at 30,000 ug/l and DCE at 8,600 ug/l.

VOC and PCB concentrations in groundwater samples collected from exterior monitoring wells appeared to be decreasing or generally stable when compared to data collected during previous monitoring events. One anomaly in the regression/ stabilization trend was observed at ESM-06. TCE was detected at a concentration of 11,500 mg/kg, which is a significant increase in comparison to the 1,200 ug/L concentration detected in 2012.

Groundwater appears to be most significantly impacted by chlorinated VOCs and PCBs in shallow groundwater at the southeastern corner of the former Lewis Chemical Facility, near the former tank farm containment area. Impacts extend underneath the former building footprint to the Neponset River. Based on the known hydrologic gradient, overburden contamination has migrated downward into the bedrock aquifer and has the potential to discharge into the Neponset River.

7.3 SOIL GAS

Due to the presence of volatile constituents in groundwater at depths less than 15 feet bgs and due to the known presence of VOCs in sub-slab soils, investigations were completed to evaluate the potential for vapor intrusion within the former industrial facility located at the Site, prior to building demolition. During soil gas sampling completed in 2006, VOCs were detected in soil gas beneath the building foundation in all six (6) samples collected. The highest concentrations of PCE, TCE, cis-1,2 – DCE, Trichloroethane (TCA), Dichloroethane (DCA) and Vinyl Chloride were detected in samples collected along the southeast wall in close proximity to the interior building basement trench drain located along the southeastern exterior building wall. PCE soil gas concentrations ranged from 157,000 to 2,360,000 micrograms per cubic meter (ug/m3) and TCE concentrations ranged from 50,600 to 1,730,000 ug/m3. All detections were significantly greater than the applicable MassDEP sub-slab Soil Gas Screening Levels for Commercial/Industrial Scenarios (MassDEP, 2011).

A sub-slab SVE system was installed and operated at the Former Lewis Chemical Facility in 2010 with the objective of removing the main identified constituents, PCE and TCE from the unsaturated soil beneath the building. The SVE system operated for a total of approximately 650 days, resulting in the removal of approximately 1,500 pounds of VOCs from the subsurface below the foundation slab. Process air sampling results collected in October 2012 indicated that a 96.4% total VOC removal efficiency was achieved. PCE and TCE concentrations at the SVE system influent in October 2012 were 4,600 and 2,800 ug/m^3, respectively.

7.4 SURFACE WATER AND SEDIMENT

Surface water and sediment samples were last collected in May 2006 as part of the Interim Phase II CSA completed by ES&M. Surface water samples collected at this time did not result in any analyte detection for metals, VOCs or PAHs. Previous Phase I investigations completed in the Neponset River resulted in relatively low concentrations of vinyl chloride, chloroethane, 1,1-dichloroethane, cis 1,2-dichloroethene, 1,1,1-trichloroethane, and toluene in surface

water along the shoreline near the former Lewis Chemical facility. Cis 1,2-dichloroethene was the only compound also detected at an estimated concentration below the reporting limit from a downstream sampling location. No other VOC concentrations were detected in surface water samples above the reporting limits.

Barium and lead were detected in all the surface water samples at trace concentrations below or equal to the reporting limit during the Phase I activities. Comparison of sampling results from 2002 to 2006 indicates a decreasing trend in surface water concentrations.

Sediment samples collected during the Interim Phase II investigation (ES&M, 2007) resulted in concentration of lead, mercury and silver detected above laboratory reporting limits. Mercury and silver were detected at relatively low levels in two of the seven (7) samples collected. Lead was detected in four (4) of the seven (7) samples collected with a maximum concentration of 410 mg/kg. The maximum lead concentration was collected from sampling location S-03, which is located nearest to the former facility. Sediment sampling location S-03 also resulted in detections of PAHs and VOCs. Phenanthrene, fluoranthene, and pyrene (PAH constituents) along with chloroethane, trans-1,2-dichloroethene 1,1-dichloroethane, toluene, ethylbenzene and xylenes (VOC constituents) were all detected at relatively low levels at S-03. Most notably, chloroethane was detected at a concentration of 22 mg/kg at S-03.

Similar PAH compounds were detected at low levels from samples collected downstream of S-03, from along the shore line adjacent to the Site. These sampled locations, S-06 and S-09, also exhibited low levels of VOCs with detected concentrations of 1,2-Dichlorobenzene, 1,2,4-Trichlorobenzene, DCE, TCA and TCE. The TCE concentration in sediment at S-06 was 1.1 mg/kg in May 2006.

Sediment sampled collected previously during the Phase I investigation (ES&M, 2003) in 2002 exhibited comparable detected analytes and resulting concentrations.

As noted in the Interim Phase II CSA prepared and submitted by ES&M, the extent of PCBs at this Site relative to the Neponset River was not determined because of potential PCB impacts to the river from other sources. The Neponset River and Mother Brook (which flows into the Neponset River several hundred feet upstream of the Site) have been the subject of extensive study and clean up by others. In 2004, the US Geological Survey (USGS) completed an initial study of the river, which identified PCBs in sediment and surface water throughout the river. This study, however, did not at that time identify the L. E. Mason site (located on Mother Brook) as a major source of PCBs to Mother Brook (and therefore, also to the Neponset River). L. E. Mason is a MassDEP-listed site that has been the subject of significant assessment and cleanup of PCBs, both on site and in Mother Brook. In 2000 and 2001, PCBs were detected in upland soils at concentrations up to 4,600 mg/kg and in sediment collected from Mother Brook directly adjacent to L. E. Mason's manufacturing facility at concentrations up to 2,100 mg/kg. L. E. Mason subsequently conducted an Immediate Response Action (IRA), which included the diversion of Mother Brook and the excavation and off-site disposal of more than 2,000 tons of PCB-impacted soil and sediment. Even after this removal action, residual PCB concentrations in Mother Brook sediments were as high as 83 mg/kg near the facility, and as high as 52 mg/kg downstream of the L. E. Mason property. (ES&M, 2007)

A Response Action Outcome (RAO) Statement was submitted for the L.E. Mason property (RTN 3-0370) on November 22, 2011. Sediments were excavated from Lower Mother Brook, including the downstream side of the Hyde Park Avenue Bridge to the area upstream of the confluence of Mother Brook and the Neponset River. Excavation limits were determined based on post-confirmatory samples indicated and the established remedial goals. (Shaw, 2011) Therefore, any PCB concentrations detected in the sediment or surface water adjacent to the Lewis Chemical property may be attributable to upland concentrations at the Site.

7.5 CONCEPTUAL SITE MODEL AND DISPOSAL SITE BOUNDARY

The Site is located at 12-24 Fairmount Court in Hyde Park, Boston, Massachusetts and is currently an unoccupied, vacant area secured by chain link fencing. The property has a long history of industrial uses. From 1940 until the early 1960s, a leather manufacturing company reportedly occupied the Property, although little specific information was ever found relative to its operation. Lewis Chemical subsequently operated at the Site from 1963 until 1983 and was involved in the collection, transportation, storage, and processing of hazardous waste, specifically the collection of spent solvents. Numerous violations of federal, state, and local laws regarding the safe handling, transport, storage, and treatment of hazardous materials, as well as complaints from local residents, were documented during Lewis Chemical's time of operation on the Property. Lewis Chemical was forced to terminate operations under a Court Order issued by MassDEP in 1983 following a fire and explosion at the facility. Several different tenants leased the space from 1983 to 2000, following Lewis Chemical's departure, however, none of the operations involved known chemical handling or storage. The City of Boston obtained the property through Tax Foreclosure in 2000 and the property has remained inactive and unoccupied.

It is presumed that the prolonged mishandling and misuse of large quantities of hazardous materials has resulted in the documented subsurface impacts at the Site. Trench drains located along the western extent of the former facility basement and within the former tank farm southeast of the building were found in poor condition and breaches in the drains are the likely pathway of OHM into the environment.

Site investigation activities have characterized the nature and extent of OHM at the Disposal Site. Soil characterizations indicate levels of COPCs consistent with historical operations of chemical salvaging and recycling, and bulk solvent storage. The constituents detected and the levels observed are consistent with Site history and, in particular, known breaches in the trench drain and spills of stored solvents. Soil constituent levels indicate that mainly VOCs and PCBs impact the overburden soils to approximate depths of 20 feet bgs, however, the most significant impacts are found within ten (10) feet of ground surface. Deeper fill and native overburden soils (approximately 10 to 20 ft. bgs) show diminishing impacts. This is consistent with a conceptual surface release traveling through the soil and becoming soluble at the groundwater table.

Groundwater testing indicates significant chlorinated solvent impacts exist in the overburden and bedrock aquifers at the Site. Shallow groundwater flows downward into the bedrock aquifer contributing to the contamination exhibited in the bedrock wells. Addition, PCBs detected in the soil are more soluble in the presence of chlorinated solvents and tend to mobilize more readily through groundwater under such conditions. VOC contamination has been identified above established UCLs in bedrock monitoring wells and PCBs have been detected above solubility limits in shallow groundwater within the vicinity of the former tank farm containment area. Petroleum compounds and metals have also been identified in groundwater. However, residual impacts are presumed to be attributed to minor localized conditions near the former UST and/or to "natural" concentrations in fill.

Based on hydrologic contours developed from groundwater elevation surveys, it is also known that groundwater flows towards and conceivably discharges into the Neponset River. The groundwater flow and overland transport can mobilize both soluble and insoluble contaminants into the surface water body. Sediment and surface water sampling results have historically reported metals (specifically lead) and VOCs, including PCE and TCE, in samples collected along the shoreline adjacent and down gradient to the former facility location. VOCs typically adsorb to sediment particles and dilute in surface water.

Furthermore, due to known VOC impacts to shallow groundwater and shallow soils, soil gas was evaluated for the potential of vapor intrusion. Chlorinated VOCs were detected at highly elevated concentrations at each sub-slab sampling location, indicating that VOCs were volatilizing into the soil gas phase. The Site presently does not have an existing structure, however, this migration pathway would need to be assessed further following redevelopment.

Knowledge of historic site operations do not provide an explanation for the presence of heavy metals in soils. It is presumed that metals can be linked to the associated fill material present on Site. Fill materials with varying degrees

of anthropogenic debris was observed during soil sampling events to extend from ground surface to approximately thirteen (13) feet bgs.

The potential for adverse exposures resulting from the Site to potential human and ecological Site receptors are discussed in further detail in the Method 3 RC summarized in Section 9 and provided in full as **Appendix F**. This Risk Characterization indicates that a condition of NSR to safety exists under current and restricted future Site conditions. However, a condition of NSR to human health does not exist at the Site under future land use. In addition, due to UCL exceedances in several areas of the Site identified as Hot Spots, a condition of NSR does not exist for public welfare and the environment. Therefore, additional response actions will be required in order to achieve a permanent solution at the Site.

Information obtained during previous Site investigations and implementation of supplemental Phase II CSA activities was used to delineate the disposal site boundary (DSB), which is defined as the limits of the investigation area completed on the Property and in the Neponset River where COPCs were detected, as depicted on **Figure 2**. The entire DSB comprises approximately 0.66 acres of land, with 0.53 acres being the upland portion and 0.13 acres encompassing the Neponset River. The southern, central portion of the Disposal Site, where the most significant impacts have been detected, is secured by chain-link fencing. Access to the Property is limited to the gate located at the dead end of Fairmount Court. The central portion of the Site was previously developed with a 1-3 story industrial style building which housed the Lewis Chemical operations from 1963 to 1983. Currently, only the building foundation slab remains in place as a preventative measure to limit exposure to underlying conditions. The trench drains have been cleaned and filled with concrete to eliminate further precipitation infiltration into the sub-slab soils. The northeastern portion of the Site is unpaved and has limited current use. The southwestern portion of the Site is more heavily vegetated and is bounded by the MBTA right-of-way and the Neponset River. The Neponset River bounds the upland portions of the Site to the south, southeast and is partially included within the DSB.

As previously mentioned, soil, groundwater, surface water, sediment and soil gas data collected from the Site between June 2002 and January 2015 were used to delineate the outer boundaries of the disposal site. In general, the DSB was defined to include sampled areas that exhibited detectable levels of OHM in the various media sampled. In general, chlorinated solvent and PCB impacts are greatest southeast of the former Lewis Chemical facility and along the Neponset River as shown by the elevated concentrations in groundwater and soils outside the building and elevated concentrations in soils, groundwater and soil gas under the building. Within the horizontal limits of the DSB, vertical impacts were generally observed within overburden soils (less than 20 feet bgs), however, groundwater contamination has migrated into the bedrock aquifer and significant VOC concentration has resulted at a maximum investigatory depth of 70 feet bgs. Investigation results confirm that contaminants are likely to have entered the subsurface through breaches in the tank farm's concrete tank pad and basement concrete floor trench drains. Trench drains in poor conditions were located along the western extent of the former facility.

8. ENVIRONMENTAL FATE AND TRANSPORT CHARACTERISTICS

8.1 CHEMICAL/PHYSICAL CHARACTERISTICS

The categories of COPCs at the Property include VOCs, PCBs, metals and petroleum constituents (EPH/VPH/PAH). Characteristics of the various categories of compounds may be summarized as follows:

Category of OHM	Relative Solubility in Water	Relative Volatility	Relative Persistence	Relative Bioaccumulation Potential
PCBs	Low	Low	High	High
Metals	Low	Low	High	Moderate to High
EPHs	Low to Moderate	Low	Low to Moderate	Low
PAHs	Low to Moderate	Low	Moderate to High	Moderate to High
VPHs	Moderate	Moderate to High	Low	Low
VOCs	Moderate to High	High	Low to Moderate	Low

The solubility of a compound establishes the upper limits of the concentrations at which a compound can dissolve in water. It should be noted that in complex mixtures such as groundwater, the effective solubility of individual compounds will differ significantly from the pure compound solubility. PCBs and PAHs have extremely low solubility in water and will absorb to any suspended matter in the water column. Similarly, metals are typically insoluble in water however, some, such as zinc, can persist in water indefinitely.

The octanol/water partitioning coefficient (K_{ow}) and the organic carbon/water partitioning coefficient (K_{oc}) define the tendency of a compound to adsorb to organic matter in soil relative to the affinity for water. Higher K_{ow} or K_{oc} values indicate that a compound will adsorb more strongly to soil and therefore, will leach more slowly from soil into groundwater. The PCB aroclors and metals at the Site generally have high K_{ow} and K_{oc} values, and the petroleum ranges generally have moderate K_{ow} and K_{oc} values. PAHs have relatively low K_{ow} values, however, if released to water, PAH compounds will adsorb very strongly to sediments and/or particulate matter. Additionally, PAHs are not expected to hydrolyze. Other VOCs and VPH COPCs identified at the Property generally have higher K_{ow} and K_{oc} values.

According to the USEPA Technical Factsheet on PCBs (USEPA: PCBs, 2014), PCBs experience tight adsorption when in soils and adsorption generally increases with the degree of PCB chlorination. The higher chlorinated PCBs (such as Aroclor 1260) will have a lower tendency to leach and it is only when in the presence of organic solvents that PCBs will leach rapidly through the soil matrix.

Additionally, according to a USEPA study titled *Behavior of Metals in Soils* (Mclean & Bledsoe, 1992), metals contamination in soil will normally be retained at the soil surface. The retention mechanisms for metals in soils typically include adsorption or precipitation. The extent of movement of metals contamination in soils correlates closely to soil properties including but not limited to pH, clay content, organic matter, and/or particle surface area. The natural weathering or changes in soil composition may increase the mobility of metals over time.

According to a separate USEPA Technical Factsheet on PAHs, (USEPA: PAHs, 2014), PAHs similarly will adsorb strongly to soil particulates and leaching to groundwater is often very limited. Although, the presence of PAHs in groundwater may indicate that a transport mechanism is present such as particulate infiltration through more porous soils. Henry's Law constants are a relative measure of volatility. The Henry's Law constants for VPH and VOCs are moderate to high, and volatile EPH COPCs are very low to moderate. For PCBs, the rate of volatilization decreases

with increasing chlorination and, therefore, is typically very low under usual circumstances. PCBs have negligible vapor pressure and are not expected to volatilize. Also according to the USEPA Technical Factsheet, if released to the atmosphere, PCBs will primarily exist in the vapor-phase, with the particulate phase concentration increasing with an increase in chlorination. Volatilization only applies to select metals (mercury), when the mercury is under certain conditions such as if inorganic, water soluble forms of mercury are present in sandy, loamy soils (Rogers, 1978). When PAHs are released to the air, the compounds may be subject to direct photolysis. Evaporation of PAHs from soils and/or groundwater is not a significant transport pathway.

VOCs at the Site have relatively short to moderate half-lives, indicating that these COPCs may degrade relatively quickly if the appropriate conditions are present. The PCBs and metals at the Site are less susceptible to degradation and are, therefore, relatively persistent in the environment. Biodegradation of PCBs in the environment is very slow due to the stability and persistence of the contaminant. Research has shown that biodegradation tests of PAHs in soil have resulted in a wide range of half-lives. Depending on competing fate processes, PAH half-lives can range from 2 days to 1.9 years.

Bioconcentration factors for the VOCs and petroleum hydrocarbons are low; therefore, these compounds are not expected to bioaccumulate in organisms. PCBs have a generally high bioconcentration factor; however, bioconcentration of PCBs is expected mostly in aquatic organisms and therefore, this may be expected for the current extent of contamination at the Site. Similarly, PAHs will bioaccumulate significantly in aquatic environments, especially in organisms that lack a metabolic detoxification enzyme (USEPA: PAHs, 2014). Additionally, certain metals, such as zinc, can bioaccumulate significantly.

8.2 POTENTIAL MIGRATION PATHWAYS

Potential migration pathways for OHM may include soil, groundwater, surface water, sediment and air (310 CMR 40.0483).

8.2.1 Soil

Metals, petroleum constituents (EPH/ VPH), PAHs, VOCs and PCBs were detected in Site soil between the ground surface and depths corresponding to the top of bedrock (approximately 20-40 feet bgs), with the highest concentrations typically present at depths shallower than 5 feet. Soil particles and contaminants in soil may migrate through several potential pathways. The majority of the Site consists of unpaved, exposed soils. Therefore, the potential exists for impacted soils to migrate via physical processes such as erosion, wind transport, or through direct contact with humans or animals. Some OHM present in surface and subsurface soils may also migrate downward as a result of precipitation and infiltration, subsequently leaching into groundwater. Fluctuations in the groundwater table may also result in groundwater impacts through absorption from capillary fringe soils. CVOC constituents present on Site, which constitute the most significant impacts on Site, are highly mobile in soil. Other detected compounds in Site soils (e.g., metals, PCBs, and PAHs) are generally immobile in soil.

The majority of the Site is enclosed within chain-link fencing. Access to the property is limited by a gate in the fencing at the end of Fairmount Court, which reduces the potential for migration through direct contact. Additionally, vegetated areas are situated along eastern and southern portions of the Site, each of which would help to reduce the potential for off-site migration through wind transport or overland flow.

8.2.2 Groundwater

Observations of groundwater monitoring events were previously discussed in Section 4. Based on groundwater gauging and an elevation survey conducted at the Site most recently on September 25, 2014, groundwater flows in a easterly, southeasterly direction toward the Neponset River and is located at depths between approximately 4 and 15 feet bgs based on ground surface topography. Mainly VOCs, PCBs along with several metals and select VPH and EPH constituents, have been detected in groundwater samples collected from Site monitoring wells during

investigation completed between March 2002 and September 2014. OHM may have entered the groundwater directly or through interaction with impacted soils through which groundwater is flowing. OHM in groundwater may migrate in groundwater through processes such as diffusion, dispersion, and advection. However, metals (and to a lesser extent PAHs and PCBs), are generally insoluble in water and it is, therefore, unlikely that groundwater serves as a significant migration pathway for these constituents. However, PCB solubility increases in the presence of chlorinated solvents. Elevated chlorinated solvent and PCB concentrations coincide in groundwater at the southeast corner of the former facility.

8.2.3 Surface Water and Sediment

OHM may enter surface waters by a number of mechanisms. Most commonly, entry is direct via surface runoff of OHM-impacted soils following storms or from erosion. OHM may also enter surface waters from discharge of impacted groundwater. Once in surface water, OHM may migrate in the dissolved fraction or as suspended particles. Sediments associated with surface water bodies can provide a potential migration pathway for OHM. OHM sorbed to soil particles may migrate directly into sediments during erosion, migration, and deposition of surface soil particles. Additionally, OHM may sorb onto sediments during interactions with surface water or underlying groundwater. Subsequently, sediment particles may migrate with surface water flow and may also be ingested by biota.

As determined by groundwater potentiometric contours, overburden and bedrock groundwater flows into the Neponset River. PCBs detected in sediments and VOCs detected in surface water in the Neponset River, adjacent to the Site, could be a direct result of contaminant migration through the groundwater. However, VOC concentrations in surface water were not been detected above laboratory reporting limits during the Interim Phase II CSA completed in 2006.

Visual observations of the Neponset River did not identify the presence of sheens or other evidence of impact from the Site such areas of stressed vegetation.

8.2.4 Air

The majority of the Site is unpaved and, therefore, soil particles may be suspended in air. However, no invasive or disruptive activities consistently take place at the Site, which helps to reduce air borne dust.

It was determined that CVOCs present in soils and groundwater underlying the former Lewis Chemical facility were volatilizing into the soil gas phase. Sub-slab soil gas samples resulted in significant concentrations of chlorinated solvents and the presence of CVOCs in soil gas may result in contaminant migration into ambient or indoor air. However, since no structure remains on Site, these incomplete migration pathways would need to be reevaluated following future redevelopment of the Property.

9. SUMMARY OF METHOD 3 RISK CHARACTERIZATION

A characterization of risk of harm to human health, safety, public welfare, and the environment has been completed for the Site in accordance with procedures outlined in the MCP (310 CMR 40.0900) and in a manner consistent with scientifically acceptable risk assessment practices established by the MassDEP and United States Environmental Protection Agency (USEPA). For this Site, a MCP Method 3 risk assessment approach was used to evaluate potential risks based on site-specific information. The complete risk assessment is provided in **Appendix F**; this section summarizes the approach and outcome of the risk evaluation.

The results of the Method 3 RC rely on certain assumptions regarding future Site use, such as the prohibition of redevelopment of the Property for future residential use through implementation of an Activity and Use Limitation (AUL) in support of permanent closure. Therefore, potential risks posed to future hypothetical residents were not quantitatively evaluated in the risk assessment.

Chemicals of Potential Concern (COPCs) identified in Site soil and groundwater include petroleum hydrocarbon fractions, PAHs, VOCs, PCBs, and heavy metals. For this assessment, potential human receptors at the Site were identified as current/future trespassers, current/future youth recreational users, future facility workers, and future construction/utility workers. Potential risks estimated for these four receptor groups are also considered protective of other, lesser-exposed human receptors, such as adult visitors and/or landscape workers. Therefore, separate risks were not quantified for those receptor groups.

A summary of risks for human health, public welfare, safety, and the environment is presented in the following sections.

9.1 HUMAN HEALTH

The MCP indicates that a condition of No Significant Risk of harm to human health exists or has been achieved if:

- No Cumulative Receptor Cancer Risk calculated is greater than the Cumulative Cancer Risk Limit of 1 x 10^{-5};
- No Cumulative Receptor Noncancer Risk is greater than the Cumulative Receptor Noncancer Risk Limit of one;
- No EPC is greater than an applicable or suitably analogous public health standard.

Cumulative receptor noncancer risks were compared the MCP Cumulative Noncancer Risk Limit of one. Where appropriate, the noncancer risks were broken down and summed by target health endpoint, in accordance with MassDEP risk assessment guidance. The cumulative receptor cancer risks were compared to the MCP Cumulative Cancer Risk Limit, which is an ELCR equal to one in one hundred thousand (1 x 10^{-5}).

Estimated cumulative noncancer hazards and cancer risks are below acceptable MCP risk limits for the current and future trespasser for Sitewide exposures, as well as the current/future recreational user for Sitewide exposures. Lead risks, which were evaluated separately using USEPA's Adult Lead Model (ALM) for the future facility worker and future construction/utility worker scenarios, indicate that estimated probabilities of fetal blood lead levels in a pregnant worker are below the acceptable probability of 5% for these receptors. However, estimated risks for the existing site worker (landscape maintenance), future facility worker and the future construction worker, at various exposure points, are above MCP risk limits. Therefore, a condition of No Significant Risk of harm to human health **has NOT been achieved** at the Site.

9.2 SAFETY, PUBLIC WELFARE, AND ENVIRONMENTAL RISK CHARACTERIZATION

Based on observations made and information collected during environmental investigations of the Site, conditions at the Site do not pose a threat of physical harm or bodily injury to people. Furthermore, W&C did not identify release-

related conditions that may pose a risk to public safety. Therefore, a condition of NSR of harm to safety **has been achieved** at the Site.

There is no adverse impact to the surrounding community from the site. However, one of the public welfare criteria involves a comparison of analytical data to Upper Concentrations Limits. The concentration of trichloroethylene, c5-c8 aliphatics, and Aroclor 1248 in soil at Hot Spot 1, of Aroclor 1248 in soil at Hot Spot 3, and of c5-c8 aliphatics in groundwater at Hot Spot 2 exceed Upper Concentration Limits. Therefore, in accordance with the MCP at 310 CMR 40.0996(3), a condition of No Significant Risk to Public Welfare **has NOT been achieved** at the Site.

As the Site is developed, i.e. majority of property covered by building slab and pavement, and less than one acre in size, there are currently no complete exposure pathways on Site for terrestrial receptors. No observations of readily apparent harm to the environment have been made at the Site; however, sediment concentrations of selenium and VOCs exceed ecological screening benchmarks used in a Stage I Ecological Screening and UCLs in soil and groundwater are exceeded at several Hot Spots, as discussed. Therefore, a condition of No Significant Risk of harm to the environment **has NOT been achieved** at the Site for current and reasonably foreseeable future conditions. Further evaluation of ecological risk via a Stage II ecological risk characterization is warranted, as per 310 CMR 40.0995(3)(c)(3).

10. CONCLUSIONS

This section summarizes the findings of the Phase II CSA for the disposal site located at the former Lewis Chemical facility located at 12-24 Fairmount Court, in the Hyde Park neighborhood of the City of Boston, Massachusetts. Extensive historical research and field investigation activities conducted at the Site have led to the following conclusions:

- The Site is located at the dead end of Fairmount Court in Hyde Park, Massachusetts. The former Lewis Chemical Corporation (Lewis Chemical) facility had a corresponding street address of 12-24 Fairmount Court.
- The Property consists of three (3) separate parcels comprising approximately 0.9 acres of land (39,116 square feet). The City of Boston currently owns the two upland parcels of the Property and the City of Boston's Department of Neighborhood Development (DND) managed/maintains these parcels. The Commonwealth of Massachusetts currently owns the preservation parcel along the Neponset River. This parcel is managed/maintained by the Massachusetts Department of Conservation and Recreation.
- The Property has a history of industrial uses. From 1940 until the early 1960s, a leather manufacturing company reportedly occupied the Property. From 1963 until 1983, the Lewis Chemical Corporation occupied the former on-property facility.
- Lewis Chemical was involved in the collection, transportation, storage, and processing of hazardous waste. Numerous violations of federal, state, and local laws regarding the safe handling, transport, storage, and treatment of hazardous materials, as well as complaints from local residents, were documented during Lewis Chemical's time of operation on the Property.
- The Property is currently vacant and unoccupied. The former industrial facility was razed in 2014. To limit the exposure to the underlying soil/ groundwater impacts, the concrete slab and certain slope-stabilizing retaining walls along the western extent of the building were left intact.
- The Site is located in a mixed residential and commercial area of Hyde Park, Massachusetts. Active MBTA railroad tracks are located adjacent to the Site to the north. The Neponset River parallels the Site to the south, southwest.
- Depth to groundwater at the Site ranges from approximately 4 feet bgs along the southern, southeastern portion of the Property along the Neponset River to approximately 15 feet bgs at northwestern portions of the Site. The depth to groundwater measurements varies based on ground surface topography . Hydrologic contours developed using a relative elevation survey, showed that groundwater flow is to the south, southeast, towards the Neponset River.
- The Disposal Site consists of approximately 0.66 acres including portions of the upland parcels and the Neponset River.
- Overburden soils encountered during drilling activities were mostly widely graded fill material primarily containing medium to fine sand and gravel with varying degrees anthropogenic debris overlying dense silt and sands. Various forms of anthropogenic debris or "fill" materials, including brick, glass, porcelain, metals, plastic, coal and wood were noted to extend over the upper eight to thirteen feet of surficial and subsurface soils across much of the Site.
- OHM in the Site soils consists of heavy metals, PCBs, petroleum constituents (PAHs, EPH and VPH) and VOCs (primarily chlorinated solvents). Impacts to Site soils are likely the result of releases of petroleum hydrocarbons from a former underground storage tank located in the northern portion of the Site, discharges to the tank farm floor drain located within the tank farm containment area and releases of

chlorinated solvents to soil through both direct discharge from and breaches in the basement trench drain within the Lewis Chemical building.

- Groundwater impacts at the Site include GW-3 exceedances of VOCs, primarily trichloroethene and its degradation products, and PCBs. Documented GW-2 exceedances are not applicable to the Site as there is no occupied structure currently on the Site. UCL exceedances were documented in groundwater at the Site for C5-C8 Aliphatics, Trichloroethene, 1,1,1-Trichloroethane and cis-1,2-Dichloroethene.
- VOCs (chlorinated solvents, Toluene and Xylenes) and Selenium were detected in Neponset River sediment samples at concentrations that exceeded ecological screening benchmarks.
- The majority of elevated impacts to the subsurface extend from the ground surface to approximately 10 feet bgs across the Site. However, OHM constituents were detected in soils at depths upwards of 20 feet bgs.
- The results of the Method 3 RC indicate that a condition of NSR of harm to human health does not exist for future facility workers and future construction workers. The results of the Method 3 RC are contingent upon the assumptions made at the time of its completion, including prohibition of future Site use for residential purposes through future implementation of an AUL at the Property.
- A condition of No Significant Risk to safety has been achieved at the Site.
- A condition of No Significant Risk of harm to public welfare and the environment does not exist at the Site due to the presence of trichloroethylene and selenium in soil, as well as C5-C8 aliphatic hydrocarbons in groundwater and soil. Further evaluation of potential ecological risk via a Stage II ecological risk characterization is warranted.
- Based on the results of the Method 3 RC, further MCP response actions are required to achieve a condition of No Significant Risk of harm to human health, public welfare, and the environment.

11. PHASE II COMPLETION STATEMENT

As per 310 CMR 40.0836, a Phase II Completion Statement has been prepared for the Site. The required components of the Phase II Completion Statement are presented in the following sections.

11.1 LSP OPINION

In accordance with 310 CMR 40.0836(3)(a), this LSP Opinion has been prepared to document that the Phase II CSA:

1. Conforms with applicable Phase II requirements and any approval conditions specified by the Department;
2. Meets the Phase II performance standards;
3. Does not disclose new or additional information which may affect the site's Tier Classification or permit category without the concurrent filing of an application for a Major Permit Modification; and,
4. Specifies the Phase II outcome under 310 CMR 40.0840.

11.2 CERTIFICATION OF SUBMITTAL

The seal and signature of Craig E. Blake, LSP (#3760) is provided in Section C of Transmittal Form BWSC108 provided via electronic transmission with this report. An unsigned copy of this form is included herein as **Appendix A.**

12. LIMITATIONS

The activities described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or limited is implied. These services were performed consistent with the agreement with our client. The conclusions presented in this Report were based upon the services described and not on scientific tasks or procedures beyond the scope of described services or time or budgetary constraints. Any statement or opinion contained in this report prepared by Woodard & Curran shall not be construed to create any warranty or representation that the property is free of pollution or complies with any or all applicable regulatory or statutory requirements; or that the property is fit for any particular purpose. Unless otherwise indicated in this Report, no attempt was made to check on the compliance of present or past owners of the Site with federal, state, or local laws and regulations. Woodard & Curran Inc. shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld or not fully disclosed at the time the evaluation was performed.

Results of the activities contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. Woodard & Curran is not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others or the use of segregated portions of this report.

This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

13. REFERENCES

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FIGURES

Figure 1: Site Locus

Figure 2: Site Plan

Figure 3: MassDEP Priority Resource Map (21E)

Figure 4: Property Plan

Figure 5: SVE System Layout

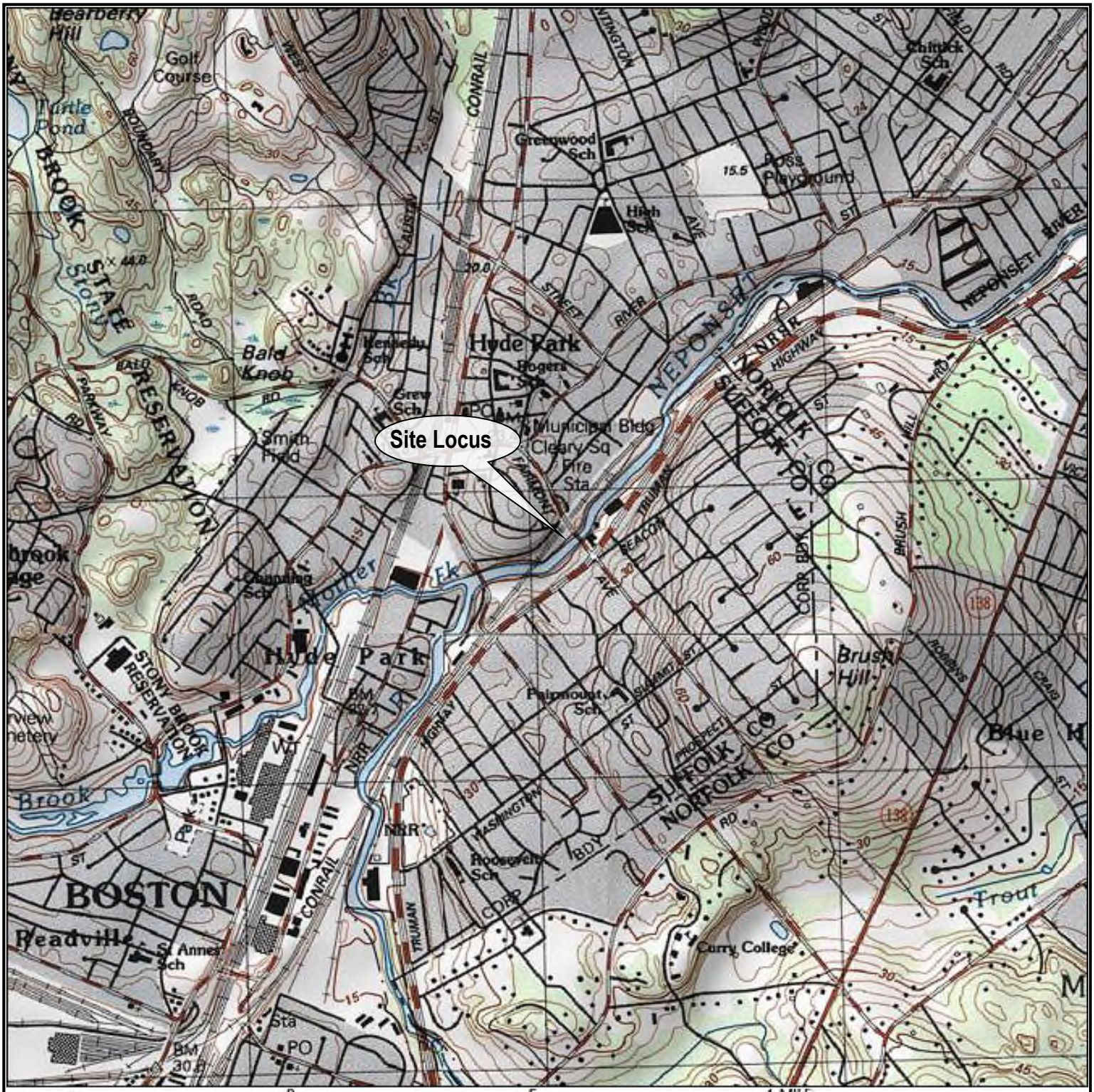
Figure 6: Existing Conditions Plan

Figure 7: Geologic Cross Section (ESM-08 to PZ-01S)

Figure 8: Geologic Cross Section (ESM-15 to PZ-5)

Figure 9: UCL Exceedances in Soil

Figure 10: Water Table Elevation Map



Base Map Source:
TOPO!™ © 2000
Wildflower Productions

LAT: 42°15'11.00"
LONG: 71°07'10.09"

DES.BY:	DR.BY: MES	CK.BY: CB

12-24 Fairmount Court
Hyde Park, MA 02136

FIGURE 1
SITE LOCUS

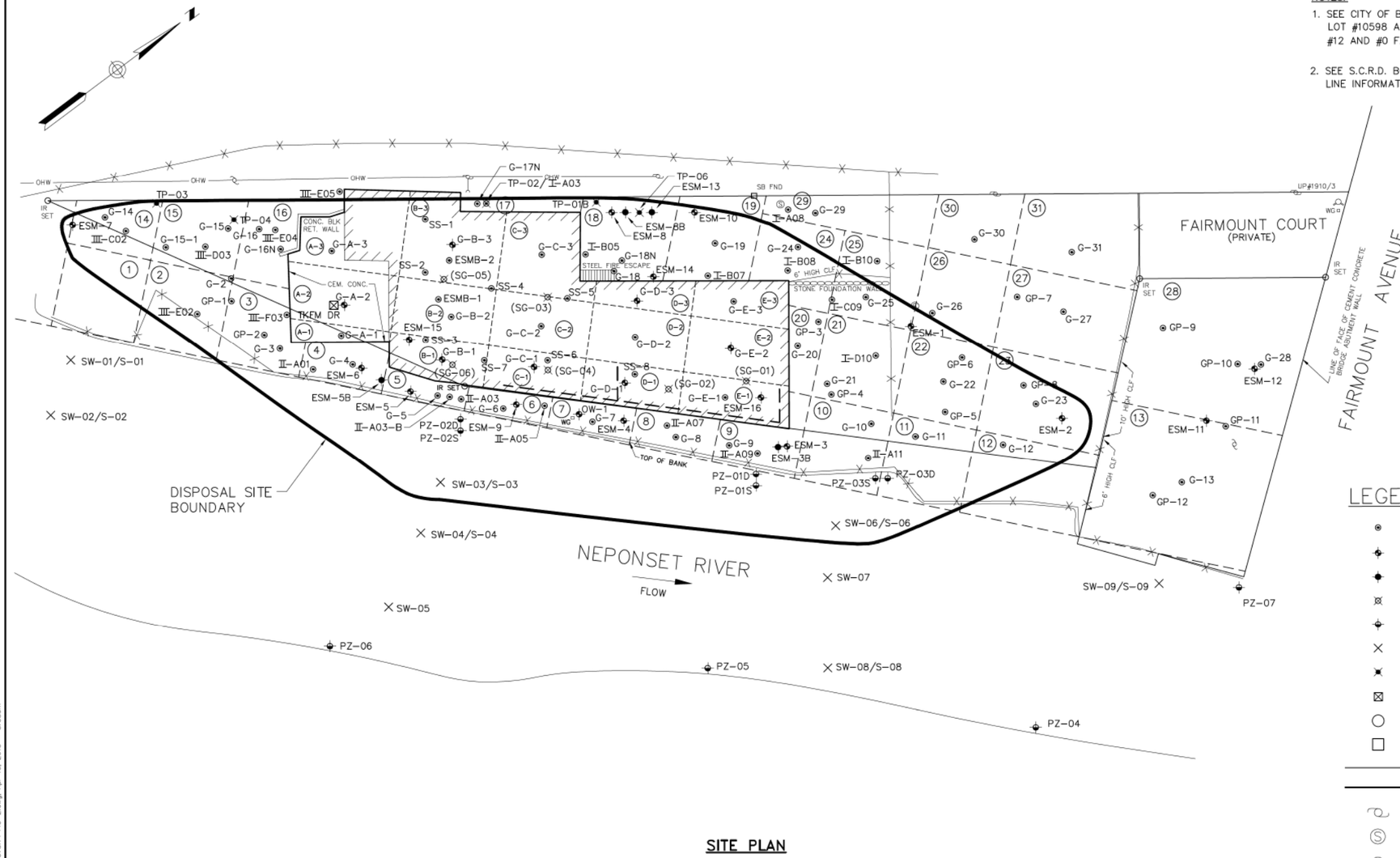
SCALE: AS SHOWN	JOB NO.: 221375.14
DATE: MARCH 2015	FILE NAME:

COMMITMENT & INTEGRITY
DRIVE RESULTS
980 Washington St, Suite 325
Dedham, MA 02026
T: 800.446.5518

NOTES:

1. SEE CITY OF BOSTON ASSESSOR'S PLAN WARD #18, BLOCK #199, LOT #10598 AND #10601 FOR SITE REFERENCE. SITE IS KNOWN AS #12 AND #0 FAIRMOUNT COURT.

2. SEE S.C.R.D. BOOK 8338, PG 650, AND LC 38601 FOR SITE PROPERTY LINE INFORMATION.



LEGEND

(G-13)	SOIL BORING LOCATION
(ESM-XX)	MONITORING WELL
(ESM-XXB)	BEDROCK WELL COUPLET
(SG-XX)	SOIL GAS SAMPLING POINT
(PZ-XX)	PIEZOMETER
(SW-XX/S-XX)	SURFACE WATER/ SEDIMENT SAMPLE
(TP-XX)	TEST PIT
	DRAIN
IR SET	IRON ROD SET
SB FND	STONE BOUND FOUND
	PROPERTY LINE
	BUILDING SLAB FOOT PRINT
	UTILITY POLE (UP)
	SEWER MANHOLE
	HYDRANT
WG	WATER GATE
RET.	RETAINING
CEM. CONC.	CEMENT CONCRETE
CONC. BLK	CONCRETE BLOCK
FND	FOUND
	CHAIN LINK FENCE (CLF)
OHW	OVERHEAD WIRES
	TRENCH DRAIN
6	OUTSIDE BUILDING SAMPLE GRID DESIGNATION
	OUTSIDE BUILDING GRID BOUNDARY
	INSIDE BUILDING GRID BOUNDARY
A-1	INSIDE BUILDING SAMPLE GRID DESIGNATION

20 0 20 40
SCALE IN FEET

SITE PLAN

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REV	DESCRIPTION	DATE
	DESIGNED BY: SG	
	CHECKED BY:	
	DRAWN BY: JAZ	
	221375.14 FIG-2.dwg	

SITE PLAN

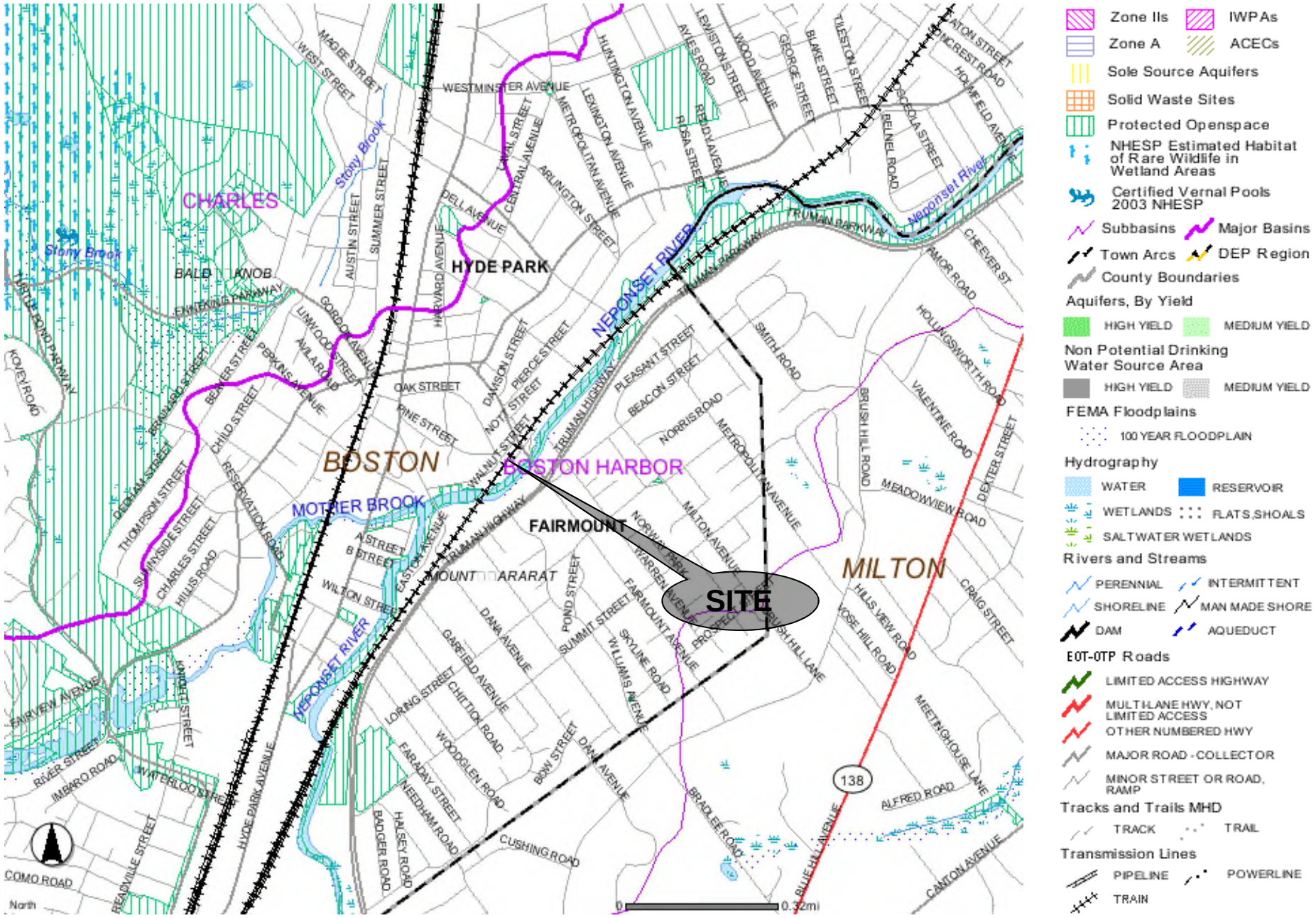
CITY OF BOSTON
DEPARTMENT OF
NEIGHBORHOOD DEVELOPMENT

FORMER LEWIS CHEMICAL SITE

JOB NO.: 221375
DATE: FEBRUARY 2015
SCALE: AS NOTED
SHEET: OF

FIGURE 2

Z:\221375 Boston DND Environmental Consulting Services\wip\221375.01 - Lewis Chemical\Drawings\221375.14 FIG-2.dwg, Apr 10, 2015 - 8:38am



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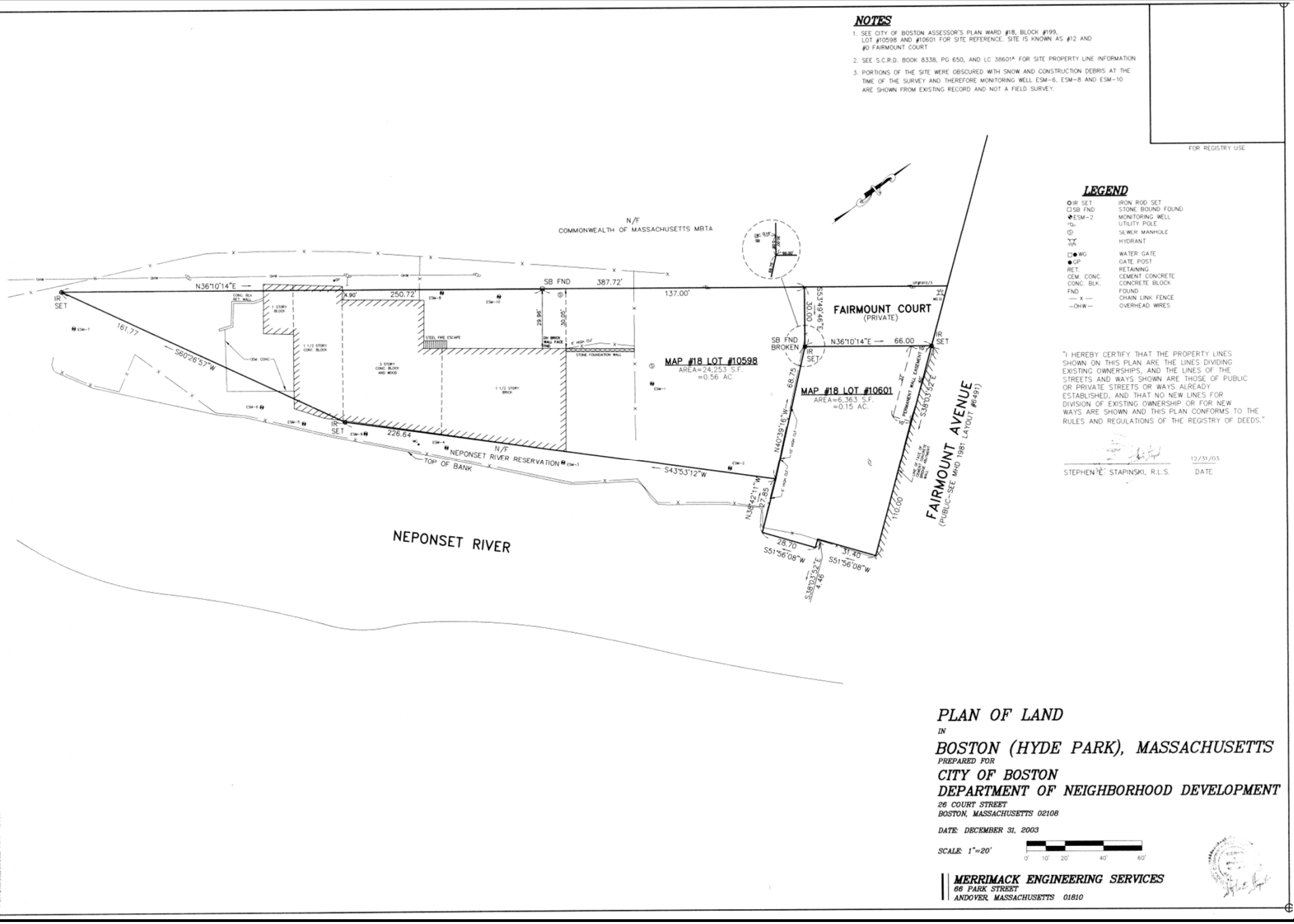
MASSDEP PRIORITY RESOURCE MAP (21E)

12-14 FAIRMOUNT COURT, HYDE PARK, MA

DESIGNED BY:	CHECKED BY: CB
DRAWN BY: MES	

JOB NO.: 221375.14
DATE: MARCH 2015
SCALE: AS NOTED

FIGURE 3



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PROPERTY PLAN	12-14 FAIRMOUNT COURT, HYDE PARK, MA	JOB NO.: 221375.14
		DATE: MARCH 2015
		SCALE: AS NOTED
DESIGNED BY:	**CHECKED BY: CB**	**FIGURE 4**
DRAWN BY: MES		

NOTES:

1. SEE CITY OF BOSTON ASSESSOR'S PLAN WARD #18, BLOCK #199, LOT #10598 AND #10601 FOR SITE REFERENCE. SITE IS KNOWN AS #12 AND #0 FAIRMOUNT COURT.
2. SEE S.C.R.D. BOOK 8338, PG 650, AND LC 38601 FOR SITE PROPERTY LINE INFORMATION.

COMMONWEALTH OF MASSACHUSETTS MBTA

OHW

OHW

GP

SB FND

CONC. BLK RET. WALL

1 STORY BLOCK

1 1/2 STORY CONC. BLOCK

3 STORY CONC. BLOCK AND WOOD

STEEL FIRE ESCAPE

6' HIGH CLF

STONE FOUNDATION WALL

CEM. CONC.

EP-1

EP-2

EP-3

EP-4

EP-5

EP-6

EP-7

EP-8

EP-9

EP-10

SVE-1

SVE-2

SVE-3

1 1/2 STORY BRICK

SVE EQUIPMENT AREA

SVE DISCHARGE

IR SET

WG

N/F NEPONSET RIVER RESERVATION

TOP OF BANK

NEPONSET RIVER

LEGEND

EP-1 ⊠	EXTRACTION POINT
———	2" SCH 40 PVC PIPE
—·—·—	3" SCH 40 PVC PIPE
— — —	PROPERTY LINE
IR SET ○	IRON ROD SET
SB FND □	STONE BOUND FOUND
	UTILITY POLE
Ⓢ	SEWER MANHOLE
	HYDRANT
WG □	WATER GATE
GP ●	GATE POST
RET.	RETAINING
CEM. CONC.	CEMENT CONCRETE
CONC. BLK	CONCRETE BLOCK
x——x	CHAIN LINK FENCE
——OHW——	OVERHEAD WIRES

20 0 20 40

SCALE IN FEET

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SVE SYSTEM LAYOUT

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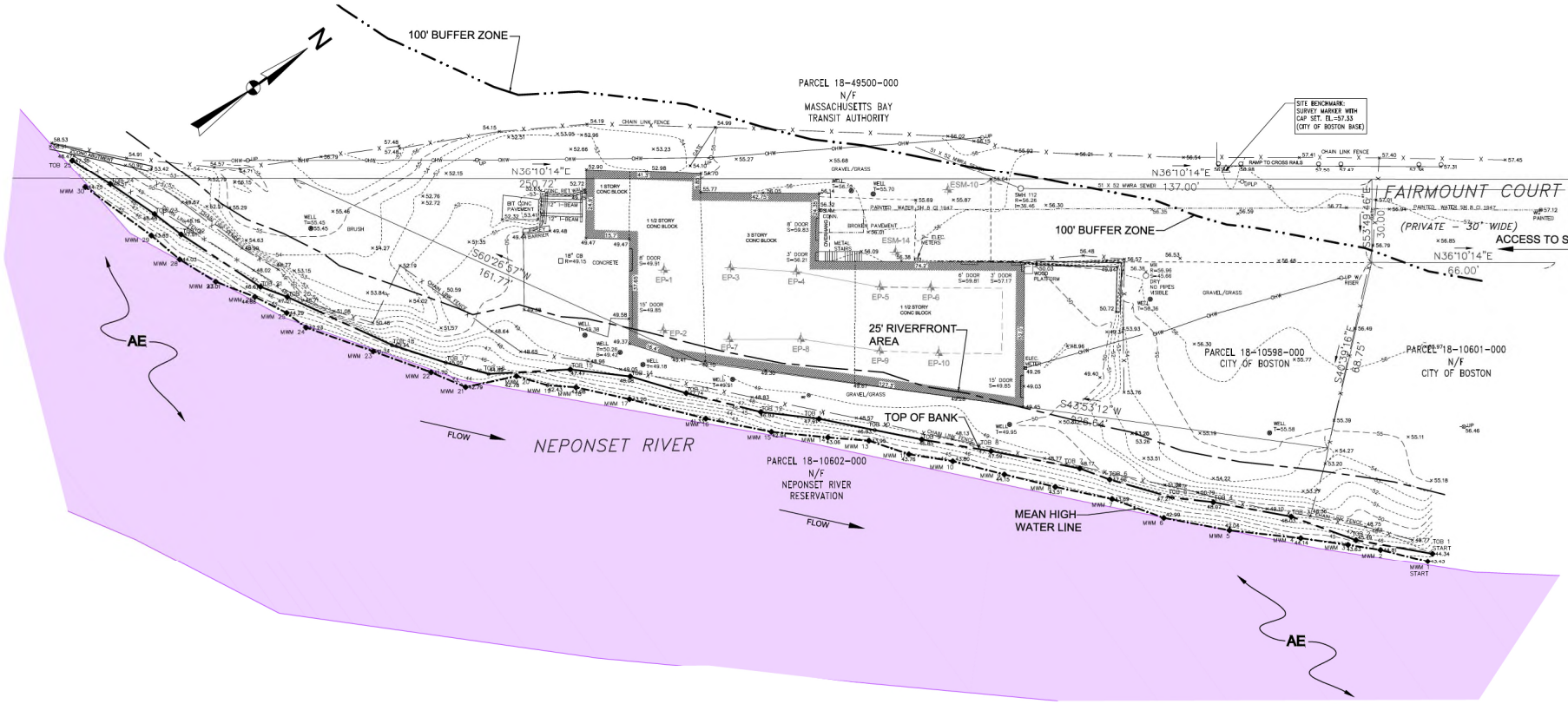
DRAWN BY: GA
CHECKED BY: SLD
221375 FIG-5.dwg

CITY OF BOSTON
DEPARTMENT OF
NEIGHBORHOOD DEVELOPMENT

FORMER LEWIS CHEMICAL SITE

JOB NO: 221375
DATE: AUGUST 2009
SCALE: 1" = 20'

FIGURE - 5



LEGEND

- 100' BUFFER ZONE
- RIVERFRONT AREA
- MEAN HIGH WATER LINE
- TOP OF BANK
- AE 100 Yr BFE (BORDERING LAND SUBJECT TO FLOODING)
- EP-1 EXTRACTION POINT
- 2" SCH 40 PVC PIPE
- 3" SCH 40 PVC PIPE

NOTES:

1. THIS SITE IS SUBJECT TO THE MASSACHUSETTS CONTINGENCY PLAN (MCP: 310 CMR 40.0000) AND HAS BEEN ASSIGNED RELEASE TRACKING NUMBER (RTN) 3-1616 BY MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION.

SOURCE:

1. THE BASE MAP WAS DEVELOPED FROM ELECTRONIC FILES PROVIDED BY NORWOOD ENGINEERING ENTITLED "EXISTING CONDITIONS PLAN OF LAND 12 FAIRMOUNT COURT IN BOSTON, MASS" DATED: 11-26-2012, ORIGINAL SCALE: 1" = 20', SHEET: 1-of-1, DRAWING NO. 3182-52, CAD FILE: 318252ws.DWG.
2. THE LOCATION AND ELEVATION OF THE SELECTED SITE FEATURES WERE APPROXIMATELY DETERMINED BY LEVEL SURVEY. THE DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED
3. WELL LOCATIONS INDICATED BY EP-1 TO EP-10 AND ESM-10 AND ESM-14 WERE APPROXIMATED FROM A PLAN ENTITLED "SITE PLAN" DEVELOPED BY WOODARD & CURRAN, AUGUST 2009. THE PLAN WAS NOT IN A SPECIFIED COORDINATE SYSTEM AND THE LOCATIONS ARE APPROXIMATE AND SHOULD ONLY BE USED AS A GENERAL GUIDE TO LOCATE THESE WELLS.

0 10' 20' 40' 60'
SCALE IN FEET

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EXISTING CONDITIONS PLAN

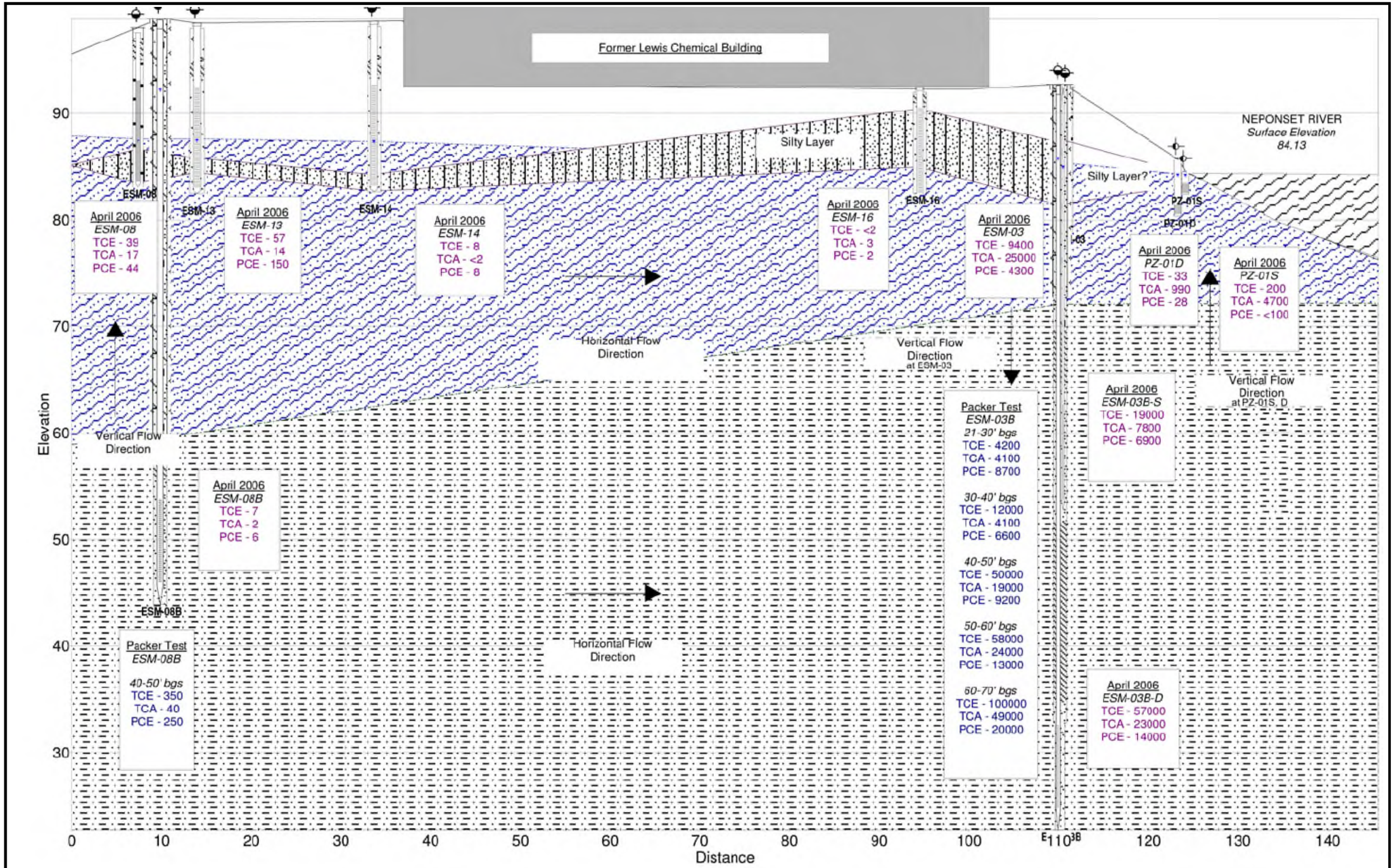
12-14 FAIRMOUNT COURT,
HYDE PARK, MA

DESIGNED BY:	CHECKED BY: CB
DRAWN BY: MES	

Source: GZA
GeoEnvironmental, Inc.

JOB NO.: 221375.14
DATE: MARCH 2015
SCALE: AS NOTED

FIGURE 6



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Geologic Cross Section (ESM-08 to PZ-01S)

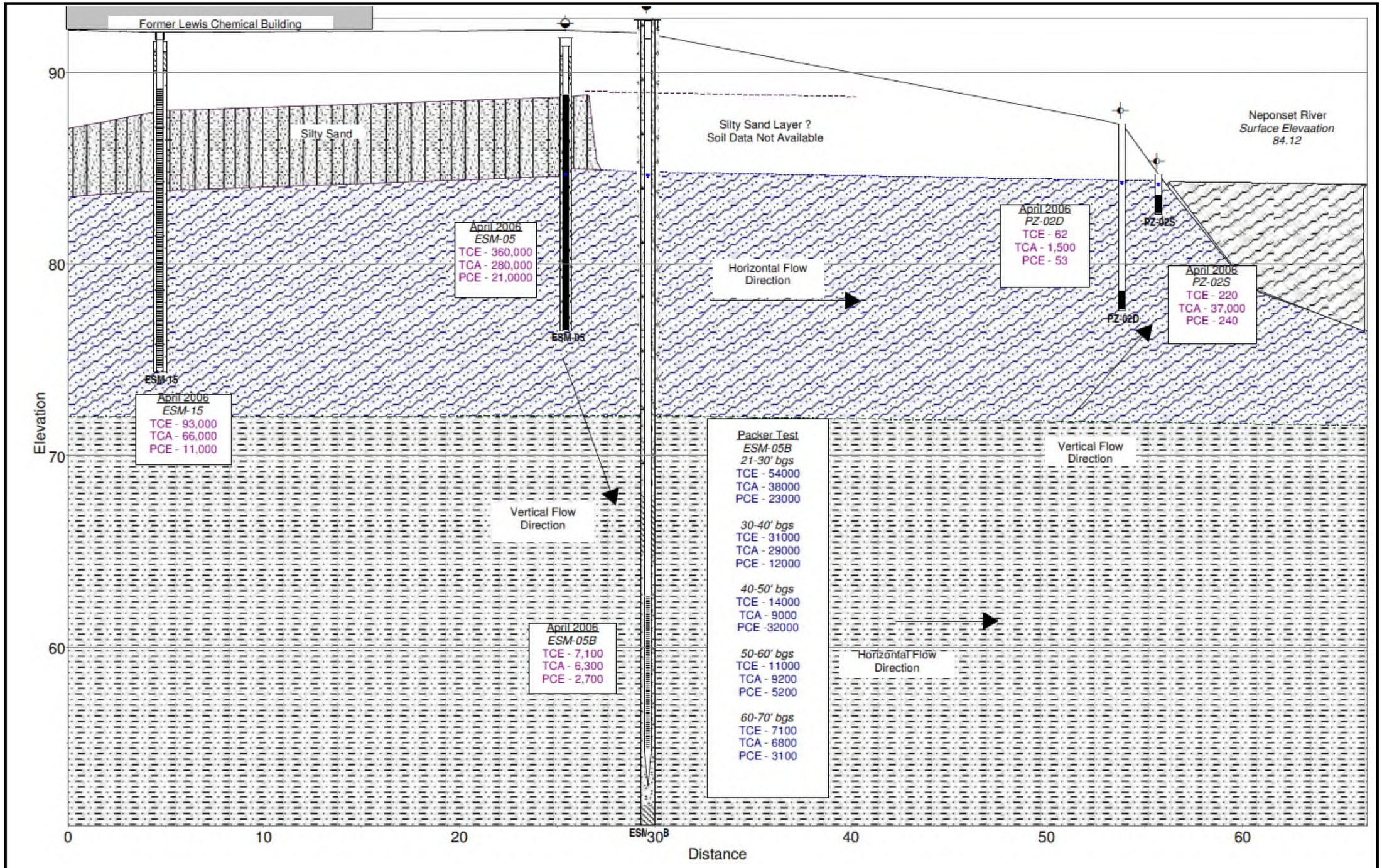
DESIGNED BY:	CHECKED BY: CB

Former Lewis Chemical Site
12-24 Fairmount Court, Hyde Park, MA

Source: Environmental Strategies & Management, Norton, MA

JOB NO.: 221375.00
DATE: MARCH 2015
SCALE:

FIGURE 7



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WOODARD &CURRAN

Geologic Cross Section (ESM-15 to PZ-5)

DESIGNED BY:	CHECKED BY: CB

Former Lewis Chemical Site
12-24 Fairmount Court, Hyde Park, MA

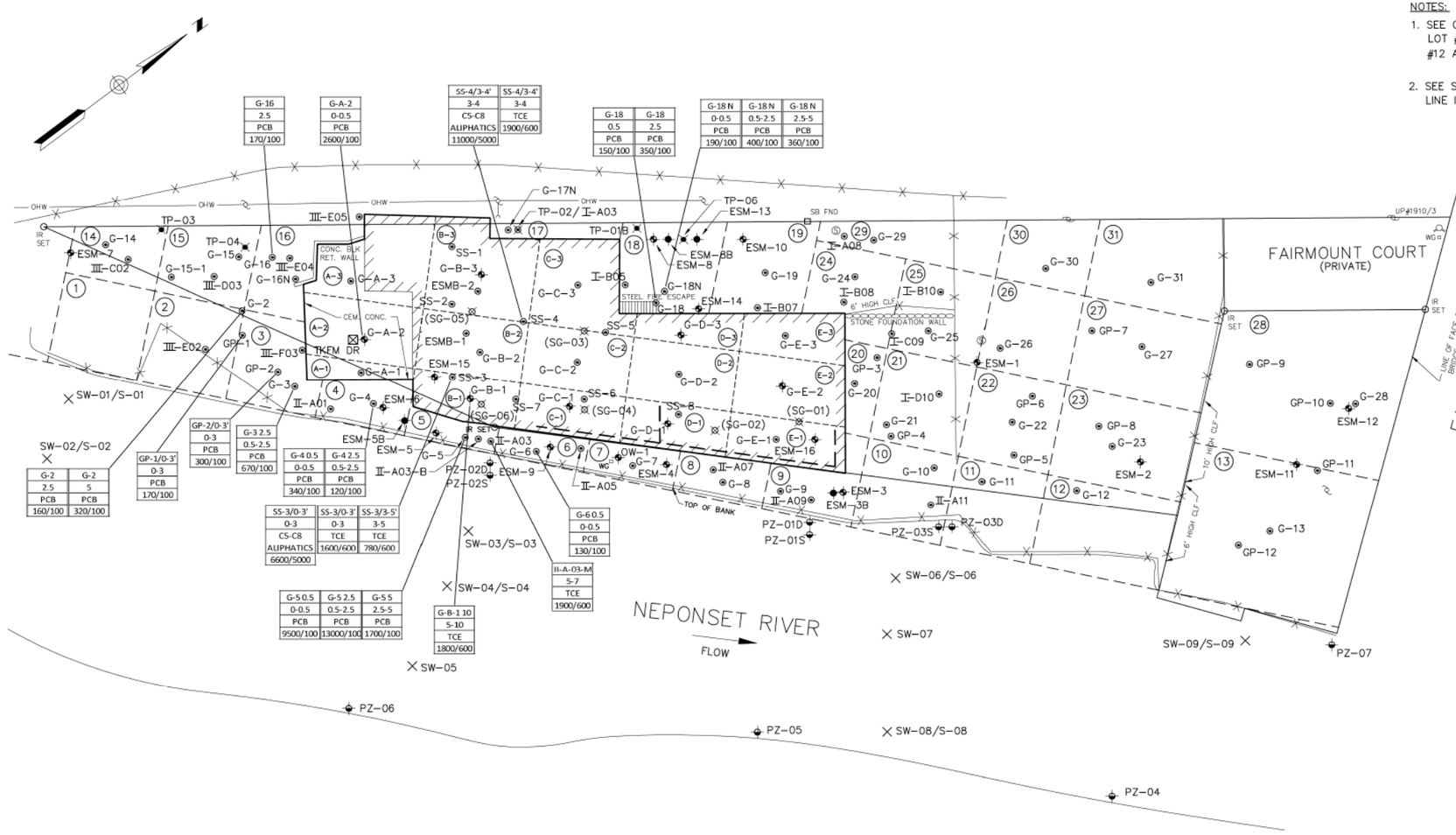
Source: Environmental Strategies & Management, Norton, MA

JOB NO.: 221375.00
DATE: MARCH 2015
SCALE:

FIGURE 8

NOTES:

1. SEE CITY OF BOSTON ASSESSOR'S PLAN WARD #18, BLOCK #199, LOT #10598 AND #10601 FOR SITE REFERENCE. SITE IS KNOWN AS #12 AND #0 FAIRMOUNT COURT.
2. SEE S.C.R.D. BOOK 8338, PG 650, AND LC 38601 FOR SITE PROPERTY LINE INFORMATION.



LEGEND

⊙	(G-13)	SOIL BORING LOCATION
⊕	(ESM-XX)	MONITORING WELL
●	(ESM-XXB)	BEDROCK WELL COUPLET
⊠	(SG-XX)	SOIL GAS SAMPLING POINT
⊕	(PZ-XX)	PIEZOMETER
×	(SW-XX/S-XX)	SURFACE WATER/ SEDIMENT SAMPLE
✱	(TP-XX)	TEST PIT
⊠		DRAIN
○	IR SET	IRON ROD SET
□	SB FND	STONE BOUND FOUND
		PROPERTY LINE
		BUILDING SLAB FOOT PRINT
		UTILITY POLE (UP)
Ⓢ		SEWER MANHOLE
		HYDRANT
□	WG	WATER GATE
	RET.	RETAINING
	CEM. CONC.	CEMENT CONCRETE
	CONC. BLK	CONCRETE BLOCK
	FND	FOUND
X X		CHAIN LINK FENCE (CLF)
OHW		OVERHEAD WIRES
		TRENCH DRAIN
⑥		OUTSIDE BUILDING SAMPLE GRID DESIGNATION
		OUTSIDE BUILDING GRID BOUNDARY
		INSIDE BUILDING GRID BOUNDARY
Ⓐ-1		INSIDE BUILDING SAMPLE GRID DESIGNATION

SOIL UCL EXCEEDANCES

SAMPLE
DEPTH (ft. bgs)
COMPOUND
CONCENTRATION/ UCL (mg/kg)

20 0 20 40
SCALE IN FEET

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REV	DESCRIPTION	DATE
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	DRAWN BY:	221375.14 FIG-9.dwg

UPPER CONCENTRATION LIMIT (UCL) EXCEEDANCES IN SOIL

CITY OF BOSTON
DEPARTMENT OF
NEIGHBORHOOD DEVELOPMENT

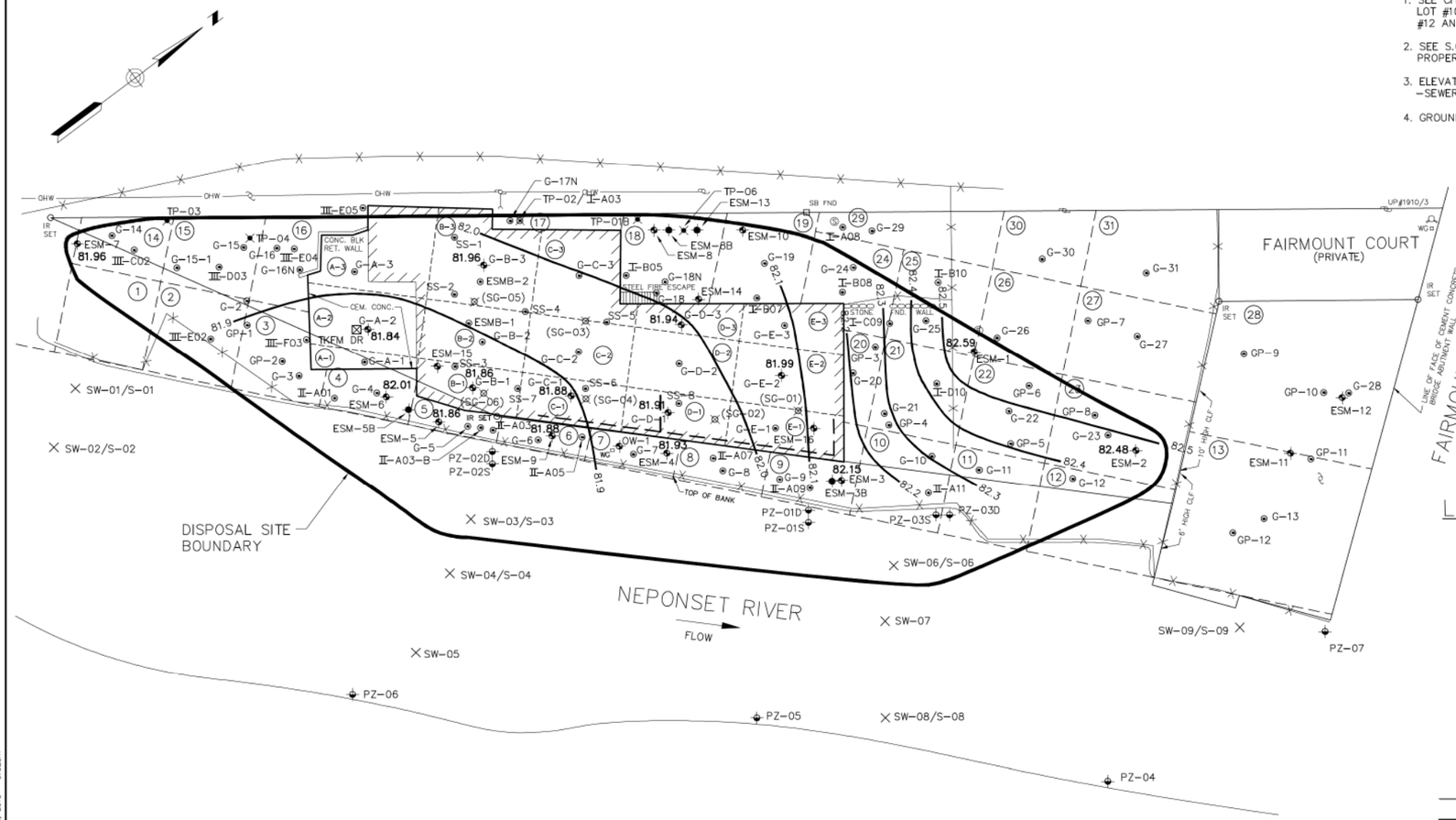
FORMER LEWIS CHEMICAL SITE

JOB NO.: 221375
DATE: FEBRUARY 2015
SCALE: AS NOTED
SHEET: OF

FIGURE 9

Z:\221375 Boston DND Environmental Consulting Services\wip\221375.01 - Lewis Chemical\Drawings\221375.14 FIG-9.dwg, Apr 02, 2015 - 8:31am

NOTES:
1. SEE CITY OF BOSTON ASSESSOR'S PLAN WARD #18, BLOCK #199, LOT #10598 AND #10601 FOR SITE REFERENCE. SITE IS KNOWN AS #12 AND #0 FAIRMOUNT COURT.
2. SEE S.C.R.D. BOOK 8338, PG 650, AND LC 38601 FOR SITE PROPERTY LINE INFORMATION.
3. ELEVATIONS BASED ON ASSUMED ELEVATION –SEWER MANHOLE RIM ADJACENT TO WELL ESM–1 = 100.0 FEET.
4. GROUNDWATER ELEVATIONS AS OF 9/25/14.



LEGEND

(G–13)	SOIL BORING LOCATION
(ESM–XX)	MONITORING WELL
(ESM–XXB)	BEDROCK WELL COUPLET
(SG–XX)	SOIL GAS SAMPLING POINT
(PZ–XX)	PIEZOMETER
(SW–XX/S–XX)	SURFACE WATER/ SEDIMENT SAMPLE
(TP–XX)	TEST PIT
	DRAIN
IR SET	IRON ROD SET
SB FND	STONE BOUND FOUND
	PROPERTY LINE
	BUILDING SLAB FOOT PRINT
	UTILITY POLE (UP)
	SEWER MANHOLE
	HYDRANT
WG	WATER GATE
RET.	RETAINING
CEM. CONC.	CEMENT CONCRETE
CONC. BLK	CONCRETE BLOCK
FND	FOUND
X X	CHAIN LINK FENCE (CLF)
OHW	OVERHEAD WIRES
	TRENCH DRAIN
6	OUTSIDE BUILDING SAMPLE GRID DESIGNATION
	OUTSIDE BUILDING GRID BOUNDARY
	INSIDE BUILDING GRID BOUNDARY
A–1	INSIDE BUILDING SAMPLE GRID DESIGNATION
82.59	WATER TABLE ELEVATION AT MONITORING WELL
82.5	WATER TABLE ELEVATION CONTOUR

20 0 20 40
SCALE IN FEET

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DRAWN BY: SG
CHECKED BY:
221375.14 FIG–10.dwg

WATER TABLE ELEVATION MAP

CITY OF BOSTON
DEPARTMENT OF
NEIGHBORHOOD DEVELOPMENT

FORMER LEWIS CHEMICAL SITE

JOB NO.: 221375
DATE: FEBRUARY 2015
SCALE: AS NOTED
SHEET: OF

FIGURE 10

Z:\221375 Boston DND Environmental Consulting Services\wip\221375.01 – Lewis Chemical\Drawings\221375.14 FIG–10.dwg, Apr 20, 2015 – 9:52am

TABLES

Table 1: Soil Analytical Summary

Table 2: Groundwater Summary Data

Table 3: Summary of Sediment Analytical Results

Table 4: Data Usability Evaluation – Nobis Engineering Data

Table 1
Summary of Soil Analytical Data
Former Lewis Chemical Corporation
0 & 12-24 Fairmount Court
Hyde Park, Massachusetts

Grid				25	23	9	7	5	4	14	18	6	19	13	28	18	18	18	18	B-1	B-1	B-1	B-1	E-1	B-3	17	17	17	29	29	18	18	18	24	24	24	25	25	25	25	25	25	21	21	21	4	4	4	5	5	5	6
Soil Boring				ESM-01	ESM-02	ESM-03	ESM-04	ESM-05	ESM-06	ESM-07	ESM-08	ESM-09	ESM-10	ESM-11	ESM-12	ESM-13	ESM-13	ESM-14	ESM-14	ESM-15	ESM-15	ESM-15	ESM-15	ESM-16	ESMB-02	I-A-03	I-A-03	I-A-03	I-A-08	I-A-08	I-B-05	I-B-05	I-B-05	I-B-08	I-B-08	I-B-08	I-B-10	I-B-10	I-B-10	I-C-09	I-C-09	I-C-09	I-D-10	I-D-10	I-D-10	II-A-01	II-A-01	II-A-01	II-A-03	II-A-03	II-A-03	II-A-05
Sample ID				ESM-01*	ESM-02	ESM-03	ESM-04	ESM-05	ESM-06	ESM-07	ESM-08	ESM-09	ESM-10	ESM-11	ESM-12	ESM-13	ESM-13	ESM-14	ESM-14*	ESM-15	ESM-15	ESM-15	ESM-15	ESM-16	ESMB-02	I-A-03-S	I-A-03-M	I-A-03-D	I-A-08-S	I-A-08-M	I-B-05-S	I-B-05-M	I-B-05-D*	I-B-08-S	I-B-08-M*	I-B-08-D	I-B-10-S	I-B-10-M	I-B-10-D	I-C-09-S	I-C-09-M	I-C-09-D	I-D-10-S	I-D-10-M	I-D-10-D	II-A-01-S	II-A-01-M	II-A-01-D	II-A-03-S	II-A-03-M*	II-A-03-D	II-A-05-S
Sample Depth (feet)				16-18	14-16	10-12	10-12	13-15	11-13	10-12	12-14	14-15	12-13.5	10-12	12-14	1-3	12-14	7-9	15-17	0-2	3-5	6-8	13-15	4-8	0-5	0-0.5	8-10	10-12	0-0.5	12-14	0-0.5	14-16	19-20	0-0.5	12-14	19-20	0-0.5	13-15	18-20	0-0.5	13-15	15-17	0-0.5	5-7	12-14	0-0.5	5-7	14-15	14-15	0-0.5	5-7	14-15	0-0.5
Date Sampled				6/13/02	6/13/02	6/13/02	6/13/02	6/12/02	6/12/02	6/12/02	6/12/02	6/14/02	6/14/02	7/13/05	7/13/05	7/13/05	7/13/05	7/13/05	7/13/05	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05	8/30/05	8/30/05	8/30/05	8/30/05	8/30/05	8/30/05	8/30/05	8/30/05	8/30/05	8/30/05	8/30/05	8/30/05	8/30/05	8/30/05	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05
Analytes	**CAS No.**	**S-2/GW-3**	**UCL**																																																	
Volatile Organic Compounds (VOCs)																																																				
1,1,1-Trichloroethane	71-55-6	1,000	10,000	**13**	<0.140	<0.005	**0.01**	<0.005	**1.1**	**0.14**	**0.065**	**0.21**	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	**5.5**	--	--	<2.1	**12**	--	**4.7**	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	**0.8**	**85**	**0.073**	**0.79**	**3000**	**1.1**	--
1,1,2-Trichloroethane	79-00-5	200	5,000	<0.550	<0.140	<0.005	<0.005	**0.041**	<0.004	<0.005	<0.006	<0.005	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	<0.25	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
1,1-Dichloroethane	75-34-3	1,000	10,000	**0.47**	<0.140	<0.005	**0.045**	**0.18**	**0.055**	**0.022**	**0.3**	**0.041**	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	**0.38**	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	**0.022**	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
1,1-Dichloroethene	75-35-4	1,000	10,000	**1.5**	<0.140	**14**	<0.005	**1.1**	<0.004	<0.005	<0.006	**0.019**	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	<0.25	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
1,2,4-Trichlorobenzene	120-82-1	3,000	10,000	<0.550	<0.140	**0.24**	<0.005	<0.005	**0.006**	<0.005	<0.006	<0.005	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	<0.25	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
1,2,4-Trimethylbenzene	95-63-6	NS	NS	**0.5**	**0.14**	**6.9**	**0.004**	**0.16**	**0.004**	**0.006**	**0.26**	**0.003**	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	**0.4**	--	--	**3.7**	<5	--	<4.5	--	--	--	**0.41**	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	**1.2**	--
1,2-Dichlorobenzene	95-50-1	300	10,000	**2.6**	**0.23**	**16**	**0.014**	<0.005	**0.15**	<0.005	**0.1**	<0.005	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	<0.25	--	--	**5.5**	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
1,2-Dichloroethane	107-06-2	100	9,000	<0.550	<0.140	<0.005	**0.006**	**0.51**	**0.009**	**0.001**	**0.36**	**0.018**	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	**0.31**	--	--	<2.1	<5	--	<4.5	--	--	--	**0.68**	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
1,3,5-Trimethylbenzene	108-67-8	NS	NS	<0.550	**0.041**	**2.6**	<0.005	**0.053**	**0.028**	<0.005	**0.074**	<0.005	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	<0.25	--	--	<2.1	<5	--	<4.5	--	--	--	**0.42**	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	**0.65**	--
1,4-Dichlorobenzene	106-46-7	400	10,000	<0.550	<0.140	**1.2**	<0.005	<0.005	**0.013**	<0.005	<0.006	<0.005	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	<0.25	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
1,4-Dioxane	123-91-1	90	5,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	78-93-3	400	10,000	<0.550	<0.140	<0.005	**0.005**	<0.005	<0.004	**0.021**	<0.006	**0.012**	<1.600	<2.9	<2.6	<25	<6.4	<5.8	<3.4	--	<2.5	--	--	<21	<50	--	<45	--	--	--	<3.1	--	<0.05	--	<0.051	--	--	--	--	--	--	--	--	--	--	<3.4	<120	<0.052	<2.6	<1400	<4.7	--
4-Isopropyltoluene	99-87-6	NS	NS	**0.54**	<0.140	**2.7**	<0.005	**0.019**	**0.032**	<0.005	**3.3**	<0.005	**2.8**	<0.29	<0.26	<2.5	**9.4**	<0.58	<0.34	--	<0.25	--	--	**16**	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
4-Methyl-2-pentanone	108-10-1	NS	NS	<0.550	<0.140	<0.005	<0.005	**0.14**	<0.004	<0.005	<0.006	<0.005	<1.600	<2.9	<2.6	<25	<6.4	<5.8	<3.4	--	<2.5	--	--	<21	<50	--	<45	--	--	--	<3.1	--	<0.05	--	<0.051	--	--	--	--	--	--	--	--	--	--	<3.4	<120	<0.052	<2.6	<1400	<4.7	--
Acetone	67-64-1	400	10,000	<0.550	<0.140	<0.005	<0.005	**0.091**	**0.056**	**0.061**	<0.006	**0.034**	<1.600	<2.9	<2.6	<25	<6.4	<5.8	<3.4	--	<2.5	--	--	<21	<50	--	<45	--	--	--	<3.1	--	<0.2	--	<0.2	--	--	--	--	--	--	--	--	--	--	<3.4	<120	<0.21	<2.6	<1400	<4.7	--
Benzene	71-43-2	200	10,000	<0.550	<0.140	<0.005	<0.005	<0.005	<0.004	<0.005	<0.006	<0.005	<1.600	<0.10	<0.26	<0.41	<0.64	<0.10	<0.34	--	<0.25	<0.40	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
Bromoform	75-25-2	800	10,000	<0.550	<0.140	<0.005	**0.006**	<0.005	<0.004	**0.004**	<0.006	**0.005**	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	<0.25	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
Carbon Disulfide	75-15-0	NS	NS	<0.550	<0.140	<0.005	<0.005	<0.005	<0.004	**0.004**	**0.08**	**0.003**	<1.600	<2.9	<2.6	<25	<6.4	<5.8	<3.4	--	<2.5	--	--	<21	<50	--	<45	--	--	--	<3.1	--	<0.05	--	<0.051	--	--	--	--	--	--	--	--	--	--	<3.4	<120	<0.052	<2.6	<1400	<4.7	--
Chlorobenzene	108-90-7	100	10,000	<0.550	<0.140	**0.23**	<0.005	**0.26**	**0.005**	<0.005	**0.096**	<0.005	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	<0.25	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
Chloroethane	75-00-3	NS	NS	<0.550	<0.140	<0.005	<0.005	<0.005	**0.004**	<0.005	<0.006	<0.005	<1.600	<0.58	<0.53	<5.1	<1.3	<1.2	<0.68	--	<0.5	--	--	<4.3	<9.9	--	<8.9	--	--	--	<0.62	--	**0.037**	--	<0.01	--	--	--	--	--	--	--	--	--	--	<0.68	<24	<0.01	<0.53	<280	<0.93	--
cis-1,2-Dichloroethene	156-59-2	500	5,000	**1.5**	<0.140	<0.005	**0.058**	**0.8**	**0.4**	**0.062**	**0.96**	**0.11**	**0.55**	<0.29	<0.26	<2.5	**3.4**	**0.68**	<0.34	--	**3.1**	--	--	<2.1	**5.4**	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	**20**	<0.005	**0.32**	<140	<0.47	--
Dichlorodifluoromethane	75-71-8	NS	NS	<0.550	<0.140	**0.016**	<0.005	<0.005	<0.004	<0.005	<0.006	<0.005	<1.600	<0.58	<0.53	<5.1	<1.3	<1.2	<0.68	--	<0.5	--	--	<4.3	<9.9	--	<8.9	--	--	--	<0.62	--	<0.01	--	<0.01	--	--	--	--	--	--	--	--	--	--	<0.68	<24	<0.01	<0.53	<280	<0.93	--
Ethylbenzene	100-41-4	1,000	10,000	**0.31**	**1**	**10**	**0.053**	**0.15**	**0.073**	**0.012**	**46**	**0.003**	**46**	<0.10	<0.26	<0.41	**82**	**7.1**	**0.88**	--	<0.25	**4.5**	--	**9.5**	<5	--	**0.27**	--	--	--	<0.31	--	**0.1**	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	**0.61**	--
Hexachlorobutadiene	87-68-3	NS	1,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	98-82-8	NS	NS	<0.550	<0.140	**0.64**	<0.005	**0.012**	**0.004**	**0.004**	**0.017**	<0.005	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	<0.25	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
Methyl tert-butyl ether	1634-04-4	500	5,000	<0.550	<0.140	<0.005	**0.002**	**0.003**	**0.002**	**0.002**	<0.006	**0.002**	<1.600	<0.10	<0.26	<0.41	<0.64	<0.10	<0.34	--	<0.25	<0.40	--	<2.1	<5	--	<0.14	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
Methylene Chloride	75-09-2	NS	NS	**1.2**	<0.140	<0.005	**0.019**	**0.4**	**0.019**	**0.009**	**0.14**	**0.03**	<1.600	<1.2	<1.1	<10	<2.6	<2.3	<1.4	--	<1	--	--	<8.6	<20	--	<18	--	--	--	<1.2	--	<0.05	--	<0.051	--	--	--	--	--	--	--	--	--	--	<1.4	<48	<0.052	<1.1	<550	<1.9	--
Naphthalene**	91-20-3	1,000	10,000	<0.550	<0.140	**1.9**	**0.003**	**0.064**	**0.011**	**0.004**	**0.15**	**0.002**	<1.600	<0.29	**2.8**	<2.5	<0.64	<0.58	<0.34	--	<0.25	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
n-Butylbenzene	104-51-8	NS	NS	<0.550	<0.140	<0.005	<0.005	<0.005	<0.004	<0.005	<0.006	<0.005	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	**1.9**	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
n-Propylbenzene	103-65-1	NS	NS	**0.2**	<0.140	**2.7**	<0.005	**0.026**	**0.013**	<0.005	**0.026**	<0.005	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	<0.25	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
sec-Butylbenzene	135-98-8	NS	NS	<0.550	<0.140	**0.63**	<0.005	**0.032**	**0.039**	<0.005	**0.01**	<0.005	<1.600	<0.29	<0.26	<2.5	**0.83**	<0.58	<0.34	--	**0.3**	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	**2.4**	--
Styrene	100-42-5	300	10,000	<0.550	<0.140	**0.12**	<0.005	<0.005	<0.004	<0.005	<0.006	<0.005	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	<0.25	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
tert-Butylbenzene	98-06-6	NS	NS	<0.550	<0.140	**0.16**	<0.005	<0.005	<0.004	<0.005	<0.006	<0.005	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	<0.25	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
Tetrachloroethene	127-18-4	200	10,000	**22**	<0.140	<0.005	**0.006**	**7.5**	**0.77**	**0.097**	**0.69**	**0.004**	**0.96**	<0.29	<0.26	**53**	<0.64	<0.58	<0.34	--	**2.1**	--	--	<2.1	**56**	--	**31**	--	--	--	**0.59**	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	**1.2**	<12	**0.016**	**1.7**	**1600**	**1.1**	--
Toluene**	108-88-3	1,000	10,000	**1.5**	**1.1**	**300**	**0.031**	**3**	**0.08**	**0.11**	<0.006	**0.069**	**10**	<0.10	<0.26	<0.41	**15**	**3.6**	**2.4**	--	**1.2**	**38**	--	**36**	<5	--	**0.67**	--	--	--	**0.33**	--	**0.085**	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	**0.29**	**680**	<0.47	--
trans-1,2-Dichloroethene	156-60-5	1,000	10,000	<0.550	<0.140	<0.005	**0.002**	<0.005	**0.002**	**0.003**	**0.03**	**0.004**	<1.600	<0.29	<0.26	<2.5	<0.64	<0.58	<0.34	--	<0.25	--	--	<2.1	<5	--	<4.5	--	--	--	<0.31	--	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	<140	<0.47	--
Trichloroethene	79-01-6	60	600	**9.3**	<0.140	**190**	**0.009**	**14**	**2.1**	**0.061**	**0.12**	**0.014**	<1.600	**0.48**	<0.26	**3.9**	<0.64	<0.58	<0.34	--	**3**	--	--	<2.1	**67**	--	**19**	--	--	--	**2.2**	--	<0.005	--	**0.006**	--	--	--	--	--	--	--	--	--	--	**1.9**	**140**	**0.067**	**1.8**	**1900**	<0.47	--
Trichlorofluoromethane	75-69-4	NS	NS	<0.550	<0.140	**1.6**	<0.005	<0.005	<0.004	<0.005	<0.006	<0.005	<1.600	<0.58	<0.53	<5.1	<1.3	<1.2	<0.68	--	<0.5	--	--	<4.3	<9.9	--	<8.9	--	--	--	<0.62	--	<0.01	--	<0.01	--	--	--	--	--	--	--	--	--	--	<0.68	<24	<0.01	<0.53	<280	<0.93	--
Vinyl Chloride	75-01-4	7	600	<0.550	<0.140	**1.2**	**0.012**	**0.006**	**0.006**	<0.005	**0.006**	<0.005	<1.600	<0.58	<0.53	<5.1	<1.3	<1.2	<0.68	--	<0.5	--	--	<4.3	<9.9	--	<8.9	--	--	--	<0.62	--	<0.01	--	**0.012**	--	--	--	--	--	--	--	--	--	--	<0.68	<24	<0.01	<0.53	<280	<0.93	--
Xylenes, Total**	1330-20-7	1,000	10,000	**1.4**	**3.8**	**43**	**0.09**	**0.31**	**0.22**	**0.008**	**83**	**0.01**	**82**	<0.10	<0.26	<0.41	**147**	**12.8**	**1.1**	--	**0.49**	**15**	--	**35.9**	<5	--	<0.14	--	--	--	<0.31	--	**0.103**	--	<0.005	--	--	--	--	--	--	--	--	--	--	<0.34	<12	<0.005	<0.26	**160**	**0.63**	--
Volatile Petroleum Hydrocarbons (VPH)																																																			
C5-C8 Aliphatics	NA_c5-8	500	5,000	--	--	--	--	--	--	--	--	--	--	<1.0	--	**17**	<27	**4.9**	--	--	--	**190**	--	--	--	--	**5.4**	--	--	--	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C9-C12 Aliphatics	NA_c9-12	3,000	20,000	--	--	--	--	--	--	--	--	--	--	<1.0	--	**6.2**	**110**	**4.4**	--	--	--	**91**	--	--	--	--	<1.4	--	--	--	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C9-C10 Aromatics	NA_c9-10	500	5,000	--	--	--	--	--	--	--	--	--	--	<1.0	--	<4.1	**150**	**3.6**	--	--	--	**97**	--	--	--	--	<1.4	--	--	--	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons (EPH)																																																			
C9-C18 Aliphatics	NA_c9-18	3,000	20,000	--	--	--	--	--	--	--	--	--	--	<32	--	<34	<39	<30	--	--	--	**56**	--	--	--	--	<36	--	--	--	<33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C19-C36 Aliphatics	NA_c19-36	5,000	20,000	--	--	--	--	--	--	--	--	--	--	<32	--	**56**	**90**	<30	--	--	--	**120**	--	--	--	--	**61**	--	--	--	<33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C11-C22 Aromatics	NA_c11-22	3,000	10,000	--	--	--	--	--	--	--	--	--	--	**33**	--	**88**	**78**	<30	--	--	--	**98**	--	--	--	--	<36	--	--	--	<33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	500	5,000	--	--	--	--	--	--	--	--	--	--	<0.53	--	<0.57	<0.65	<0.50	--	--	--	<0.56	--	--	--	--	<0.59	--	--	--	<0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	3,000	10,000	--	--	--	--	--	--	--	--	--	--	<0.53	--	<0.57	<0.65	<0.50	--	--	--	<0.56	--	--	--	--	<0.59	--	--	--	<0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	10	10,000	--	--	--	--	--	--	--	--	--	--	<0.53	--	<0.57	<0.65	<0.50	--	--	--	<0.56	--	--	--	--	<0.59	--	--	--	<0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	3,000	10,000	--	--	--	--	--	--	--	--	--	--	**0.99**	--	**3.1**	**2.4**	<0.50	--	--	--	<0.56	--	--	--	--	<0.59	--	--	--	<0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	56-55-3	40	3,000	--	--	--	--	--	--	--	--	--	--	<0.53	--	**1.3**	<0.65	<0.50	--	--	--	<0.56	--	--	--	--	<0.59	--	--	--	<0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	50-32-8	7	300	--	--	--	--	--	--	--	--	--	--	**0.64**	--	**2.8**	<0.65	<0.50	--	--	--	<0.56	--	--	--	--	**0.63**	--	--	--	<0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	205-99-2	40	3,000	--	--	--	--	--	--	--	--	--	--	**0.93**	--	**3.6**	**0.81**	<0.50	--	--	--	<0.56	--	--	--	--	**0.66**	--	--	--	<0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	191-24-2	3,000	10,000	--	--	--	--	--	--	--	--	--	--	**0.71**	--	**1.9**	**4.2**	<0.50	--	--	--	<0.56	--	--	--	--	<0.59	--	--	--	<0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	207-08-9	400	10,000	--	--	--	--	--	--	--	--	--	--	**0.64**	--	**1.6**	<0.65	<0.50	--	--	--	<0.56	--	--	--	--	<0.59	--	--	--	<0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	400	10,000	--	--	--	--	--	--	--	--	--	--	**1.1**	--	**3.3**	**2.3**	<0.50	--	--	--	<0.56	--	--	--	--	**0.64**	--	--	--	<0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	53-70-3	4	300	--	--	--	--	--	--	--	--	--	--	<0.53	--	<0.57	<0.65	<0.50	--	--	--	<0.56	--	--	--	--	<0.59	--	--	--	<0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	3,000	10,000	--	--	--	--	--	--	--	--	--	--	**1.8**	--	**6.8**	**1.4**	<0.50	--	--	--	<0.56	--	--	--	--	**1**	--	--	--	<0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	3,000	10,000	--	--	--	--	--	--	--	--	--	--	<0.53	--	<0.57	<0.65	<0.50	--	--	--	<0.56	--	--	--	--	<0.59	--	--	--	<0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-

Table 1
Summary of Soil Analytical Data
Former Lewis Chemical Corporation
0 & 12-24 Fairmount Court
Hyde Park, Massachusetts

Grid	6	6	8	8	8	9	9	9	10	10	10	10	14	14	2	2	2	16	16	16	3	3	3	A-2	18	17	14	16	18	3	3	3	3	20	21	21	22	22	22	22	27	27	23	23	28	28	28	28	28
Soil Boring	II-A-05	II-A-05	II-A-07	II-A-07	II-A-07	II-A-09	II-A-09	II-A-09	II-A-11	II-A-11	II-A-11	II-A-11	III-C-02	III-C-02	III-E-02	III-E-02	III-E-02	III-E-05	III-E-05	III-E-05	III-F-03	III-F-03	III-F-03	TKFMDR	TP-01B	TP-02	TP-03	TP-04	TP-06	GP-1	GP-1	GP-2	GP-2	GP-3	GP-4	GP-4	GP-5	GP-5	GP-6	GP-6	GP-7	GP-7	GP-8	GP-8	GP-9	GP-9	GP-10	GP-10	GP-11
Sample ID	II-A-05-M	II-A-05-D	II-A-07-S	II-A-07-M	II-A-07-D	II-A-09-S	II-A-09-M	II-A-09-D	II-A-11-S	II-A-11-M	II-A-11-M2	II-A-11-D	III-C-02-M	III-C-02-D	III-E-02-S	III-E-02-M	III-E-02-D	III-E-05-S	III-E-05-M	III-E-05-D	III-F-03-S	III-F-03-M	III-F-03-D	TKFMDR	TP-01B	TP-02	TP-03	TP-04	TP-06	GP-1/0-3'	GP-1/3-5'	GP-2/0-3'	GP-2/3-5'	GP-3/0-3'	GP-4/0-3'	GP-4/3-5'	GP-5/0-3'	GP-5/6-8'	GP-6/0-3'	GP-6/6-8'	GP-7/0-3'	GP-7/7-10'	GP-8/0-3'	GP-8/10-12'	GP-9/0-3'	GP-9/9-12'	GP-10/0-3'	GP-10/10-12'	GP-11/0-3'
Sample Depth (feet)	4-6	8-10.5	0-0.5	5-7	12-13	0-0.5	6-8	13-14	0-0.5	9-10	14-15	18-20	8.5-10	13-14	0-0.5	5-7	17-19	0-0.5	5-10	10-15	0-0.5	5-7	17-19		9	6	5.5	4	2.5	0-3	3-5	0-3	3-5	0-3	0-3	3-5	0-3	6-8	0-3	6-8	0-3	7-10	0-3	10-12	0-3	10-12	0-3	10-12	0-3
Date Sampled	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05	8/30/05	8/30/05	8/30/05	8/30/05	8/30/05	8/30/05	8/30/05	8/31/05	8/31/05	8/31/05	8/31/05	8/31/05	9/1/05	9/1/05	9/1/05	9/1/05	9/1/05	9/1/05	6/14/02	6/1/05	6/1/05	6/1/05	6/1/05	6/1/05	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08	11/25/08
Analytes	**CAS No.**																																																
Volatile Organic Compounds (VOCs)																																																	
1,1,1-Trichloroethane	71-55-6	--	<0.65	--	--	<0.005	--	<0.55	**44**	--	**0.96**	<2.6	**0.27**	**4.8**	--	--	<0.34	--	--	--	--	--	--	**0.79**	**2.4**	<0.006	**0.96**	<6.8	<0.005	<0.29	**15**	<38	**0.7**	**0.7**	**0.6**	**0.9**	<0.2	**0.5**	**0.4**	<0.2	**0.3**	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	--	--	--	<0.1
1,1,2-Trichloroethane	79-00-5	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	<0.095	<6.8	<0.005	<0.29	<1.8	<38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	--	<0.65	--	--	**0.014**	--	<0.55	<6.1	--	<0.59	**6.1**	**0.64**	**8.5**	--	--	<0.34	--	--	--	--	--	--	<0.3	**3.3**	<0.006	**1.5**	<6.8	<0.005	<0.29	**40**	<38	**0.8**	**3**	**0.4**	**1.6**	<0.2	**0.4**	<0.2	<0.2	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.1
1,1-Dichloroethene	75-35-4	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	<0.095	<6.8	<0.005	<0.29	<1.8	<38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	<0.095	<6.8	<0.005	<0.29	<1.8	<38	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	--	--	--	<0.1
1,2,4-Trimethylbenzene	95-63-6	--	<0.65	--	--	<0.005	--	**1.3**	<6.1	--	**3.4**	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	**0.65**	<0.006	**0.25**	<6.8	<0.005	<0.29	<1.8	<38	**1.1**	<0.2	<0.2	**1.7**	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	--	--	--	<0.1
1,2-Dichlorobenzene	95-50-1	--	<0.65	--	--	**0.008**	--	**1.9**	**19**	--	**1.7**	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	**2.1**	<0.006	**1.2**	<6.8	<0.005	<0.29	<1.8	<38	**2.9**	<0.2	<0.2	**0.3**	**0.9**	<0.2	**0.6**	<0.2	<0.2	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	--	--	--	<0.1
1,2-Dichloroethane	107-06-2	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	<0.095	<6.8	<0.005	<0.29	<1.8	<38	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	--	--	--	<0.1
1,3,5-Trimethylbenzene	108-67-8	--	<0.65	--	--	<0.005	--	**0.68**	<6.1	--	**2**	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	**0.37**	<0.006	**0.15**	<6.8	<0.005	<0.29	<1.8	<38	**0.6**	<0.2	<0.2	**0.7**	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	--	--	--	<0.1
1,4-Dichlorobenzene	106-46-7	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<3	<3.3	<0.055	<0.095	<68	<0.05	<2.9	<18	<380	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	--	--	--	<0.1
1,4-Dioxane	123-91-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	78-93-3	--	<6.5	--	--	<0.05	--	<5.5	<61	--	<5.9	<26	<2.6	<19	--	--	<3.4	--	--	--	--	--	--	<3	<3.3	<0.055	<0.095	<68	<0.05	<2.9	<18	<380	<0.6	**2**	<0.5	<0.6	<0.5	<0.4	<0.4	<0.4	<0.6	<0.4	<0.7	<0.4	<0.4	<0.6	--	--	--	<0.4
4-Isopropyltoluene	99-87-6	--	<0.65	--	--	<0.005	--	**5**	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	<0.095	<6.8	<0.005	<0.29	<1.8	<38	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	--	--	--	<0.1
4-Methyl-2-pentanone	108-10-1	--	<6.5	--	--	<0.05	--	<5.5	<61	--	<5.9	<26	<2.6	<19	--	--	<3.4	--	--	--	--	--	--	<3	<3.3	<0.055	<0.095	<68	<0.05	<2.9	<18	<380	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	67-64-1	--	<6.5	--	--	<0.2	--	<5.5	<61	--	<5.9	<26	<2.6	<19	--	--	<3.4	--	--	--	--	--	--	<3	<3.3	<0.22	<0.095	<68	<0.2	<2.9	<18	<380	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	<0.095	<0.14	<0.005	<0.13	<0.34	<0.13	**30**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	--	--	--	**0.2**
Bromoform	75-25-2	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	<0.095	<6.8	<0.005	<0.29	<1.8	<38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	75-15-0	--	<6.5	--	--	<0.05	--	<5.5	<61	--	<5.9	<26	<2.6	<19	--	--	<3.4	--	--	--	--	--	--	<3	<3.3	<0.055	<0.095	<68	<0.5	<2.9	<18	<380	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	<0.095	<6.8	<0.005	<0.29	<1.8	<38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	75-00-3	--	<1.3	--	--	<0.01	--	<1.1	<12	--	<1.2	<5.2	<0.52	<3.9	--	--	<0.67	--	--	--	--	--	--	<0.61	<0.66	<0.011	<0.095	<14	<0.01	<0.58	<3.5	<76	<0.2	**3.8**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	--	--	--	<0.1
cis-1,2-Dichloroethene	156-59-2	--	<0.65	--	--	<0.005	--	**0.58**	**47**	--	**1.3**	**33**	**4.4**	**23**	--	--	**0.89**	--	--	--	--	--	--	<0.3	**3.6**	<0.006	**7.2**	<6.8	<0.005	**0.59**	**63**	<38	**7.7**	**2.6**	**2.8**	**9.6**	<0.2	<0.2	<0.2	<0.2	**2.5**	<0.1	<0.1	<0.1	**0.9**	<0.1	<0.1	**0.3**	--	--	--	<0.1
Dichlorodifluoromethane	75-71-8	--	<1.3	--	--	<0.01	--	<1.1	<12	--	<1.2	<5.2	<0.52	<3.9	--	--	<0.67	--	--	--	--	--	--	<0.61	<0.66	<0.011	<0.095	<14	<0.01	<0.58	<3.5	<76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	--	<0.65	--	--	**0.007**	--	**4**	**8**	--	<0.59	<2.6	<0.26	<1.9	--	--	**0.4**	--	--	--	--	--	--	<0.3	**2.7**	<0.006	**0.11**	**0.55**	<0.005	<0.13	<0.34	**0.18**	**1.5**	**1.1**	<0.2	**3.5**	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	--	--	--	<0.1
Hexachlorobutadiene	87-68-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	98-82-8	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	<0.095	<6.8	<0.005	<0.29	<1.8	<38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-buty ether	1634-04-4	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	<0.095	<0.14	<0.005	<0.13	<0.34	<0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	75-09-2	--	<2.6	--	--	<0.05	--	<2.2	<24	--	<2.3	<10	<1	<7.7	--	--	<1.3	--	--	--	--	--	--	<1.2	<1.3	<0.055	**3.7**	<27	<0.5	<1.2	<7.1	<150	**0.5**	**1.1**	<0.4	**1.6**	<0.5	<0.4	**0.7**	<0.4	<0.3	<0.3	<0.4	<0.4	<0.6	<0.3	<0.4	<0.5	--	--	--	<0.4
Naphthalene**	91-20-3	--	<0.65	--	--	<0.005	--	**1.1**	<6.1	--	**2.2**	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	**0.16**	<0.55	<0.005	<0.29	<0.57	<0.56	**0.2**	**0.1**	<0.1	**0.5**	**1.2**	<0.1	**0.1**	<0.4	**2.1**	<0.3	<0.4	<0.4	**0.3**	<0.3	<0.4	**0.7**	<2.1	<0.5	<0.5	<0.4
n-Butylbenzene	104-51-8	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	**0.35**	<0.006	<0.095	<6.8	<0.005	<0.29	<1.8	<38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	103-65-1	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	**0.73**	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	**0.026**	<6.8	<0.005	<0.29	<1.8	<38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	135-98-8	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	<0.095	<6.8	<0.005	<0.29	<1.8	<38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	100-42-5	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	<0.095	<6.8	<0.005	<0.29	<1.8	<38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butylbenzene	98-06-6	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<3	<3.3	<0.055	<0.095	<68	<0.05	<2.9	<18	<380	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	--	<0.65	--	--	<0.005	--	<0.55	**26**	--	<0.59	<2.6	<0.26	**8**	--	--	<0.34	--	--	--	--	--	--	**0.91**	<0.33	<0.006	**0.64**	**73**	**0.011**	**0.46**	**11**	**360**	**2.6**	**1.5**	**4.7**	**1.7**	**0.4**	**6.4**	**3.4**	**0.2**	**2.5**	**0.3**	**0.9**	<0.1	<0.2	<0.1	<0.1	**0.2**	--	--	--	<0.1
Toluene**	108-88-3	--	**13**	--	--	<0.005	--	**1.6**	**110**	--	<0.59	**12**	**1.5**	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	**5**	<0.006	**1.2**	<0.14	<0.005	<0.13	**0.39**	<0.13	**15**	**26**	**0.5**	**20**	<0.2	**0.5**	**0.9**	<0.2	<0.1	<0.1	<0.1	<0.1	< 0.2	<0.1	<0.1	<0.2	--	--	--	<0.1
trans-1,2-Dichloroethene	156-60-5	--	<0.65	--	--	<0.005	--	<0.55	<6.1	--	<0.59	<2.6	<0.26	<1.9	--	--	<0.34	--	--	--	--	--	--	<0.3	<0.33	<0.006	<0.095	<6.8	<0.005	<0.29	<1.8	<38	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	--	--	--	<0.1
Trichloroethene	79-01-6	--	<0.65	--	--	**0.005**	--	<0.55	**14**	--	<0.59	<2.6	<0.26	**19**	--	--	<0.34	--	--	--	--	--	--	**1**	<0.33	<0.006	**2.2**	**23**	**0.021**	**1.5**	**39**	<38	**2.2**	**0.4**	**18**	**1.2**	**0.2**	**2**	**1.1**	<0.2	**2.1**	<0.1	**0.5**	<0.1	**6.6**	<0.1	<0.1	**1.6**	--	--	--	<0.1
Trichlorofluoromethane	75-69-4	--	<1.3	--	--	<0.01	--	<1.1	<12	--	<1.2	<5.2	<0.52	<3.9	--	--	<0.67	--	--	--	--	--	--	<0.61	<0.66	<0.011	<0.095	<14	<0.01	<0.58	<3.5	<76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	75-01-4	--	<1.3	--	--	<0.01	--	<1.1	<12	--	<1.2	<5.2	**0.94**	<3.9	--	--	<0.67	--	--	--	--	--	--	<0.61	<0.66	<0.011	<0.095	<14	<0.01	<0.58	<3.5	<76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes, Total**	1330-20-7	--	**1.3**	--	--	**0.009**	--	**14.3**	**31.3**	--	**0.78**	**5.4**	**0.3**	<1.9	--	--	**1.34**	--	--	--	--	--	--	<0.3	**8.5**	<0.006	**0.32**	**2.89**	<0.005	<0.13	**0.48**	**0.54**	**3.2**	**2.1**	<0.2	**7.3**	<0.2	<0.2	<0.2	**0.2**	<0.1	<0.1	<0.1	**0.2**	<0.2	**0.2**	**0.2**	<0.2	--	--	--	<0.1
Volatile Petroleum Hydrocarbons (VPH)																																																		
C5-C8 Aliphatics	NA_c5-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**44**	<1.1	**4.4**	**81**	**110**	**23**	**24**	**60**	**26**	<9	**16**	<9	--	**8**	--	--	<7	<11	<7	--	<9	--	--	--	<7	--	--	--	<7
C9-C12 Aliphatics	NA_c9-12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**21**	<1.1	<1.3	**7.9**	**2**	<10	<8	<8	**12**	<9	<8	<9	--	<7	--	--	<7	<11	<7	--	<9	--	--	--	<7	--	--	--	<7
C9-C10 Aromatics	NA_c9-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**42**	<1.1	<1.3	<3.4	<1.3	**32**	<8	<8	**49**	<9	<8	<9	--	<7	--	--	<7	**18**	<7	--	<9	--	--	--	<7	--	--	--	<7
Extractable Petroleum Hydrocarbons (EPH)																																																		
C9-C18 Aliphatics	NA_c9-18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**150**	<35	<32	**78**	<34	<120	<120	<120	<110	<110	<110	<110	--	<110	--	--	<110	**210**	--	<110	<110	<100	<110	<110	<100	--	--	--	<100
C19-C36 Aliphatics	NA_c19-36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**410**	<35	**64**	**280**	**86**	**490**	<120	**190**	**240**	<110	<110	<110	--	<110	--	--	<110	<120	--	**110**	<110	**140**	<110	<110	<100	--	--	--	<100
C11-C22 Aromatics	NA_c11-22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**230**	<35	**62**	**320**	**110**	**220**	<120	**170**	**140**	<110	<110	<110	--	<110	--	--	<110	<120	--	**110**	<110	**170**	**270**	**100**	<100	--	--	--	<100
2-Methylnaphthalene	91-57-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.55	<0.59	<0.54	**0.66**	<0.56	**0.2**	<0.1	<0.1	**0.3**	**0.3**	<0.1	<0.1	--	**0.2**	--	--	<0.5	**0.2**	--	<2.1	<0.1	<2.1	<0.5	<0.5	<0.5	--	--	--	<0.5
Acenaphthene	83-32-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.55	<0.59	<0.54	**1.1**	<0.56	**0.3**	<0.1	<0.1	<0.1	**1**	**0.2**	<0.1	--	**0.8**	--	--	<0.5	**0.2**	--	<2.1	<0.1	<2.1	**0.8**	<0.5	<0.5	--	--	--	<0.5
Acenaphthylene	208-96-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.55	<0.59	<0.54	<0.57	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--	<0.1	--	--	<0.5	<0.1	--	<2.1	<0.1	<2.1	**0.6**	<0.5	<0.5	--	--	--	<0.5
Anthracene	120-12-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.9**	<0.59	**1.6**	**1.2**	**2.9**	**1.3**	**0.3**	**0.1**	**0.2**	**1.5**	**0.4**	<0.1	--	**1.5**	--	--	<0.5	**0.6**	--	<2.1	**0.3**	<2.1	**2.8**	<0.5	<0.5	--	--	--	<0.5
Benzo(a)anthracene	56-55-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.82**	<0.59	**0.6**	<0.57	<0.56	**3.4**	**1.1**	**1.1**	**0.6**	**4.6**	**1.2**	**0.4**	--	**4.3**	--	--	**1**	**1.8**	--	<2.1	**0.7**	<2.1	**5.6**	<0.5	**0.8**	--	--	--	<0.5
Benzo(a)pyrene	50-32-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.6**	<0.59	**1.7**	**1.4**	**3.3**	**2.3**	**0.8**	**0.9**	**0.5**	**3.7**	**1.1**	**0.4**	--	**3.2**	--	--	**0.8**	**1.5**	--	<2.1	**0.5**	<2.1	**4.2**	<0.5	**0.7**	--	--	--	<0.5
Benzo(b)fluoranthene	205-99-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.4**	<0.59	**1.6**	**1.5**	**3.6**	**2.6**	**0.9**	**1.4**	**0.6**	**4.9**	**1.3**	**0.5**	--	**2.9**	--	--	**0.8**	**1.6**	--	<2.1	**0.4**	<2.1	**4.3**	<0.5	**0.9**	--	--	--	<0.5
Benzo(g,h,i)perylene	191-24-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.7**	<0.59	**1.2**	**1.2**	**2.2**	**0.5**	**0.6**	**0.3**	**0.1**	**0.8**	**0.3**	**0.2**	--	**1.1**	--	--	<0.5	**0.4**	--	<2.1	**0.3**	<2.1	**1.1**	<0.5	<0.5	--	--	--	<0.5
Benzo(k)fluoranthene	207-08-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.4**	<0.59	**1.3**	**1.1**	**2.5**	**1.9**	**0.6**	**0.9**	**0.5**	**3.4**	**1**	**0.3**	--	**3**	--	--	**0.9**	**1.4**	--	<2.1	**0.4**	<2.1	**3.6**	<0.5	<0.5	--	--	--	<0.5
Chrysene	218-01-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.4**	<0.59	**1.9**	**2.1**	**2.7**	**3.4**	**1.1**	**1.3**	**0.6**	**4.4**	**1.2**	**0.4**	--	**4.4**	--	--	**0.8**	**1.7**	--	<2.1	**0.7**	<2.1	**5.1**	<0.5	**0.8**	--	--	--	<0.5
Dibenzo(a,h)anthracene	53-70-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.72**	<0.59	<0.54	<0.57	**0.58**	**0.2**	**0.2**	<0.1	<0.1	**0.4**	<0.1	<0.1	--	**0.5**	--	--	<0.5	**0.2**	--	<2.1	<0.1	<2.1	<0.5	<0.5	<0.5	--	--	--	<0.5
Fluoranthene	206-44-0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.5**	<0.59	**3.6**	**2.2**	**4.6**	**7.7**	**2.6**	**2.8**	**1.4**	**14**	**2.9**	**0.7**	--	**12**	--	--	**1.8**	**4.4**	--	<2.1	**1.5**	<2.1

Table 1
Summary of Soil Analytical Data
Former Lewis Chemical Corporation
0 & 12-24 Fairmount Court
Hyde Park, Massachusetts

Grid	28	13	13	B-3	B-3	B-3	B-3	B-1	B-1	B-3	B-3	C-3	C-3	C-1	C-1	B-1	B-1	D-1	D-1	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	5	6	6	6	6	6
Soil Boring	GP-11	GP-12	GP-12	SS-1	SS-1	SS-2	SS-2	SS-3	SS-3	SS-4	SS-4	SS-5	SS-5	SS-6	SS-6	SS-7	SS-7	SS-8	SS-8	G-2	G-2	G-2	G-2	G-2	G-3	G-3	G-3	G-3	G-3	G-4	G-4	G-4	G-4	G-4	G-4	G-5	G-5	G-5	G-5	G-5	G-5	G-6	G-6	G-6	G-6	G-6
Sample ID	GP-11/0-12'	GP-12/0-3'	GP-12/10-12'	SS-1/0-3'	SS-1/3-4'	SS-2/0-3'	SS-2/3-5'	SS-3/0-3'	SS-3/3-5'	SS-4/0-3'	SS-4/3-4'	SS-5/0-3'	SS-5/3-5'	SS-6/0-3'	SS-6/3-5'	SS-7/0-3'	SS-7/3-4'	SS-8/0-3'	SS-8/3-5'	G-2 (0.5)	G-2 (2.5)	G-2 (5)	G-2 (10)	G-2 (20)	G-3 0.5	G-3 2.5	G-3 5	G-3 10	G-3 15	G-3 20	G-4 0.5	G-4 2.5	G-4 5	G-4 10	G-4 15	G-4 20	G-4 20+	G-5 0.5	G-5 2.5	G-5 5	G-5 10	G-5 15	G-5 20	G-6 0.5	G-6 2.5	G-6 5	G-6 10	G-6 15
Sample Depth (feet)	10-12	0-3	10-12	0-3	3-4	0-3	3-5	0-3	3-5	0-3	3-4	0-3	3-5	0-3	3-5	0-3	3-4	0-3	3-5	0.5	2.5	5	10	20	0-0.5	0.5-2.5	2.5-5	5-10	10-15	15-20	0-0.5	0.5-2.5	2.5-5	5-10	10-15	15-20	20-21	0-0.5	0.5-2.5	2.5-5	5-10	10-15	15-16	0-0.5	0.5-2.5	2.5-5	5-10	10-15
Date Sampled	11/25/08	11/25/08	11/25/08	11/26/08	11/26/08	11/26/08	11/26/08	11/26/08	11/26/08	11/26/08	11/26/08	11/26/08	11/26/08	11/26/08	11/26/08	11/26/08	11/26/08	11/26/08	11/26/08	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/30/13	9/27/13	9/27/13	9/27/13	9/27/13	9/27/13
Analytes	CAS No.																																													
Volatile Organic Compounds (VOCs)																																														
1,1,1-Trichloroethane	71-55-6	--	<0.1	--	4.1	0.2	59	76	370	160	100	1300	3.6	0.4	0.9	2.4	8.2	8.4	2.5	1	--	--	--	--	--	--	--	43	13	4.4	<0.0014	<10	--	6	180	4	<0.0012	<0.0014	0.073	--	200	310	7.5	0.1	--	--	0.02	8.5	170
1,1,2-Trichloroethane	79-00-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	75-34-3	--	<0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	75-35-4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	120-82-1	--	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	95-63-6	--	<0.1	--	<0.3	<0.1	<1.5	<1.8	52	21	<15	110	<0.3	<0.1	5.5	10	<0.8	<0.3	0.3	3.1	--	--	--	--	--	--	--	<5.7	3.7	0.071	<0.0014	<10	--	<0.59	<6.1	<0.17	<0.0012	<0.0014	<0.0021	--	9.3	<6.9	0.6	0.063	--	--	<0.0017	0.26	<7.4
1,2-Dichlorobenzene	95-50-1	--	<0.1	--	<0.1	<0.3	<0.1	<1.5	<13	<11	70	340	<0.3	<0.1	<0.1	1	<0.8	0.5	0.3	0.5	--	--	--	--	--	--	--	<5.7	0.77	0.016	<0.0014	29	--	4.6	26	0.81	<0.0012	<0.0014	<0.0021	--	<8.4	<6.9	<0.16	<0.039	--	--	<0.0017	0.17	<7.4
1,2-Dichloroethane	107-06-2	--	<0.1	--	<0.3	<0.1	<1.5	<1.8	<13	<11	<15	<72	<0.3	<0.1	0.8	<0.8	1.6	<0.3	0.4	<0.2	--	--	--	--	--	--	--	<5.7	<0.23	<0.0014	<0.0014	<10	--	<0.59	<6.1	<0.17	<0.0012	<0.0014	<0.0021	--	<8.4	<6.9	<0.16	<0.039	--	--	<0.0017	0.17	<7.4
1,3,5-Trimethylbenzene	108-67-8	--	<0.1	--	<0.3	<0.1	<1.5	<1.8	27	12	24	110	<0.3	<0.1	3.2	4.4	<0.8	<0.3	<0.3	1.2	--	--	--	--	--	--	--	<5.7	1	0.019	<0.0014	<10	--	<0.59	<6.1	<0.17	<0.0012	<0.0014	<0.0021	--	<8.4	<6.9	0.2	<0.039	--	--	<0.0017	0.17	<7.4
1,4-Dichlorobenzene	106-46-7	--	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<5.7	<0.23	<0.0014	<0.0014	<10	--	<0.59	<6.1	<0.17	<0.0012	<0.0014	<0.0021	--	<8.4	<6.9	<0.16	<0.039	--	--	<0.0017	0.17	<7.4
1,4-Dioxane	123-91-1	--	--	--	<7	<4	<37	<45	<330	<270	<370	<1800	<7	<3	<4	<19	21	14	<7	<4	--	--	--	--	--	--	--	<280	<12	<0.14	<0.14	<520	--	<29	<300	<8.5	<0.12	<0.14	<0.21	--	<420	<350	<8	<1.9	--	--	<0.17	<8.4	<370
2-Butanone	78-93-3	--	<0.4	--	<0.8	<0.4	<4.4	<5.4	<39	<32.6	<43.9	<220	<0.8	<0.4	0.5	<2.3	<2.4	<0.9	1.6	<0.5	--	--	--	--	--	--	--	<110	<4.7	<0.028	<0.029	<210	--	<12	<120	<3.4	<0.024	<0.028	<0.041	--	<170	<140	<3.2	<0.78	--	--	<0.035	<3.4	<150
4-Isopropyltoluene	99-87-6	--	<0.1	--	<0.3	<0.1	<1.5	<1.8	<13	<11	<15	<72	<0.3	<0.1	0.4	1.2	<0.8	<0.3	<0.3	<0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	108-10-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<57	<2.3	<0.014	<0.014	<100	--	<5.9	<61	<1.7	<0.012	<0.014	<0.021	--	<84	<69	<1.6	<0.39	--	--	<0.017	<1.7	<74
Acetone	67-64-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<280	<12	<0.07	<0.072	<520	--	<29	<300	<8.5	<0.059	<0.069	<0.1	--	<420	<350	<8	<1.9	--	--	<0.086	<8.4	<370
Benzene	71-43-2	--	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<5.7	<0.23	<0.0014	<0.0014	<10	--	<0.59	<6.1	<0.17	<0.0012	<0.0014	<0.0021	--	<8.4	<6.9	<0.16	<0.039	--	--	<0.0017	<0.17	<7.4
Bromoform	75-25-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<28	<1.2	<0.007	<0.0072	<52	--	<2.9	<30	<0.85	<0.0059	<0.0069	<0.01	--	<42	<35	<0.8	<0.19	--	--	<0.0086	<0.84	<7.4
Carbon Disulfide	75-15-0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<57	<2.3	<0.0042	<0.0043	<100	--	<5.9	<61	<1.7	<0.0035	<0.0041	<0.0062	--	<84	<69	<1.6	<0.39	--	--	<0.0052	<1.7	<74
Chlorobenzene	108-90-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<5.7	<0.23	0.0025	<0.0014	<10	--	<0.59	<6.1	<0.17	<0.0012	<0.0014	<0.0021	--	<8.4	<6.9	<0.16	<0.039	--	--	<0.0017	<0.17	<7.4
Chloroethane	75-00-3	--	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<11	<0.47	<0.007	<0.0072	<21	--	<1.2	<12	<0.34	<0.0059	<0.0069	<0.01	--	<17	<14	<0.32	<0.078	--	--	<0.0086	<0.34	<15
cis-1,2-Dichloroethene	156-59-2	--	<0.1	--	2	0.4	3.8	4.1	130	51	<15	<72	1.3	0.2	1.8	3.3	1.5	2.4	0.9	6.2	--	--	--	--	--	--	--	36	1.3	0.051	<0.0014	<10	--	5.4	14	0.37	<0.0012	<0.0014	0.053	--	10	12	0.23	<0.039	--	--	0.038	1.9	61
Dichlorodifluoromethane	75-71-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<11	<0.47	<0.007	<0.0072	<21	--	<1.2	<12	<0.34	<0.0059	<0.0069	<0.01	--	<17	<14	<0.32	<0.078	--	--	<0.0086	<0.34	<15
Ethylbenzene	100-41-4	--	<0.1	--	<0.1	<0.1	1.5	2.7	47	21	<2.9	<14	<0.1	<0.1	0.2	1.6	<0.3	0.8	<0.1	0.2	--	--	--	--	--	--	--	27	7.7	1.5	<0.0014	<10	--	<0.59	8.7	0.18	<0.0012	<0.0014	<0.0021	--	13	<6.9	0.32	<0.039	--	--	<0.0017	0.28	<7.4
Hexachlorobutadiene	87-68-3	--	--	--	< 0.3	<0.1	<1.5	<1.8	<13	<11	<15	<72	<0.3	<0.1	0.2	<0.8	<0.8	<0.3	<0.3	<0.2	--	--	--	--	--	--	--	<5.7	<0.23	<0.0028	<0.0029	<10	--	<0.59	<6.1	<0.17	<0.0024	<0.0028	<0.0041	--	<8.4	<6.9	<0.16	<0.039	--	--	<0.0035	<0.17	<7.4
Isopropylbenzene	98-82-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<5.7	<0.23	0.0025	<0.0014	<10	--	<0.59	<6.1	<0.17	<0.0012	<0.0014	<0.0021	--	<8.4	<6.9	<0.16	<0.039	--	--	<0.0017	<0.17	<7.4
Methyl tert-butyl ether	1634-04-4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<5.7	<0.23	<0.0028	<0.0029	<10	--	<0.59	<6.1	<0.17	<0.0024	<0.0028	<0.0041	--	<8.4	<6.9	<0.16	<0.039	--	--	<0.0035	<0.17	<7.4
Methylene Chloride	75-09-2	--	<0.3	--	3.2	<0.4	5.7	11	<33	<27	<37	<180	0.8	<0.3	5.9	2.2	<2	<0.7	0.8	<0.4	--	--	--	--	--	--	--	<28	<1.2	<0.007	<0.0072	<52	--	<2.9	<30	<0.85	<0.0059	<0.0069	0.026	--	<42	<35	<0.8	<0.19	--	--	<0.0086	<0.84	<37
Naphthalene**	91-20-3	<0.5	<0.3	--	<0.1	< 0.4	0.2	0.7	1.2	4.1	0.4	3.7	<0.3	< 0.3	3.6	4.1	<0.1	0.5	<0.1	0.6	--	--	--	--	--	--	--	<28	<1.2	0.0071	<0.0072	<52	--	<2.9	<30	<0.85	<0.0059	<0.0069	<0.01	--	<42	<35	<0.8	<0.19	--	--	<0.0086	<0.84	<15
n-Butylbenzene	104-51-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<5.7	0.24	<0.007	<0.0029	15	--	2.4	<6.1	<0.17	<0.0059	<0.0069	<0.0041	--	<8.4	<6.9	13	0.65	--	--	<0.0086	1.6	<7.4
n-Propylbenzene	103-65-1	--	--	--	< 0.3	<0.1	<1.5	<1.8	15	<11	<15	<72	< 0.3	< 0.1	0.5	1	< 0.8	< 0.3	< 0.3	0.4	--	--	--	--	--	--	--	<5.7	0.32	0.0065	<0.0014	<10	--	<0.59	<6.1	<0.17	<0.0012	<0.0014	<0.0021	--	<8.4	<6.9	0.19	<0.039	--	--	<0.0017	<0.17	<7.4
sec-Butylbenzene	135-98-8	--	--	--	< 0.3	< 0.1	< 1.5	< 1.8	< 13	< 11	< 15	< 72	< 0.3	< 0.1	2.9	1.8	< 0.8	0.5	< 0.3	< 0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	100-42-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<5.7	<0.23	<0.0014	<0.0014	<10	--	<0.59	<6.1	<0.17	<0.0012	<0.0014	<0.0021	--	<8.4	<6.9	<0.16	<0.039	--	--	<0.0017	<0.17	<7.4
tert-Butylbenzene	98-06-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	--	0.1	--	52	1.8	170	210	1400	710	1600	8000	77	9.1	21	43	160	50	43	16	--	--	--	--	--	--	--	16	0.69	0.04	<0.0014	420	--	42	150	4.4	0.0012	0.0056	0.044	--	150	120	6.4	0.14	--	--	0.019	21	270
Toluene**	108-88-3	--	< 0.2	--	0.7	<0.1	4.1	11	13	<11	<2.9	<14	1	<0.1	0.3	0.6	1.9	0.7	2.5	2	--	--	--	--	--	--	--	110	7.1	2.7	<0.0014	<10	--	<0.59	11	0.31	<0.0012	<0.0014	0.013	--	450	170	2.6	0.05	--	--	0.011	6	81
trans-1,2-Dichloroethene	156-60-5	--	<0.1	--	< 0.3	< 0.1	< 1.5	< 1.8	< 13	< 11	< 15	< 72	< 0.3	< 0.1	< 0.1	< 0.8	< 0.8	< 0.3	< 0.3	0.2	--	--	--	--	--	--	--	<5.7	<0.23	<0.0014	<0.0014	<10	--	<0.59	<6.1	<0.17	<0.0012	<0.0014	<0.0021	--	<8.4	<6.9	<0.16	<0.039	--	--	<0.0017	<0.17	<7.4
Trichloroethene	79-01-6	--	0.3	--	40	1.2	180	220	1600	780	200	1900	21	1.2	4.9	2.3	23	8.6	1.5	0.5	--	--	--	--	--	--	--	<5.7	<0.23	<0.0014	<0.0014	39	--	2.3	8.2	160	3.6	<0.0012	<0.0014	0.12	--	500	510	7.4	0.11	--	--	0.011	2.9	88
Trichlorofluoromethane	75-69-4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<11	<0.47	<0.007	<0.0072	<21	--	<1.2	<12	<0.34	<0.0059	<0.0069	<0.01	--	<17	<14	<0.32	<0.078	--	--	<0.0086	<0.34	<15
Vinyl Chloride	75-01-4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<11	<0.47	<0.007	<0.0072	<21	--	<1.2	<12	<0.34	<0.0059	<0.0069	<0.01	--	<17	<14	<0.32	<0.078	--	--	<0.0086	<0.34	<15
Xylenes, Total**	1330-20-7	--	<0.1	--	0.5	<0.1	314.3	13.3	149	66	25	130	0.2	<0.1	1.7	6.5	0.4	1.7	1	1.8	--	--	--	--	--	--	--	53.9	17.3	2.581	<0.0029	<21	--	<1.2	18	0.43	<0.0024	<0.0028	<0.0041	--	67	32.3	1.3	<0.078	--	--	<0.0035	1.21	<15
Volatile Petroleum Hydrocarbons (VPH)																																														
C5-C8 Aliphatics	NA_c5-8	--	--	--	180	--	840	1200	6600	1500	4000	11000	230	20	61	160	470	140	110	53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C9-C12 Aliphatics	NA_c9-12	--	--	--	<7	--	57	65	1200	480	800	2600	<7	<7	400	240	<16	62	<7	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C9-C10 Aromatics	NA_c9-10	--	--	--	<7	--	320	440	1700	1200	940	1000	<7	<7	360	1300	31	<7	38	150	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons (EPH)																																														
C9-C18 Aliphatics	NA_c9-18	<99	<110	--	<110	--	110	<110	160	190	330	950	<110	--	290	<100	<110	<110	<100	<110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C19-C36 Aliphatics	NA_c19-36	<99	<110	--	240	--	370	150	<120	240	930	2300	<110	--	<100	<100	<110	<110	<100	280	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C11-C22 Aromatics	NA_c11-22	<99	120	--	<110	--	140	<110	<120	<120	220	610	<110	--	<100	<100	<110	<110	<100	<110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	<0.5	<0.6	--	<0.1	--	<0.1	<0.1	<0.6	0.1	0.8	8.7	<0.1	--	0.3	0.1	<0.1	<0.1	<0.1	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	<0.5	<0.6	--	<0.1	--	<0.1	<0.1	0.9	0.2	<0.1	0.2	<0.1	--	<0.1	<0.1	<0.1	<0.1	0.5	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	<0.5	<0.6	--	<0.1	--	<0.1	<0.1	<0.6	<0.1	<0.1	0.1	<0.1	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	<0.5	<0.6	--	<0.1	--	<0.1	<0.1	1	0.4	<0.1	0.7	0.1	--	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	56-55-3	0.5	<0.6	--	0.6	--	<0.1	0.2	4.8	1.3	0.4	1.5	0.9	--	<0.1	0.5	1.8	0.1	<0.1	2.4	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	50-32-8	<0.5	<0.6	--	0.6	--	<0.1	<0.1	2.2	0.6	0.3	1	1.2	--	0.2	0.6	0.2	<0.1	1.8	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	205-99-2	<0.5	<0.6	--	0.6	--	0.3	0.2	5.4	1	0.6	1.3	1.1	--	0.4	1.6	0.5	<0.1	2.1	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	191-24-2	<0.5	<0.6	--	0.4	--	0.1	<0.1	1.7	0.9	0.1	0.2	0.9	--	0.3	0.8	0.4	<0.1	0.9	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	207-08-9	<0.5	<0.6	--	0.6	--	0.2	<0.1	3.6	1	0.4	1.4	0.7	--	0.3	1.4	0.3	<0.1	1.3	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	<0.5	<0.6	--	0.7	--	0.3	0.2	5.3	1.3	0.5	1.7	0.9	--	0.5	2	0.2	<0.1	2.2	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	53-70-3	<0.5	<0.6	--	0.1	--	<0.1	<0.1	0.6	0.2	0.2	<0.1	0.2	--	<0.1	0.3	0.1	<0.1	0.3	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	0.9	0.6	--	1.1	--	0.5	0.7	14	4.7	1.9	3.7	1.6	--	1.3	6.2	0.3	<0.1	<0.1	0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	<0.5	<0.6	--	<0.1	--	<0.1	<0.1	0.6	0.3	0.1	0.7	<0.1	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	193-39-5	<0.5	<0.6	--	0.4	--	<0.1	<0.1	1.5	0.7	0.2	0.2	0.8	--	0.2	0.8	0.3	<0.1	0.9	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	0.8	<0.6	--	0.5	--	0.1	0.5	12	3.3	0.7	3.7	0.5	--	1.3	4.7	<0.1	<0.1	<0.1	0.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	0.9	0.6	--	0.9	--	0.4	0.5	13	3.5	1.2	4.2	1.3	--	1.2	5.2	0.3	<0.1	6.5	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyls (PCBs)																																														
Aroclor-1232	11141-16-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<6.9	<24	<55	<0.14	<0.22	<8.8	<91	<23	<0.49	<0.43	<0.42	<42	<47	<4.8	<5	<0.44	<0.42	<0.44	<2600	<2300	<190	<10	<0.42	<0.4	<22	<0.85	<0.45	<0.67	<0.46
Aroclor-1242	53469-21-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<6.9	<24	<55	<0.14	<0.22	<8.8	<91	<23	<0.49	<0.43	<0.42	<42	<47	<4.

Table 1
Summary of Soil Analytical Data
Former Lewis Chemical Corporation
0 & 12-24 Fairmount Court
Hyde Park, Massachusetts

Grid	6	7	7	7	7	7	8	8	8	8	8	9	9	9	9	9	10	10	10	10	10	10	11	11	11	11	11	11	12	12	12	12	12	12	13	13	13	13	13	13	14	14	14	14	14	14	15
Soil Boring	G-6	G-7	G-7	G-7	G-7	G-7	G-8	G-8	G-8	G-8	G-8	G-9	G-9	G-9	G-9	G-9	G-10	G-10	G-10	G-10	G-10	G-10	G-11	G-11	G-11	G-11	G-11	G-11	G-12	G-12	G-12	G-12	G-12	G-12	G-13	G-13	G-13	G-13	G-13	G-13	G-14	G-14	G-14	G-14	G-14	G-14	G-15
Sample ID	G-6 20	G-7 0.5	G-7 2.5	G-7.5	G-7 10	G-7 15	G-8 0.5	G-8 2.5	G-8.5	G-8 10	G-8 15	G-9 0.5	G-9 2.5	G-9.5	G-9 10	G-9 15	G-10 (0.5)	G-10 (2.5)	G-10 (5)	G-10 (10)	G-10 (15)	G-10 (20)	G-11 (0.5)	G-11 (2.5)	G-11 (5)	G-11 (10)	G-11 (15)	G-11 (20)	G-12 (0.5)	G-12 (2.5)*	G-12 (5)	G-12 (10)	G-12 (15)	G-12 (20)	G-13 (0.5)	G-13 (2.5)	G-13 (5)	G-13 (10)	G-13 (15)	G-13 (20)	G-14 (0.5)	G-14 (2.5)	G-14 (5)*	G-14 (10)	G-14 (15)	G-14 (20)	G-15 (0.5)
Sample Depth (feet)	15-16	0-0.5	0.5-2.5	2.5-5	5-10	10-15	0-0.5	0.5-2.5	2.5-5	5-10	10-13	0-0.5	0.5-2.5	2.5-5	5-10	10-14	0.5	2.5	5	10	15	20	0.5	2.5	5	10	15	20	0.5	2.5	5	10	15	20	0.5	2.5	5	10	15	20	0.5	2.5	5	10	15	20	0.5
Date Sampled	9/27/13	9/27/13	9/27/13	9/27/13	9/27/13	9/27/13	9/27/13	9/27/13	9/27/13	9/27/13	9/27/13	9/27/13	9/27/13	9/27/13	9/27/13	9/27/13	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15
Analytes	**CAS No.**																																														
Volatile Organic Compounds (VOCs)																																															
1,1,1-Trichloroethane	71-55-6	**0.018**	–	–	**0.0039**	**0.0028**	<0.0014	–	–	**0.0049**	**0.011**	<0.0015	–	–	**0.002**	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,1,2-Trichloroethane	79-00-5	<0.0012	–	–	<0.0022	<0.0017	<0.0014	–	–	<0.0019	<0.0025	<0.0015	–	–	<0.0014	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,1-Dichloroethane	75-34-3	<0.0012	–	–	**0.0039**	**0.01**	**0.014**	–	–	**0.0033**	**0.0071**	**0.0048**	–	–	<0.0014	<0.0019	**0.0028**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,1-Dichloroethene	75-35-4	<0.0024	–	–	<0.0044	<0.0034	<0.0029	–	–	<0.0039	<0.0049	<0.0029	–	–	<0.0027	<0.0038	<0.0054	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,2,4-Trichlorobenzene	120-82-1	<0.0059	–	–	<0.011	<0.0086	<0.0071	–	–	<0.0097	<0.012	<0.0073	–	–	<0.0068	<0.0095	<0.013	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,2,4-Trimethylbenzene	95-63-6	<0.0012	–	–	<0.0022	<0.0017	<0.0014	–	–	<0.0019	**0.024**	**0.014**	–	–	<0.0014	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,2-Dichlorobenzene	95-50-1	<0.0012	–	–	<0.0022	<0.0017	**0.0053**	–	–	**0.0077**	**60**	**2.9**	–	–	**0.0037**	**0.19**	**0.021**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,2-Dichloroethane	107-06-2	<0.0012	–	–	<0.0022	<0.0017	<0.0014	–	–	<0.0019	<0.0025	<0.0015	–	–	<0.0014	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,3,5-Trimethylbenzene	108-67-8	<0.0012	–	–	<0.0022	<0.0017	<0.0014	–	–	<0.0019	**0.0036**	**0.0025**	–	–	<0.0014	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,4-Dichlorobenzene	106-46-7	<0.0012	–	–	<0.0022	<0.0017	<0.0014	–	–	<0.0019	**0.011**	**0.0054**	–	–	<0.0014	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,4-Dioxane	123-91-1	<0.12	–	–	<0.22	<0.17	<0.14	–	–	<0.19	<0.25	<0.15	–	–	<0.14	<0.19	<0.27	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
2-Butanone	78-93-3	<0.024	–	–	<0.044	<0.034	<0.029	–	–	<0.039	<0.049	<0.029	–	–	<0.027	<0.038	<0.054	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
4-Isopropyltoluene	99-87-6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
4-Methyl-2-pentanone	108-10-1	<0.012	–	–	<0.022	<0.017	<0.014	–	–	<0.019	<0.025	<0.015	–	–	<0.014	<0.019	<0.027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Acetone	67-64-1	<0.059	–	–	<0.11	<0.086	<0.071	–	–	<0.097	<0.12	<0.073	–	–	<0.068	<0.095	<0.13	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Benzene	71-43-2	<0.0012	–	–	<0.0022	<0.0017	<0.0014	–	–	<0.0019	<0.0025	<0.0015	–	–	<0.0014	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Bromoform	75-25-2	<0.0059	–	–	<0.011	<0.0086	<0.0071	–	–	<0.0097	<0.012	<0.0073	–	–	<0.0068	<0.0095	<0.013	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Carbon Disulfide	75-15-0	<0.0036	–	–	<0.0066	<0.0051	<0.0043	–	–	<0.0058	<0.0074	<0.0044	–	–	<0.0041	<0.0057	<0.008	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Chlorobenzene	108-90-7	<0.0012	–	–	<0.0022	<0.0017	<0.0014	–	–	<0.0019	**0.0038**	**0.0063**	–	–	<0.0014	<0.0019	**0.0028**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Chloroethane	75-00-3	<0.0059	–	–	<0.011	<0.0086	<0.0071	–	–	<0.0097	<0.012	<0.0073	–	–	<0.0068	<0.0095	<0.013	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
cis-1,2-Dichloroethene	156-59-2	**0.0049**	–	–	**0.0076**	<0.0017	**0.004**	–	–	**0.0066**	<0.0025	<0.0015	–	–	**0.0059**	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dichlorodifluoromethane	75-71-8	<0.0059	–	–	<0.011	<0.0086	<0.0071	–	–	<0.0097	<0.012	<0.0073	–	–	<0.0068	<0.0095	<0.013	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ethylbenzene	100-41-4	<0.0012	–	–	<0.0022	**0.0066**	**0.0018**	–	–	<0.0019	**0.025**	**0.064**	–	–	<0.0014	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hexachlorobutadiene	87-68-3	<0.0024	–	–	<0.0044	<0.0034	<0.0029	–	–	<0.0039	<0.0049	<0.0029	–	–	<0.0027	<0.0038	<0.0054	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Isopropylbenzene	98-82-8	<0.0012	–	–	<0.0022	<0.0017	<0.0014	–	–	<0.0019	<0.0025	<0.0015	–	–	<0.0014	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Methyl tert-butyl ether	1634-04-4	<0.0024	–	–	<0.0044	<0.0034	<0.0029	–	–	<0.0039	<0.0049	<0.0029	–	–	<0.0027	<0.0038	<0.0054	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Methylene Chloride	75-09-2	<0.0059	–	–	<0.011	<0.0086	<0.0071	–	–	<0.0097	<0.012	<0.0073	–	–	<0.0068	<0.0095	<0.013	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Naphthalene**	91-20-3	<0.0059	–	–	<0.011	<0.0086	<0.0071	–	–	<0.0097	**0.013**	<0.0073	–	–	<0.0068	<0.0095	<0.013	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
n-Butylbenzene	104-51-8	<0.0059	–	–	<0.011	<0.0034	<0.0029	–	–	<0.0039	<0.0049	<0.0029	–	–	<0.0027	<0.0038	<0.0054	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
n-Propylbenzene	103-65-1	<0.0012	–	–	<0.0022	<0.0017	<0.0014	–	–	<0.0019	**0.0036**	<0.0015	–	–	<0.0014	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
sec-Butylbenzene	135-98-8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Styrene	100-42-5	<0.0012	–	–	<0.0022	<0.0017	<0.0014	–	–	<0.0019	<0.0025	<0.0015	–	–	<0.0014	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
tert-Butylbenzene	98-06-6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tetrachloroethene	127-18-4	**0.025**	–	–	<0.0022	<0.0017	<0.0014	–	–	**0.039**	**0.0027**	**0.0032**	–	–	**0.0024**	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Toluene**	108-88-3	**0.0067**	–	–	**0.0031**	**0.0023**	**0.0023**	–	–	**0.0031**	<0.0025	<0.0015	–	–	**0.0055**	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
trans-1,2-Dichloroethene	156-60-5	<0.0012	–	–	<0.0022	<0.0017	<0.0014	–	–	<0.0019	<0.0025	<0.0015	–	–	<0.0014	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Trichloroethene	79-01-6	**0.0089**	–	–	<0.0022	<0.0017	<0.0014	–	–	**0.0088**	<0.0025	<0.0015	–	–	**0.0015**	<0.0019	<0.0027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Trichlorofluoromethane	75-69-4	<0.0059	–	–	<0.011	<0.0086	<0.0071	–	–	<0.0097	<0.012	<0.0073	–	–	<0.0068	<0.0095	<0.013	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Vinyl Chloride	75-01-4	<0.0059	–	–	<0.011	<0.0086	<0.0071	–	–	<0.0097	<0.012	<0.0073	–	–	<0.0068	<0.0095	<0.013	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Xylenes, Total**	1330-20-7	<0.0024	–	–	<0.0044	<0.0034	<0.0029	–	–	<0.0039	**0.0341**	**0.0414**	–	–	<0.0027	<0.0038	<0.0054	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Volatile Petroleum Hydrocarbons (VPH)																																															
C5-C8 Aliphatics	NA, c5-8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
C9-C12 Aliphatics	NA, c9-12	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
C9-C10 Aromatics	NA, c9-10	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons (EPH)																																														
C9-C18 Aliphatics	NA, c9-18	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
C19-C36 Aliphatics	NA, c19-36	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
C11-C22 Aromatics	NA, c11-22	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
2-Methylnaphthalene	91-57-6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Acenaphthene	83-32-9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Acenaphthylene	208-96-8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Anthracene	120-12-7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Benzo(a)anthracene	56-55-3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Benzo(a)pyrene	50-32-8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Benzo(b)fluoranthene	205-99-2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Benzo(g,h,i)perylene	191-24-2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Benzo(k)fluoranthene	207-08-9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Chrysene	218-01-9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dibenz(a,h)anthracene	53-70-3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Fluoranthene	206-44-0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Fluorene	86-73-7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Indeno(1,2,3-cd)pyrene	193-39-5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Phenanthrene	85-01-8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pyrene	129-00-0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Polychlorinated Biphenyls (PCBs)																																														
Aroclor-1232	11141-16-5	<0.43	<0.42	<0.42	<0.51	<0.51	<0.45	<0.41	<0.41	<0.5	<0.59	<0.44	<0.88	<0.41	<0.42	<0.5	<0.72	<2.5	<0.10	<0.55	<0.14	<0.11	<0.11	<0.12	<0.10	<0.10	<0.12	<0.11	<0.11	<0.13	<0.10	<0.10	<0.11	<0.13	<0.13	<0.12	<0.099	<0.099	<0.10	<0.42	<0.10	<2.4	<11	<0.11	<0.13	<0.14	<0.11	<1.2
Aroclor-1242	53469-21-9	<0.43	<0.42	<0.42	<0.51	<0.51	<0.45	<0.41	<0.41	<0.5	<0.59	<0.44	<0.88	<0.41	<0.42	<0.5	<0.72	<2.5	<0.10	<0.55	<0.14	<0.11	<0.11	<0.12	<0.10	<0.10	<0.12	<0.11	<0.11	<0.13	<0.10	<0.10	<0.11	<0.13	<0.13	<0.12	<0.099	<0.099	<0.10	<0.42	<0.10	<2.4	<11	<0.11	<0.13	<0.14	<0.11	<1.2
Aroclor-1248	12672-29-6	<0.43	**3.2**	**0.6**	<0.51	<0.51	<0.45	**2.2**	**0.77**	<0.5	<0.59	<0.44	**7.4**	**0.81**	<0.42	<0.5	<0.72	**18**	**0.34**	**5.7**	**0.25**	<0.11	<0.11	**1.1**	<0.10	<0.10	<0.12	**0.11**	**0.12**	**0.51**	<0.10	<0.10	<0.11	<0.13	<0.13	**0.27**	<0.099	<0.099	<0.10	<0.42	<0.10	**9.4**	**85**	<0.11	<0.13	<0.14	**0.11**	**11**
Aroclor-1254	11097-69-1	<0.43	<0.42	<0.42	<0.51	<0.51	<0.45	<0.41	<0.41	<0.5	<0.59	<0.44	<0.88	<0.41	<0.42	<0.5	<0.72	<2.5	<0.10	<0.55	<0.14	<0.11	<0.11	**0.41**	<0.10	<0.10	<0.12	<0.11	<0.11	<0.13	<0.10	<0.10	<0.11	<0.13	<0.13	<0.12	<0.099	<0.099	<0.10	<0.42	<0.10	<2.4	<11	<0.11	<0.13	<0.14	<0.11	<1.2
Total PCBs	1336-36-3	<0.43	**3.2**	**0.6**	<0.51	<0.51	<0.45	**2.2**	**0.77**	<0.5	<0.59	<0.44	**7.4**	**0.81**	<0.42	<0.5	<0.72	**18**	**0.34**	**5.7**	**0.25**	<0.11	<0.11	**1.51**	<0.10	<0.10	<0.12	**0.11**	**0.12**	**0.51**	<0.10	<0.10	<0.11	<0.13	<0.13	**0.27**	<0.099	<0.099	<0.10	<0.42	<0.10	**9.4**	**85**	<0.11	<0.13	<0.14	**0.11**	**11**
Metals																																															
Arsenic	7440-38-2	<2.7	–	–	<3.3	<3.2	<2.8	–	–	<3.2	<3.8	<2.8	–	–	<2.7	<3.3	<4.3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Barium	7440-39-3	**28**	–	–	**64**	**19**	**19**	–	–	**38**	**26**	**21**	–	–	**24**	**18**	**27**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Beryllium	7440-41-7	<0.27	–	–	<0.33	<0.32	<0.28	–	–	<1.6	<0.38	<0.28	–	–	<1.3	<0.33	<0.43	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cadmium	7440-43-9	<0.27	–	–	<0.33	<0.32	<0.28	–	–	**0.34**	<0.38	<0.28	–	–	<0.27	<0.33	<0.43	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Chromium	7440-47-3	**17**	–	–	**43**	**11**	**12**	–	–	**27**	**13**	**9.6**	–	–	**16**	**8.5**	**18**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Copper	7440-50-8	**13**	–	–	**49**	**3.1**	**5.8**	–	–	**22**	**3.3**	**4.8**	–	–	**16**	**4.2**	**11**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lead	7439-92-1	**4.8**	–	–	**46**	**4.2**	**3.9**	–	–	**49**	**4.3**	**3.7**	–	–	**12**	**3.8**	**3.1**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mercury	7439-97-6	<0.028	–	–	**0.25**	<0.033	<0.03	–	–	**0.27**	<0.038	<0.029	–	–	**0.12**	<0.034	<0.045	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Nickel	7440-02-0	**13**	–	–	**13**	**3.4**	**6.1**	–	–	**9.6**	**4**	**5.3**	–	–	**6.9**	**2.7**	**8.5**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Selenium	7782-49-2	<5.4	–	–	<6.6	<6.4	<5.6	–	–	<6.4	<7.6	<5.6	–	–	<5.4	<6.5	<8.6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Silver	7440-22-4	<0.54	–	–	<0.66	<0.64	<0.56	–	–	<0.64	<0.76	<0.56	–	–	<0.54	<0.65	<0.86	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Vanadium	7440-62-2	**21**	–	–	**29**	**14**	**24**	–	–	**25**	**18**	**18**	–	–	**22**	**13**	**26**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Zinc	7440-66-6	**40**	–	–	**150**	**16**	**33**	–	–	**97**	**20**	**26**	–	–	**33**	**11**	**36**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Table 1
Summary of Soil Analytical Data
Former Lewis Chemical Corporation
0 & 12-24 Fairmount Court
Hyde Park, Massachusetts

Grid	15	15	15	15	15	15-1	15-1	15-1	15-1	15-1	15-1	16	16	16	16	16	17	17	17	17	18	18	18	18	16	16	16	16	16	16	18	18	18	18	18	18	18	18	19	19	19	19	20	20	20	20	21
Soil Boring	G-15	G-15	G-15	G-15	G-15	G-15-1	G-15-1	G-15-1	G-15-1	G-15-1	G-15-1	G-16 N	G-16 N	G-16 N	G-16 N	G-16 N	G-17 N	G-17 N	G-17 N	G-17 N	G-18 N	G-18 N	G-18 N	G-18 N	G-16	G-16	G-16	G-16	G-16	G-16	G-18	G-18	G-18	G-18	G-18	G-18	G-18	G-18	G-19	G-19	G-19	G-19	G-20	G-20	G-20	G-20	G-21
Sample ID	G-15 (2.5)	G-15 (5)	G-15 (10)	G-15 (15)*	G-15 (20)	G-15-1 (0.5)*	G-15-1 (2.5)	G-15-1 (5)	G-15-1 (10)	G-15-1 (15)	G-15-1 (20)	G-16 0.5	G-16 2.5	G-16 5	G-16 10	G-17 0.5	G-17 2.5	G-17 5	G-17 10	G-18 0.5	G-18 2.5	G-18 5	G-18 10	G-16 (0.5)	G-16 (2.5)	G-16 (5)	G-16 (10)	G-16 (15)	G-16 (20)	G-18 (0.5)	G-18 (2.5)	G-18 (5)	G-18 (10)	G-18 (15)	G-18 (20)	G-18 (25)	G-18 (30)	G-19 0.5	G-19 2.5	G-19 5	G-19 10	G-20 0.5	G-20 2.5	G-20 5	G-20 10	G-21 (0.5)
Sample Depth (feet)	2.5	5	10	15	20	0.5	2.5	5	10	15	20	0-0.5	0.5-2.5	2.5-5	5-10	0-0.5	0.5-2.5	2.5-5	5-10	0-0.5	0.5-2.5	2.5-5	5-10	0.5	2.5	5	10	15	20	0.5	2.5	5	10	15	20	25	30	0-0.5	0.5-2.5	2.5-5	5-10	0-0.5	0.5-2.5	2.5-5	5-10	0.5
Date Sampled	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	9/30/13	9/30/13	9/30/13	9/30/13	9/26/13	9/26/13	9/26/13	9/26/13	9/26/13	9/26/13	9/26/13	9/26/13	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	9/26/13	9/26/13	9/26/13	9/26/13	9/26/13	9/26/13	9/26/13	9/26/13	1/15/15
Analytes CAS No.																																														
Volatile Organic Compounds (VOCs)																																														
1,1,1-Trichloroethane	71-55-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0013	--
1,1,2-Trichloroethane	79-00-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0013	--
1,1-Dichloroethane	75-34-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0013	--
1,1-Dichloroethene	75-35-4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0026	--
1,2,4-Trichlorobenzene	120-82-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.17	<0.0065	--
1,2,4-Trimethylbenzene	95-63-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.089**	**0.038**	--
1,2-Dichlorobenzene	95-50-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0013	--
1,2-Dichloroethane	107-06-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0013	--
1,3,5-Trimethylbenzene	108-67-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.12**	**0.0095**	--
1,4-Dichlorobenzene	106-46-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0013	--
1,4-Dioxane	123-91-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<4.1	<0.13	--
2-Butanone	78-93-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.7	<0.026	--
4-Isopropyltoluene	99-87-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.83	<0.013	--
4-Methyl-2-pentanone	108-10-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<4.1	<0.065	--
Acetone	67-64-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0013	--
Benzene	71-43-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.41	<0.0065	--
Bromoform	75-25-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.83	<0.0039	--
Carbon Disulfide	75-15-0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0013	--
Chlorobenzene	108-90-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.17	<0.0065	--
Chloroethane	75-00-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0013	--
cis-1,2-Dichloroethene	156-59-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.17	<0.0065	--
Dichlorodifluoromethane	75-71-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	**0.037**	--
Ethylbenzene	100-41-4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0026	--
Hexachlorobutadiene	87-68-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	**0.0052**	--
Isopropylbenzene	98-82-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	1634-04-4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0026	--
Methylene Chloride	75-09-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.41	<0.0065	--
Naphthalene**	91-20-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.46**	**0.046**	--
n-Butylbenzene	104-51-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.31**	**0.0078**	--
n-Propylbenzene	103-65-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	**0.0084**	--
sec-Butylbenzene	135-98-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	100-42-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0013	--
tert-Butylbenzene	98-06-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.63**	<0.0013	--
Toluene**	108-88-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0013	--
trans-1,2-Dichloroethene	156-60-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.083	<0.0013	--
Trichloroethene	79-01-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.18**	<0.0013	--
Trichlorofluoromethane	75-69-4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.17	<0.0065	--
Vinyl Chloride	75-01-4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.17	<0.0065	--
Xylenes, Total**	1330-20-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.17	**0.173**	--
Volatile Petroleum Hydrocarbons (VPH)																																														
C5-C8 Aliphatics	NA_c5-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C9-C12 Aliphatics	NA_c9-12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C9-C10 Aromatics	NA_c9-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons (EPH)																																														
C9-C18 Aliphatics	NA_c9-18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C19-C36 Aliphatics	NA_c19-36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C11-C22 Aromatics	NA_c11-22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	56-55-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	50-32-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	205-99-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	191-24-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	207-08-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	53-70-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyls (PCBs)																																														
Aroclor-1232	11141-16-5	<5.2	<0.12	<0.12	<0.11	<0.11	<0.83	<1.1	<0.12	<0.11	<0.44	<0.11	<0.4	<0.41	<8.5	<4.4	<0.43	<0.44	<0.46	<0.49	<42	<44	<44	<22	<0.12	<55	<0.57	<0.20	<0.11	<0.11	<23	<110	<5.2	<0.11	<0.12	<0.11	<0.11	<0.10	<2	<0.43	<0.44	<0.42	<0.43	<0.41	<0.44	<0.58	<2.6
Aroclor-1242	53469-21-9	<5.2	<0.12	<0.12	<0.11	<0.11	<0.83	<1.1	<0.12	<0.11	<0.44	<0.11	<0.4	<0.41	<8.5	<4.4	<0.43	<0.44	<0.46	<0.49	<42	<44	<44	<22	<0.12	<55	<0.57	<0.20	<0.11	<0.11	<23	<110	<5.2	<0.11	<0.12	<0.11	<0.11	<0.10	<2	<0.43	<0.44	<0.42	<0.43	<0.41	<0.44	<0.58	<2.6
Aroclor-1248	12672-29-6	**40**	**0.46**	<0.12	<0.11	<0.11	**6.1**	**14**	<0.12	<0.11	<0.44	<0.11	<0.4	**2.1**	**56**	**25**	**1.7**	**1.5**	**1.2**	**0.77**	**190**	**400**	**360**	**63**	**1.1**	**170**	**4**	<0.20	<0.11	<0.11	**150**	**350**	**37**	**0.52**	**0.37**	<0.11	<0.11	<0.10	**6.3**	<0.43	<0.44	<0.42	<0.43	<0.41	<0.44	<0.58	**15**
Aroclor-1254	11097-69-1	<5.2	<0.12	<0.12	<0.11	<0.11	<0.83	<1.1	<0.12	<0.11	<0.44	<0.11	<0.4	<0.41	<8.5	<4.4	<0.43	<0.44	<0.46	<0.49	<42	<44	<44	<22	<0.12	<55	<0.57	<0.20	<0.11	<0.11	<23	<110	<5.2	<0.11	<0.12	<0.11	<0.11	<0.10	<2	<0.43	<0.44	<0.42	<0.43	<0.41	<0.44	<0.58	<2.6
Total PCBs	1336-36-3	**40**	**0.46**	<0.12	<0.11	<0.11	**6.1**	**14**	<0.12	<0.11	<0.44	<0.11	<0.4	**2.1**	**56**	**25**	**1.7**	**1.5**	**1.2**	**0.77**	**190**	**400**	**360**	**63**	**1.1**	**170**	**4**	<0.20	<0.11	<0.11	**150**	**350**	**37**	**0.52**	**0.37**	<0.11	<0.11	<0.10	**6.3**	<0.43	<0.44	<0.42	<0.43	<0.41	<0.44	<0.58	**15**
Metals																																														
Arsenic	7440-38-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	7440-39-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Mercury	7439-97-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Table 1
Summary of Soil Analytical Data
Former Lewis Chemical Corporation
0 & 12-24 Fairmount Court
Hyde Park, Massachusetts

Grid	21	21	21	21	22	22	22	22	22	22	23	23	23	23	23	23	24	24	24	24	25	25	25	25	25	25	26	26	26	26	26	26	27	27	27	27	27	27	28	28	28	28	28	28	29	29	29	29
Soil Boring	G-21	G-21	G-21	G-21	G-22	G-22	G-22	G-22	G-22	G-22	G-23	G-23	G-23	G-23	G-23	G-23	G-24	G-24	G-24	G-24	G-25	G-25	G-25	G-25	G-25	G-25	G-26	G-26	G-26	G-26	G-26	G-26	G-27	G-27	G-27	G-27	G-27	G-27	G-28	G-28	G-28	G-28	G-28	G-28	G-29	G-29	G-29	G-29
Sample ID	G-21 (2.5)	G-21 (5)	G-21 (10)*	G-21 (15)	G-22 (0.5)	G-22 (2.5)	G-22 (5)	G-22 (10)	G-22 (15)	G-22 (20)	G-23 (0.5)	G-23 (2.5)	G-23 (5)	G-23 (10)	G-23 (15)	G-23 (20)	G-24 0.5	G-24 2.5	G-24 5	G-24 10	G-25 (0.5)	G-25 (2.5)	G-25 (5)	G-25 (10)	G-25 (15)	G-25 (20)	G-26 (0.5)	G-26 (2.5)	G-26 (5)	G-26 (10)	G-26 (15)	G-26 (20)	G-27 (0.5)	G-27 (2.5)	G-27 (5)	G-27 (10)	G-27 (15)	G-27 (20)	G-28 (0.5)	G-28 (2.5)	G-28 (5)	G-28 (10)	G-28 (15)	G-28 (20)	G-29 (0.5)*	G-29 (2.5)	G-29 (5)	G-29 (10)
Sample Depth (feet)	2.5	5	10	15	0.5	2.5	5	10	15	20	0.5	2.5	5	10	15	20	0-0.5	0.5-2.5	2.5-5	5-10	0.5	2.5	5	10	15	20	0.5	2.5	5	10	15	20	0.5	2.5	5	10	15	20	0.5	2.5	5	10	15	20	0.5	2.5	5	10
Date Sampled	1/15/15	1/15/15	1/15/15	1/15/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	9/26/13	9/26/13	9/26/13	9/26/13	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/15/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	1/15/15	1/15/15	1/15/15	1/15/15
Analytes	**CAS No.**																																														
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C11-C22 Aromatics	NA_c11-22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Dibenzo(a,h)anthracene	53-70-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyls (PCBs)																																															
Aroclor-1232	11141-16-5	<0.13	<0.11	<0.11	<0.12	<0.13	<0.11	<0.10	<0.10	<0.13	<0.11	<0.11	<0.10	<0.10	<0.11	<0.13	<0.11	<2	<0.4	<0.42	<0.42	<0.15	<0.11	<0.14	<0.12	<0.11	<0.11	<1.2	<0.10	<0.11	<0.11	<0.16	<0.11	<0.13	<0.11	<0.10	<0.12	<0.15	<0.11	<0.11	<0.10	<0.099	<0.11	<0.14	<0.11	<0.13	<0.11	<0.11	<0.11
Aroclor-1242	53469-21-9	<0.13	<0.11	<0.11	<0.12	<0.13	<0.11	<0.10	<0.10	<0.13	<0.11	<0.11	<0.10	<0.10	<0.11	<0.13	<0.11	<2	<0.4	<0.42	<0.42	<0.15	<0.11	<0.14	<0.12	<0.11	<0.11	<1.2	<0.10	<0.11	<0.11	<0.16	<0.11	<0.13	<0.11	<0.10	<0.12	<0.15	<0.11	<0.11	<0.10	<0.099	<0.11	<0.14	<0.11	<0.13	<0.11	<0.11	<0.11
Aroclor-1248	12672-29-6	**1.1**	**0.24**	<0.11	<0.12	**0.21**	<0.11	<0.10	<0.10	<0.13	<0.11	**0.35**	<0.10	<0.10	<0.11	<0.13	<0.11	**8.7**	**2.1**	<0.42	<0.42	**1.4**	<0.11	<0.14	<0.12	<0.11	<0.11	**6.2**	**0.54**	**0.57**	<0.11	<0.16	<0.11	**0.3**	<0.11	<0.10	<0.12	<0.15	<0.11	<0.11	<0.10	<0.099	**0.99**	<0.14	<0.11	**0.92**	<0.11	**0.26**	<0.11
Aroclor-1254	11097-69-1	<0.13	<0.11	<0.11	<0.12	<0.13	<0.11	<0.10	<0.10	<0.13	<0.11	**0.26**	<0.10	<0.10	<0.11	<0.13	<0.11	<2	<0.4	<0.42	<0.42	<0.15	<0.11	<0.14	<0.12	<0.11	<0.11	<1.2	<0.10	<0.11	<0.11	<0.16	<0.11	<0.13	<0.11	<0.10	**0.15**	<0.15	<0.11	<0.11	<0.10	<0.099	**0.31**	<0.14	<0.11	**0.29**	<0.11	<0.11	<0.11
Total PCBs	1336-36-3	**1.1**	**0.24**	<0.11	<0.12	**0.21**	<0.11	<0.10	<0.10	<0.13	<0.11	**0.61**	<0.10	<0.10	<0.11	<0.13	<0.11	**8.7**	**2.1**	<0.42	<0.42	**1.4**	<0.11	<0.14	<0.12	<0.11	<0.11	**6.2**	**0.54**	**0.57**	<0.11	<0.16	<0.11	**0.3**	<0.11	<0.10	**0.15**	<0.15	<0.11	<0.11	<0.10	<0.099	**1.3**	<0.14	<0.11	**1.21**	<0.11	**0.26**	<0.11
Metals																																															
Arsenic	7440-38-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	7440-39-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	7440-47-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	7439-97-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	7440-02-0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	7440-22-4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	7440-62-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	7440-66-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 1
Summary of Soil Analytical Data
Former Lewis Chemical Corporation
0 & 12-24 Fairmount Court
Hyde Park, Massachusetts

Grid	29	29	30	30	30	30	30	30	31	31	31	31	31	31	A-1	A-1	A-1	A-1	A-1	A-1	A-2	A-2	A-2	A-2	A-2	A-2	A-3	A-3	A-3	A-3	A-3	A-3	B-1	B-1	B-1	B-1	B-1	B-1	B-2	B-2	B-2	B-2	B-2	B-2	B-3	B-3	B-3
Soil Boring	G-29	G-29	G-30	G-30	G-30	G-30	G-30	G-30	G-31	G-31	G-31	G-31	G-31	G-31	G-A-1	G-A-1	G-A-1	G-A-1	G-A-1	G-A-1	G-A-2	G-A-2	G-A-2	G-A-2	G-A-2	G-A-2	G-A-3	G-A-3	G-A-3	G-A-3	G-A-3	G-A-3	G-B-1	G-B-1	G-B-1	G-B-1	G-B-1	G-B-1	G-B-2	G-B-2	G-B-2	G-B-2	G-B-2	G-B-2	G-B-3	G-B-3	G-B-3
Sample ID	G-29 (15)	G-29 (20)	G-30 (0.5)	G-30 (2.5)	G-30 (5)	G-30 (10)	G-30 (15)	G-30 (20)	G-31 (0.5)	G-31 (2.5)	G-31 (5)	G-31 (10)	G-31 (15)	G-31 (20')	G-A-1 2.5	G-A-1 5	G-A-1 10	G-A-1 15	G-A-1 20	G-A-1 20+	G-A-2 0.5	G-A-2 2.5	G-A-2 5	G-A-2 10	G-A-2 20	G-A-2 20+	G-A-3 0.5	G-A-3 2.5	G-A-3 5	G-A-3 10	G-A-3 15	G-A-3 15+	G-B-1 0.5	G-B-1 2.5	G-B-1 5	G-B-1 10	G-B-1 15	G-B-1 15+	G-B-2 0.5	G-B-2 2.5	G-B-2 5	G-B-2 10	G-B-2 15	G-B-2 15+	G-B-3 0.5	G-B-3 2.5	G-B-3 5
Sample Depth (feet)	15	20	0.5	2.5	5	10	15	20	0.5	2.5	5	10	15	20	0.5-2.5	2.5-5	5-10	10-15	15-20	20-21.5	0-0.5	0.5-2.5	2.5-5	5-10	15-20	20-20.5	0-0.5	0.5-2.5	2.5-5	5-10	10-15	15-18.5	0-0.5	0.5-2.5	2.5-5	5-10	10-15	15-16	0-0.5	0.5-2.5	2.5-5	5-10	10-15	15-18.5	0-0.5	0.5-2.5	2.5-5
Date Sampled	1/15/15	1/15/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/16/15	1/6/15	1/6/15	1/6/15	1/6/15	1/6/15	10/1/13	10/1/13	10/1/13	10/1/13	10/1/13	10/1/13	11/18/13	11/18/13	11/18/13	11/18/13	11/18/13	11/18/13	10/1/13	10/1/13	10/1/13	10/1/13	10/1/13	10/1/13	11/15/13	11/15/13	11/15/13	11/15/13	11/15/13	11/15/13	11/12/13	11/12/13	11/12/13	11/12/13	11/12/13	11/12/13	11/15/13	11/15/13	11/15/13
Analytes	**CAS No.**																																													
Volatile Organic Compounds (VOCs)																																														
1,1,1-Trichloroethane	71-55-6	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	**0.31**	**10**	**0.0079**	**0.0045**	<0.0015	--	--	**0.051**	**0.72**	<0.0016	<0.0014	--	**0.0087**	**0.016**	<0.46	<0.0014	<0.0014	--	--	**12**	**1100**	**230**	**0.62**	--	--	**7.3**	**2.8**	**1**	<0.0013	--	--	**0.0074**
1,1,2-Trichloroethane	79-00-5	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	<0.7	<0.0013	<0.0014	<0.0015	--	--	<0.036	<0.57	<0.0016	<0.0014	--	<0.0017	<0.0015	<0.46	<0.0014	<0.0014	--	--	<0.91	<16	<3.9	<0.044	--	--	<1.8	<0.69	<0.22	<0.0013	--	--	<0.0012
1,1-Dichloroethane	75-34-3	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	**1.1**	**0.0024**	<0.0014	<0.0015	--	--	**0.24**	**1.6**	<0.0016	<0.0014	--	<0.0017	<0.0015	<0.46	<0.0014	<0.0014	--	--	<0.91	<16	<3.9	<0.044	--	--	<1.8	**3.4**	**0.52**	<0.0013	--	--	<0.0012
1,1-Dichloroethene	75-35-4	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	<0.7	<0.0026	<0.0028	<0.0031	--	--	<0.036	<0.57	<0.0031	<0.0028	--	<0.0035	<0.0029	<0.46	<0.0027	<0.0027	--	--	<0.91	<16	<3.9	<0.044	--	--	<1.8	<0.69	<0.22	<0.0026	--	--	<0.0025
1,2,4-Trichlorobenzene	120-82-1	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.93	<0.34	<1.4	<0.0064	<0.007	<0.0077	--	--	<0.036	<0.57	<0.0078	<0.007	--	<0.0086	<0.0073	<0.91	<0.0068	<0.0069	--	--	<0.91	<16	<3.9	<0.044	--	--	<8.9	<3.4	<1.1	<0.0026	--	--	<0.0012
1,2,4-Trimethylbenzene	95-63-6	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	**0.22**	**3.3**	**0.0073**	**0.0034**	<0.0015	--	--	**0.052**	<0.57	<0.0031	<0.0028	--	<0.0017	**0.045**	<0.46	<0.0014	<0.0014	--	--	<0.91	**20**	**4.8**	**0.045**	--	--	**2.2**	<0.69	<0.22	<0.0013	--	--	<0.0012
1,2-Dichlorobenzene	95-50-1	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**	**1.7**	**9.4**	**0.027**	**0.015**	<0.0015	--	--	**0.97**	<0.57	<0.0016	<0.0014	--	<0.0017	**0.012**	<0.46	<0.0014	<0.0014	--	--	<0.91	<16	<3.9	<0.044	--	--	<1.8	**2.1**	<0.22	<0.0013	--	--	<0.0012
1,2-Dichloroethane	107-06-2	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	<0.7	<0.0013	<0.0014	<0.0015	--	--	<0.18	<2.8	<0.0016	<0.0014	--	**0.0024**	<0.0015	<0.46	<0.0014	<0.0014	--	--	<4.6	<80	<19	<0.22	--	--	<1.8	<0.69	<0.22	<0.0013	--	--	<0.0012
1,3,5-Trimethylbenzene	108-67-8	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	**1.5**	**0.0028**	<0.0014	<0.0015	--	--	**0.039**	<0.57	<0.0016	<0.0014	--	<0.0017	**0.011**	<0.46	<0.0014	<0.0014	--	--	<0.91	<16	<3.9	<0.044	--	--	<1.8	<0.69	<0.22	<0.0013	--	--	<0.0012
1,4-Dichlorobenzene	106-46-7	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	<0.7	**0.0015**	<0.0014	<0.0015	--	--	**0.061**	<0.57	<0.0016	<0.0014	--	<0.0017	<0.0015	<0.46	<0.0014	<0.0014	--	--	<0.91	<16	<3.9	<0.044	--	--	<1.8	<0.69	<0.22	<0.0013	--	--	<0.0012
1,4-Dioxane	123-91-1	--	--	--	--	--	--	--	--	--	--	--	--	--	<23	<8.5	<35	<0.13	<0.14	<0.15	--	--	<1.8	<28	<0.078	<0.07	--	<0.17	<0.15	<23	<0.14	<0.14	--	--	<46	<800	<190	<2.2	--	--	<89	<34	<11	<0.064	--	--	<0.062
2-Butanone	78-93-3	--	--	--	--	--	--	--	--	--	--	--	--	--	<9.3	<3.4	<14	<0.026	<0.028	<0.031	--	--	<0.72	<11	<0.031	<0.028	--	<0.035	<0.029	<9.1	<0.027	<0.027	--	--	<18	<320	<78	<0.87	--	--	<36	<14	<4.3	<0.026	--	--	<0.025
4-Isopropyltoluene	99-87-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	108-10-1	--	--	--	--	--	--	--	--	--	--	--	--	--	<4.6	<1.7	<7	<0.013	<0.014	<0.015	--	--	<0.36	<5.7	<0.016	<0.014	--	<0.017	<0.015	<4.6	<0.014	<0.014	--	--	<9.1	<160	<39	<0.44	--	--	<18	<6.9	<2.2	<0.013	--	--	<0.012
Acetone	67-64-1	--	--	--	--	--	--	--	--	--	--	--	--	--	<23	<8.5	<35	<0.064	<0.07	<0.077	--	--	<1.8	<28	<0.078	<0.07	--	<0.086	<0.073	<23	<0.068	<0.069	--	--	<46	<800	<190	<2.2	--	--	<89	<34	<11	<0.064	--	--	<0.062
Benzene	71-43-2	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	<0.7	<0.0013	<0.0014	<0.0015	--	--	<0.036	<0.57	<0.0016	<0.0014	--	<0.0017	<0.0015	<0.46	<0.0014	<0.0014	--	--	<0.91	<16	<3.9	<0.044	--	--	<1.8	<0.69	<0.22	<0.0013	--	--	<0.0012
Bromoform	75-25-2	--	--	--	--	--	--	--	--	--	--	--	--	--	<2.3	<0.85	<3.5	<0.0064	<0.007	<0.0077	--	--	<0.036	<0.57	<0.0078	<0.007	--	<0.0086	<0.0073	<2.3	<0.0068	<0.0069	--	--	<0.91	<16	<3.9	<0.044	--	--	<8.9	<3.4	<1.1	<0.0013	--	--	<0.0062
Carbon Disulfide	75-15-0	--	--	--	--	--	--	--	--	--	--	--	--	--	<4.6	<1.7	<7	<0.0038	<0.0042	<0.0046	--	--	<0.36	<5.7	<0.0047	<0.0042	--	<0.0052	<0.0044	<4.6	<0.0041	<0.0041	--	--	<9.1	<160	<39	<0.44	--	--	<18	<6.9	<2.2	<0.0038	--	--	<0.0037
Chlorobenzene	108-90-7	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	<0.7	<0.0013	<0.0014	<0.0015	--	--	<0.036	<0.57	<0.0016	<0.0014	--	<0.0017	<0.0015	<0.46	<0.0014	<0.0014	--	--	<0.91	<16	<3.9	<0.044	--	--	<1.8	<0.69	<0.22	<0.0013	--	--	<0.0012
Chloroethane	75-00-3	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.93	<0.34	<1.4	<0.0064	<0.007	<0.0077	--	--	**0.2**	<1.1	<0.0078	<0.007	--	<0.0086	<0.0073	<0.91	<0.0068	<0.0069	--	--	<1.8	<32	<7.8	<0.087	--	--	<3.6	<1.4	<0.43	<0.0064	--	--	<0.0062
cis-1,2-Dichloroethene	156-59-2	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**	**1.4**	**25**	**0.052**	**0.013**	<0.0015	--	--	**0.43**	**43**	**0.005**	<0.0014	--	**0.0076**	**5**	**3.8**	**0.004**	**0.0038**	--	--	**9.6**	**31**	**9.5**	<0.044	--	--	<1.8	**56**	**8.9**	<0.0013	--	--	**0.0035**
Dichlorodifluoromethane	75-71-8	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.93	<0.34	<1.4	<0.0064	<0.007	<0.0077	--	--	<0.072	<1.1	<0.0078	<0.007	--	<0.0086	<0.0073	<0.91	<0.0068	<0.0069	--	--	<1.8	<32	<7.8	<0.087	--	--	<3.6	<1.4	<0.43	<0.0064	--	--	<0.0062
Ethylbenzene	100-41-4	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	**0.28**	**8.7**	**0.0099**	**0.0074**	<0.0015	--	--	**0.44**	**2.5**	<0.0016	<0.0014	--	<0.0017	**0.024**	**0.6**	<0.0014	<0.0014	--	--	<0.91	**53**	**6.8**	<0.044	--	--	<1.8	**1**	<0.22	<0.0013	--	--	<0.0012
Hexachlorobutadiene	87-68-3	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	<0.7	<0.0026	<0.0028	<0.0031	--	--	<0.036	<0.57	<0.0031	<0.0028	--	<0.0035	<0.0029	<0.46	<0.0027	<0.0027	--	--	<0.91	<16	<3.9	<0.044	--	--	<1.8	<0.69	<0.22	<0.0013	--	--	<0.0012
Isopropylbenzene	98-82-8	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	<0.7	<0.0013	<0.0014	<0.0015	--	--	<0.036	<0.57	<0.0016	<0.0014	--	<0.0017	<0.0015	<0.46	<0.0014	<0.0014	--	--	<0.91	<16	<3.9	<0.044	--	--	<1.8	<0.69	<0.22	<0.0013	--	--	<0.0012
Methyl tert-butyl ether	1634-04-4	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	<0.7	<0.0026	<0.0028	<0.0031	--	--	<0.036	<0.57	<0.0031	<0.0028	--	<0.0035	<0.0029	<0.46	<0.0027	<0.0027	--	--	<0.91	<16	<3.9	<0.044	--	--	<1.8	<0.69	<0.22	<0.0026	--	--	<0.0025
Methylene Chloride	75-09-2	--	--	--	--	--	--	--	--	--	--	--	--	--	<2.3	<0.85	<3.5	<0.0064	<0.007	<0.0077	--	--	<0.18	<2.8	<0.0078	<0.007	--	**0.1**	<0.0073	<2.3	<0.0068	<0.0069	--	--	<4.6	<80	<19	<0.22	--	--	<8.9	<3.4	<1.1	<0.0064	--	--	<0.0062
Naphthalene**	91-20-3	--	--	--	--	--	--	--	--	--	--	--	--	--	<2.3	<0.85	<3.5	<0.0064	<0.007	<0.0077	--	--	**0.15**	<1.1	<0.0078	<0.007	--	<0.0086	**0.0073**	<2.3	<0.0068	<0.0069	--	--	<1.8	<32	<7.8	<0.087	--	--	<8.9	<3.4	<1.1	<0.0026	--	--	<0.0062
n-Butylbenzene	104-51-8	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.83**	**0.51**	**2.6**	**0.005**	<0.007	<0.0077	--	--	<0.036	<0.57	<0.0031	<0.0028	--	<0.0086	<0.0029	<0.46	<0.0027	<0.0027	--	--	**1.4**	<16	**6.1**	<0.044	--	--	**12**	**5.8**	<0.22	<0.0013	--	--	<0.0012
n-Propylbenzene	103-65-1	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	**0.75**	**0.0013**	<0.0014	<0.0015	--	--	<0.036	<0.57	<0.0016	<0.0014	--	<0.0017	**0.0034**	<0.46	<0.0014	<0.0014	--	--	<0.91	<16	<3.9	<0.044	--	--	<1.8	<0.69	<0.22	<0.0013	--	--	<0.0012
sec-Butylbenzene	135-98-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	100-42-5	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	<0.7	<0.0013	<0.0014	<0.0015	--	--	<0.036	<0.57	<0.0016	<0.0014	--	<0.0017	<0.0015	<0.46	<0.0014	<0.0014	--	--	<0.91	<16	<3.9	<0.044	--	--	<1.8	<0.69	<0.22	<0.0013	--	--	<0.0012
tert-Butylbenzene	98-06-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.97**	**0.31**	**3.3**	**0.0083**	**0.016**	<0.0015	--	--	**0.14**	<0.57	<0.0016	<0.0014	--	**70**	**0.049**	<0.46	**0.002**	**0.0044**	--	--	**100**	**710**	**210**	**0.92**	--	--	**58**	<0.69	<0.22	**0.0015**	--	--	**0.069**
Toluene**	108-88-3	--	--	--	--	--	--	--	--	--	--	--	--	--	**23**	**9.7**	**12**	**0.013**	**0.008**	<0.0015	--	--	**2.3**	**18**	**0.0016**	<0.0014	--	**0.011**	**0.0027**	**17**	**0.012**	**0.012**	--	--	**1.1**	**430**	**70**	**0.23**	--	--	**4.6**	**11**	**0.8**	<0.0013	--	--	<0.0012
trans-1,2-Dichloroethene	156-60-5	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	<0.7	<0.0013	<0.0014	<0.0015	--	--	<0.036	<0.57	<0.0016	<0.0014	--	<0.0017	**0.0049**	<0.46	<0.0014	<0.0014	--	--	<0.91	<16	<3.9	<0.044	--	--	<1.8	<0.69	<0.22	<0.0013	--	--	<0.0012
Trichloroethene	79-01-6	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.46	<0.17	<0.7	<0.0013	<0.0014	<0.0015	--	--	**0.06**	<0.57	<0.0016	<0.0014	--	**0.14**	**1.1**	<0.46	<0.0014	<0.0014	--	--	**50**	**1800**	**420**	**1.1**	--	--	**20**	<0.69	<0.22	<0.0013	--	--	**0.095**
Trichlorofluoromethane	75-69-4	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.93	<0.34	<1.4	<0.0064	<0.007	<0.0077	--	--	<0.072	<1.1	<0.0078	<0.007	--	<0.0086	<0.0073	<0.91	<0.0068	<0.0069	--	--	<1.8	<32	<7.8	<0.087	--	--	<3.6	<1.4	<0.43	<0.0064	--	--	<0.0062
Vinyl Chloride	75-01-4	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.93	<0.34	<1.4	<0.0064	<0.007	<0.0077	--	--	**0.13**	<1.1	<0.0078	<0.007	--	<0.0086	<0.0073	<0.91	<0.0068	<0.0069	--	--	<1.8	<32	<7.8	<0.087	--	--	<3.6	<1.4	<0.43	<0.0064	--	--	<0.0062
Xylenes, Total**	1330-20-7	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.93	**1.1**	**42**	**0.054**	**0.038**	<0.0031	--	--	**1.68**	**8.8**	<0.0031	<0.0028	--	<0.0035	**0.0415**	**0.53**	<0.0027	<0.0027	--	--	<1.8	**293**	**33.9**	**0.205**	--	--	**6.7**	**2.2**	<0.43	<0.0026	--	--	<0.0025
Volatile Petroleum Hydrocarbons (VPH)																																														
C5-C8 Aliphatics	NA, c5-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C9-C12 Aliphatics	NA, c9-12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C9-C10 Aromatics	NA, c9-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons (EPH)																																														
C9-C18 Aliphatics	NA, c9-18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C19-C36 Aliphatics	NA, c19-36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C11-C22 Aromatics	NA, c11-22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	56-55-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	50-32-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	205-99-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	191-24-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	207-08-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	53-70-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyls (PCBs)																																														
Aroclor-1232	11141-16-5	<0.11	<0.12	<0.52	<0.10	<0.10	<0.11	<0.25	<0.11	<0.11	<0.097	<0.099	<0.11	<0.11	<0.11	<8.4	<0.86	<0.53	<0.44	<0.42	<0.43	<470	<5.5	<0.23	<0.17	<0.11	<0.11	<0.43	<8.9	<0.44	<0.62	<0.11	<0.11	<0.11	<0.11	<0.14	<0.1	<0.1	<0.6	<0.11	<0.12	--	--	--	<0.1	<0.12	<0.11
Aroclor-1242	53469-21-9	<0.11	<0.12	<0.52	<0.10	<0.10	<0.11	<0.25	<0.11	<0.11	<0.097	<0.099	<0.11	<0.11	<0.11	<8.4	<0.86	<0.53	<0.44	<0.42	<0.43	**2600**	**14**	**1.1**	<0.17	<0.11	<0.11	<0.43	<8.9	<0.44	<0.62	**1.1**	**0.34**	**0.33**	**1.1**	**0.34**	**1.2**	**0.31**	<0.1	<0.6	<0.11	<0.12	--	--	--	<0.1	<0.12	<0.11
Aroclor-1248	12672-29-6	<0.11	<0.12	**2.3**	<0.10	**0.31**	<0.11	<0.25	<0.11	<0.11	<0.097	<0.099	<0.11	<0.11	<0.11	**60**	**5.7**	**3.9**	**2.8**	**1.6**	<0.43	<470	<5.5	<0.23	<0.17	<0.11	<0.11	**1.5**	**54**	<0.44	<0.62	<0.11	<0.11	<0.11	<0.11	<0.14	<0.1	<0.1	**1.8**	**0.39**	**0.22**	--	--	--	<0.1	<0.12	<0.11
Aroclor-1254	11097-69-1	<0.11	<0.12	<0.52	<0.10	<0.10	<0.11	<0.25	<0.11	<0.11	<0.097	<0.099	<0.11	<0.11	<0.11	<8.4	<0.86	<0.53	<0.44	<0.42	<0.43	<470	<5.5	<0.23	<0.17	<0.11	<0.11	<0.43	<8.9	<0.44	<0.62	<0.11	<0.11	<0.11	<0.11	<0.14	<0.1	<0.1

Table 1
Summary of Soil Analytical Data
Former Lewis Chemical Corporation
0 & 12-24 Fairmount Court
Hyde Park, Massachusetts

Grid	B-3	B-3	B-3	C-1	C-1	C-1	C-1	C-1	C-1	C-2	C-2	C-2	C-2	C-2	C-2	C-2	C-3	C-3	C-3	C-3	C-3	C-3	D-1	D-1	D-1	D-1	D-1	D-1	D-2	D-2	D-2	D-2	D-2	D-2	D-2	D-3	D-3	D-3	D-3	D-3	D-3	E-1	E-1	E-1	E-1	E-1	E-2	E-2	E-2	E-2
Soil Boring	G-B-3	G-B-3	G-B-3	G-C-1	G-C-1	G-C-1	G-C-1	G-C-1	G-C-1	G-C-2	G-C-2	G-C-2	G-C-2	G-C-2	G-C-2	G-C-2	G-C-3	G-C-3	G-C-3	G-C-3	G-C-3	G-C-3	G-D-1	G-D-1	G-D-1	G-D-1	G-D-1	G-D-1	G-D-2	G-D-2	G-D-2	G-D-2	G-D-2	G-D-2	G-D-2	G-D-3	G-D-3	G-D-3	G-D-3	G-D-3	G-D-3	G-E-1	G-E-1	G-E-1	G-E-1	G-E-1	G-E-2	G-E-2	G-E-2	G-E-2
Sample ID	G-B-3 10	G-B-3 15	G-B-3 15+	G-C-1 0.5	G-C-1 2.5	G-C-1 5	G-C-1 10	G-C-1 15	G-C-1 15+	G-C-2 0.5	G-C-2 2.5	G-C-2 5	G-C-2 10	G-C-2 15	G-C-2 15+	G-C-3 0.5	G-C-3 2.5	G-C-3 5	G-C-3 10	G-C-3 15	G-C-3 15+	G-D-1 0.5	G-D-1 2.5	G-D-1 5	G-D-1 10	G-D-1 15	G-D-2 0.5	G-D-2 2.5	G-D-2 5	G-D-2 10	G-D-2 15	G-D-2 20	G-D-3 0.5	G-D-3 2.5	G-D-3 5	G-D-3 10	G-D-3 15	G-D-3 15+	G-E-1 0.5	G-E-1 2.5	G-E-1 5	G-E-1 10	G-E-1 15	G-E-2 0.5	G-E-2 2.5	G-E-2 5
Sample Depth (feet)	5-10	10-15	15-18	0-0.5	0.5-2.5	2.5-5	5-10	10-15	15-18	0-0.5	0.5-2.5	2.5-5	5-10	10-15	15-17	0-0.5	0.5-2.5	2.5-5	5-10	10-15	15-20	0-0.5	0.5-2.5	2.5-5	5-10	10-15	15-20	0-0.5	0.5-2.5	2.5-5	5-10	10-15	15-20	0-0.5	0.5-2.5	2.5-5	5-10	10-15	15-18	0-0.5	0.5-2.5	2.5-5	5-10	10-15	0-0.5	0.5-2.5	2.5-5
Date Sampled	11/15/13	11/15/13	11/15/13	11/15/13	11/15/13	11/15/13	11/15/13	11/15/13	11/15/13	11/12/13	11/12/13	11/12/13	11/12/13	11/12/13	11/12/13	11/12/13	11/12/13	11/12/13	11/12/13	11/12/13	11/12/13	11/14/13	11/14/13	11/14/13	11/14/13	11/14/13	11/13/13	11/13/13	11/13/13	11/13/13	11/13/13	11/13/13	11/14/13	11/14/13	11/14/13	11/14/13	11/14/13	11/13/13	11/13/13	11/13/13	11/13/13	11/13/13	11/13/13	11/13/13	11/13/13	11/13/13	11/13/13	11/13/13	11/13/13
Analytes	**CAS No.**																																																
Volatile Organic Compounds (VOCs)																																																	
1,1,1-Trichloroethane	71-55-6	<0.29	<0.0034	<0.0015	--	--	**0.73**	**16**	**0.0018**	<0.0017	--	--	<0.56	<0.42	<0.0017	<0.0016	--	--	**0.19**	<0.0019	<0.0014	<0.0015	--	--	**0.4**	<0.07	<0.0017	--	--	<0.086	<0.79	<0.0016	<0.0016	--	--	<0.0014	<1.6	<0.0014	<0.0015	--	--	**0.0016**	<0.004	<0.0014	--	--	**0.0084**
1,1,2-Trichloroethane	79-00-5	<0.29	<0.0034	<0.0015	--	--	<0.18	<0.78	<0.0015	<0.0017	--	--	<0.56	<0.42	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	<0.096	<0.07	<0.0017	--	--	<0.086	<0.79	<0.0016	<0.0016	--	--	<0.0014	<1.6	<0.0014	<0.0015	--	--	<0.0016	<0.004	<0.0014	--	--	<0.0016
1,1-Dichloroethane	75-34-3	**0.43**	**0.07**	<0.0015	--	--	<0.18	**6.4**	<0.0015	<0.0017	--	--	<0.56	<0.42	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	**0.66**	**0.94**	<0.0017	--	--	<0.086	**1.5**	<0.0016	<0.0016	--	--	<0.0014	**2.2**	<0.0014	<0.0015	--	--	<0.0016	**0.021**	<0.0014	--	--	<0.0016
1,1-Dichloroethene	75-35-4	<0.29	**0.0082**	<0.003	--	--	<0.18	<0.78	<0.0031	<0.0034	--	--	<0.56	<0.42	<0.0034	<0.0031	--	--	<0.1	<0.0038	<0.0029	<0.003	--	--	<0.096	<0.07	<0.0035	--	--	<0.086	<0.79	<0.0032	<0.0032	--	--	<0.0029	<1.6	<0.0027	<0.0031	--	--	<0.0033	<0.008	<0.0028	--	--	<0.0031
1,2,4-Trichlorobenzene	120-82-1	<0.29	<0.0034	<0.0015	--	--	<0.18	<0.78	<0.0015	<0.0017	--	--	<2.8	<2.1	<0.0034	<0.0031	--	--	<0.5	<0.0038	<0.0029	<0.003	--	--	<0.96	<0.7	<0.0087	--	--	<0.43	<3.9	<0.0081	<0.0081	--	--	<0.0072	<16	<0.0068	<0.0077	--	--	<0.0081	<0.02	<0.0069	--	--	<0.0078
1,2,4-Trimethylbenzene	95-63-6	<0.29	<0.0034	<0.0015	--	--	<0.18	**0.79**	<0.0015	<0.0017	--	--	<0.56	**2.3**	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	**0.21**	**1.1**	<0.0035	--	--	<0.086	<0.79	<0.0032	<0.0032	--	--	**0.017**	**2.7**	<0.0027	<0.0031	--	--	<0.0033	**0.013**	<0.0028	--	--	<0.0031
1,2-Dichlorobenzene	95-50-1	<0.29	<0.0034	<0.0015	--	--	<0.18	<0.78	<0.0015	<0.0017	--	--	<0.56	**18**	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	**0.75**	**0.73**	**0.0022**	--	--	<0.086	<0.79	<0.0016	<0.0016	--	--	<0.0014	<1.6	<0.0014	<0.0015	--	--	<0.0016	**0.029**	<0.0014	--	--	<0.0016
1,2-Dichloroethane	107-06-2	<1.4	**0.0076**	<0.0015	--	--	<0.88	<3.9	<0.0015	<0.0017	--	--	**0.71**	<0.42	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	<0.096	<0.07	<0.0017	--	--	<0.086	<0.79	<0.0016	<0.0016	--	--	<0.0014	<1.6	<0.0014	<0.0015	--	--	<0.0016	<0.004	<0.0014	--	--	<0.0016
1,3,5-Trimethylbenzene	108-67-8	<0.29	<0.0034	<0.0015	--	--	<0.18	<0.78	<0.0015	<0.0017	--	--	<0.56	**0.94**	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	<0.096	**0.29**	<0.0017	--	--	<0.086	<0.79	<0.0016	<0.0016	--	--	**0.0031**	<1.6	<0.0014	<0.0015	--	--	<0.0016	<0.004	<0.0014	--	--	<0.0016
1,4-Dichlorobenzene	106-46-7	<0.29	<0.0034	<0.0015	--	--	<0.18	<0.78	<0.0015	<0.0017	--	--	<0.56	<0.42	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	<0.096	<0.07	<0.0017	--	--	<0.086	<0.79	<0.0016	<0.0016	--	--	<0.0014	<1.6	<0.0014	<0.0015	--	--	<0.0016	<0.004	<0.0014	--	--	<0.0016
1,4-Dioxane	123-91-1	<14	<0.17	<0.074	--	--	<8.8	<39	<0.077	<0.086	--	--	<28	<21	<0.086	<0.078	--	--	<5	<0.095	<0.071	<0.076	--	--	<4.8	<3.5	<0.087	--	--	<4.3	<39	<0.081	<0.081	--	--	<0.072	<80	<0.068	<0.077	--	--	<0.081	<0.2	<0.069	--	--	<0.078
2-Butanone	78-93-3	<5.7	<0.068	<0.03	--	--	<3.5	<16	<0.031	<0.034	--	--	<11	<8.4	<0.034	<0.031	--	--	<2	<0.038	<0.029	<0.03	--	--	<1.9	<1.4	<0.035	--	--	<1.7	<16	<0.032	<0.032	--	--	<0.029	<32	<0.027	<0.031	--	--	<0.033	<0.08	<0.028	--	--	<0.031
4-Isopropyltoluene	99-87-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	108-10-1	<2.9	<0.034	<0.015	--	--	<1.8	<7.8	<0.015	<0.017	--	--	<5.6	<4.2	<0.017	<0.016	--	--	<1	<0.019	<0.014	<0.015	--	--	<0.96	<0.7	<0.017	--	--	<0.86	<7.9	<0.016	<0.016	--	--	<0.014	<16	<0.014	<0.015	--	--	<0.016	<0.04	<0.014	--	--	<0.016
Acetone	67-64-1	<14	<0.17	<0.074	--	--	<8.8	<39	<0.077	<0.086	--	--	<28	<21	<0.086	<0.078	--	--	<5	<0.095	<0.071	<0.076	--	--	<4.8	<3.5	<0.087	--	--	<4.3	<39	<0.081	<0.081	--	--	<0.072	<80	<0.068	<0.077	--	--	<0.081	<0.2	<0.069	--	--	<0.078
Benzene	71-43-2	<0.29	<0.0034	<0.0015	--	--	<0.18	<0.78	<0.0015	<0.0017	--	--	<0.56	<0.42	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	<0.096	<0.07	<0.0017	--	--	<0.086	<0.79	<0.0016	<0.0016	--	--	<0.0014	<1.6	<0.0014	<0.0015	--	--	<0.0016	<0.004	<0.0014	--	--	<0.0016
Bromoform	75-25-2	<0.29	<0.017	<0.0074	--	--	<0.18	<0.78	<0.0077	<0.0086	--	--	<2.8	<2.1	<0.0017	<0.0016	--	--	<0.5	<0.0019	<0.0014	<0.0015	--	--	<0.48	<0.35	<0.0087	--	--	<0.43	<3.9	<0.0081	<0.0081	--	--	<0.0072	<8	<0.0068	<0.0077	--	--	<0.0081	<0.02	<0.0069	--	--	<0.0078
Carbon Disulfide	75-15-0	<2.9	<0.01	<0.0045	--	--	<1.8	<7.8	<0.0046	<0.0052	--	--	<5.6	<4.2	<0.0051	<0.0047	--	--	<1	<0.0057	<0.0043	<0.0045	--	--	<0.96	<0.7	<0.0052	--	--	<0.86	<7.9	<0.0048	<0.0049	--	--	<0.0043	<16	<0.0041	<0.0046	--	--	<0.0049	<0.012	<0.0041	--	--	<0.0047
Chlorobenzene	108-90-7	**0.8**	**0.14**	<0.0015	--	--	<0.18	<0.78	<0.0015	<0.0017	--	--	<0.56	**1**	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	<0.096	**0.19**	<0.0017	--	--	<0.086	<0.79	<0.0016	<0.0016	--	--	<0.0014	<1.6	<0.0014	<0.0015	--	--	<0.0016	**0.0053**	<0.0014	--	--	<0.0016
Chloroethane	75-00-3	<0.57	<0.017	<0.0074	--	--	<0.35	<1.6	<0.0077	<0.0086	--	--	<1.1	<0.84	<0.0086	<0.0078	--	--	<0.2	<0.0095	<0.0071	<0.0076	--	--	<0.19	<0.14	<0.0087	--	--	<0.17	<1.6	<0.0081	<0.0081	--	--	<0.0072	<3.2	<0.0068	<0.0077	--	--	<0.0081	<0.02	<0.0069	--	--	<0.0078
cis-1,2-Dichloroethene	156-59-2	**16**	**6.5**	**0.012**	--	--	<0.18	**38**	<0.0015	<0.0017	--	--	**4.1**	**3.2**	<0.0017	<0.0016	--	--	**1.2**	<0.0019	<0.0014	<0.0015	--	--	**4.2**	**0.57**	<0.0017	--	--	**0.22**	**4.3**	<0.0016	**0.0046**	--	--	<0.0014	**48**	<0.0014	**0.002**	--	--	<0.0016	**0.0043**	<0.0014	--	--	**0.0024**
Dichlorodifluoromethane	75-71-8	<0.57	<0.017	<0.0074	--	--	<0.35	<1.6	<0.0077	<0.0086	--	--	<1.1	<0.84	<0.0086	<0.0078	--	--	<0.2	<0.0095	<0.0071	<0.0076	--	--	<0.19	<0.14	<0.0087	--	--	<0.17	<1.6	<0.0081	<0.0081	--	--	<0.0072	<3.2	<0.0068	<0.0077	--	--	<0.0081	<0.02	<0.0069	--	--	<0.0078
Ethylbenzene	100-41-4	**0.92**	**0.087**	<0.0015	--	--	<0.18	**5.1**	<0.0015	<0.0017	--	--	<0.56	**13**	<0.0017	<0.0016	--	--	**0.28**	**0.0077**	<0.0014	<0.0015	--	--	**0.39**	**3**	<0.0017	--	--	<0.086	<0.79	<0.0016	<0.0016	--	--	<0.0014	**1.9**	<0.0014	<0.0015	--	--	<0.0016	**0.37**	<0.0014	--	--	<0.0016
Hexachlorobutadiene	87-68-3	<0.29	<0.0034	<0.0015	--	--	<0.18	<0.78	<0.0015	<0.0017	--	--	<0.56	<0.42	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	<0.48	<0.35	<0.0035	--	--	<0.086	<0.79	<0.0032	<0.0032	--	--	<0.0029	<8	<0.0027	<0.0031	--	--	<0.0033	<0.008	<0.0028	--	--	<0.0031
Isopropylbenzene	98-82-8	<0.29	<0.0034	<0.0015	--	--	<0.18	<0.78	<0.0015	<0.0017	--	--	<0.56	<0.42	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	<0.096	**0.074**	<0.0017	--	--	<0.086	<0.79	<0.0016	<0.0016	--	--	<0.0014	<1.6	<0.0014	<0.0015	--	--	<0.0016	**0.0043**	<0.0014	--	--	<0.0016
Methyl tert-butyl ether	1634-04-4	<0.29	<0.0068	<0.003	--	--	<0.18	<0.78	<0.0031	<0.0034	--	--	<0.56	<0.42	<0.0034	<0.0031	--	--	<0.1	<0.0038	<0.0029	<0.003	--	--	<0.096	<0.07	<0.0035	--	--	<0.086	<0.79	<0.0032	<0.0032	--	--	<0.0029	<1.6	<0.0027	<0.0031	--	--	<0.0033	<0.008	<0.0028	--	--	<0.0031
Methylene Chloride	75-09-2	<1.4	<0.017	<0.0074	--	--	<0.88	<3.9	<0.0077	<0.0086	--	--	**7.6**	<2.1	**0.012**	<0.0078	--	--	**0.96**	<0.0095	**0.0091**	<0.0076	--	--	<0.48	<0.35	<0.0087	--	--	<0.43	<3.9	<0.0081	<0.0081	--	--	<0.0072	<8	<0.0068	<0.0077	--	--	<0.0081	<0.02	<0.0069	--	--	<0.0078
Naphthalene**	91-20-3	<0.57	<0.017	<0.0074	--	--	<0.35	<1.6	<0.0077	<0.0086	--	--	<2.8	<2.1	<0.0034	<0.0031	--	--	<0.5	<0.0038	<0.0029	<0.003	--	--	<0.96	<0.7	<0.0087	--	--	<0.43	<3.9	<0.0081	<0.0081	--	--	<0.0072	<16	<0.0068	<0.0077	--	--	<0.0081	<0.02	<0.0069	--	--	<0.0078
n-Butylbenzene	104-51-8	<0.29	<0.0034	<0.0015	--	--	<0.18	<0.78	<0.0015	<0.0017	--	--	<0.56	**1.6**	<0.0017	<0.0016	--	--	**0.15**	<0.0019	<0.0014	<0.0015	--	--	<0.19	<0.14	<0.0035	--	--	<0.086	<0.79	<0.0032	<0.0032	--	--	<0.0029	<1.6	<0.0027	<0.0031	--	--	<0.0033	<0.008	<0.0028	--	--	<0.0031
n-Propylbenzene	103-65-1	<0.29	<0.0034	<0.0015	--	--	<0.18	<0.78	<0.0015	<0.0017	--	--	<0.56	<0.42	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	<0.096	**0.087**	<0.0017	--	--	<0.086	<0.79	<0.0016	<0.0016	--	--	<0.0014	<1.6	<0.0014	<0.0015	--	--	<0.0016	<0.004	<0.0014	--	--	<0.0016
sec-Butylbenzene	135-98-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	100-42-5	<0.29	<0.0034	<0.0015	--	--	<0.18	<0.78	<0.0015	<0.0017	--	--	<0.56	<0.42	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	<0.096	<0.07	<0.0017	--	--	<0.086	<0.79	<0.0016	<0.0016	--	--	<0.0014	<1.6	<0.0014	<0.0015	--	--	<0.0016	<0.004	<0.0014	--	--	<0.0016
tert-Butylbenzene	98-06-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	<0.29	**0.017**	<0.0015	--	--	**12**	<0.78	<0.0015	<0.0017	--	--	**14**	**0.59**	<0.0017	**0.024**	--	--	**2.3**	<0.0019	**0.0023**	<0.0015	--	--	**0.45**	**0.2**	<0.0017	--	--	**2**	<0.79	<0.0016	**0.012**	--	--	<0.0014	<1.6	<0.0014	<0.0015	--	--	**0.063**	<0.004	<0.0014	--	--	**0.062**
Toluene**	108-88-3	**0.67**	**0.11**	<0.0015	--	--	<0.18	**62**	<0.0015	<0.0017	--	--	<0.56	**0.98**	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	**0.6**	**0.71**	**0.0029**	--	--	<0.086	**30**	<0.0016	**0.0076**	--	--	**0.0093**	**79**	<0.0014	**0.0024**	--	--	<0.0016	**0.013**	<0.0014	--	--	**0.0025**
trans-1,2-Dichloroethene	156-60-5	<0.29	**0.015**	<0.0015	--	--	<0.18	**0.84**	<0.0015	<0.0017	--	--	<0.56	<0.42	<0.0017	<0.0016	--	--	<0.1	<0.0019	<0.0014	<0.0015	--	--	**0.35**	<0.07	<0.0017	--	--	<0.086	<0.79	<0.0016	<0.0016	--	--	<0.0014	<1.6	<0.0014	<0.0015	--	--	<0.0016	<0.004	<0.0014	--	--	<0.0016
Trichloroethene	79-01-6	**0.29**	**0.019**	**0.0021**	--	--	**2.2**	<0.78	**0.0026**	<0.0017	--	--	**4.3**	<0.42	<0.0017	**0.011**	--	--	**3.2**	<0.0019	**0.0041**	<0.0015	--	--	**0.43**	<0.07	<0.0017	--	--	**0.43**	<0.79	<0.0016	**0.0072**	--	--	<0.0014	<1.6	<0.0014	<0.0015	--	--	**0.004**	<0.004	<0.0014	--	--	**0.015**
Trichlorofluoromethane	75-69-4	<0.57	<0.017	<0.0074	--	--	<0.35	<1.6	<0.0077	<0.0086	--	--	<1.1	<0.84	<0.0086	<0.0078	--	--	<0.2	<0.0095	<0.0071	<0.0076	--	--	<0.19	<0.14	<0.0087	--	--	<0.17	<1.6	<0.0081	<0.0081	--	--	<0.0072	<3.2	<0.0068	<0.0077	--	--	<0.0081	<0.02	<0.0069	--	--	<0.0078
Vinyl Chloride	75-01-4	**0.62**	**0.071**	<0.0074	--	--	<0.35	<1.6	<0.0077	<0.0086	--	--	<1.1	**0.9**	<0.0086	<0.0078	--	--	<0.2	<0.0095	<0.0071	<0.0076	--	--	**0.45**	**0.25**	<0.0087	--	--	<0.17	**3.6**	<0.0081	<0.0081	--	--	<0.0072	<3.2	<0.0068	<0.0077	--	--	<0.0081	<0.02	<0.0069	--	--	<0.0078
Xylenes, Total**	1330-20-7	**0.62**	**0.083**	<0.003	--	--	<0.35	**13.5**	<0.0031	<0.0034	--	--	<1.1	**12.91**	<0.0034	<0.0031	--	--	<0.2	<0.0038	<0.0029	<0.003	--	--	**0.44**	**7.3**	<0.0035	--	--	<0.17	<1.6	<0.0032	<0.0032	--	--	<0.0029	**6.0**	<0.0027	<0.0031	--	--	<0.0033	**0.123**	<0.0028	--	--	<0.0031
Volatile Petroleum Hydrocarbons (VPH)																																																
C5-C8 Aliphatics	NA_c5-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C9-C12 Aliphatics	NA_c9-12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C9-C10 Aromatics	NA_c9-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons (EPH)																																																
C9-C18 Aliphatics	NA_c9-18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C19-C36 Aliphatics	NA_c19-36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C11-C22 Aromatics	NA_c11-22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	56-55-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	50-32-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	205-99-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	191-24-2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	207-08-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	53-70-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 1
Summary of Soil Analytical Data
Former Lewis Chemical Corporation
0 & 12-24 Fairmount Court
Hyde Park, Massachusetts

	Grid	E-2	E-2	E-2	E-3	E-3	E-3	E-3	E-3
	Soil Boring	G-E-2	G-E-2	G-E-2	G-E-3	G-E-3	G-E-3	G-E-3	G-E-3
	Sample ID	G-E-2 10	G-E-2 15	G-E-2 15+	G-E-3 2.5	G-E-3 5	G-E-3 10	G-E-3 15	G-E-3 20
	Sample Depth (feet)	5-10	10-15	15-17.5	0.5-2.5	2.5-5	5-10	10-15	15-20
	Date Sampled	11/13/13	11/13/13	11/13/13	9/26/13	9/26/13	9/26/13	9/26/13	9/26/13
Analytes	**CAS No.**								
Volatile Organic Compounds (VOCs)									
1,1,1-Trichloroethane	71-55-6	<0.0029	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
1,1,2-Trichloroethane	79-00-5	<0.0029	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
1,1-Dichloroethane	75-34-3	**0.012**	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
1,1-Dichloroethene	75-35-4	<0.0057	<0.0029	<0.0027	--	<0.0036	<0.011	<0.0025	<0.0029
1,2,4-Trichlorobenzene	120-82-1	<0.014	<0.0071	<0.0069	--	<0.0089	<0.028	<0.0061	<0.0073
1,2,4-Trimethylbenzene	95-63-6	<0.0057	<0.0029	<0.0027	--	<0.0018	<0.0055	<0.0012	<0.0015
1,2-Dichlorobenzene	95-50-1	<0.0029	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
1,2-Dichloroethane	107-06-2	<0.0029	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
1,3,5-Trimethylbenzene	108-67-8	<0.0029	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
1,4-Dichlorobenzene	106-46-7	<0.0029	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
1,4-Dioxane	123-91-1	<0.14	<0.071	<0.069	--	<0.18	<0.55	<0.12	<0.15
2-Butanone	78-93-3	<0.057	<0.029	<0.027	--	<0.036	<0.11	<0.025	<0.029
4-Isopropyltoluene	99-87-6	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	108-10-1	<0.029	<0.014	<0.014	--	<0.018	<0.055	<0.012	<0.015
Acetone	67-64-1	<0.14	<0.071	<0.069	--	<0.089	<0.28	<0.061	<0.073
Benzene	71-43-2	**0.01**	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
Bromoform	75-25-2	<0.014	<0.0071	<0.0069	--	<0.0089	<0.028	<0.0061	<0.0073
Carbon Disulfide	75-15-0	<0.0086	**0.0054**	<0.0041	--	<0.0054	<0.017	<0.0037	<0.0044
Chlorobenzene	108-90-7	<0.0029	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
Chloroethane	75-00-3	<0.014	<0.0071	<0.0069	--	<0.0089	<0.028	<0.0061	<0.0073
cis-1,2-Dichloroethene	156-59-2	<0.0029	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
Dichlorodifluoromethane	75-71-8	<0.014	<0.0071	<0.0069	--	<0.0089	<0.028	<0.0061	<0.0073
Ethylbenzene	100-41-4	**0.0034**	<0.0014	<0.0014	--	<0.0018	**0.11**	**0.0015**	<0.0015
Hexachlorobutadiene	87-68-3	<0.0057	<0.0029	<0.0027	--	<0.0036	<0.011	<0.0025	<0.0029
Isopropylbenzene	98-82-8	<0.0029	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
Methyl tert-butyl ether	1634-04-4	<0.0057	<0.0029	<0.0027	--	<0.0036	<0.011	<0.0025	<0.0029
Methylene Chloride	75-09-2	<0.014	<0.0071	<0.0069	--	<0.0089	<0.028	<0.0061	<0.0073
Naphthalene**	91-20-3	<0.014	<0.0071	<0.0069	--	<0.0089	<0.028	<0.0061	<0.0073
n-Butylbenzene	104-51-8	<0.0057	<0.0029	<0.0027	--	<0.0036	<0.011	<0.0025	<0.0029
n-Propylbenzene	103-65-1	<0.0029	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
sec-Butylbenzene	135-98-8	--	--	--	--	--	--	--	--
Styrene	100-42-5	<0.0029	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
tert-Butylbenzene	98-06-6	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	<0.0029	<0.0014	<0.0014	--	**0.005**	<0.0055	<0.0012	<0.0015
Toluene**	108-88-3	<0.0029	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
trans-1,2-Dichloroethene	156-60-5	<0.0029	<0.0014	<0.0014	--	<0.0018	<0.0055	<0.0012	<0.0015
Trichloroethene	79-01-6	<0.0029	<0.0014	<0.0014	--	**0.0049**	<0.0055	<0.0012	<0.0015
Trichlorofluoromethane	75-69-4	<0.014	<0.0071	<0.0069	--	<0.0089	<0.028	<0.0061	<0.0073
Vinyl Chloride	75-01-4	<0.014	<0.0071	<0.0069	--	<0.0089	<0.028	<0.0061	<0.0073
Xylenes, Total**	1330-20-7	<0.0057	<0.0029	<0.0027	--	<0.0036	**0.077**	<0.0025	<0.0029
Volatile Petroleum Hydrocarbons (VPH)									
C5-C8 Aliphatics	NA_c5-8	--	--	--	--	--	--	--	--
C9-C12 Aliphatics	NA_c9-12	--	--	--	--	--	--	--	--
C9-C10 Aromatics	NA_c9-10	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons (EPH)									
C9-C18 Aliphatics	NA_c9-18	--	--	--	--	--	--	--	--
C19-C36 Aliphatics	NA_c19-36	--	--	--	--	--	--	--	--
C11-C22 Aromatics	NA_c11-22	--	--	--	--	--	--	--	--
2-Methylnaphthalene	91-57-6	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	--	--	--	--	--	--	--	--
Anthracene	120-12-7	--	--	--	--	--	--	--	--
Benzo(a)anthracene	56-55-3	--	--	--	--	--	--	--	--
Benzo(a)pyrene	50-32-8	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	205-99-2	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	191-24-2	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	207-08-9	--	--	--	--	--	--	--	--
Chrysene	218-01-9	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	53-70-3	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	--	--	--	--	--	--	--	--
Fluorene	86-73-7	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	--	--	--	--	--	--	--	--
Pyrene	129-00-0	--	--	--	--	--	--	--	--
Polychlorinated Biphenyls (PCBs)									
Aroclor-1232	11141-16-5	<0.19	<0.11	<0.11	<0.48	<0.44	<1	--	--
Aroclor-1242	53469-21-9	<0.19	<0.11	<0.11	<0.48	<0.44	<1	--	--
Aroclor-1248	12672-29-6	<0.19	<0.11	<0.11	**0.5**	<0.44	<1	--	--
Aroclor-1254	11097-69-1	<0.19	<0.11	<0.11	<0.48	<0.44	<1	--	--
Total PCBs	1336-36-3	<0.19	<0.11	<0.11	**0.5**	<0.44	<1	--	--
Metals									
Arsenic	7440-38-2	<4.7	<2.6	<2.8	--	<2.8	<6.2	<2.7	<2.7
Barium	7440-39-3	**62**	**22**	**87**	--	**36**	**49**	**18**	**60**
Beryllium	7440-41-7	<0.47	**0.3**	**0.54**	--	<1.4	<0.62	<1.3	<1.3
Cadmium	7440-43-9	**0.89**	<0.26	<0.28	--	**0.37**	<0.62	<0.27	<0.27
Chromium	7440-47-3	**25**	**12**	**12**	--	**11**	**15**	**12**	**11**
Copper	7440-50-8	**10**	**4.6**	**24**	--	**19**	**18**	**7.3**	**14**
Lead	7439-92-1	**4.2**	**9**	**16**	--	**23**	**10**	**2.8**	**6.4**
Mercury	7439-97-6	<0.047	<0.028	<0.028	--	**0.065**	<0.063	<0.028	<0.028
Nickel	7440-02-0	**5.3**	**8.2**	**6.8**	--	**8.4**	**4.8**	**5.5**	**6.8**
Selenium	7782-49-2	<9.5	<5.1	<5.5	--	<5.6	<12	<5.4	<5.4
Silver	7440-22-4	<0.95	<0.51	<0.55	--	<0.56	<1.2	<0.54	<0.54
Vanadium	7440-62-2	**26**	**18**	**30**	--	**20**	**23**	**17**	**16**
Zinc	7440-66-8	**13**	**26**	**24**	--	**68**	**27**	**32**	**49**

TABLE 2
LEWIS CHEMICAL SITE
GROUNDWATER DATA SUMMARY

	GW-2	GW-3	UCL	B1/OW1		ESM-01				ESM-02				ESM-03				ESM-03B-S			ESM-03B-D			ESM-04				ESM-05				ESM-05B			ESM-06				ESM-07				
WELL DEPTH (FT.)				10		22				20				14				70			70			14				18				40			20				23				
SCREENED INTERVAL				UNKNOWN		7-22				5-20				4-14				30-40			60-70			4-14				3-18				30-40			4.5-19.5				8-23				
				6/25/02	6/22/12	6/25/02	4/7/06	6/22/12	9/25/14	6/25/02	4/6/06	6/21/12	9/25/14	6/25/02	4/7/06	6/22/12	9/29/14[3]	4/7/06	6/22/12	9/26/14[3]	4/7/06	6/21/12	9/26/14[3]	6/25/02 DUP	4/10/06	6/21/12	6/25/02	4/10/06	6/22/12	9/25/14[3]	4/10/06	6/22/12	9/25/14[3]	6/25/02	4/10/06	6/22/12	9/26/14[3]	6/25/02	4/10/06	6/22/12	9/29/14[3]	9/29/14[3] DUP
VOLATILE ORGANIC COMPOUNDS (METHOD 8260) (ug/L)									NA[1]																																		
Benzene	1000	10000	100000	<15	<2	<400	<2	<2	-	<10	<2	<2	<2	<2500	<400	<400	< 500	<40	<40	<100	<400	62	<1000	<120	<100	<20	<2	<10000	<400	<2000	<1000	<20	<40	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
Toluene	50000	40000	100000	300	<2	560	8	<2	-	110	19	3	<2	55000	36000	18000	10200	420	<40	<100	2500	3700	2250	100J	79J	<20	<2	77000	38000	24000	6930	430	610	<250	2600J	110	<10	<200	<10	<2	<2	<1	<1
Tetrachloroethene	50	30000	100000	25	2	770	21	8	-	4J	<2	8	2	9100	4300	650	825	6900	2700	2700	14000	14000	14000	<120	<100	<20	9	17000	21000	12000	5420	2700	18000	4690	18000	1600	300	418	73	37	37	26.6	26.2
Ethylbenzene	20000	5000	100000	3J	<2	<400	9	<2	-	46	18	4	<2	1800J	1200	830	<500	55	<40	<100	<400	210	<1000	<120	<100	<20	<2	<10000	<400	<2000	<1000	32	160	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
Xylene (Total)	3000	5000	100000	7J	<2	110J	7	<2	-	76	16	5	<4	7100	5200	3460	1500	61	<40	<300	<400	840	<3000	<120	<100	<20	<2	<10000	610	<2000	<3000	30	480	<750	<7500	<40	<10	<600	<10	<2	<2	<3	<3
1,2,4-Trimethylbenzene	NA	NA	NS	<15	<2	<400	<2	<2	-	34	34	<2	<2	<2500	<400	<400	<500	<40	<40	<100	<400	49	<1000	<120	<100	<20	<2	<10000	<400	<2000	<1000	<20	<40	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
Acetone	50000	50000	100000	<15	<10	<400	<10	<10	-	<10	<10	<10	<10	<2500	<2000	<21000	<5000	<200	<200	<1000	<2000	<50	<10000	<120	<100	<100	<10	<10000	<100	<10000	<10000	<2000	310	<2500	<7500	<200	<50	<2000	<10	<10	<10	<10	<10
1,1-Dichloroethene	80	30000	100000	5J	<2	230J	<1	1	-	15	<1	4	<1	2700	310	300	<500	1200	570	323	3000	5000	5230	56J	75J	<10	<2	15000	2800	1200	<1000	320	4000	1640	14000	140	15	<200	5J	<1	<2	<1	<1
Methylene Chloride	NS	NS	NS	<15	<2	2300	<5	<2	-	<10	<5	<2	<2	<2500	<1000	<400	<1000	2900	62	<200	12000	18000	16000	<120	<100	<50	<2	<10000	1300	<2000	<2000	1200	3200	658	<7500	<100	<10	<400	<10	<5	<2	<2	<2
1,1-Dichloroethane	2000	20000	100000	290	19	2500	110	270	-	140	69	140	140	2900	1600	1500	1460	230	60	<100	430	1600	<1000	550	530	500	150	5500J	4900	3000	1320	180	150	<250	3600J	280	42	600	54	58	34	16.7	16.3
Cis-1,2-Dichloroethene	20	50000	100000	360	49	11000	13	670	-	96	<2	180	68	60000	63000	46000	29700	92	190	192	<400	640	<1000	3000	2700	2700	280	52000	110000	100000	62900	62	62	<250	47000	8800	1200	11500	260	110	110	49.7	49.0
Chloroform	50	20000	100000	<15	<2	<400	<2	<2	-	<10	<2	<2	<2	<2500	<400	<400	<500	<40	<40	<100	<400	36	<1000	<120	<100	<20	<2	<10000	<20	<2000	<1000	<400	<40	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
1,1,1-Trichloroethane	4000	20000	100000	150	<2	5900	18	10	-	100	4	58	60	34000	25000	15000	12000	7800	2400	1660	23000	26000	22600	680	740	900	77	210000	280000 D	130000	56100	6300	35000	11900	160000	11000	1500	1530	140	63	34	20.7	20.5
1,2-Dichloroethane	5	20000	100000	6J	<2	340J	3	7	-	73	<2	<2	<2	<2500	<400	<400	<500	470	130	<100	1600	2600	2480	28J	25J	<20	5	5500J	1300	<2000	<1000	120	280	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
Trichloroethene	5	5000	50000	150	5	3400	16	18	-	13	<2	83	3	33000	9400	470	<500	19000 D	8400	4490	57000	67000	67500	54J	52J	<20	7	250000	360000 D	170000	34000	7100	41000	14400	200000	11000	1000	662	200	90	60	43.1	44.5
Chloroethane	NS	NS	NS	190	5	<400	54	17	-	<10	<2	<2	<2	<2500	<400	<400	<1000	<40	<40	<200	<400	<10	<2000	<120	<100	<20	<2	<10000	<400	<2000	<2000	<20	<40	<500	<7500	<40	<10	<400	<10	<2	<2	<2	<2
Trichlorofluoromethane	NS	NS	NS	<15	<2	<400	<2	<2	-	<10	<2	<2	<2	<2500	<400	<400	<500	<40	<40	<100	<400	180	<1000	<120	<100	<20	<2	<10000	<400	<2000	<1000	<20	<40	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
Trans-1,2-Dichloroethene	80	50000	100000	12J	2	<400	3	4	-	3J	2	4	3	<2500	<400	<400	<500	<40	<40	<100	<400	17	<1000	72J	73J	53	18	<10000	460	<2000	<1000	<20	<40	<250	<7500	43	<10	<200	3J	3	3	1.5	1.5
4-Isopropyltoluene	NS	NS	NS	<15	<2	81J	11	<2	-	33	<2	<2	<2	<2500	<400	<400	<500	<40	<40	<100	<400	<10	<1000	<120	<100	<20	<2	<10000	<400	<2000	<1000	<20	<40	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
1,1,2-Trichloroethane	900	50000	100000	NA	<2	NA	<2	<2	-	NA	<2	<2	<2	NA	<400	<400	<500	<40	<40	<100	<400	110	<1000	NA	NA	<20	<2	NA	<400	<2000	<1000	<20	<40	<250	NA	<40	<10	<200	NA	<2	<2	<1	<1
Chlorobenzene	200	1000	10000	<15	<2	<400	<2	<2	-	<10	17	16	10	<2500	<400	<400	<500	<40	<40	<100	<400	78	<1000	<120	<100	<20	<2	<10000	2300	2100	<1000	<20	51	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
1,1,1,2-Tetrachloroethane	10	50000	100000	25	<2	<400	<2	<2	-	<10	<2	<2	<2	<2500	<400	<400	<500	<40	<40	<100	<400	12	<1000	<120	<100	<20	<2	<10000	<20	<2000	<1000	<400	<40	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
Bromoform	700	50000	100000	NA	<2	NA	<2	<2	-	NA	2	<2	<2	NA	<400	<400	<500	<40	<40	<100	<400	<10	<1000	NA	NA	<20	<2	NA	<400	<2000	<1000	<20	<40	<250	NA	<40	<10	<200	NA	<2	<2	<1	<1
Isopropylbenzene	NS	NS	NS	<15	<2	<400	<2	<2	-	2J	<2	<2	<2	<2500	<400	<400	<500	<40	<40	<100	<400	<10	<1000	<120	<100	<20	<2	<10000	<400	<2000	<1000	<20	<40	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
1,2,3-Trichloropropane	NS	NS	NS	NA	<2	NA	<2	<2	-	NA	5	<2	<2	NA	<400	<400	<500	<40	<40	<100	<400	<10	<1000	NA	NA	<20	<2	NA	<400	<2000	<1000	<20	<40	<250	NA	<40	<10	<200	NA	<2	<2	<1	<1
n-Propylbenzene	NS	NS	NS	<15	<2	<400	<2	<2	-	4J	<2	<2	<2	<2500	<400	<400	<500	<40	<40	<100	<400	<10	<1000	<120	<100	<20	<2	<10000	<400	<2000	<1000	<20	<40	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
1,3,5-Trimethylbenzene	NS	NS	NS	<15	<2	<400	<2	<2	-	11	<2	<2	<2	<2500	<400	<400	<500	<40	<40	<100	<400	20	<1000	<120	<100	<20	<2	<10000	<400	<2000	<1000	<20	<40	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
Sec-Butylbenzene	NS	NS	NS	<15	<2	<400	<2	<2	-	12	12	4	<2	<2500	<400	<400	<500	<40	<40	<100	<400	<10	<1000	<120	<100	<20	<2	<10000	<400	<2000	<1000	<20	<40	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
4-Methyl-2-pentanone (MIBK)	NS	NS	100000	<15	<2	<400	<10	<2	-	<10	<10	<2	<2	<2500	<2000	<400	<5000	<200	<40	<1000	<2000	110	<10000	<120	<100	<100	<2	<10000	<2000	<2000	<10000	<100	<40	<250	<7500	<200	<10	<2000	<10	<10	<10	<10	<10
1,3-Dichlorobenzene	6000	50000	100000	NA	<2	NA	<2	<2	-	NA	11	<2	<2	NA	<400	<400	<500	<40	<40	<100	<400	<10	<1000	NA	NA	<20	<2	NA	<400	<2000	<1000	<20	<40	<250	NA	<40	<10	<200	NA	<2	<2	<1	<1
1,4-Dichlorobenzene	60	8000	80000	<15	17	<400	<2	<2	-	3J	6	19	9	<2500	<400	<400	<500	<40	<40	<100	<400	<10	<1000	<120	<100	<20	<2	<10000	<400	<2000	<1000	<20	<40	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
1,2-Dichlorobenzene	8000	2000	80000	<15	<2	98J	83	<2	-	150	98	23	14	1300J	850	590	<500	140	41	<100	<400	580	<1000	<120	<100	<20	<2	<10000	<400	<2000	<1000	93	1000	385	1600J	<40	34	<200	<10	<2	<2	<1	<1
1,2,4-Trichlorobenzene	200	50000	100000	<15	<2	<400	<2	<2	-	21	14	9	4	<2500	<400	<400	<500	<40	<40	<100	<400	<10	<1000	<120	<100	<20	<2	<10000	<400	<2000	<1000	<20	<40	<250	<7500	<40	<10	<200	<10	<2	<2	<1	<1
MTBE	50000	50000	100000	<15	<2	<400	<2	<2	-	<10	<2	<2	<2	<2500	<400	<400	<500	<40	<40	<100	<400	<10	<1000	<120	<100	<20	<2	<10000	<400	<2000	<1000	<20	<40	<250	<7500	<40	<10	<200	9J	<2	<2	<1	<1
Naphthalene	700	20000	100000	<15	<2	<400	<5	<2	-	13	<5	<2	<2	<2500	<1000	<400	<500	<100	<40	<100	<1000	24	<1000	<120	<100	<50	<2	<10000	<1000	<2000	<1000	<50	<40	<250	<7500	<100	<10	<200	<10	<5	<2	<1	<1
Vinyl Chloride	2	50000	100000	260	3	130J	22	140	-	270	<2	58	21	<2500	<400	740	1380	<40	<40	<100	<400	28	<1000	340	330	25	200	<10000	490	<2000	<1000	<20	<40	<250	<7500	<40	<10	1750	<10	16	<2	5.9	6.2
1,1,2-Trichlorotrifluoroethane (Freon 113)	NS	NS	NS	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	3320	NA	NA	1110	NA	NA	6940	NA	NA	NA	NA	NA	NA	NA	4190	NA	NA	4370	NA	NA	NA	632	NA	NA	NA	2.3	2.3
POLYCHLORINATED BIPHENYLS (METHOD 8082) (ug/L)									NA[1]																																		
Aroclor-1016	5	10	100	NA	NA	NA	<0.3	NA	-	NA	<0.3	NA	NA	NA	<0.3	NA	<0.204	<0.3	NA	1.52	<0.3	NA	0.368	NA	NA	<0.3	NA	NA	<6	<1.7	31.1	<0.3	NA	0.847	NA	<0.3	<1.7	1.37	NA	<0.3	NA	<0.206	<0.206
Aroclor-1221	5	10	100	NA	NA	NA	<0.3	NA	-	NA	<0.3	NA	NA	NA	<0.3	NA	<0.204	<0.3	NA	<0.202	<0.3	NA	<0.211	NA	NA	<0.3	NA	NA	<6	<1.7	<0.204	<0.3	NA	<0.204	NA	<0.3	<1.7	<0.204	NA	<0.3	NA	<0.206	<0.206
Aroclor-1232	5	10	100	NA	NA	NA	<0.3	NA	-	NA	<0.3	NA	NA	NA	<0.3	NA	<0.204	<0.3	NA	<0.202	<0.3	NA	<0.211	NA	NA	<0.3	NA	NA	<6	<1.7	<0.204	<0.3	NA	<0.204	NA	<0.3	<1.7	<0.204	NA	<0.3	NA	<0.206	<0.206
Aroclor-1242	5	10	100	NA	NA	NA	<0.3	NA	-	NA	<0.3	NA	NA	NA	<0.3	NA	<0.204	<0.3	NA	<0.202	<0.3	NA	<0.211	NA	NA	<0.3	NA	NA	26	35	<0.204	<0.3	NA	<0.204	NA	3.5	5.0	<0.204	NA	<0.3	NA	<0.206	<0.206
Aroclor-1248	5	10	100	NA	NA	NA	<0.3	NA	-	NA	<0.3	NA	NA	NA	<0.3	NA	<0.204	<0.3	NA	<0.202	<0.3	NA	<0.211	NA	NA	<0.3	NA	NA	<6	<1.7	<0.204	<0.3	NA	<0.204	NA	<0.3	<1.7	<0.204	NA	<0.3	NA	<0.206	<0.206
Aroclor-1254	5	10	100	NA	NA	NA	<0.3	NA	-	NA	<0.3	NA	NA	NA	<0.3	NA	<0.204	<0.3	NA	<0.202	<0.3	NA	<0.211	NA	NA	<0.3	NA	NA	<6	<1.7	<0.204	<0.3	NA	<0.204	NA	<0.3	<1.7	<0.204	NA	<0.3	NA	<0.206	<0.206
Aroclor-1260	5	10	100	NA	NA	NA	<0.3	NA	-	NA	<0.3	NA	NA	NA	<0.3	NA	<0.204	<0.3	NA	<0.202	<0.3	NA	<0.211	NA	NA	<0.3	NA	NA	<6	<1.7	<0.204	<0.3	NA	<0.204	NA	<0.3	<1.7	<0.204	NA	<0.3	NA	<0.206	<0.206
Aroclor-1262	5	10	100	NA	NA	NA	<0.3	NA	-	NA	<0.3	NA	NA	NA	<0.3	NA	<0.204	<0.3	NA	<0.202	<0.3	NA	<0.211	NA	NA	<0.3	NA	NA	<6	<1.7	<0.204	<0.3	NA	<0.204	NA	<0.3	<1.7	<0.204	NA	<0.3	NA	<0.206	<0.206
Aroclor-1268	5	10	100	NA	NA	NA	<0.3	NA	-	NA	<0.3	NA	NA	NA	<0.3	NA	<0.204	<0.3	NA	<0.202	<0.3	NA	<0.211	NA	NA	<0.3	NA	NA	<6	<1.7	<0.204	<0.3	NA	<0.204	NA	<0.3	<1.7	<0.204	NA	<0.3	NA	<0.206	<0.206

TABLE 2
LEWIS CHEMICAL SITE
GROUNDWATER DATA SUMMARY

	GW-2	GW-3	UCL	B1/OW1		ESM-01				ESM-02				ESM-03				ESM-03B-S			ESM-03B-D			ESM-04				ESM-05				ESM-05B			ESM-06				ESM-07				
WELL DEPTH (FT.)				10		22				20				14				70			70			14				18				40			20				23				
SCREENED INTERVAL				UNKNOWN		7-22				5-20				4-14				30-40			60-70			4-14				3-18				30-40			4.5-19.5				8-23				
				6/25/02	6/22/12	6/25/02	4/7/06	6/22/12	9/25/14	6/25/02	4/6/06	6/21/12	9/25/14	6/25/02	4/7/06	6/22/12	9/29/14[3]	4/7/06	6/22/12	9/26/14[3]	4/7/06	6/21/12	9/26/14[1]	6/25/02	6/25/02 DUP	4/10/06	6/21/12	6/25/02	4/10/06	6/22/12	9/25/14[3]	4/10/06	6/22/12	9/25/14[3]	6/25/02	4/10/06	6/22/12	9/26/14[3]	6/25/02	4/10/06	6/22/12	9/29/14[1]	9/29/14[3] DUP
METALS (ug/L)									NA[1]																																		
Arsenic	NS	900	9000	<3.0	NA	3.9B	NA	NA	-	<3.0	NA	NA	NA	4.4B	<0.01	NA	NA	NA	NA	NA	NA	NA	NA	4.6B	NA	NA	NA	9.7B	<10	NA	NA	<10	NA	NA	7.8B	NA	NA	NA	<3.0	NA	NA	NA	NA
Barium	NS	50000	100000	121B	NA	97.7B	NA	NA	-	85.9B	NA	NA	NA	189B	0.07	NA	NA	NA	NA	NA	NA	NA	NA	260	NA	NA	NA	187B	180	NA	NA	220	NA	NA	109B	NA	NA	NA	42.1B	NA	NA	NA	NA
Cadmium	NS	4	50	<2.0	NA	<2.0	NA	NA	-	<2.0	NA	NA	NA	<2.0	<0.005	NA	NA	NA	NA	NA	NA	NA	NA	<2.0	NA	NA	NA	<2.0	<5	NA	NA	<5	NA	NA	<2.0	NA	NA	NA	<2.0	NA	NA	NA	NA
Chromium	NS	300	3000	<3.0	NA	<3.0	NA	NA	-	<3.0	NA	NA	NA	<3.0	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	<3.0	NA	NA	NA	<3.0	<50	NA	NA	<50	NA	NA	<3.0	NA	NA	NA	<3.0	NA	NA	NA	NA
Lead	NS	10	150	4.4B	NA	<1.0	NA	NA	-	<1.0	NA	NA	NA	<1.0	<0.01	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	<1.0	<10	NA	NA	<10	NA	NA	<1.0	NA	NA	NA	1.5B	NA	NA	NA	NA
Mercury	NS	20	200	<0.14	NA	<0.13	NA	NA	-	<0.13	NA	NA	NA	<0.13	<0.0009	NA	NA	NA	NA	NA	NA	NA	NA	<0.13	NA	NA	NA	<0.13	<0.9	NA	NA	<0.9	NA	NA	<0.13	NA	NA	NA	<0.12	NA	NA	NA	NA
Selenium	NS	100	1000	<8.0	NA	<8.0	NA	NA	-	<8.0	NA	NA	NA	<8.0	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	<8.0	NA	NA	NA	<8.0	<50	NA	NA	<50	NA	NA	<8.0	NA	NA	NA	<8.0	NA	NA	NA	NA
Silver	NS	7	1000	<2.0	NA	<2.0	NA	NA	-	<2.0	NA	NA	NA	<2.0	<0.007	NA	NA	NA	NA	NA	NA	NA	NA	2.6B	NA	NA	NA	2.9B	<7	NA	NA	<7	NA	NA	<2.0	NA	NA	NA	<2.0	NA	NA	NA	NA
EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) (ug/L)									NA[1]																																		
C9-C18 Aliphatics	5000	50000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C19-C36 Aliphatics	NS	50000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C11-C22 Aromatics	50000	5000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NS	10000	60000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-methylnaphthalene	2000	20000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	700	20000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	10000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NS	20	500	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	100	1000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NS	70	700	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	10000	40	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NS	30	600	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a) anthracene	NS	1000	10000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a) pyrene	NS	500	5000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NS	400	4000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h) anthracene	NS	40	400	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NS	200	2000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NS	40	400	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NS	100	1000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NS	20	800	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILE PETROLEUM HYDROCARBONS (VPH) (ug/L)									NA[1]																																		
C5-C8 Aliphatics	3000	50000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	150000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C9-C12 Aliphatics	5000	50000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C9-C10 Aromatics	4000	50000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	50000	50000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1000	10000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	50000	40000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	40000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20000	50000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	1600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes	3000	50000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	6700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	700	50000	100000	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	<500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SHADED CELL DENOTES DETECTION LIMIT EXCEEDS GW-2/GW-3 MINIMUM VALUE.
NA - SAMPLE NOT ANALYZED FOR COMPOUND.
NS - NO STANDARD.
REPORTED CONCENTRATION EQUALS OR EXCEEDS GW-2 STANDARD.
REPORTED CONCENTRATION EQUALS OR EXCEEDS GW-3 STANDARD.
REPORTED CONCENTRATION EQUALS OR EXCEEDS UPPER CONCENTRATION LIMIT (UCL).
[1]WELL DRY - UNABLE TO BE SAMPLED.
[2]**WELL UNABLE TO BE LOCATED / WELL DESTROYED.**
[3]WELL ON DCR PROPERTY - SAMPLED BY CDW CONSULTANTS, INC.

TABLE 2
LEWIS CHEMICAL SITE
GROUNDWATER DATA SUMMARY

	GW-2	GW-3	UCL	ESM-08				ESM-08B		ESM-09				ESM-10			ESM-11		ESM-12			ESM-13				ESM-14		ESM-15		ESM-16			G-A-2	G-B-1	G-B-3	G-C-1	G-D-1	G-D-3	G-E-2	
WELL DEPTH (FT.)				15				55		16				17			18		17			17				17		18		12			20.5	16	18	18	14	18	17.5	
SCREENED INTERVAL				5-15				45-55		3-16				7-17			8-18		9-17			6-17				6-17		3-18		2-12			10.5-20.5	6-16	8-18	8-18	7-14	8-18	7.5-17.5	
				6/25/02	4/6/06	6/20/12	9/25/14	4/6/06	6/20/12	6/25/02	4/10/06	4/10/06 DUP	6/22/12	6/25/02	4/10/06	9/25/14	4/6/06	9/25/14	4/6/06	6/21/12	9/25/14	4/6/06	6/20/12	6/20/12 DUP	9/25/14	4/6/06	6/20/12	4/10/06	6/20/12	4/7/06	6/21/12	9/25/14	9/26/14	9/26/14	9/26/14	9/25/14	9/25/14	9/25/14	9/25/14	9/25/14 DUP
VOLATILE ORGANIC COMPOUNDS (METHOD 8260) (ug/L)							NA[1]									NA[2]		NA[1]			NA[1]				NA[1]						NA[2]								
Benzene	1000	10000	100000	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	<2	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
Toluene	50000	40000	100000	580	<2	2	-	<2	<2	1800	5900	5800	42	70	2100	-	<2	-	<2	<2	-	340	240	190	-	12	5	9900	6200	110	<2	-	390	5900	<40	15	47	99	<2	<2
Tetrachloroethene	50	30000	100000	90	44	40	-	6	<2	<400	<100	<100	<10	82	180	-	<2	-	<2	<2	-	150	50	46	-	8	2	11000	6800	2	6	-	<40	5600	<40	37	14	<2	8	7
Ethylbenzene	20000	5000	100000	2300	<2	29	-	<2	<2	<400	140	140	<10	430	11000	-	<2	-	<2	<2	-	1700	990	850	-	270	43	460	260	41	3	-	<40	380	<40	<10	10	<2	<2	<2
Xylene (Total)	3000	5000	100000	4200	<2	27	-	<2	<2	110J	<100	<100	17	740	19300	-	<2	-	<2	<2	-	2770	880	790	-	57	<2	1750	1070	116	8	-	<40	1930	<40	<10	20	<2	<2	<2
1,2,4-Trimethylbenzene	NA	NA	NS	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	14	<10	<10	-	<2	<2	<100	<200	15	<2	-	<40	<200	<40	<10	<2	2	<2	<2
Acetone	50000	50000	100000	<80	<10	<10	-	<10	<10	<400	<500	<500	<50	<15	<200	-	<10	-	<10	<10	-	<50	<50	<50	-	<10	<10	<500	<1000	<10	<10	-	<200	<1000	<200	<50	<10	<10	<10	<10
1,1-Dichloroethene	80	30000	100000	<80	<1	<2	-	<1	<2	290J	470	480	16	<15	<20	-	<1	-	<1	<2	-	<5	<10	<10	-	<1	<2	920	660	<1	<2	-	<40	360	<40	15	3	<2	<2	<2
Methylene Chloride	NS	NS	NS	330	<5	<2	-	<5	<2	89J	<300	<300	<10	14J	410	-	<5	-	<5	<2	-	38	<10	<10	-	<5	<2	2100	380	<5	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
1,1-Dichloroethane	2000	20000	100000	69J	16	19	-	<2	<2	2000	3500	3400	520	10J	91	-	2	-	<2	<2	-	25	17	15	-	42	15	2600	2900	14	9	-	190	600	150	180	63	32	<2	<2
Cis-1,2-Dichloroethene	20	50000	100000	190	42	88	-	<2	<2	6400	26000	25000	1500	63	610	-	<2	-	<2	<2	-	2200	740	710	-	15	3	27000	29000	3	5	-	3700	8600	3700	580	87	440	<2	<2
Chloroform	50	20000	100000	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	<2	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
1,1,1-Trichloroethane	4000	20000	100000	23J	17	18	-	2	<2	11000	35000	34000	1200	14J	<40	-	<2	-	<2	<2	-	14	<10	<10	-	<2	<2	66000 D	36000	3	2	-	<40	23000	<40	120	14	3	<2	<2
1,2-Dichloroethane	5	20000	100000	130	11	30	-	<2	<2	200J	290	290	13	<15	<40	-	<2	-	<2	<2	-	20	<10	<10	-	<2	<2	2900	480	<2	<2	-	<40	340	<40	<10	<2	<2	<2	<2
Trichloroethene	5	5000	50000	82	39	54	-	7	2	250J	<100	<100	13	61	120	-	5	-	<2	<2	-	57	33	30	-	8	6	93000 D	28000	<2	5	-	<40	30000	<40	240	38	<2	<2	2
Chloroethane	NS	NS	NS	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	<2	<2	-	110	<200	<40	<10	<2	2	<2	<2
Trichlorofluoromethane	NS	NS	NS	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	<2	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
Trans-1,2-Dichloroethene	80	50000	100000	<80	<2	<2	-	<2	<2	130J	240	230	29	<15	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	210	260	<2	<2	-	<40	<200	<40	28	2	6	<2	<2
4-Isopropyltoluene	NS	NS	NS	37J	<2	<2	-	<2	<2	<400	<100	<100	<10	25	620	-	<2	-	<2	<2	-	130	48	48	-	<2	<2	<100	<200	110	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
1,1,2-Trichloroethane	900	50000	100000	NA	<2	<2	-	<2	<2	NA	<100	<100	<10	NA	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	130	<200	<2	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
Chlorobenzene	200	1000	10000	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	2	<2	<100	<200	<2	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
1,1,1,2-Tetrachloroethane	10	50000	100000	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	<2	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
Bromoform	700	50000	100000	NA	<2	<2	-	<2	<2	NA	<100	<100	<10	NA	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	<2	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
Isopropylbenzene	NS	NS	NS	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	3	3	-	<40	<200	<40	<10	<2	<2	<2	<2
1,2,3-Trichloropropane	NS	NS	NS	NA	<2	<2	-	<2	<2	NA	<100	<100	<10	NA	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	<2	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
n-Propylbenzene	NS	NS	NS	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	2	2	-	<40	<200	<40	<10	<2	<2	<2	<2
1,3,5-Trimethylbenzene	NS	NS	NS	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	7	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
Sec-Butylbenzene	NS	NS	NS	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	15	10	10	-	<2	<2	<100	<200	<2	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
4-Methyl-2-pentanone (MIBK)	NS	NS	100000	<80	<10	<2	-	<10	<2	<400	<500	<500	<10	<15	<200	-	<10	-	<10	<2	-	<50	<10	<10	-	<10	<2	<500	<200	<10	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
1,3-Dichlorobenzene	6000	50000	100000	NA	<2	<2	-	<2	<2	NA	<100	<100	<10	NA	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	<2	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
1,4-Dichlorobenzene	60	8000	80000	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	<2	<2	-	<40	<200	<40	<10	16	<2	<2	<2
1,2-Dichlorobenzene	8000	2000	80000	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	3	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
1,2,4-Trichlorobenzene	200	50000	100000	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	<2	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
MTBE	50000	50000	100000	<80	<2	<2	-	<2	<2	<400	<100	<100	<10	<15	<40	-	<2	-	<2	<2	-	<10	<10	<10	-	<2	<2	<100	<200	<2	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
Naphthalene	700	20000	100000	<80	<5	<2	-	<5	<2	<400	<300	<300	<10	<15	<100	-	<5	-	<5	<2	-	<30	<10	<10	-	<5	<2	<300	<200	<5	<2	-	<40	<200	<40	<10	<2	<2	<2	<2
Vinyl Chloride	2	50000	100000	<80	12	7	-	<2	<2	280J	1700	1600	340	<15	120	-	<2	-	<2	<2	-	61	59	50	-	20	<2	920	1900	<2	<2	-	890	230	930	480	<2	38	<2	<2
1,1,2-Trichlorotrifluoroethane (Freon 113)	NS	NS	NS	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
POLYCHLORINATED BIPHENYLS (METHOD 8082) (ug/L)							NA[1]									NA[2]		NA[1]			NA[1]				NA[1]						NA[2]								
Aroclor-1016	5	10	100	NA	<0.5	<0.3	-	<0.3	NA	NA	<0.3	NA	NA	NA	<0.3	-	<0.3	-	<0.3	NA	-	<0.3	NA	NA	-	<2	<0.3	<0.3	NA	<0.3	NA	-	<0.3	<0.3	<0.3	<1.4	<0.3	<0.3	<0.3	<0.3
Aroclor-1221	5	10	100	NA	<0.5	<0.3	-	<0.3	NA	NA	<0.3	NA	NA	NA	<0.3	-	<0.3	-	<0.3	NA	-	<0.3	NA	NA	-	<2	<0.3	<0.3	NA	<0.3	NA	-	<0.3	<0.3	<0.3	<1.4	<0.3	<0.3	<0.3	<0.3
Aroclor-1232	5	10	100	NA	<0.5	<0.3	-	<0.3	NA	NA	<0.3	NA	NA	NA	<0.3	-	<0.3	-	<0.3	NA	-	<0.3	NA	NA	-	<2	<0.3	<0.3	NA	<0.3	NA	-	<0.3	<0.3	<0.3	<1.4	<0.3	<0.3	<0.3	<0.3
Aroclor-1242	5	10	100	NA	0.8	<0.3	-	<0.3	NA	NA	<0.3	NA	NA	NA	<0.3	-	<0.3	-	<0.3	NA	-	<0.3	NA	NA	-	8	<0.3	<0.3	NA	<0.3	NA	-	<0.3	<0.3	<0.3	<1.4	<0.3	<0.3	<0.3	<0.3
Aroclor-1248	5	10	100	NA	<0.5	<0.3	-	<0.3	NA	NA	<0.3	NA	NA	NA	<0.3	-	<0.3	-	<0.3	NA	-	<0.3	NA	NA	-	<2	<0.3	<0.3	NA	<0.3	NA	-	<0.3	<0.3	<0.3	<1.4	<0.3	<0.3	<0.3	<0.3
Aroclor-1254	5	10	100	NA	<0.5	<0.3	-	<0.3	NA	NA	<0.3	NA	NA	NA	<0.3	-	<0.3	-	<0.3	NA	-	<0.3	NA	NA	-	<2	<0.3	<0.3	NA	<0.3	NA	-	<0.3	<0.3	<0.3	<1.4	<0.3	<0.3	<0.3	<0.3
Aroclor-1260	5	10	100	NA	<0.5	<0.3	-	<0.3	NA	NA	<0.3	NA	NA	NA	<0.3	-	<0.3	-	<0.3	NA	-	<0.3	NA	NA	-	<2	<0.3	<0.3	NA	<0.3	NA	-	<0.3	<0.3	<0.3	<1.4	<0.3	<0.3	<0.3	<0.3
Aroclor-1262	5	10	100	NA	<0.5	<0.3	-	<0.3	NA	NA	<0.3	NA	NA	NA	<0.3	-	<0.3	-	<0.3	NA	-	<0.3	NA	NA	-	<2	<0.3	<0.3	NA	<0.3	NA	-	<0.3	<0.3	<0.3	<1.4	<0.3	<0.3	<0.3	<0.3
Aroclor-1268	5	10	100	NA	<0.5	<0.3	-	<0.3	NA	NA	<0.3	NA	NA	NA	<0.3	-	<0.3	-	<0.3	NA	-	<0.3	NA	NA	-	<2	<0.3	<0.3	NA	<0.3	NA	-	<0.3	<0.3	<0.3	<1.4	<0.3	<0.3	<0.3	<0.3

TABLE 2
LEWIS CHEMICAL SITE
GROUNDWATER DATA SUMMARY

	GW-2	GW-3	UCL	ESM-08				ESM-08B		ESM-09				ESM-10			ESM-11		ESM-12			ESM-13				ESM-14		ESM-15		ESM-16			G-A-2	G-B-1	G-B-3	G-C-1	G-D-1	G-D-3	G-E-2	
WELL DEPTH (FT.)				15				55		16				17			18		17			17				17		18		12			20.5	16	18	18	14	18	17.5	
SCREENED INTERVAL				5-15				45-55		3-16				7-17			8-18		9-17			6-17				6-17		3-18		2-12			10.5-20.5	6-16	8-18	8-18	7-14	8-18	7.5-17.5	
				6/25/02	4/6/06	6/20/12	9/25/14	4/6/06	6/20/12	6/25/02	4/10/06	4/10/06 DUP	6/22/12	6/25/02	4/10/06	9/25/14	4/6/06	9/25/14	4/6/06	6/21/12	9/25/14	4/6/06	6/20/12	6/20/12 DUP	9/25/14	4/6/06	6/20/12	4/10/06	6/20/12	4/7/06	6/21/12	9/25/14	9/26/14	9/26/14	9/26/14	9/25/14	9/25/14	9/25/14	9/25/14	9/25/14 DUP
METALS (ug/L)							NA[1]									NA[2]		NA[1]			NA[1]				NA[1]						NA[2]								
Arsenic	NS	900	9000	3.2B	NA	NA	-	NA	NA	4.2B	NA	NA	NA	<3.0	NA	-	<0.01	-	NA	NA	-	NA	NA	NA	-	<0.01	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NS	50000	100000	114B	NA	NA	-	NA	NA	244	NA	NA	NA	79.4B	NA	-	0.2	-	NA	NA	-	NA	NA	NA	-	0.06	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NS	4	50	<2.0	NA	NA	-	NA	NA	<2.0	NA	NA	NA	<2.0	NA	-	<0.005	-	NA	NA	-	NA	NA	NA	-	<0.005	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NS	300	3000	<3.0	NA	NA	-	NA	NA	<3.0	NA	NA	NA	<3.0	NA	-	<0.05	-	NA	NA	-	NA	NA	NA	-	<0.05	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NS	10	150	3.0B	NA	NA	-	NA	NA	<1.0	NA	NA	NA	<1.0	NA	-	<0.01	-	NA	NA	-	NA	NA	NA	-	<0.01	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NS	20	200	<0.14	NA	NA	-	NA	NA	<0.13	NA	NA	NA	<0.13	NA	-	<0.0009	-	NA	NA	-	NA	NA	NA	-	<0.0009	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NS	100	1000	<8.0	NA	NA	-	NA	NA	<8.0	NA	NA	NA	9.0B	NA	-	<0.05	-	NA	NA	-	NA	NA	NA	-	<0.05	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NS	7	1000	<2.0	NA	NA	-	NA	NA	2.5B	NA	NA	NA	<2.0	NA	-	<0.007	-	NA	NA	-	NA	NA	NA	-	<0.007	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
EXTRACTABLE PETROLEUM HYDROCARBONS (EPH) (ug/L)							NA[1]									NA[2]		NA[1]			NA[1]				NA[1]						NA[2]								
C9-C18 Aliphatics	5000	50000	100000	NA	<300	NA	-	<200	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<200	NA	NA	-	<200	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
C19-C36 Aliphatics	NS	50000	100000	NA	<300	NA	-	<200	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<200	NA	NA	-	<200	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
C11-C22 Aromatics	50000	5000	100000	NA	<300	NA	-	<200	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<200	NA	NA	-	<200	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NS	10000	60000	NA	<0.8	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	<0.5	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
2-methylnaphthalene	2000	20000	100000	NA	<0.8	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	<0.5	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	700	20000	100000	NA	<0.8	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	3.3	NA	NA	-	<0.5	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	10000	100000	NA	<0.8	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	<0.5	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NS	20	500	NA	<0.8	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	0.8	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	100	1000	NA	<0.8	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	0.6	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NS	70	700	NA	<0.8	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	0.7	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	10000	40	100000	NA	<0.8	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	<0.5	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NS	30	600	NA	<0.8	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	<0.5	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a) anthracene	NS	1000	10000	NA	<0.8	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	0.7	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a) pyrene	NS	500	5000	NA	0.5	NA	-	<0.2	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.2	NA	NA	-	0.9	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NS	400	4000	NA	1.0	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	1.2	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h) anthracene	NS	40	400	NA	<0.8	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	<0.5	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NS	200	2000	NA	1.0	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	1.2	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NS	40	400	NA	<0.8	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	<0.5	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NS	100	1000	NA	<0.8	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	0.7	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NS	20	800	NA	1.1	NA	-	<0.5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<0.6	NA	NA	-	1.1	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILE PETROLEUM HYDROCARBONS (VPH) (ug/L)							NA[1]									NA[2]		NA[1]			NA[1]				NA[1]						NA[2]								
C5-C8 Aliphatics	3000	50000	100000	NA	340	NA	-	<100	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	3600	NA	NA	-	320	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
C9-C12 Aliphatics	5000	50000	100000	NA	<100	NA	-	<100	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<500	NA	NA	-	<100	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
C9-C10 Aromatics	4000	50000	100000	NA	<100	NA	-	<100	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	2100	NA	NA	-	<100	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	50000	50000	100000	NA	<2	NA	-	<2	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<10	NA	NA	-	<2	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1000	10000	100000	NA	<1	NA	-	<1	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<5	NA	NA	-	<1	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	50000	40000	100000	NA	<2	NA	-	<2	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	370	NA	NA	-	11	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	20000	50000	100000	NA	<2	NA	-	<2	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	1600	NA	NA	-	240	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes	3000	50000	100000	NA	<2	NA	-	<2	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	2590	NA	NA	-	54	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	700	50000	100000	NA	<5	NA	-	<5	NA	NA	NA	NA	NA	NA	NA	-	NA	-	NA	NA	-	<30	NA	NA	-	<5	NA	NA	NA	NA	NA	-	NA	NA	NA	NA	NA	NA	NA	NA

Table 3

Summary of Sediment Analytical Results

Former Lewis Chemical Corporation

0 & 12-24 Fairmount Court

Hyde Park, MA

	Sample ID	SED-DS	SED-MC*	SED-SH**	SED-US	S-01	S-02	S-03	S-04	S-06	S-08	S-09
	Location Description	Downstream	Mid-channel	Near shore	Upstream	Upstream	Upstream	Near shore	Mid-channel	Near shore	Far shore	Downstream
	Site / Reference	Site	Site	Site	Reference	Reference	Reference	Site	Site	Site	Site	Site
	Sample Date	7/8/2002	7/8/2002	7/8/2002	7/8/2002	5/30/2006	5/30/2006	5/30/2006	5/30/2006	5/30/2006	5/30/2006	5/30/2006
Analytes	**CAS No.**											
Volatile Organic Compounds (VOCs)												
1,1,1-Trichloroethane	71-55-6	<0.008	<0.007	**0.23**	<0.016	<0.4	<0.2	<0.6	<0.1	**0.8**	<0.3	<0.4
1,1-Dichloroethane	75-34-3	<0.008	<0.007	**0.16**	<0.016	<0.4	<0.2	**0.7**	<0.1	<0.4	<0.3	<0.4
1,1-Dichloroethene	75-35-4	<0.008	<0.007	**0.022**	<0.016	<0.4	<0.2	<0.6	<0.1	<0.4	<0.3	<0.4
1,2,4-Trichlorobenzene	120-82-1	<0.008	<0.007	<0.026	<0.016	<0.4	<0.2	<0.6	<0.1	**0.4**	<0.3	<0.4
1,2,4-Trimethylbenzene	95-63-6	<0.008	**0.004**	**0.087**	**0.004**	<0.4	<0.2	<0.6	<0.1	<0.4	<0.3	<0.4
1,2-Dichlorobenzene***	95-50-1	<0.008	<0.007	**0.32**	<0.016	<0.4	<0.2	<0.6	<0.1	**6.3**	<0.3	<0.4
1,2-Dichloroethane	107-06-2	<0.008	<0.007	**0.022**	<0.016	<0.4	<0.2	<0.6	<0.1	<0.4	<0.3	<0.4
1,3,5-Trimethylbenzene	108-67-8	<0.008	<0.007	**0.033**	<0.016	<0.4	<0.2	<0.6	<0.1	<0.4	<0.3	<0.4
1,4-Dichlorobenzene***	106-46-7	<0.008	<0.007	**0.008**	<0.016	<0.4	<0.2	<0.6	<0.1	<0.4	<0.3	<0.4
2-Butanone	78-93-3	**0.007**	**0.007**	**0.048**	**0.018**	<2	<0.8	<3	<0.5	<2	<2	<2
4-Isopropyltoluene	99-87-6	<0.008	<0.007	**0.013**	**0.01**	<0.4	<0.2	<0.6	**0.2**	<0.4	<0.3	<0.4
4-Methyl-2-pentanone	108-10-1	<0.008	<0.007	**0.012**	**0.006**	<2	<0.8	<3	<0.5	<2	<2	<2
Acetone	67-64-1	**0.031**	**0.038**	**0.22**	**0.1**	<10	<4	<10	<3	<10	<8	<9
Benzene	71-43-2	<0.008	<0.007	**0.018**	<0.016	<0.4	<0.2	<0.6	<0.1	<0.4	<0.3	<0.4
Carbon Disulfide	75-15-0	**0.007**	**0.005**	**0.022**	**0.007**	<0.4	<0.2	<0.6	<0.1	<0.4	<0.3	<0.4
Chlorobenzene	108-90-7	<0.008	<0.007	**0.037**	<0.016	<0.4	<0.2	<0.6	<0.1	<0.4	<0.3	<0.4
Chloroethane	75-00-3	<0.008	**0.009**	**1.4**	<0.016	<0.4	<0.2	**22**	<0.1	<0.4	<0.3	<0.4
cis-1,2-Dichloroethene	156-59-2	<0.008	<0.007	**0.62**	**0.004**	<0.4	<0.2	<0.6	<0.1	**0.8**	<0.3	<0.4
Ethylbenzene	100-41-4	<0.008	**0.002**	**0.13**	<0.016	<0.4	<0.2	**1**	<0.1	<0.4	<0.3	<0.4
Methyl tert butyl ether	1634-04-4	<0.008	<0.007	<0.026	**0.005**	<0.4	<0.2	<0.6	<0.1	<0.4	<0.3	<0.4
Methylene Chloride	75-09-2	<0.008	<0.007	**0.023**	<0.016	<1	<0.4	<1	<0.3	<1	<0.8	<0.9
Naphthalene***	91-20-3	<0.008	**0.41**	**0.014**	**0.004**	<1	<0.4	<1	<0.3	<1	<0.8	<0.9
n-Propylbenzene	103-65-1	<0.008	<0.007	**0.012**	<0.016	<0.4	<0.2	<0.6	<0.1	<0.4	<0.3	<0.4
sec-Butylbenzene	135-98-8	<0.008	<0.007	**0.01**	<0.016	<0.4	<0.2	<0.6	<0.1	<0.4	<0.3	<0.4
Tetrachloroethene	127-18-4	<0.008	<0.007	**0.008**	<0.016	<0.4	<0.2	<0.6	<0.1	**3.9**	<0.3	<0.4
Toluene	108-88-3	<0.008	**0.006**	**0.83**	**0.049**	<0.4	<0.2	**8.1**	<0.1	<0.4	<0.3	<0.4
trans-1,2-Dichloroethene	156-60-5	<0.008	<0.007	**0.025**	<0.016	<0.4	<0.2	**0.6**	<0.1	<0.4	<0.3	<0.4
Trichloroethene	79-01-6	<0.008	**0.002**	**0.015**	**0.004**	<0.4	<0.2	<0.6	<0.1	**1.1**	<0.3	<0.4
Trichlorofluoromethane	75-69-4	**0.002**	<0.007	<0.026	<0.016	<0.4	<0.2	<0.6	<0.1	<0.4	<0.3	<0.4
Vinyl Chloride	75-01-4	<0.008	<0.007	**0.15**	<0.016	<0.4	<0.2	<0.6	<0.1	<0.4	<0.3	<0.4
Xylenes (Total)	1330-20-7	**0.002**	**0.005**	**0.39**	**0.004**	<0.4	<0.2	**2.9**	<0.1	<0.4	<0.3	<0.4

Table 3

Summary of Sediment Analytical Results

Former Lewis Chemical Corporation

0 & 12-24 Fairmount Court

Hyde Park, MA

	Sample ID	SED-DS	SED-MC*	SED-SH**	SED-US	S-01	S-02	S-03	S-04	S-06	S-08	S-09
	Location Description	Downstream	Mid-channel	Near shore	Upstream	Upstream	Upstream	Near shore	Mid-channel	Near shore	Far shore	Downstream
	Site / Reference	Site	Site	Site	Reference	Reference	Reference	Site	Site	Site	Site	Site
	Sample Date	7/8/2002	7/8/2002	7/8/2002	7/8/2002	5/30/2006	5/30/2006	5/30/2006	5/30/2006	5/30/2006	5/30/2006	5/30/2006
Semivolatile Organic Compounds (SVOCs)												
2-Methylnaphthalene	91-57-6	<5.5	**0.28**	<2	<9.9	--	--	<2	<0.6	<2	--	<2
Acenaphthene	83-32-9	**1**	**0.83**	<2	<9.9	--	--	<2	<0.6	<2	--	<2
Acenaphthylene	208-96-8	<5.5	**0.21**	<2	<9.9	--	--	<2	<0.6	<2	--	<2
Anthracene	120-12-7	**2**	**1.9**	**0.49**	<9.9	--	--	<2	<0.6	<2	--	<2
Benzo(a)anthracene	56-55-3	**4.9**	**4.9**	**2**	**2.2**	--	--	<2	<0.6	<2	--	<2
Benzo(a)pyrene	50-32-8	**4.6**	**4.7**	**2.3**	**2.4**	--	--	<2	<0.6	<2	--	<2
Benzo(b)fluoranthene	205-99-2	**6.5**	**6.4**	**4**	**4.4**	--	--	<2	<0.6	<2	--	<2
Benzo(g,h,i)perylene	191-24-2	**2.1**	**2.2**	**1.4**	<9.9	--	--	<2	<0.6	<2	--	<2
Benzo(k)fluoranthene	207-08-9	**2.7**	**2.8**	**1.8**	**1.8**	--	--	<2	<0.6	<2	--	<2
Bis(2-ethylhexyl)phthalate	117-81-7	**2.2**	**11**	**9.9**	**7.1**	--	--	--	--	--	--	--
Carbazole	86-74-8	**1.1**	**0.73**	**0.44**	<9.9	--	--	--	--	--	--	--
Chrysene	218-01-9	**5.9**	**6.2**	**3.4**	**3.7**	--	--	<2	<0.6	<2	--	<2
Dibenzofuran	132-64-9	**0.62**	**0.42**	<2	<9.9	--	--	<2	<0.6	<2	--	<2
di-n-Octylphthalate	117-84-0	<5.5	**0.53**	**1.8**	<9.9	--	--	--	--	--	--	--
Fluoranthene	206-44-0	**11**	**10**	**4.6**	**5.4**	--	--	**3**	<0.6	<2	--	**3**
Fluorene	86-73-7	**0.95**	**0.95**	**0.24**	<9.9	--	--	<2	<0.6	<2	--	<2
Indeno(1,2,3-cd)pyrene	193-39-5	**2.2**	**2.2**	**1.5**	**1.4**	--	--	<2	<0.6	<2	--	<2
Phenanthrene	85-01-8	**10**	**9.2**	**2.7**	**2.8**	--	--	**2**	<0.6	<2	--	**2**
Pyrene	129-00-0	**13**	**13**	**6.4**	**6.4**	--	--	**2**	<0.6	<2	--	**2**
Metals												
Arsenic	7440-38-2	**4.7**	**4.2**	**12.7**	**9.9**	--	--	--	--	--	--	--
Barium	7440-39-3	**48.2**	**54.9**	**164**	**115**	--	--	--	--	--	--	--
Cadmium	7440-43-9	**0.49**	**0.67**	**3.6**	**2**	--	--	--	--	--	--	--
Chromium	7440-47-3	**20.8**	**37.6**	**100**	**79.8**	--	--	--	--	--	--	--
Lead	7439-92-1	**132**	**113**	**296**	**212**	--	--	**410**	**31**	**6.1**	--	**89**
Mercury	7439-97-6	**0.17**	**0.28**	**1.7**	**2.1**	--	--	**0.12**	<0.02	<0.06	--	**0.09**
Selenium	7782-49-2	<0.57	<0.54	**4.3**	<0.99	--	--	--	--	--	--	--
Silver	7440-22-4	**1**	**2.1**	**2.3**	**1.9**	--	--	**3**	**0.9**	<0.7	--	<0.5

Notes

All concentrations presented in units of milligrams per kilogram (mg/kg).

Analytes detected above the laboratory reporting limit (LRL) are presented in **bold** font.

< = Analyte is not detected above the LRL presented.

Field duplicates (indicated by *), multiple laboratory runs (indicated by **) and compounds analyzed by multiple methods (indicated by ***) are resolved by retaining the highest detected concentration or, if all results are non-detect, the lowest LRL.

Table 4

Data Usability Evaluation

Nobis Engineering Data

Former Lewis Chemical Corporation
0 & 12-24 Fairmount Court
Hyde Park, Massachusetts

Dataset	Laboratory	Data Package	Report Date	Medium	No. Samples	Sample Date(s)	CAM Status	Analysis	Rejections
2013 Soil Sampling	Con-Test	13I1053	10/9/2013	SO	51	9/26 - 9/27/2013	CAM-Compliant	PCBs, Metals, VOCs	None
	Con-Test	13J0038	10/10/2013	SO	37	9/30 - 10/1/2013	CAM-Compliant	PCBs, Metals, VOCs	None
	Con-Test	13K0538	11/27/2013	SO	19	11/11 - 11/13/2013	CAM-Compliant	PCBs, Metals, VOCs	None
	Con-Test	13K0600	12/2/2013	SO	19	11/13/2013	CAM-Compliant	PCBs, Metals, VOCs	None
	Con-Test	13K0659	12/5/2013	SO	12	11/14/2013	CAM-Compliant	PCBs, Metals, VOCs	None
	Con-Test	13K0695	12/5/2013	SO	20	11/15/2013	CAM-Compliant	PCBs, Metals, VOCs	None
	Con-Test	13K0792	11/26/2013	SO	8	11/18/2013	CAM-Compliant	PCBs, Metals, VOCs	None

Acronyms:
LCS = Laboratory control sample
LCSD = Laboratory control sample duplicate
RPD = Relative percent difference
MS = Matrix spike
MSD = Matrix spike duplicate