



**REMEDIAL  
INVESTIGATION  
REPORT AND REMDIAL  
ACTION WORK PLAN**

Former Camden Laboratories  
Property

1667 Davis Street  
City of Camden  
Camden County, New Jersey  
Block 1392  
Lot 33

NJDEP PI No. 016718

NJDEP Case No. 08-07-01-1547

**woodardcurran.com**  
COMMITMENT & INTEGRITY DRIVE RESULTS

0230198.01  
Camden Redevelopment  
Agency  
October 2019

## TABLE OF CONTENTS

SECTION	PAGE NO.
<b>1. INTRODUCTION .....</b>	<b>1-1</b>
1.1 NJDEP Regulations and Guidance .....	1-1
1.2 Report Organization .....	1-2
<b>2. SITE LOCATION AND HISTORY .....</b>	<b>2-1</b>
2.1 Site Location and Description .....	2-1
2.2 Former Site Use .....	2-1
2.3 Current Site Use .....	2-1
<b>3. PHYSICAL SETTING .....</b>	<b>3-2</b>
3.1 Topography and Drainage .....	3-2
3.2 Soils and Geology .....	3-2
3.3 Hydrology .....	3-2
<b>4. SUMMARY OF AOCs AND PREVIOUS INVESTIGATIONS/REMEDIATIONS .....</b>	<b>4-1</b>
4.1 AOC-1: Former Aboveground Storage Tank .....	4-1
4.2 AOC-2: Former Underground Storage Tanks (USTs) .....	4-2
4.3 AOC-3: Storage Containers .....	4-3
4.4 AOC-4: Building C Floor Drains .....	4-3
4.5 AOC-5: Suspected Septic System (North of Building 1/F) .....	4-4
4.6 AOC-6: Building 6/B Drywell .....	4-4
4.7 AOC-7: Incinerator .....	4-5
4.8 AOC-8: Transformers .....	4-5
4.9 AOC-9: Staining .....	4-5
4.10 AOC-10: Compressor Blowdown .....	4-6
4.11 AOC-11: Hydraulic Lift System .....	4-7
4.12 AOC-12: NJDEP Case No. 97-02-21-1440-39 .....	4-7
4.13 AOC-13: NJDEP Case No. 98-11-20-1919-54 .....	4-8
4.14 AOC-14: Regional Ground Water Contamination .....	4-8
4.15 AOC-15 Conductive Area .....	4-9
4.16 AOC-16: Mercury Spill .....	4-10
4.17 AOC-17: Unknown Liquid in Sumps/Vaults .....	4-10
4.18 AOC-18: Soil Pile .....	4-11
<b>5. TECHNICAL OVERVIEW .....</b>	<b>5-12</b>
5.1 Geophysical Investigation .....	5-12
5.2 Additional Assessments .....	5-13
5.3 Soil Investigation Activities and Results .....	5-15
5.4 Groundwater Investigation Activities and Results .....	5-19
<b>6. RECEPTOR EVALUATION .....</b>	<b>6-21</b>
6.1 Land Use Assessment .....	6-21
6.2 Ground Water Assessment .....	6-21
6.3 Vapor Intrusion Assessment .....	6-21
6.4 Ecological Evaluation .....	6-21



<b>7.</b>	<b>RELIABILITY OF DATA.....</b>	<b>7-23</b>
7.1	Data Usability Assessment.....	7-23
7.2	Representativeness Evaluation .....	7-24
<b>8.</b>	<b>CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>8-1</b>
8.1	AOC-1: Former AST / AOC-12: NJDEP Case No. 97-02-21-1440-39.....	8-1
8.2	AOC-2: Former Underground Storage Tanks (USTs) .....	8-1
8.3	AOC-3: Storage Containers.....	8-2
8.4	AOC-4: Building C Floor Drains.....	8-2
8.5	AOC-5: Suspected Septic System (North of Building 1/F).....	8-3
8.6	AOC-6: Building 6/B Drywell.....	8-3
8.7	AOC-7: Incinerator.....	8-4
8.8	AOC-8: Transformers .....	8-4
8.9	AOC-9: Staining.....	8-4
8.10	AOC-10: Compressor Blowdown.....	8-5
8.11	AOC-11: Hydraulic Lift System.....	8-5
8.12	AOC-13: NJDEP Case No. 98-11-20-1919-54 .....	8-6
8.13	AOC-14: Regional Ground Water Contamination .....	8-6
8.14	AOC-15 Conductive Area .....	8-7
8.15	AOC-16: Mercury Spill.....	8-8
8.16	AOC-17: Unknown Liquid in Sumps/Vaults .....	8-9
8.17	AOC-18: Soil Pile.....	8-9
<b>9.</b>	<b>REMEDIAL ACTION WORK PLAN .....</b>	<b>9-11</b>
9.1	Excavation of Contaminated Soils in AOC-16 .....	9-11
9.2	Post-Excavation Soil Sampling.....	9-11
9.3	Excavation Restoration.....	9-11
9.4	Permitting and Plans .....	9-11
9.5	Remedial Action Report.....	9-12
9.6	Remedial Action Implementation/Schedule .....	9-12
<b>10.</b>	<b>VARIANCES .....</b>	<b>10-13</b>
<b>11.</b>	<b>REFERENCES.....</b>	<b>11-14</b>

---

## LIST OF TABLES

Table 1:	Summary of Soil Sampling Results for AOC-1
Table 2:	Summary of Soil Sampling Results for AOC-5
Table 3:	Summary of Soil Sampling Results for AOC-11
Table 4:	Summary of Soil Sampling Results for AOC-16
Table 5:	Summary of Soil Sampling Results for AOC-18
Table 6:	Ground Water Sampling Results – August & October 2018

## LIST OF FIGURES

Figure 1:	USGS Site Location Map
Figure 2:	Site Plan with AOCs
Figure 3:	Soil Sampling Locations and Results for AOC-1 and AOC-11
Figure 4:	Soil Sampling Locations and Results for AOC-5
Figure 5:	Soil Sampling Locations and Results for AOC-16
Figure 6:	Soil Sampling Locations and Results for AOC-18
Figure 7:	Ground Water Contours – August 2018
Figure 8:	Ground Water Contours – October 2018
Figure 9:	Ground Water Sampling Locations and Results (August & October 2018)

## APPENDICES

Appendix A:	Supporting Documents
Appendix B:	Geophysical Survey Report
Appendix C:	Regional GroundWater Evaluation
Appendix D:	Supporting Documents for AOC-15
Appendix E:	Photo Log
Appendix F:	Soil Boring Logs
Appendix G:	SPLP Calculators for AOC-16
Appendix H:	Monitoring Well Documentation
Appendix I:	Disposal Documentation
Appendix J:	Field Sampling Forms
Appendix K:	Receptor Evaluation
Appendix L:	Laboratory Reports

## 1. INTRODUCTION

This Remedial Investigation (RI) Report and Remedial Action Work Plan (RAWP) has been prepared by Woodard & Curran on behalf of Camden Redevelopment Agency (CRA) to document the investigation activities conducted at the Camden Laboratories property located at 1667 Davis Street, Camden, Camden County, New Jersey (herein referred to as the "Site") and present CRA's proposed remedial action for the Site based on same. The RI Report documents the findings of investigations conducted to date for Areas of Concern (AOCs) located within the subject property and the RAWP provides a narrative description of the proposed remedial strategy to address contaminated soils. This document is intended to meet the RI and RAWP reporting requirements specified in the New Jersey Department of Environmental Protection (NJDEP) Technical Requirements for Site Remediation, New Jersey Administrative Code (N.J.A.C.) 7:26E.

Woodard & Curran conducted RI activities at the Site on behalf of CRA between January 2018 and January 2019. The investigations conducted during this time period are primarily related to soil impacts identified at the Site during the SI conducted by others and potential impacts to ground water. The RI included the following activities:

- Assessment of potential impacts related to various storage containers identified at the Site (AOC-3);
- Soil investigation to evaluate potential impacts associated with the suspected septic system (AOC-5);
- Soil investigation to evaluate potential impacts associated with the hydraulic lift (AOC-11);
- Evaluation of known regional ground water contamination and potential impacts to the Site (AOC-14);
- Soil investigations to characterize the nature and extent of mercury impacts to soil and potential impacts to ground water (AOC-16); and
- Evaluation of potential impacts related to unknown liquids in sumps/vaults identified at the Site (AOC-17).

The scope of work discussed herein was developed based on the findings of previous investigations conducted by others and in accordance with the Remedial Investigation Work Plan (RIWP) dated July 28, 2017 prepared by TRC Environmental (TRC).

### 1.1 NJDEP REGULATIONS AND GUIDANCE

The RI was conducted in accordance with N.J.A.C. 7:26E. The requirements include determining the nature and extent of contamination both on and off-site, determining potential impacts to receptors, and collecting sufficient information to select possible remedial actions.

The applicable soil and ground water remediation standards for this Site include the following:

- New Jersey Non-Residential and Residential Direct Contact Soil Remediation Standards (NRDCSRS/RDCSRS) listed at N.J.A.C. 7:26D;
- New Jersey Default Impact to Ground Water Soil Screening Levels (IGWSSL) established in December 2008. Pursuant to NJDEP's Frequently Asked Questions for the Impact to Ground Water Pathway in Soil Remediation Standards, the default IGWSSL only pertain to soils within the unsaturated zone (i.e. above the water table); and
- New Jersey Class IIA Ground Water Quality Standards (GWQS) listed at N.J.A.C. 7:9C.

## 1.2 REPORT ORGANIZATION

This RI Report and RAWP presents the information specified in Sections 4.9 and 5.5 of the Technical Requirements for Site Remediation (N.J.A.C. 7:26E) and is organized as follows:

- Section 1: Introduction and overview of the SI/RI and RAWP;
- Section 2: Description of the site location and a summary of the site history;
- Section 3: Description of the physical setting of the site and subject area;
- Section 4: Summary of AOCs and historical investigations/remediations;
- Section 5: Technical overview for Woodard & Curran's assessments, field investigations, and associated findings;
- Section 6: Updated receptor evaluation;
- Section 7: Data reliability evaluation;
- Section 8: Conclusions and recommendations;
- Section 9: Narrative description of the RAWP;
- Section 10: Summary of variances; and
- Section 11: List of referenced documents.

This report has been prepared and/or reviewed and accepted by the Licensed Site Remediation Professional (LSRP) of record, Mark Pietrucha – LSRP Identification Number 573898. The NJDEP Program Interest Number for the Site is 016718 and the NJDEP Case No is 08-07-01-1547.

---

## 2. SITE LOCATION AND HISTORY

### 2.1 SITE LOCATION AND DESCRIPTION

The Site is a vacant property located at 1667 Davis Street in the City of Camden (Camden County), New Jersey. According to City of Camden tax mapping, the tax lot is identified as Block 1392, Lot 33. The Site covers approximately 3.9 acres. The center of the Site is located at approximately 39° 51' 24.47" north latitude and 75° 05' 49.88" east longitude (NJ State Plane Coordinates = 324,608.12 east; 397,563.58 north). The property is bound to the north and west by residential properties, to the south by Whitman Park, and to the east by Davis Street beyond which is Dr. Charles E. Brimm Medical Art School and industrial and commercial facilities.

Figure 1 presents the approximate Site location on the United States Geological Survey (USGS) Topographic Map, and Figure 2 presents the approximate Site boundary and locations of Site AOCs on available web based aerial imagery.

### 2.2 FORMER SITE USE

The Site was originally developed for use in the early 1920's as the City of Camden Municipal Hospital for Contagious Diseases. In the 1950's, the Site became the South Jersey Medical Research Foundation Laboratory and Coriell Institute for Medical Research (CIMR). Between the 1950's and 1980's, the original hospital buildings were demolished and replaced over the course of multiple phases with the laboratory buildings located at the Site through the summer of 2018, when all buildings and structures were demolished. The Site was purchased by Camden Laboratories, LP in 1989 and operated as a series of medical laboratories including Viro-Med Biosafety and Quality Bio-Tech until 2007 at which time the property was vacated.

### 2.3 CURRENT SITE USE

In order to facilitate remedial actions and future property redevelopment, all Site buildings were demolished in the summer/fall of 2018. The property is currently vacant and undeveloped.

### 3. PHYSICAL SETTING

#### 3.1 TOPOGRAPHY AND DRAINAGE

As shown on Figure 1, the regional topography near the Site is relatively flat and slopes to the southeast with an average elevation of approximately 22 feet above mean sea level. Prior to demolition in 2018, the majority of the Site was covered with impervious surfaces including buildings, asphalt parking areas, and/or concrete walkways. Storm water runoff was controlled via a series of catch basins on the property and directed east, off-site toward the city stormwater management system. Currently, all buildings have been razed and the property is vegetated. The closest named surface water body, the Cooper River, is located approximately 0.5 miles to the east-northeast of the Site.

#### 3.2 SOILS AND GEOLOGY

According to the Natural Resource Conservation Service (NRCS) Web Soil Survey<sup>1</sup> database for Camden County, New Jersey, the entire Site is comprised of Urban Land (UR), which includes surfaces covered by pavement, concrete, buildings, and other structures underlain by disturbed and natural soil material. Investigations conducted to date indicate that the shallow subsurface is generally characterized by silty sands and clay.

According to the geologic information obtained from the NJDEP GeoWeb website<sup>2</sup>, the Site lies within the Coastal Plain and is underlain by the Cape May formation. The Cape May formation is defined as sand, pebble gravel, minor silt, clay, peat, and cobble gravel; very pale brown, yellow, reddish yellow, white, olive yellow, gray. As much as 200 feet thick on the Cape May peninsula, generally less than 50 feet thick elsewhere.”

#### 3.3 HYDROLOGY

Based on investigations conducted to date, ground water in the overburden is encountered at depths typically ranging from 15 to 16 feet below ground surface (bgs) and flows in a southerly direction. The closest named surface water body, Cooper River, is located approximately 0.5-miles to the east-northeast of the Site.

---

<sup>1</sup> [www.http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey](http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey)

<sup>2</sup> <http://www.nj.gov/dep/gis/geoweb splash.htm>

## 4. SUMMARY OF AOCs AND PREVIOUS INVESTIGATIONS/REMEDIATIONS

Environmental assessments, investigations, and/or remediations have been conducted by others at the Site since 1989. These historical assessments, investigations, and/or remediations were primarily related to the closure of three (3) fuel oil underground storage tanks (USTs) and soil impacts identified at the Site. A detailed description of the assessments, investigative activities and associated results were previously submitted to the NJDEP in the following reports:

- August 2008 Preliminary Assessment /Site Investigation (PA/SI) Report, prepared by CMX;
- August 2008 Remedial Action Work Plan (RAWP), prepared by CMX;
- October 2008 Remedial Action Report (RAR), prepared by CMX; and
- February 2009 Supplemental Site Investigation (SSI) Report, prepared by CMX.

Under the pre-LSRP case oversight program, NJDEP provided a response to the August 2008 PA/SI Report and RAWP in a Notice of Deficiency (NOD) dated December 3, 2008. These assessments, investigations, and/or remediations identified a total of 21 AOCs at the Site. The following narrative description summarizes the AOCs located within the Site and associated findings of investigations/remediations conducted by others. AOC locations are presented on Figure 2. A copy of the reports identified above along with the December 2008 NOD are provided in Appendix A of this report.

### 4.1 AOC-1: FORMER ABOVEGROUND STORAGE TANK

One (1) 275-gallon diesel aboveground storage tank (AST) was historically located south of Building 6/B. The AST was used to service an outdoor emergency generator. The AST was reportedly vandalized resulting in a diesel fuel spill to the surface. As a result, the NJDEP was contacted and the spill was assigned Case No. 97-02-21-1440-39. During the 2007 site inspection, CMX noted that the AST and generator were located on a concrete slab surrounded by asphalt. Based on this information, CMX recommended no further investigation of this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a Notice of Deficiency (NOD) on December 3, 2008. The NOD required investigations to be conducted to evaluate potential impacts associated with the vandalized AST. In December 2008 CMX advanced three soil borings to investigate the potential for subsurface impacts. Three soil samples were collected and analyzed in accordance with the analytical protocols specified in Table 2-1 of N.J.A.C. 7:26E at the time of sampling including Total Petroleum Hydrocarbons/Diesel Range Organics (TPH-DRO) with contingency Volatile Organic Compounds (VO/VOC) analysis for 25% of the samples with TPH-DRO reported at concentrations exceeding 1,000 mg/kg. TPH-DRO was reported at concentrations exceeding 1,000 mg/kg for two of the three samples; however, all targeted VOC compounds were not detected or reported at concentrations below their respective NJDEP Soil Remediation Standard (SRS) and/or the default IGWSSL. Based on this information, CMX proposed no further investigation of this AOC. These findings were presented to the NJDEP in the February 2009 SSI Report; however, there is no record of a response from NJDEP.

The current analytical protocols for investigation of diesel fuel discharges specified in Table 2-1 of N.J.A.C. 7:26E require contingency analysis of naphthalene and 2-methylnaphthalene on 25% of soil samples where Extractable Petroleum Hydrocarbons (EPH) exceeds 1,000 mg/kg. Due to absence of naphthalene and 2-methylnaphthalene in the analytical protocol of previous soil sampling, additional soil investigations were conducted during the RI. These activities and associated findings are presented in Section 5.3 of this report.

## 4.2 AOC-2: FORMER UNDERGROUND STORAGE TANKS (USTS)

Three (3) No. 2 fuel oil USTs (AOC-2A, AOC-2B, and AOC-2C) were formerly located at the Site and utilized to fuel generators and/or boilers associated with facility operations. AOC-2A was a 6,000-gallon UST located northwest of Building B, AOC-2B was a 6,000-gallon UST located off the southern corner of Building C, and AOC-2C was a 2,000-gallon UST located west of Building A. Based on a review of available documents, UST closure activities were conducted in 1989, at which time the facility systems were converted from mixed-use (fuel oil and natural gas) to entirely natural gas. According to an undated report titled "Removal of Three Underground Storage Tanks" prepared by Edward Kurth and Sons, Inc., UST closure activities included the removal and off-site disposal of the UST systems and post-removal soil sampling. The tanks were reportedly found to be in good condition when removed. Five post-removal soil samples were collected from each excavation as follows: four soil samples were collected from the east, north, south and west ends of the UST excavation area; and, one post-excavation soil sample was collected from the bottom of the excavation area. All post-excavation soil samples were analyzed in accordance with N.J.A.C. 7:26E, Table 2-1 analytical protocol No. 2 fuel oil discharges in effected at the time of sampling (TPH with contingency VOC analysis). TPH was not detected or reported at concentrations below the NJDEP Health Based Criterion for Total Organic Contaminants (TOCs) at the time of sampling (10,000 mg/kg) and/or the 1,000 mg/kg threshold for contingency VO+10 analysis for all samples. Based on this information, CMX recommended no further investigation of this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. The NOD required additional investigations be conducted in AOC-2 to confirm the findings associated with the 1989 post-closure sampling results. CMX conducted additional investigations at each former UST location in December 2008. These activities and associated findings and presented in the AOC narrative sub-sections below.

### 4.2.1 AOC-2A: Former 6,000-Gallon Fuel Oil UST (Southwest of Building B)

CMX advanced four (4) soil borings along the centerline of the UST excavation to a maximum of 12 feet bgs. Soil samples were collected to match the frequency required at the time of UST closure described in N.J.A.C. 7:26E at the time the investigation was conducted (one sample for every five (5) linear feet of the UST). Based on this frequency and typical lengths for 6,000-gallon USTs (15 to 20 feet), CMX collected four (4) soil samples (Tank2-1 through Tank2-4) from soil borings advanced along the centerline of the former UST. No evidence of impact (i.e. staining, odors or elevated PID readings) was identified in the soil column. With the exception of soil sample Tank2-2, all the soil samples were collected at a depth of 11.5-12.0 feet bgs. Tank2-2 was collected at a depth of 9.5-10.0 feet bgs due to boring refusal encountered at 10.0 feet bgs. Pursuant to the analytical protocols for No. 2 fuel oil discharges specified in Table 2-1 of N.J.A.C. 7:26E in effect at the time of sampling, all soil samples were analyzed for TPH-DRO, with contingency VO+10 analysis to be performed for 25% of those samples with a TPH-DRO concentration of 1,000 mg/kg or above. TPH-DRO was not detected in any of the four (4) soil samples collected; therefore, contingency VO+10 analysis was not performed. Based on this information, CMX proposed no further investigation of this AOC. These findings were presented to the NJDEP in the February 2009 SSI Report; however, there is no record of a response from NJDEP.

Based on the information presented above, no further investigation is recommended for this AOC.

### 4.2.2 AOC-2B: Former 6,000-Gallon Fuel Oil UST (South of Building C)

CMX advanced four (4) soil borings along the centerline of the UST excavation to a maximum of 12 feet bgs. CMX collected soil samples to match the frequency required at the time of UST closure described in N.J.A.C. 7:26E at the time the investigation was conducted (one (1) sample for every five (5) linear feet of the UST). Based on this frequency and typical lengths for 6,000-gallon USTs (15 to 20 feet), CMX collected four (4) soil samples (Tank1-1 through Tank1-4) from soil borings advanced along the centerline of the former UST. No evidence of impact (i.e. staining, odors or elevated PID readings) was identified in the soil column. Soil samples were collected at 11.5-12.0 feet bgs. Pursuant to the analytical protocols for No. 2 fuel oil discharges specified in Table 2-1 of N.J.A.C. 7:26E in effect at the time of



sampling, all soil samples were analyzed for TPH-DRO, with contingency VO+10 analysis to be performed for 25% of those samples with a TPH-DRO concentration of 1,000 mg/kg or above. TPH-DRO was not detected in any of the four (4) soil samples collected; therefore, contingency VO+10 analysis was not performed. Based on this information, CMX proposed no further investigation of this AOC. These findings were presented to the NJDEP in the February 2009 SSI Report; however, there is no record of a response from NJDEP.

Based on the information presented above, no further investigation is recommended for this AOC.

#### **4.2.3 AOC-2C: Former 2,000-Gallon Fuel Oil UST (West of Building A)**

CMX advanced four soil borings along the centerline of the UST excavation for Tank-3 to a maximum of twelve feet (12') bgs. CMX collected soil samples to match the frequency required at the time of UST closure described in N.J.A.C. 7:26E at the time the investigation was conducted (i.e. one sample for every five linear feet of the UST). Based on this frequency and typical lengths for 2,000-gallon USTs (i.e. 10 to 12 feet), CMX collected four soil samples (Tank3-1 through Tank3-4) from soil borings advanced along the centerline of the former UST. No evidence of impact (i.e. staining, odors or elevated PID readings) was identified in the soil column; therefore, the soil samples were collected at the six-inch (6") interval 11.5-12.0' bgs. Pursuant to the analytical protocols for No. 2 fuel oil discharges specified in Table 2-1 of N.J.A.C. 7:26E in effect at the time of sampling, all soil samples were analyzed for TPH-DRO, with contingency VO+10 analysis to be performed for 25% of those samples with a TPH-DRO concentration of 1,000 mg/kg or above. TPH-DRO was not detected in any of the four soil samples collected; therefore, contingency VO+10 analysis was not performed. Based on this information, CMX proposed no further investigation of this AOC. These findings were presented to the NJDEP in the February 2009 SSI Report; however, there is no record of a response from NJDEP.

Based on the information presented above, no further investigation is recommended for this AOC.

### **4.3 AOC-3: STORAGE CONTAINERS**

At the time of CMX's 2008 PA inspection, several storage containers were observed within the former freezer room of Building B including four 55-gallon drums of muriatic acid and five 55-gallon drums of caustic soda. Several empty 55-gallon drums, five-gallon containers and a one-gallon paint container were also observed within the room. No staining was noted on the concrete beneath the drums. The floors were in good condition, no apparent cracks or migration pathways were noted. Based on this information, CMX recommended no further investigation of this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. In the December 2008 NOD, the NJDEP indicated that all storage containers should be removed and disposed off-site and disposal receipts provided.

Based on the information presented above, additional assessments were conducted as part of the RI. These activities and associated findings are presented in Section 5.2 of this report.

### **4.4 AOC-4: BUILDING C FLOOR DRAINS**

Building C was the southernmost structure of the six (6) buildings previously located at the Site. This one-story building contained equipment for the former cleaning and sterilization of animal cages. At the time of CMX's 2008 PA inspection, all equipment appeared in good condition with no staining or cracks on the floor. Based on discussions with personnel, CMX concluded that the equipment drains to a floor drain system which discharges to the Camden County Municipal Utilities Authority (CCMUA) sewer. Based on this information, CMX recommended no investigation of this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-4.

Based on this information presented above, no further investigation is recommended for this AOC.

#### **4.5 AOC-5: SUSPECTED SEPTIC SYSTEM (NORTH OF BUILDING 1/F)**

Based on a review of available information, a cesspool was once utilized at the Site. According to information provided in 2008 by the prior owner of the property, Martin Manco, a cesspool associated with the former site structures was located north of the site entrance along Davis Street; however, Mr. Manco could not provide any additional details regarding the possible cesspool. Based on this information, additional assessments and/or investigation were conducted by CMX and discussed below.

In April 2008, CMX conducted a geophysical survey in the area of the suspected cesspool. An anomaly indicative of a 10,000-gallon subsurface tank was identified in the eastern portion of the Site adjacent to Building F. A second anomaly believed to be a discharge pipe was identified at a location directly north of the suspected septic tank. The first anomaly, believed to be the subsurface septic tank, and the suspected discharge pipe were situated approximately 15 feet to the east of the building. Based on these findings, CMX advanced two (2) soil borings (SB-6 and SB-7) in the vicinity of the suspected septic system. The soil boring locations were selected following completion of the geophysical survey described above. One (1) soil boring was advanced at the suspected downgradient side of the septic tank. An additional soil boring was advanced at the terminus of the discharge pipe. The soil borings were advanced to 16 feet bgs utilizing direct push drilling equipment. The soil borings were field screened with a photo-ionization detector (PID) for the presence of organic vapor. Since no evidence of contamination (i.e. odors, staining, elevated PID readings) was observed, the soil samples were collected from the six-inch interval at the suspected invert of the septic tank (5.5-6.0 feet bgs) or immediately above the observed groundwater table (13.5-14.0 feet bgs). One soil sample was collected from each soil boring at a depth of 5.5-6.0 feet bgs and 13.5-14.0 feet bgs (SB-6 and SB-7, respectively). The soil samples were analyzed for Priority Pollutants (PP+40) and TPH by NJDEP Method OQA-QAM-025, Rev.6 (TPH-QAM). All PP+40 and TPH-QAM compounds were not detected or reported at concentrations below their respective most stringent NJDEP SRS and/or IGWSSL for samples SB-6 and SB-7. Based on this information, CMX recommended no further investigation of this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-5.

In order to confirm the absence/presence of the septic system, additional assessments and investigations were conducted during the RI. These investigations and associated findings are presented in Sections 5.1 through 5.3 of this report.

#### **4.6 AOC-6: BUILDING 6/B DRYWELL**

Building 6/B was formerly located in the central section of the Site and the largest of the six (6) buildings. This building was comprised of two (2) floors. This building contained offices and animal quarters on the first floor and laboratories on the second floor. Building B contained two (2) boiler rooms on the first floor. At the time of the CMX 2008 PA inspection, the pipes and equipment located within the boiler rooms appeared in fair condition. Minor staining of the concrete surface was noted throughout the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. According to historical reports, the boiler blowdown was formerly directed to a floor drain system which discharged to a dry well. Historical reports indicate that the drywell utilized for collection of Building B boiler blowdown was removed; however, no closure documentation was identified.

In April 2008, CMX advanced one (1) soil boring adjacent to the drywell. One (1) soil sample (SB-5) was collected from the boring and analyzed for TPH-QAM. TPH-QAM was reported at a concentration (22.8 mg/kg) well below the current NJDEP Health Based Criterion for TOCs (10,000 mg/kg). In addition, CMX installed a temporary well point (TWP-1) at this location and collected a grab ground water sample for analyses of VOC with a forward library search (VO+10) and base neutral (BN) compound with a forward library search (BN+15). All VO+10 and BN+15 compounds were not detected or reported at concentrations below their respective New Jersey Ground Water Quality Standard

(NJGWQS). Based on this information, CMX recommended no further investigation for this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-6.

In order to comply with the protocols prescribed in the Technical Requirements for Site Remediation (N.J.A.C. 7:26E), in January 2009, CMX advanced a duplicate boring (SB-5 DUP) and collected one (1) additional soil sample (SB-5 DUP) to investigate this AOC. The soil boring was advanced to a maximum of 16 feet bgs utilizing direct push drilling equipment. The soil boring was field screened with a calibrated PID and logged. No staining or odors were observed in the soil boring column; however, slightly elevated PID readings were encountered at depths between 7-15 feet bgs. One soil sample was collected from the boring at the six-inch interval of greatest observed contamination based on PID readings (10.0-10.5 feet bgs). The soil sample was analyzed for PP+40. All targeted compounds were not detected or reported at concentrations below their respective most stringent direct contact SRS and/or IGWSSL. Based on this information, CMX recommended no further investigation for this AOC. These findings were presented to the NJDEP in the February 2009 SSI Report, prepared by CMX; however, there is no record of a response from NJDEP.

Based on the information presented above, no further investigation is recommended for this AOC.

#### **4.7 AOC-7: INCINERATOR**

According to historical reports, an incinerator was used for the disposal of dead laboratory animals. Reportedly, incinerator ash was collected in an on-site dumpster and transported off-site for disposal at a sanitary landfill. CMX did not observe an incinerator during the site reconnaissance. Based on these findings, CMX recommended no further investigation for this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-7.

Based on the information presented above, no further investigation is recommended for this AOC.

#### **4.8 AOC-8: TRANSFORMERS**

Two (2) electric transformers were observed at the west exterior of the power house (Building 4/D). Previous reports prepared by other indicate the transformers were dry-type, air-cooled equipment and did not contain oil. In addition, one (1) pole mounted electrical transformer was located along Davis Street. At the time of CMX's 2008 PA inspection, the transformers were in fair condition and situated on concrete. No staining or stressed vegetation was observed at the ground surface beneath any of these transformers. Based on these findings, CMX recommended no further investigation for this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-8.

Based on the information presented above, no further investigation is recommended for this AOC.

#### **4.9 AOC-9: STAINING**

During CMX's 2008 PA inspection staining was observed on concrete surfaces in three (3) buildings (Building 2/A, 4/D, and 1/F). Building 2/A was formerly located within the northern most section of the compound and comprised of a first floor and basement. Building 2/A contained a boiler room and water filtration tanks in the basement. Building 4/D was the western most structure and comprised of one (1) ground floor. Two (2) emergency gas powered generators were observed within Building 4/D. Building 1/F was the eastern most structure and consisted of a ground floor and

basement. This building contained laboratories, a library, mechanical room, and Quality Assurance room in the basement. The ground floor contained administrative offices and an auditorium. This building contained former laboratories and offices on both floors. Below is a summary of findings associated with assessments conducted by CMX.

#### **4.9.1 AOC-9A: Building 2/A Staining**

During CMX's 2008 PA inspection, the pipes and equipment located within the boiler room appeared in fair to good condition. Minor staining of the concrete surface was noted on the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on a review of information, with the exception of the Building 6/B boiler room floor drain, all site sanitary, process, Heating Ventilation Air Conditioning and boiler waste streams discharge to a central pit located in Building 1/F and then to the CCMUA sewer. Based on these findings, CMX recommended no further investigation for this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-9A.

Based on the information presented above, no further investigation is recommended for this AOC.

#### **4.9.2 AOC-9B: Building 4/D Staining**

Heavy staining of the concrete surface was noted beneath the generators; however, the floors appeared to be in good condition and no apparent cracks or migration pathways were noted. No floor drains were noted in this building. Based on these findings, CMX recommended no further investigation for this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report prepared by CMX.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-9B.

Based on the information presented above, no further investigation is recommended for this AOC.

#### **4.9.3 AOC-9C: Building 1/F Staining**

Minor staining was observed on the concrete floor in the mechanical room during CMX's 2008 PA inspection; however, the floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on these findings, CMX recommended no further investigation for this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-9C.

Based on the information presented above, no further investigation is recommended for this AOC.

#### **4.10 AOC-10: COMPRESSOR BLOWDOWN**

According to historical reports, refrigeration compressors were previously located at the northeast exterior of Building 6/B on open ground showing some slight staining of surrounding soils. CMX indicated that no stained soils were observed in this area during the 2008 PA inspection. Based on these findings, CMX recommended no further investigation for this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-10.

Based on the information presented above, no further investigation is recommended for this AOC.

#### **4.11 AOC-11: HYDRAULIC LIFT SYSTEM**

A concrete pad that formerly contained an aboveground hydraulic lift was observed in the loading dock area at the southern side of Building 6/B. No evidence of a discharge from the hydraulic lift system was noted during CMX's 2008, PA inspection. The property owner at the time (Mr. Manco) indicated that the hydraulic lift system tank was removed on November 9, 2007. He also stated that the entire lift was encased within concrete. Mr. Manco provided a Casie Protank Environmental Services non-hazardous manifest and a daily labor/equipment time report which documented the hydraulic lift system pump out and tank removal activities.

CMX advanced three (3) soil borings (SB-3 through SB-5) in April 2008 to investigate potential impacts associated with the hydraulic lift system. Two (2) soil borings were advanced along the southern perimeter of the concrete pad associated with the hydraulic lift system. An additional soil boring was advanced adjacent to a round anomaly of unidentified origin located to the southeast of the hydraulic lift system. Soil borings were advanced to a depth of sixteen 16 feet bgs utilizing direct push drilling equipment. Soil borings were field screened with a PID for the presence of organic vapor and logged. Since no evidence of contamination (i.e. odors, staining, elevated PID readings) was observed, soil samples were collected from each boring the six-inch interval immediately above the observed groundwater table. Samples SB-3 and SB-5 were collected from a depth of 13.5 to 14.0 feet bgs. Sample SB-4 was collected from a depth of 14.5-15.0 feet bgs. In accordance with the analytical protocols for hydraulic oil specified in Table 2-1 of N.J.A.C. 7:26E at the time the investigation was conducted, all soil samples were analyzed for TPH-QAM with contingent Polyaromatic Hydrocarbon (PAH) analysis (where TPH-QAM is reported at a concentration exceeding 100 mg/kg). TPH-QAM was not detected or reported at concentrations below the NJDEP PAH contingency threshold of 100 mg/kg for samples SB-3 through SB-5; therefore, contingency PAH analysis was not performed.

In addition, one ground water grab sample was collected adjacent to SB-5. The ground water grab samples were collected via a temporary well point (TWP-1) and analyzed for VO+10 and BN+15. All targeted compounds were not detected or reported at concentrations below their applicable NJDEP GWQS. Based on these findings, CMX recommended no further investigation for this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-11.

As part of site demolition activities, the hydraulic lift was removed on January 17, 2019. Upon removal, a small area of staining (approximately 1-foot by 1-foot) was observed beneath the concrete structure surrounding the lift; therefore, additional assessments/investigations were conducted in AOC-11 as part of the RI. These investigations and associated findings are presented in Section 5.3 of this report.

#### **4.12 AOC-12: NJDEP CASE NO. 97-02-21-1440-39**

AOC-12 is co-located with AOC-1. The AST historically located south of Building 6/B (AOC-1) was reportedly vandalized resulting in a surface diesel fuel spill to the surrounding asphalt. As a result, the NJDEP was contacted and the spill was issued Case No. 97-02-21-1440-39. During the 2007 site inspection, CMX noted that the AST and generator were located on a concrete slab surrounded by asphalt. Based on this information, CMX recommended no further investigation of this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. The NOD required investigations be conducted to evaluate potential impacts associated with the vandalized AST. In December 2008



CMX advanced three soil borings to investigate the potential for subsurface impacts. Three soil samples were collected and analyzed in accordance with the analytical protocols specified in Table 2-1 of N.J.A.C. 7:26E at the time of sampling including TPH-DRO with contingency VOC analysis for 25% of the samples with TPH-DRO reported at concentrations exceeding 1,000 mg/kg. TPH-DRO was reported at concentrations exceeding 1,000 mg/kg for two of the three samples; however, all targeted VOC compounds were not detected or reported at concentrations below their respective NJDEP SRS and/or the default IGWSSL. Based on this information, CMX proposed no further investigation of this AOC. These findings were presented to the NJDEP in the February 2009 SSI Report; however, there is no record of a response from NJDEP.

The current analytical protocols for investigation of diesel fuel discharges specified in Table 2-1 of N.J.A.C. 7:26E require contingency analysis of naphthalene and 2-methylnaphthalene on 25% of soil samples where Extractable Petroleum Hydrocarbons (EPH) exceeds 1,000 mg/kg. Due to absence of naphthalene and 2-methylnaphthalene in the analytical protocol of previous soil sampling, additional soil investigations were conducted as part of the RI. These activities and associated findings are presented in Section 5.3 of this report.

#### **4.13 AOC-13: NJDEP CASE NO. 98-11-20-1919-54**

Based on the findings of the PA, CMX reported the Site was identified in the NJ Spills Database under NJDEP Case No. 98-11-20-1919-54. The EDR report indicated that liquid nitrogen was spilled in the building and that the building was evacuated on November 28, 1998. The Camden County Department of Health (CCDOH) provided a file completion memo dated September 15, 1999 regarding Case No. 98-11-20-1919-54. According to the memo, a nitrogen gas release was reported within the freezer room of the Viro Med Biosafety facility (with address 1667 Davis Street, Camden), on November 20, 1998. Four (4) employees and a security guard were overcome by the nitrogen gas release and rescued by firefighters. The document reported that the conditions cited were mitigated to acceptable limits when compared to the NJDEP technical regulations. Based on these findings, CMX recommended no further investigation for this AOC. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-13.

Based on the information presented above, no further investigation is warranted for this AOC.

#### **4.14 AOC-14: REGIONAL GROUND WATER CONTAMINATION**

Previous reports and historical documents reviewed as part of CMX's August 2008 PA suggested chlorinated VOC impacts to ground water have migrated from the neighboring RF Products site to ground water beneath the Camden Laboratories Site. NJDEP directed ground water investigations to assess the north and east adjacent RF Products site as a potential source of impacted ground water within the Camden Parkside Wellfield. The NJDEP investigations indicated chlorinated solvents (specifically TCE) exceeded NJDEP GWQS beneath the RF Products site and the Camden Laboratory Site. NJDEP concluded that RF Products is a source of regional ground water contamination and the impacts have migrated to the Camden Laboratories Site property. Based on these findings, CMX recommended no further investigation for this AOC; however, CMX recommended that future site improvements will need to consider vapor intrusion mitigation measures. These findings were presented to the NJDEP in the August 2008 PA/SI Report.

In response to the August 2008 PA/SI Report, the NJDEP issued a NOD on December 3, 2008. In the December 2008 NOD, the NJDEP indicated that the matter had been provided to the NJDEP's geologist for consideration. In addition, the NJDEP requested a site map depicting all AOCs, sample locations, and construction details of the septic systems, dry well, and hydraulic lift.

In response to the December 2008 NOD, CMX reviewed available files and information generated through site assessments and/or investigations including but not limited to a geophysical investigation, soil and ground water

sampling, and files obtained from local and state agencies. Based on a review of this information, CMX concluded that chlorinated VOC impacts to site ground water were attributed to the RF Products site and not related to on-site operations. CMX recommended no further investigation of this AOC. These findings along with a site map depicting the information requested by the NJDEP was included in the February 2009 SSI Report; however, there is no record of a response from NJDEP.

Based on recommendations provided by others, additional assessments were conducted for this AOC during the RI to confirm previous findings. These assessments and associated findings are presented in Section 5.2 of this report.

#### **4.15 AOC-15 CONDUCTIVE AREA**

The April 2008 geophysical survey performed by CMX identified a large conductive area measuring approximately 50 feet by 75 feet within the western grassed portion of the site. In an effort to evaluate the potential impacts associated with this feature, CMX advanced two (2) soil borings (SB-8 and SB-9) at the perimeter of the conductive area identified. Soil borings were advanced along the east and west flank of conductive area and extended to a depth of 16 feet bgs. The soil borings were field screened with a PID for the presence of organic vapor and logged. Ash-like material was encountered in each of the borings within the upper foot of the soil column. No indications of impact (i.e. odors, staining, elevated PID readings) were observed and groundwater was not encountered. A soil sample was collected from each soil boring at a depth of 0.5 to 1.0 feet bgs and 0.75 to 1.25 feet bgs to characterize the ash-like material (SB-8 and SB-9, respectively). Both soil samples were analyzed for PP+40 and TPH-QAM. Copper and lead were reported in one soil sample (S-8) at concentrations exceeding the NJDEP soil standards at the time of sampling (Residential Direct Contact Soil Cleanup Criteria/Non-Residential Direct Contact Soil Cleanup Criteria [RDCSCC/NRDCSCC]). Copper was reported above the RDCSCC/NRDCSCC of 600 mg/kg in SB-8 at 1,380 mg/kg. Lead was reported at a concentration exceeding the NJDEP RDCSCC of 400 mg/kg and the NRDCSCC of 600 mg/kg in S-8 at 667 mg/kg. All other targeted compounds were not detected or reported at concentrations below their respective most stringent NJDEP SCC for samples SB-8 and SB-9.

In June 2008, CMX re-mobilized to the site in an effort to further characterize the conductive ash-like material and determine the horizontal boundary and vertical limits of this material. CMX advanced sixteen (16) soil borings (AM-1 through AM-16). Soil borings AM-1 through AM-6 were advanced on the site. Soil borings AM-7 through AM-16 were advanced off-site on the adjacent property immediately to the south (Whitman Park). Ash-like material was encountered in eleven (11) of the sixteen (16) soil borings advanced. Based on conditions observed during the soil boring investigation, CMX concluded the majority of the ash-like material was located on the south adjacent Whitman Park property and extends off-site to the west beneath Hallowell Avenue and onto the site.

With the exception of soil borings AM-6 and AM-16, all soil borings were advanced to a depth of four (4) feet bgs. Since soil borings AM-6 and AM-16 were advanced in an area which exhibited a large change in topography, these borings were advanced to a depth of eight (8) feet bgs. A total of sixteen (16) soil samples were collected and analyzed for copper and lead. Copper was reported at a concentration exceeding the NJDEP RDCSCC/NRDCSCC of 600 mg/kg for sample AM-2 (1,150 mg/kg). Lead was reported at a concentration exceeding the NJDEP RDCSCC of 400 mg/kg for sample AM-2 (450 mg/kg). Copper and lead were reported at concentrations below their respective most stringent NJDEP SCC for all other samples collected. Based on this information, CMX concluded that the horizontal and vertical extent of copper and lead impacted ash material had been delineated and that the area of impacted material on-site was limited to an approximate 3,750 square-foot area. These findings were presented to the NJDEP in the August 2008 PA/SI Report. Concurrent with this submittal, CMX prepared and provided a RAWP to the NJDEP in August 2008. The RAWP detailed the proposed excavation and off-site disposal of impacted soil identified in AOC-15. These activities and associated findings are presented below.

In September 2008, the ash-like material was excavated and staged adjacent to the excavation on plastic. Ash-like material encountered ranged between 16 and 24 inches thick. The final excavation was extended vertically to three feet bgs, and approximately 167 tons of material were disposed offsite at an approved beneficial re-use facility. As the

final excavation was 3,750 square feet in size, CMX collected ten (10) sidewall samples (PE-1 through PE-10) and five (5) bottom samples (PE-11 through PE-15) to be analyzed for copper and lead. Copper and lead were not detected or reported at a concentration below their respective most stringent NJDEP DCSRS for all post-excavation samples. The excavation area was backfilled with certified clean fill material. Based on these findings, CMX recommended no further action of this AOC. In the December 2008 NOD, the NJDEP indicated that no further remediation was required for AOC-15.

Woodard & Curran conducted a review of analytical data provided in historical reports and determined while copper and lead had been remediated to concentrations below their respective RDCSRS, several lead concentrations reported for investigation and/or post-excavation soil samples exceed the current NJDEP IGWSSL of 90 mg/kg. Based on this information, additional assessments were conducted for this AOC during the RI. These assessments and associated findings are presented in Section 5.2 of this report.

#### **4.16 AOC-16: MERCURY SPILL**

In April 2004, the NJDEP measured elevated levels of mercury in air while installing an on-site weather station tower. Elevated levels of mercury were measured by the NJDEP's air monitoring equipment while excavating soils for the tower foundation. At the time, the NJDEP's opinion was that the mercury air readings identified in soil along the western perimeter of the NJDEP air monitoring station may be the result of a mercury surface spill; therefore, additional investigation of soils in this area was requested by NJDEP. These investigative activities were conducted by CMX between December 2008 and January 2009. A summary of these activities and associated findings are presented below.

CMX conducted a soil boring investigation of the potential mercury surface spill area between December 2008 and January 2009. CMX advanced sixteen (16) soil borings to depths ranging between four (4) feet bgs and twenty-five (25) feet bgs. Soil borings were field screened using a calibrated Lumex and/or Jerome mercury analyzer. Elevated mercury vapor readings were observed throughout a majority of the soil borings advanced; however, elevated mercury vapor readings diminished at the extent of each soil boring. CMX collected soil samples from each of the soil borings corresponding with elevated vapor mercury readings and/or visual indications of mercury contamination (i.e. dark purple staining). Where mercury vapor readings were recorded for multiple intervals, multiple soil samples were collected and analyzed. In addition, CMX collected soil samples from each soil boring at the six-inch interval where no indications of impact were identified in order to horizontally and vertically delineate the mercury contamination. Analytical results reported mercury at a concentration exceeding the RDCSRS of 23 mg/kg and/or the NRDCSRS of 65 mg/kg for subsurface soil samples M-1 (3,700 mg/kg), M-1A (2,100 mg/kg), M-2B (82 mg/kg), M-2D (81 mg/kg), M-5A (34 mg/kg) and M-6B (36 mg/kg). Mercury was not detected or reported at concentrations below the NJDEP SRS for all other soil samples collected. Based on this information, CMX concluded mercury impacts to soil in AOC-16 were delineated to the RDCSRS but not delineated of the default IGWSSL. CMX estimated that the area of mercury RDCSRS exceedance is twenty-four (24) feet in length by thirty-four (34) feet in width and extends to a depth of twenty-three (23) feet bgs. The volume of mercury impacted soils is estimated to range from 500 to 700 cubic yards (approximately 750 to 1050 tons). These findings were presented to the NJDEP in the February 2009 SSI Report; however, there is no record of a response from NJDEP.

Based on the information presented above, additional investigations were conducted at this AOC during the RI. These investigations and associated findings are presented in Section 5.3 of this report.

#### **4.17 AOC-17: UNKNOWN LIQUID IN SUMPS/VAULTS**

During a December 6, 2016 site walk conducted by others, two (2) sub-grade, liquid-filled vaults/sumps in the basement levels of Building 1/F (Sump -1) and Building 6/B (Sump-2) were identified. In addition, during building demolition, a third sump (Sump-3) was identified with the footprint of Building 5. At one location (Sump-1) the sump lid was mounted



---

with large pumps. These units may have been part of the facility fire suppression system or may have been sump pumps to prevent groundwater infiltration into these building spaces.

Based on the information presented above, additional assessments and/or investigations were conducted for this AOC during the RI. These assessments/investigations and associated findings are presented in Section 5.2 of this report.

#### **4.18 AOC-18: SOIL PILE**

During the commencement of building demolition activities in 2018, a soil pile was observed in the western portion of the property. The soil pile measured approximately 25-feet (length) by 25-feet (width) by 8-feet (height) and consisted of primarily dark ground medium grain sands with some vegetation mixed in. Based on discussions with representatives of the current property owner, the source of the pile was unknown.

Based on the information presented above, additional assessments and/or investigations were conducted for this AOC during the RI. These assessments/investigations and associated findings are presented in Section 5.3 of this report.

## 5. TECHNICAL OVERVIEW

In an effort to characterize select AOCs and further characterize the nature and extent of soil impacts identified at the Site, Woodard & Curran conducted assessment and/or investigative activities from January 2018 through June 2019. Assessments included an evaluation of existing data and/or information related to select AOCs to determine compliance with NJDEP Rules, Regulations, and/or Guidance. Investigation activities included a geophysical survey, soil investigations, and ground water investigations. These activities were conducted in accordance with the NJDEP's *Field Sampling Procedures Manual (FSPM)*, dated August 2005 and/or the NJDEP *Technical Guidance for Site Investigation of Soil, Remedial Investigation of Soil, and Remedial Action Verification Sampling for Soil*, dated March 2015. A summary of these assessments and/or investigations and the associated findings are presented in the sections below.

### 5.1 GEOPHYSICAL INVESTIGATION

Prior to intrusive investigative activities, Master Locators (ML) performed a geophysical survey at the Site in February 2018. The purpose of the survey was to scan for and mark out all locatable utilities/anomalies within the property boundaries. More specifically, the purpose was to identify anomalies consistent with USTs and/or private utilities located on the Site.

ML utilized Electromagnetic (EM) and Ground Penetrating Radar (GPR) technology to perform the subsurface investigation with the following equipment:

- Profiler EMP-400 manufactured by GSSI;
- A6 Tracer manufactured by Aquatronics (split box);
- RD 8000 Digital Locator manufactured by Radiodetection; and
- Noggin SmartCart with 250MHz GPR antenna manufactured by Sensors and Software.

Profiler scans were completed throughout the scan area on the non-vegetated pathways and paved areas to depict relative conductivity. During data collection, the instrumentation must always remain level and close to the ground. Therefore, portions of the Site with heavy vegetation and debris at the ground surface were unable to be surveyed.

The Profiler is an EM induction tool that emits user selected frequencies ranging between 1,000 Hz to 16,000 Hz. The EM fields produced by these frequencies are measured for soil conductivity. These scans were georeferenced using an internal GPS antenna. All Profiler data was saved for post processing via Surfer Pro software.

Inductive EM scans were then performed with the A6 Tracer using a 118 kHz frequency. Inductive EM data was collected at 10' spacing in both the x and the y directions. The A6 Tracer scans were performed to identify any potential metallic objects within the scan area.

Electromagnetic scanning was performed to trace all conductive utilities which were visually evident within or adjacent to the scan area. This included both active and inactive methods of locating with the RD 8000 Digital Locator. Active and inductive scans were performed on various frequencies ranging from 8 kHz to 200 kHz. Passive scans were performed on a 60 Hz frequency.

GPR scans were performed with a 250 MHz antenna. GPR data was collected at 10' spacing in both the x and the y directions. During the scanning process, the GPR operator continuously monitored the imaging results displayed for indications of anomalies below the ground surface. Any anomalies detected were investigated further to identify the target, if possible.

As part of ML's work, all lines and other subsurface anomalies identified were marked out with paint in preparation of drilling activities. ML identified two (2) anomalies that required further investigation. The first area included a non-linear, metallic anomaly that was observed in the area northeast of Building 1/F. This anomaly was identified in an area consistent with the suspected septic system tank (AOC-5). A second non-linear, metallic anomaly was identified in close proximity to an unknown non-linear feature southwest of Building 5/C. This anomaly was identified in close proximity to a former Heating Oil UST (AOC-2B). A copy of ML's Engineering Report which documents the findings of the geophysical survey is provided in Appendix B.

Based on the information presented above, additional assessments and/or investigations were conducted. These activities and associated findings are discussed in Sections 5.2.1 (AOC-2B) and Section 5.3.2 (AOC-5) below.

## 5.2 ADDITIONAL ASSESSMENTS

As discussed in Section 4, based on a review of previous reports submitted to the NJDEP, additional assessments were conducted in the following AOCs:

- AOC-2B: Former 6,000-Gallon Fuel Oil UST (South of Building C);
- AOC-3: Storage Containers;
- AOC-14: Regional Groundwater Contamination;
- AOC-15: Conductive Area; and
- AOC-17: Unknown Liquids in Vaults.

These assessments and associated findings are presented in the sections below.

### 5.2.1 AOC-2B: Former 6,000-Gallon Fuel Oil UST (South of Building C)

During the site-wide geophysical survey, a non-linear metallic anomaly was identified southwest of Building 5/C. Because this anomaly was identified in close proximity to a former Heating Oil UST (AOC-2B) exploratory test pit activities were conducted. On January 17, 2019, several test pits were excavated in the area of the anomaly. The test pits were excavated to depths ranging from approximately eight (8) to ten (10) feet bgs. While several pieces of scrap metal were observed within the test pit areas, no UST was identified. Photos taken to document conditions during the test pit activities are provided in the photograph log in Appendix C.

Based on the information presented above, no further action is recommended for this AOC.

### 5.2.2 AOC-3: Storage Containers

Several chemical containers of various sizes, mostly empty but some containing liquid, were observed within the Site buildings and exterior grounds. The various containers were collected and properly disposed of by the demolition contractor (Ambient). In order to evaluate potential impacts associated with these materials, Woodard & Curran conducted a site inspection of the areas following removal. The inspection was conducted in December 2018 and included a visual observation of the areas following removal. At the time of Woodard & Curran's inspection, no visual evidence of staining or other impacts to the environment was observed.

Based on the information presented above, no additional investigation is recommended for this AOC.

### 5.2.3 AOC-14: Regional Groundwater Contamination

Previous reports suggest chlorinated VOC impacts to ground water have migrated from the neighboring RF Products site beneath the Camden Laboratories Site. Based on this information, Woodard & Curran conducted a review of files obtained from the NJDEP for the nearby former RF Products Site (PI No. 015474). A summary of key findings associated with this file review as they pertain to the Camden Labs property are presented below. Supporting documentation is provided in Appendix C.

- The NJDEP conducted an Unknown Source Investigation related to the Parkside Well Contamination in 2007. This investigation included the collection of one (1) ground water grab sample (RF-14) on the northeastern portion of the Camden Labs Property. Results from this sample identified TCE at a concentration of 13.77 ug/l.
- One ground water monitoring well (MW-23A) associated with the RF Products investigation was installed on the northeast portion of the Camden Labs property in August 2011. Subsequent ground water samples collected from MW-23A have not identified TCE (or any other targeted VOCs) at concentrations exceeding the NJDEP GWQS.
- While ground water sampling results for MW-23A have been non-detect for TCE, the iso-concentration contour maps provided in the RF Products RIR dated August 2013 suggest ground water impacts from the RF Products Site have migrated beneath the Camden Labs property.

This information coupled with on the iso-concentrations shown on figures provided in RF Products August 2015 RIR, suggest that ground water impacts related to the RF Products may extend beneath the northern portion of the Camden Labs Site.

Based on the information presented above, no further investigation is recommended for this AOC; however, should redevelopment include construction of a habitable structure, a vapor intrusion assessment and potentially vapor intrusion mitigation measures may be recommended. Regardless, redevelopment of the property should take into consideration potential impacts associated with vapor intrusion.

#### 5.2.4 AOC-15: Conductive Area

As previously discussed, a review of historical data indicates that soil excavation activities conducted in AOC-15 have effectively remediated areas around soil samples with reported lead and/or copper results at concentrations exceeding the NJDEP RDCSRS; however, these remedial activities did not address some soil samples that contained lead at concentrations exceeding the NJDEP IGWSSL (90 mg/kg). The SESOIL model was used to calculate an AOC-Specific Impact to Ground Water Soil Remediation Standard (IGWSRS) for lead in accordance with the NJDEP "Using the SESOIL Transport Model to Assess the Impact to Ground Water pathway" guidance document (SESOIL guidance). SESOIL is a one-dimensional vertical transport model used to determine long-term fate and transport of Contaminants of Concern (COCs) through various vadose zone processes. SEVIEW 7.1, developed by Environmental Software Consultants, Inc., was used to apply the SESOIL model to soil sample data for AOC-15.

SEVIEW 7.1 uses five files for input parameters into the SESOIL model. Climate, chemical, soil, wash load, and application files provide very specific properties to configure a Conceptual Site Model. For the purposes of this RI, and based on the SESOIL guidance, the sediment wash-load inputs were not used in the evaluation.

The pre-loaded SEVIEW 7.1 climate files contain monthly climate data such as air temperature, cloud cover, relative humidity, albedo, precipitation, etc. These data are based on National Oceanic and Atmosphere Administration (NOAA) 30-year averages. The climate file for Camden, New Jersey was used as the input for the SESOIL model and was not altered from default SEVIEW values.

Chemical properties are provided in the NJDEP "Chemical Properties for Calculation of Impact to Ground Water Soil Remediation Standards" document (Chemical Properties Table). In accordance with the SESOIL guidance, the water solubility was set to 100,000 milligrams per liter (mg/l) and Henry's Law constant and diffusion coefficients were set to zero. The soil adsorption for lead was set to 900 L/kg based on the Chemical Properties Table.

Soil data files used in SEVIEW 7.1 include the parameters of bulk density, intrinsic permeability, soil pore disconnectedness, effective porosity, and organic carbon content. The default SESOIL soil type (sand) was used for the AOC. The soil bulk density was set to 1.5 grams per cubic centimeter, the cation exchange capacity was set to zero, soil pH was kept at 7.0, and the Freundlich exponent was set to 1 as required by SESOIL guidance. In addition,

intrinsic permeability, soil pore disconnectedness, and effective porosity were changed to reflect the characteristics of sand provided by SESOIL guidance.

The SEVIEW 7.1 application file contains the necessary input parameters to describe the soil profile and contaminant load for the SESOIL model. The soil profile is determined by the load area (source area), the site latitude, the number of layers, the layer thickness, the number of sub layers per layer, and the selection of an instantaneous or continuous load. One-foot sub layers were used based on the SESOIL guidance and the release type was set to instantaneous. Sixteen one-foot sublayers were used to represent the average depth to ground water of 16 feet bgs. Post-excavation soil sampling results were evaluated as shown in Appendix D (Table D1), to identify the maximum soil concentration corresponding to each model sublayer. The maximum soil concentration of lead in the 1 to 2 feet bgs sublayer was found to be 150 mg/kg. Concentrations above and below the 1 to 2 feet bgs sublayer were found to be below the default IGWSSL of 90 mg/kg; therefore, model input concentrations for all other sublayers were set to zero mg/kg.

The SESOIL model was run for a 100-year test analysis period in accordance with the requirement for immobile chemical presented in the SESOIL guidance. The model results show that lead will not reach the water table within 100 years, therefore, no exceedance of the leachate criterion will occur, and the observed soil concentration profile does not pose an Impact to Ground Water threat. The observed concentration of 150 mg/kg can be used as an alternative AOC-Specific Impact to Ground Water Soil Remediation standard for the 1 to 2 feet bgs interval. SESOIL Output files are provided in Appendix D.

Based on the information presented above, no further action is recommended for this AOC.

### **5.2.5 AOC-17: Unknown Liquids in Vaults**

During a December 6, 2016 site walk conducted by others, two sub-grade, liquid-filled vaults/sumps were observed in the basement levels of Building 1/F (Sump -1) and Building 6/B (Sump-2). In addition, during building demolition, a third sump (Sump-3) was identified with the footprint of Building 5. In order to evaluate potential impacts, if any, Woodard & Curran conducted additional assessments in January 2019. These assessments are discussed below.

On January 17, 2019, the liquid contents of all three (3) sumps was removed by Monarch via vacuum truck. Following removal of liquids, the sumps were inspected by Woodard & Curran personnel. Sump-1 contained a small amount of debris in the bottom and Sump-2 and 3 were almost entirely filled with soil and other debris. Upon removal, all three (3) sumps were inspected for integrity and underlying soils evaluated for evidence of a discharge. A photograph log of this inspection is provided in Appendix E and observations summarized below.

- Sump-1 was almost entirely encased in concrete. The sump appeared in good condition with no evidence of a discharge to the underlying soils.
- Sump-2 was entirely encased in concrete. The sump appeared in good condition with no evidence of a discharge to the underlying soils.
- Sump-3 was not encased in concrete; however, the sump appeared in good condition with no evidence of a discharge.

Based on the information presented above, no further action is recommended for this AOC.

## **5.3 SOIL INVESTIGATION ACTIVITIES AND RESULTS**

In an effort to characterize select AOCs and further characterize the nature and extent of soil impacts identified at the Site, Woodard & Curran conducted soil investigation activities from January 2018 through June 2019. Soil borings advanced as part of this SI and RI were advanced by Enviroprobe Services, Inc (Enviroprobe) using track-mounted direct push drill rig and extended to various depths up to 25 feet bgs. Soil borings were continuously logged and when applicable, screened for the presence of organic vapors using PID and/or mercury vapors a Jerome mercury vapor

analyzer. Readings and indications of staining or odors observed in the soil column, if any, were recorded. In addition, some shallow soil borings were advanced using hand tools (i.e., hand auger and trowel) to depths of up to 2 feet during the SI/RI. All soil samples collected were sent to SGS Accutest Laboratories, Inc (SGS Accutest) for analysis. Sample locations were marked out and/or recorded in the field using Global Positioning System (GPS) location equipment. Soil boring logs which include descriptions of subsurface soil conditions and recorded PID readings are provided in Appendix F.

The soil investigations conducted as part of this phase of work were conducted at the following AOCs:

- AOC-1: Former Aboveground Storage Tank/AOC-12: NJDEP Case No. 97-02-21-1440-39;
- AOC-5: Suspected Septic System (North of Building 1/F);
- AOC-11: Hydraulic Lift System;
- AOC-16: Mercury Spill; and
- AOC-18: Soil Pile.

The investigative activities and associated findings are presented in the sections below.

### **5.3.1 AOC-1: Former Aboveground Storage Tank/AOC-12: NJDEP Case No. 97-02-21-1440-39**

Due to absence of naphthalene and 2-methylnaphthalene in the analytical protocol of previous soil sampling conducted by CMX in December 2008, additional soil sampling activities were conducted by Woodard & Curran to satisfy the analytical requirements for diesel discharges specified in N.J.A.C. 7:26E Table 2-1. Two (2) soil borings (WC-S-2 and WC-S-3) were advanced on April 19, 2019 using a hand auger. The soil borings were collocated with prior soil borings installed by CMX during the December 2008 soil sampling event. The soil borings were extended to a depth of approximately four (4) feet bgs and screened for the presence of organic vapors using a PID. No elevated PID readings were recorded and no visual impacts (i.e., staining) were observed. Therefore, two (2) soil samples (WC-S-2 and WC-S-3) were collected at the six-inch interval (0.0 to 0.5-foot bgs) corresponding to the prior soil samples collected in 2008. In accordance with Table 2-1 of N.J.A.C. 7:26E, the soil samples were analyzed for Category 2 EPH with contingency naphthalene and 2-methylnaphthalene analysis on 25% of the soil samples where EPH exceeds 1,000 mg/kg. Results from the sampling event are presented on Table 1, depicted on Figure 3 and summarized below.

- EPH was reported at a concentration of 72.3 mg/kg (WC-S-2) and 207 mg/kg (WC-S-3); therefore, contingency naphthalene and 2-methylnaphthalene analysis was not required.

Based on the information presented above, no further action is recommended for this AOC.

### **5.3.2 AOC-5: Suspected Septic System (North of Building 1/F)**

On February 5, 2018, Woodard & Curran mobilized to the Site with its subcontractor, NorthStar Environmental Services (NorthStar), to excavate test pits at AOC-5. The purpose of test pit exploration was to confirm the absence or presence of a septic system tank northeast of Building 1/F (AOC-5). Several test pits were excavated in the area of the suspected septic system tank. Overlying soils were stripped using a small backhoe and staged immediately adjacent to the test pit area. Soils were continuously screened for the presence of organic vapors using a PID. No elevated readings were observed.

While no septic holding tank was discovered, an abandoned 10-inch sewer line was identified. In addition, a 4-inch sewer line that appeared to discharge off-site was also identified. Approximately 40 feet of piping associated with these features were identified. Once overlying soils were removed, remaining soils around the subsurface features were excavated using hand tools to minimize disruption to the utilities.

In order to evaluate potential impacts associated with these features, four soil samples (S-1 through S-4) were collected. In accordance with Section 3.6.2 of the NJDEP's Technical Guidance for Site Investigation of Soil, Remedial



Investigation of Soil and Remedial Action Verification Sampling for Soil (Version 1.2), soil samples were collected every fifteen (15) feet at the six-inch interval beneath the piping and biased toward joints and/or other potential discharge areas (i.e., cracks in pipe). The samples were analyzed for Category 2 EPH, USEPA Target Compound List/Target Analyte List (TCL/TCL+30), and pH. Results from the sampling event are presented on Table 2, depicted on Figure 4 and summarized below.

- Aluminum was reported at a concentration exceeding the IGWSSL (6,000 mg/kg) in all samples with concentrations ranging between 8,240 mg/kg (S-2 (3.5-4)) and 13,300 mg/kg (S-1(4-4.5)); and
- Manganese was reported at a concentration exceeding the IGWSSL (65 mg/kg) in all samples with concentrations ranging between 89.1 mg/kg (S-1(4-4.5)) and 264 mg/kg (S-3 (4-4.5)).

The NJDEP FAQs for the Impact to Ground Water Pathway Guidance Document states that *“Soil standards, by law, must be based on health considerations. The health based GWQS are used as the endpoint from which to back-calculate the IGWSRS. The GWQS for Aluminum, Manganese, Silver and Zinc are secondary, that is they are not based on health considerations, but primarily on aesthetic considerations such as taste, odor and appearance. Additionally, these elements may be found as background contaminants. Therefore the Department has decided that the IGW pathway does not need to be addressed for these contaminants unless there is cause to believe that their presence is due to a site discharge. The direct contact pathways must still be addressed.”* Aluminum and manganese are not believed to be related to a discharge on-site.

Based on the information presented above, no further action is recommended for this AOC.

### 5.3.3 AOC-11: Hydraulic Lift System

As previously discussed, a small area of staining (approximately 1-foot by 1-foot) was observed beneath the concrete structure surrounding the lift during demolition. On January 17, 2019, the small area of stained soil was scraped and staged on site for characterization and disposal. Following removal of soil, one surface soil sample (HL-1) was collected. In accordance with the analytical protocols for hydraulic oil specified in Table 2-1 of N.J.A.C. 7:26E, the soil sample was analyzed for Category 2 EPH with contingency PAH analysis on 25% of the soil samples where EPH exceeds 1,000 mg/kg. Results from the sampling event are presented on Table 3, depicted on Figure 3 and summarized below.

- EPH was reported at a concentration of 1,050 mg/kg, therefore contingency PAH analysis was conducted.
- No PAHs were detected in soil sample HL-1.

Based on the information presented above, no further action is recommended for this AOC.

### 5.3.4 AOC-16: Mercury Spill

On February 5, 2018, soil sampling activities were conducted in AOC-16 in an effort to define the horizontal and vertical extent of previously identified mercury exceedances in soil. Five (5) soil borings (M-8, M-9, M-10, M-11, and M-12) were installed outbound of previously identified exceedances. Soil borings were advanced using direct push drilling methods to a maximum depth of 20 feet bgs. All soil borings were continuously screened for the presence of mercury vapors with a Jerome mercury analyzer and logged by Woodard & Curran on-site scientist using the Burmister soil classification system. Soil samples were collected from the six (6)-inch interval exhibiting the highest mercury analyzer reading. In the event no mercury readings were observed, soil samples were collected from the six (6)-inch interval corresponding to previously identified exceedances and/or a depth selected in an effort to define the horizontal and vertical extent of previously identified mercury exceedances. A total of eight (8) soil samples (M-8(1.5-2.0), M-8(18.0-18.5), M-9(18.0-18.5), M-10(1.5-2.0), M-10(18.0-18.5), M-11(18.0-18.5), M-12(1.5-2.0), M-12(18.0-18.5)) were collected and analyzed for mercury. Results from the sampling event are presented on Table 4, depicted on Figure 5 and summarized below.

With the exception of one soil sample (M-9(18.0-18.5)), mercury was not-detected or reported at a concentration below the NJDEP SRS and/or IGWSSL. Mercury was reported at a concentration exceeding the NJDEP IGWSSL of 0.1 mg/kg in soil sample M-9(18.0-18.5); however, the reported mercury concentration was below the NJDEP RDC and NRDCSRS. Based on the results, contingency analysis for mercury using SPLP methods was activated for sample M-9(18.0-18.5) and M-10(1.5-2.0). Using the NJDEP SPLP Spreadsheet (Version 3.1), a site specific IGWSRS was calculated for mercury. The SPLP calculator spreadsheet is provided in Appendix G and results presented below.

Parameter	Default IGWSSL (mg/kg)	Site-Specific IGWSRS (mg/kg)
Mercury	0.1	0.7

No reported mercury concentrations exceeded the Site Specific IGWSRS for mercury for AOC-16 samples collected during the February 2018 soil sampling event.

Based on the findings discussed above, the nature and extent of mercury exceedances identified in AOC-16 have been defined and a RA will be required. The proposed remedial action for AOC-16 is presented in Section 9 of this report.

### 5.3.5 AOC-18: Soil Pile

As previously discussed, an unknown soil pile was identified on the western portion of the Site. The soil pile was containerized in a 20-yard roll-off and disposed offsite by the demolition contractor (Ambient) in April 2019. In order to evaluate potential impacts associated with pile, Woodard & Curran conducted SI soil sampling of the area following removal on April 19, 2019. Soil sampling was conducted in accordance with Section 3.6.5 of the NJDEPs Technical Guidance for Site Investigation of Soil, Remedial Investigation of Soil, and Remedial Action Verification Sampling for Soil, which states that for storage and staging areas over a permeable cover, “sample frequency should be one per 900 square feet of surface area to characterize soils below a storage or staging area up to 300 feet in perimeter with a minimum of one sample.” Based on an area of 625-ft<sup>2</sup>, one soil sample was collected (AOC-18-1). The soil sample was collected at the surface (0.0-0.5 ft bgs) using decontaminated hand tools and analyzed for Category 2 EPH, TCL/TAL+30, and pH. Results from the sampling event are presented on Table 5, depicted on Figure 6 and summarized below.

With the exception of aluminum, lead, and manganese, all targeted compounds were reported at concentrations below the NJDEP RDC/NRDC SRS and/or IGWSSL. Aluminum, lead, and manganese were reported above the NJDEP IGWSSL but below their respective RDC/NRDC SRS. Based on the results, contingency analysis for aluminum, lead, and manganese using SPLP methods were activated for sample AOC-18-1. Results of the SPLP analysis are summarized on Table 5 and discussed below.

As shown on Table 5, leachate results for aluminum, lead, and manganese were all below their applicable NJDEP Leachate Criterion. Based on these results, a site specific IGWSRS for aluminum, lead, and manganese has been developed. These standards are summarized on the table below.

Parameter	Default IGWSSL (mg/kg)	Site-Specific IGWSRS (mg/kg)
Aluminum	6,000	7,280
Lead	90	190
Manganese	65	181



No reported aluminum, lead or mercury concentrations exceeded of the Site Specific IGWSRS for aluminum, lead, and manganese for AOC-18 soil samples collected during the April 2019 soil sampling event.

Based on the findings discussed above, Woodard & Curran recommends no further investigation for AOC-18.

## **5.4 GROUNDWATER INVESTIGATION ACTIVITIES AND RESULTS**

A groundwater investigation was conducted which included the installation of monitoring wells and collection of ground water samples for laboratory analysis to evaluate the potential for impacts to ground water from AOC-16 impacted soils. These activities are discussed in the sections below.

### **5.4.1 Monitoring Well Installation**

On August 6, 2018, by Enviroprobe, a New Jersey Licensed Well Driller, mobilized to the Site to install three (3) ground water monitoring wells at the highest reported concentration of mercury in soils at AOC-16 (MW-1) and in the suspected downgradient direction of AOC-16 (MW-2 and MW-3). Prior to installation, monitoring well permits were procured from the NJDEP Bureau of Water Allocation and Well Permitting.

Ground water monitoring wells were installed using hollow stem auger (HAS) drilling methods. All wells were installed to a depth of 24 feet bgs and constructed with 10 feet of 2-inch, 10-slot PVC screen and 2-inch Schedule-40 PVC riser to grade. Wells were completed with flush mount protective casings at the surface. Following completion, all monitoring wells were developed for approximately one hour or until purge water ran clear. All development water was directed to 55-gallon drums and staged on-site for characterization and off-site disposal. Shortly after completion, the newly installed monitoring wells were surveyed by a New Jersey Licensed Surveyor (Dennis W. Sklar, Inc.) and Form B's prepared.

Monitoring well locations are depicted on Figure 9. Soil boring logs are provided in Appendix F and copies of monitoring well permits, well records, monitoring well construction details and surveyor Form B's are provided in Appendix H. Disposal documentation for investigative derived waste (IDW) is provided in Appendix I.

### **5.4.2 Ground Water Gauging and Sampling**

Ground water samples were collected in August 2018 and again in October 2018. Ground water samples were collected utilizing the conventional purge and sample methodology (i.e., volume averaging). Prior to sampling, depth to water was measured at each well and used to obtain well volumes and an updated indication of ground water flow direction. Groundwater flow for the August and October 2018 events is shown on Figures 7 and 8, respectively. As shown on Figures 7 and 8, the ground water flow direction trends toward the southeast.

During sampling, efforts were made to minimize drawdown and avoid a cascading effect within the screen zone. All purge water was directed to 55-gallon drums and staged on-site for characterization and off-site disposal. Field parameters including dissolved oxygen (DO), pH, specific conductivity, turbidity, salinity, and temperature were measured and recorded prior to purging, after purging, and prior to sampling. Following the evacuation of three well volumes, ground water samples were collected using a disposable bailer and transferred directly to the laboratory provided glassware. Disposal documentation and field sampling data sheets for the conventional sampling events are provided in Appendix I and J, respectively.

Ground water samples were submitted to SGS Accutest for mercury analysis. Mercury was not-detected or reported at a concentration below the NJDEP GWQS of 2 ug/l for all ground water samples. Ground water sampling results for the August and October 2018 sampling events are summarized on Table 6, depicted on Figure 9 and discussed below.

---

Based on the information presented above, no further investigation of ground water is recommended. Therefore, in the event that the ground water monitoring wells are no longer needed they should be properly abandoned by a New Jersey Licensed Well Driller.

## 6. RECEPTOR EVALUATION

In accordance with N.J.A.C. 7:26E-1.12 a Receptor Evaluation (RE) was conducted as part of this RI. The RE included a land use assessment, ground water assessment, vapor intrusion assessment and Ecological Evaluation (EE). The following sections provide a summary of the RE completed in conjunction with the RI. Supporting documentation for the RE is provided in Appendix K.

### 6.1 LAND USE ASSESSMENT

Woodard & Curran conducted a land use evaluation of the Site and adjacent subject area in accordance with N.J.A.C. 7:26E-1.13. The land use at the site and within 200 feet of the site was evaluated by identifying tax parcels within the designated search radius and reviewing property class designations (e.g. residential, commercial, industrial, etc.) for each parcel.

The Site is located at 1667 Davis Street, in the City of Camden, Camden County, New Jersey. The Site is currently vacant and undeveloped as all buildings were razed in the Summer/Fall of 2018. The property consists of vegetated areas and is entirely fenced. 44 properties were identified within 200 feet of the site. 36 were residential properties, two were publicly owned properties (one park and one school), two are commercial properties and four are vacant properties. A map (RE Figure 1) which presents the location of the Site and surrounding land uses and a table summarizing land use within 200 feet of the Site is provided in Appendix K.

### 6.2 GROUND WATER ASSESSMENT

Woodard & Curran conducted a ground water assessment in accordance with N.J.A.C. 7:26E-1.14. Ground water investigations conducted to characterize onsite AOCs to date did not identify any constituents at concentrations exceeding the NJDEP Ground Water Quality Standards (GWQS). Therefore, no further assessment of ground water receptors is required at this time.

### 6.3 VAPOR INTRUSION ASSESSMENT

Woodard & Curran conducted a vapor intrusion assessment in accordance with N.J.A.C. 7:26E-1.15. Ground water investigations conducted to characterize onsite AOCs to date did not identify any constituents at concentrations exceeding the NJDEP Vapor Intrusion Ground Water Screening Levels (VIGWSL). Therefore, no further assessment of vapor intrusion receptors is required at this time.

### 6.4 ECOLOGICAL EVALUATION

An EE was conducted in accordance with N.J.A.C.7:26E-1.16 and NJDEP Ecological Evaluation Technical Guidance. This EE was performed in order to evaluate the potential for adverse ecological effects on wildlife and plants resulting from Site related contamination. During the EE, the site is examined for the co-occurrence of the following.

- Environmentally sensitive natural resources (ESNRs) on, adjacent to, or potentially impacted by the Site;
- The presence of COPECs at the Site or AOC and in the ESNRs; and
- The presence of a contaminant migration pathway from the site to the ESNR, or evidence of contaminated material having been placed directly into an ESNR.

If a co-occurrence of the three conditions above is identified following completion of the EE, additional ecological investigation is required pursuant to N.J.A.C. 7:26E-4.8.

In order to determine if environmentally sensitive areas are located on or directly adjacent to the Site, Woodard & Curran reviewed pertinent NJDEP Geoweb databases, data from New Jersey Geographic Information Network

---

(NJGIN), and data from NJDEP's GIS website<sup>3</sup>. As shown on RE Figure 2 in Appendix K, no environmentally sensitive areas were identified on or within 200-feet of the site. Based on these findings, no further assessment of ecological receptors is required at this time.

---

<sup>3</sup> (<http://www.state.nj.us/dep/gis/lists.html>)

## 7. RELIABILITY OF DATA

### 7.1 DATA USABILITY ASSESSMENT

A Data Usability Assessment (DUA) was performed to confirm that applicable remediation standards have been achieved with respect to data quality and use. The DUA considered the NJDEP Quality Assurance goals outlined in N.J.A.C. 7:26E-2 in evaluating the data derived during the various phases of the project. The purpose of the DUA is to evaluate the quality of the dataset and to determine its usability in the subsequent representativeness evaluation. A review of the data sets was performed to confirm that appropriate sampling procedures and laboratory analyses were conducted in conjunction with the investigation of the Site. The SGS Accutest laboratory reports are provided in Appendix L.

#### 7.1.1 Field Data Usability Assessment

The field component of the DUA evaluates the sampling method, sample preservation, sample handling, and holding times to establish compliance with applicable methods and protocols and thereby confirm that the samples analyzed at the laboratory are representative of the sampling point.

Field sampling was conducted in accordance with procedures presented in the NJDEP's Field Sampling Procedures Manual (2005). Soil samples were collected from excavations and/or soil borings using dedicated sampling shovels and placed directly into laboratory-provided glass jars. Soils collected were logged and field screened using a calibrated PID or Jerome mercury vapor meter, as appropriate. All aqueous samples were collected using laboratory provided glassware vials with appropriate preservatives. All soil and ground water samples were properly labeled at the time of collection.

Samples were preserved as required for the analytical method requested and stored in a cooler on ice prior to delivery to the laboratory under chain of custody. All samples for contaminant analysis were submitted to a New Jersey certified laboratory (SGS Accutest) with proper chain-of-custody. Samples were submitted to the laboratory within forty-eight hours of collection. All samples were extracted and analyzed by the laboratory within the method specified hold times.

#### 7.1.2 Analytical Data Usability Assessment

The analytical component of this DUA is intended to evaluate whether analytical data points are scientifically valid and defensible to demonstrate the absence of a release, delineate the extent of contamination at the Site, and adequately characterize potential risks. The DUA assesses whether the data have a sufficient level of precision, accuracy, and sensitivity to inform the decision-making processes applicable to the RI.

**Precision** refers to the reproducibility of repetitive measurements and is assessed using the relative percent difference (RPD) between a field sample and its field duplicate or laboratory duplicate sample, a matrix spike (MS) and its duplicate (MSD), or a laboratory control sample (LCS)—also sometimes referred to as a “blank spike” (BS) or “matrix blank spike” (MBS)—and its duplicate (MBSD).

**Accuracy** refers to the agreement between observed value and an accepted reference or true value. It is typically evaluated using spikes (LCS, surrogate spikes, and MS) and blanks (trip, field, and method) or any other standard subjected to the entire analytical process.

**Sensitivity** refers to the ability of the analytical methods to detect compounds at low concentrations. This is generally evaluated by comparing the achieved laboratory reporting limits (RL) and method detection limits (MDL) to applicable regulatory standards. A review of the SDGs indicates that RLs and MDLs are generally below applicable New Jersey remediation standards and default screening levels. Where RLs exceed a standard or screening level the data have been flagged on tables to caution the user.

A review of sampling data collected during the completion of the investigation activities and contained in the laboratory analytical reports indicates that the laboratory analytical data are usable in support of decision-making at the Site. Data with elevated RLs were qualified but no data were rejected. The laboratory analytical reports are provided in Appendix L.

## **7.2 REPRESENTATIVENESS EVALUATION**

A Representativeness Evaluation was performed to evaluate and demonstrate the adequacy of the data sets used to support the investigation implemented at the Site.

### **7.2.1 Conceptual Site Model**

The subject Site and adjacent parcels are developed in a manner consistent with the subject area's mixed use residential, recreation, commercial and light industrial setting. The nature and extent of known COCs include mercury found within the soil at the Site. The following subsections provide a summary of impacts to environmental media identified based on the findings of investigations conducted to date.

### **7.2.2 Soil**

As part of this investigation, Woodard & Curran evaluated soil conditions at the Site. With the exception of AOC-16 (mercury area) results for all soil samples collected and analyzed were reported at concentrations below the applicable NJDEP IGWSSL and/or RDC/NRDC SRS. Mercury has been identified in soil in AOC-16 at concentrations exceeding the NJDEP IGWSSL and/or RDC/NRDC SRS; however, the mercury impacted soils have been delineated on-site.

### **7.2.3 Ground Water**

No ground water impacts related to historical operations at the Site have been identified.

### **7.2.4 Sampling Procedures**

Sampling procedures were consistent with those outlined in the August 2005 NJDEP Field Sampling Procedures Manual (2005).

### **7.2.5 Significant Events or Seasonal Variations**

No significant events or seasonal variations occurred that would affect the data collected to assess Site contamination.

### **7.2.6 Analytical Parameters**

Samples collected to characterize the contamination at the Site were analyzed for specific parameters based on the findings of prior investigations conducted at the Site, information presented in available guidance documents and regulations, as well as Woodard & Curran's experience performing similar investigations on other sites.

### **7.2.7 Sample Number and Spatial Distribution**

The number and spatial distribution of samples was generally consistent with the requirements outlined in N.J.A.C 7:26E and applicable NJDEP guidance documents.

### **7.2.8 Completeness**

Pursuant to the Department's Policy Statement dated June 2013, the RI is complete as the following objectives have been met.

- The nature and extent of contamination has been identified;
- An evaluation of potential impacts to receptors has been completed based on the findings of investigations conducted to date; and
- The need for a Remedial Action (RA) has been determined and data has been collected which will be helpful with selection possible remedial actions.

### **7.2.9 Inconsistency and Uncertainty**

The results of the sampling program conducted have identified conditions that are consistent with the conceptual site model developed for the investigation and remediation areas. As such, no inconsistencies or uncertainties were noted.

### **7.2.10 Information Considered Unrepresentative**

All data obtained as part of this investigation is considered to be representative of conditions observed at the Site. No unrepresentative conditions were noted during the investigation.

## 8. CONCLUSIONS AND RECOMMENDATIONS

### 8.1 AOC-1: FORMER AST / AOC-12: NJDEP CASE NO. 97-02-21-1440-39

One (1) 275-gallon diesel aboveground storage tank (AST) was historically located south of Building 6/B. The AST was reportedly vandalized resulting in a diesel fuel spill to the surrounding asphalt surface. As a result, the NJDEP was contacted and the spill was issued Case No. 97-02-21-1440-39. In December 2008 CMX advanced three (3) soil borings to investigate the potential for subsurface impacts. Three soil samples were collected and analyzed in accordance with the analytical protocols specified in Table 2-1 of N.J.A.C. 7:26E at the time of sampling (TPH-DRO with contingent VOC analysis). Two of the three samples exceeded the contingency TPH-DRO threshold of 1,000 mg/kg for VOC analysis; however, all VOC compounds were not detected or reported at concentrations below their respective NJDEP SRS and IGWSSL.

Due to absence of naphthalene and 2-methylnaphthalene in the analytical protocol of previous soil sampling conducted by CMX in December 2008, additional soil sampling activities were conducted by Woodard & Curran to satisfy the current analytical protocols for diesel discharges specified in Table 2-1 in N.J.A.C. 7:26E. Two (2) soil borings (WC-S-2 and WC-S-3) were advanced on April 19, 2019 using a hand auger. The soil borings were collocated with prior soil borings installed by CMX during the December 2008 soil sampling event. The soil borings were extended to a depth of approximately four (4) feet bgs and screened for the presence of organic vapors using a PID. No elevated PID readings were recorded and no visual impacts (i.e., staining) were observed. Therefore, two (2) soil samples (WC-S-2 and WC-S-3) were collected at the six-inch interval (0.0 to 0.5-foot bgs) corresponding to the historical soil samples collected in 2008. In accordance with Table 2-1 of N.J.A.C. 7:26E, the soil samples were analyzed for Category 2 EPH with contingency naphthalene and 2-methylnaphthalene analysis on 25% of the soil samples where EPH exceeds 1,000 mg/kg. EPH was reported at a concentration of 72.3 mg/kg (WC-S-2) and 207 mg/kg (WC-S-3), therefore contingency naphthalene and 2-methylnaphthalene analysis was not required.

Based on the information presented above, no further action is recommended for AOC-1.

### 8.2 AOC-2: FORMER UNDERGROUND STORAGE TANKS (USTS)

Three (3) No. 2 fuel oil USTs (former AOC-2A, AOC-2B, and AOC-2C) were formerly located at the Site and utilized to fuel generators and/or boilers associated with facility operations. AOC-2A was a 6,000-gallon UST located northwest of Building B, AOC-2B was a 6,000-gallon UST located off the southern corner of Building C, AOC-2C was a 2,000-gallon UST located west of Building A. Based on a review of available documents, UST closure activities were conducted in 1989, at which time the facility systems were converted from mixed-use (fuel oil and natural gas) to entirely natural gas. According to an undated report titled "Removal of Three Underground Storage Tanks" prepared by Edward Kurth and Sons, Inc., USTs closure activities included the removal and off-site disposal of the UST systems and post-removal soil sampling. The tanks were reportedly found to be in good condition when removed. Five (5) post-removal soil samples were collected from each excavation as follows: four (4) soil samples were collected from the east, north, south and west ends of the UST excavation area; and, one (1) post-excavation soil sample was collected from the bottom of the excavation area. All post-excavation soil samples were analyzed in accordance with N.J.A.C. 7:26E, Table 2-1 analytical protocol No. 2 fuel oil discharges in effected at the time of sampling (TPH with contingency VOC analysis). TPH was not detected or reported at concentrations below the NJDEP Health Based Criterion for TOCs at the time of sampling (10,000 mg/kg) and/or the 1,000 mg/kg threshold for contingency VO+10 analysis.

CMX conducted additional investigations at each former UST location in December 2008. These activities and associated findings and presented in the sections below.



### **8.2.1 AOC-2A: Former 6,000-Gallon Fuel Oil UST (Southwest of Building B)**

CMX advanced four (4) soil borings along the centerline of the UST excavation and collected four (4) soil samples (Tank2-1 through Tank2-4) from soil borings. No evidence of impact (i.e. staining, odors or elevated PID readings) was identified in the soil column. Pursuant to the analytical protocols for No. 2 fuel oil discharges specified in Table 2-1 of N.J.A.C. 7:26E in effect at the time of sampling, all soil samples were analyzed for TPH-DRO, with contingency VO+10 analysis to be performed for 25% of those samples with a TPH-DRO concentration of 1,000 mg/kg or above. TPH-DRO was not detected in any of the four (4) soil samples collected; therefore, contingency VO+10 analysis was not performed.

Based on the information presented above, no further action is recommended for AOC-2A.

### **8.2.2 AOC-2B: Former 6,000-Gallon Fuel Oil UST (South of Building C)**

CMX advanced four (4) soil borings along the centerline of the UST excavation and collected four (4) soil samples (Tank1-1 through Tank1-4) from soil borings. No evidence of impact (i.e. staining, odors or elevated PID readings) was identified in the soil column. Pursuant to the analytical protocols for No. 2 fuel oil discharges specified in Table 2-1 of N.J.A.C. 7:26E in effect at the time of sampling, all soil samples were analyzed for TPH-DRO, with contingency VO+10 analysis to be performed for 25% of those samples with a TPH-DRO concentration of 1,000 mg/kg or above. . TPH-DRO was not detected in any of the four (4) soil samples collected; therefore, contingency VO+10 analysis was not performed.

Based on the information presented above, no further action is recommended for AOC-2B.

### **8.2.3 AOC-2C: Former 2,000-Gallon Fuel Oil UST (West of Building A)**

CMX advanced four (4) soil borings along the centerline of the UST excavation and collected four (4) soil samples (Tank3-1 through Tank3-4) from soil borings. No evidence of impact (i.e. staining, odors or elevated PID readings) was identified in the soil column. Pursuant to the analytical protocols for No. 2 fuel oil discharges specified in Table 2-1 of N.J.A.C. 7:26E in effect at the time of sampling, all soil samples were analyzed for TPH-DRO, with contingency VO+10 analysis to be performed for 25% of those samples with a TPH-DRO concentration of 1,000 mg/kg or above. TPH-DRO was not detected in any of the four (4) soil samples collected; therefore, contingency VO+10 analysis was not performed.

Based on the information presented above, no further action is recommended for AOC-2C.

## **8.3 AOC-3: STORAGE CONTAINERS**

Several chemical containers of various sizes, mostly empty but some containing liquid, were observed within the Site buildings and exterior grounds. The various containers were collected and properly disposed of by the demolition contractor (Ambient). Following removal, Woodard & Curran conducted a visual inspection of the areas in December 2018. At the time of Woodard & Curran's inspection, no visual evidence of staining or other impacts to the environment was observed.

Based on the information presented above, no further action is recommended for AOC-3.

## **8.4 AOC-4: BUILDING C FLOOR DRAINS**

Floor drains were identified by others in Building 5/C. This building contained equipment for the former cleaning and sterilization of animal cages. At the time of CMX's 2008 PA inspection, all equipment appeared in good condition with no staining or cracks on the floor. Based on discussions with personnel, CMX concluded that the equipment drains to a floor drain system which discharges to the CCMUA sewer. Based on this information, CMX recommended no investigation of this AOC. In the December 2008, the NJDEP indicated that no further investigation was warranted for AOC-4.

Based on the information presented above, no further action is recommended for AOC-4.

## 8.5 AOC-5: SUSPECTED SEPTIC SYSTEM (NORTH OF BUILDING 1/F)

Based on a review of available information, a cesspool was believed to have been once utilized at the Site and located north of Building 1/F. In April 2008, CMX conducted a geophysical survey in the area of the suspected cesspool. An anomaly indicative of an approximate 10,000-gallon subsurface tank was identified in the eastern portion of the site adjacent to Building F. Based on these findings, CMX advanced two (2) soil borings (SB-6 and SB-7) in the vicinity of the suspected septic system. The soil borings were field screened with a PID for the presence of organic vapor. Since no evidence of contamination (i.e. odors, staining, elevated PID readings) was observed, the soil samples were collected from the six-inch interval at the suspected invert of the septic tank (5.5-6.0 feet bgs) or immediately above the observed groundwater table (13.5-14.0 feet bgs). The soil samples were analyzed for PP+40 and TPH-QAM. All PP+40 and TPH-QAM compounds were reported as non-detect or at concentrations below their respective most stringent NJDEP SRS for samples SB-6 and SB-7. Based on this information, CMX recommended no further investigation of this AOC. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-5.

In order to confirm the absence/presence of the septic system, additional assessments and investigations were conducted in February 2018. Several large test pits were excavated in the area of the suspected septic tank. While no septic holding tank was discovered, an abandoned 10-inch sewer line was identified. In addition, a 4-inch sewer line that appeared to be directed off-site was also identified. In order to evaluate potential impacts associated with these features, four soil samples (S-1 through S-4) were collected. In accordance with Section 3.6.2 of the NJDEP's Technical Guidance for Site Investigation of Soil, Remedial Investigation of Soil and Remedial Action Verification Sampling for Soil (Version 1.2), soil samples were collected every fifteen (15) feet at the six-inch interval beneath the piping and biased toward joints and/or other potential discharge areas (i.e., cracks in pipe). The samples analyzed for Category 2 EPH, TCL/TAL+30, and pH. Aluminum was reported at a concentration exceeding the IGWSSL (6,000 mg/kg) in all samples with concentrations ranging between 8,240 mg/kg (S-2 (3.5-4)) and 13,300 mg/kg (S-1(4-4.5)). Manganese was reported at a concentration exceeding the IGWSSL (65 mg/kg) in all samples with concentrations ranging between 89.1 mg/kg (S-1(4-4.5)) and 264 mg/kg (S-3 (4-4.5)). All other targeted compounds were not detected or reported at concentrations below their respective SRS and IGWSSL.

The NJDEP FAQs for the Impact to Ground Water Pathway Guidance Document states that *"Soil standards, by law, must be based on health considerations. The health based GWQS are used as the endpoint from which to back-calculate the IGWSRS. The GWQS for Aluminum, Manganese, Silver and Zinc are secondary, that is they are not based on health considerations, but primarily on aesthetic considerations such as taste, odor and appearance. Additionally, these elements may be found as background contaminants. Therefore the Department has decided that the IGW pathway does not need to be addressed for these contaminants unless there is cause to believe that their presence is due to a site discharge. The direct contact pathways must still be addressed."* Aluminum and manganese are not believed to be related to a discharge on-site.

Based on the information presented above, no further action is recommended for AOC-5.

## 8.6 AOC-6: BUILDING 6/B DRYWELL

A drywell was formerly located east of Building 6/B. In April 2008, CMX advanced one (1) soil boring adjacent to the drywell. One (1) soil sample (SB-5) was collected from the boring and analyzed for TPH-QAM. TPH-QAM was reported at a concentration (22.8 mg/kg) well below the current NJDEP Health Based Criterion for TOCs (10,000 mg/kg). In addition, CMX installed a temporary well point (TWP-1) at this location and collected a grab ground water sample for VO+10 and BN+15 analyses. All VO+10 and BN+15 compounds were reported as non-detect or at concentrations below their respective GWQS. Based on this information, CMX recommended no further investigation for this AOC. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-6.

In order to comply with the protocols prescribed in N.J.A.C. 7:26E, in January 2009, CMX advanced a duplicate boring (SB-5 DUP) and collected one (1) additional soil sample (SB-5 DUP) to investigate this AOC. The soil boring was field screened with a calibrated PID and logged. No staining or odors were observed in the soil boring column; however slightly elevated PID readings were encountered at depths between seven feet (7') and fifteen feet (15') bgs. One (1) sample was collected from the boring at the six-inch (6") interval of greatest observed contamination based on PID readings (10.0-10.5 feet bgs). The soil sample was analyzed for PP+40. All targeted compounds were not detected or reported at concentrations below their respective SRS and IGWSSL.

Based on the information presented above, no further action is recommended for AOC-6

## **8.7 AOC-7: INCINERATOR**

According to historical reports, an incinerator was used for the disposal of dead laboratory animals that were used for the study of disease or virus reaction. Reportedly, incinerator ash was collected in an on-site dumpster and transported off-site for disposal at a sanitary landfill. CMX did not observe an incinerator during the site reconnaissance. Based on these findings, CMX recommended no further investigation for this AOC. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-7.

Based on the information presented above, no further action is recommended for AOC-7.

## **8.8 AOC-8: TRANSFORMERS**

Two (2) electric transformers were observed at the west exterior of the power house (Building 4/D). Previous reports prepared by others indicate the transformers were dry-type, air-cooled equipment and did not contain oil. In addition, one (1) pole mounted electrical transformer was located along Davis Street. At the time of CMX's 2008 PA inspection, the transformers were in fair condition and situated on concrete. No staining or stressed vegetation was observed at the ground surface beneath any of these transformers. Based on these findings, CMX recommended no further investigation for this AOC. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-8.

Based on the information presented above, no further action is recommended for AOC-8.

## **8.9 AOC-9: STAINING**

Staining was observed by others on concrete surfaces in three (3) of the former buildings (Building 2/A, 4/D, and 1/F). Below is a summary of findings associated with assessments conducted by CMX.

### **8.9.1 AOC-9A: Building 2/A Staining**

During CMX's 2008 PA inspection, Building 2/A contained a boiler room and water filtration tanks in the basement. The pipes and equipment located within the boiler room appeared in fair to good condition. Minor staining of the concrete surface was noted on the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on a review of information, all site sanitary, process, Heating Ventilation Air Conditioning and boiler waste streams discharge to a central pit located in Building 1/F and then to the CCMUA sewer. Based on these findings, CMX recommended no further investigation for this AOC. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-9A.

Based on the information presented above, no further action is recommended for AOC-9A.

### **8.9.2 AOC-9B: Building 4/D Staining**

During CMX's 2008 PA inspection, two (2) emergency gas powered generators were observed within Building 4/D. Heavy staining of the concrete surface was noted beneath the generators; however, the floors appeared to be in good

condition and no apparent cracks or migration pathways were noted. No floor drains were noted in this building. Based on these findings, CMX recommended no further investigation for this AOC. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-9B.

Based on the information presented above, no further action is recommended for AOC-9B.

### **8.9.3 AOC-9C: Building 1/F Staining**

During CMX's 2008 PA inspection, minor staining observed on the concrete floor in the Building 1/F mechanical room; however, the floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on these findings, CMX recommended no further investigation for this AOC. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-9C.

Based on the information presented above, no further action is recommended for AOC-9C.

### **8.10 AOC-10: COMPRESSOR BLOWDOWN**

According to historical reports, refrigeration compressors were previously located at the northeast exterior of Building 6/B "on open ground and show some slight staining of surrounding soils." CMX indicated that no stained soils were observed in this area during the 2008 PA inspection. Based on these findings, CMX recommended no further investigation for this AOC. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-10.

Based on the information presented above, no further action is recommended for AOC-10.

### **8.11 AOC-11: HYDRAULIC LIFT SYSTEM**

A concrete pad that formerly contained an above-ground hydraulic lift was observed in the loading dock area at the southern side of Building 6/B. No evidence of a discharge from the hydraulic lift system was noted during CMX's 2008, PA. The hydraulic lift system tank was reportedly removed in November 2007. In order to evaluate potential impacts associated with the lift, CMX advanced three (3) soil borings (SB-3 through SB-5) in April 2008 to investigate the hydraulic lift system. Soil borings were field screened with a PID for the presence of organic vapor and logged. Since no evidence of contamination (i.e. odors, staining, elevated PID readings) was observed, the soil samples were collected from the six-inch (6") interval immediately above the observed groundwater table. In accordance with the analytical protocols for hydraulic oil specified in Table 2-1 of N.J.A.C. 7:26E at the time the investigation was conducted, all soil samples were analyzed for TPH-QAM with contingent PAH analysis (where TPH-QAM is reported at a concentration exceeding 100 mg/kg). TPH-QAM was not detected or reported at concentrations below the NJDEP PAH contingency threshold of 100 mg/kg for samples SB-3 through SB-5; therefore, contingency PAH analysis was not performed.

In addition, one ground water grab sample was collected adjacent to SB-5. The ground water grab sample was collected via a temporary well point (TWP-1) and analyzed for VO+10 and BN+15. All targeted compounds were not detected or reported as non-detect or at concentrations below their applicable NJDEP GWQS. Based on these findings, CMX recommended no further investigation for this AOC. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-11.

During demolition activities, a small area of staining (approximately 1-foot by 1-foot) was observed beneath the concrete structure surrounding the lift in January 2019. The small area of stained soil was scraped and disposed offsite. One surface soil sample (HL-1) was collected. In accordance with the analytical protocols for hydraulic oil specified in Table 2-1 of N.J.A.C. 7:26E, the soil sample was analyzed for Category 2 EPH with contingency PAH analysis on 25% of the soil samples where EPH exceeds 1,000 mg/kg. EPH was reported at a concentration of 1,050 mg/kg. No PAHs were detected in soil sample HL-1.

Based on the information presented above, no further action is recommended for AOC-11.

### **8.12 AOC-13: NJDEP CASE NO. 98-11-20-1919-54**

Based on the findings of the PA, CMX reported that the Site was identified in the NJ Spills Database under NJDEP Case No. 98-11-20-1919-54. The EDR report indicated that liquid nitrogen was spilled in the building and that the building was evacuated on November 28, 1998. The CCDOH provided a file completion memo dated September 15, 1999 regarding Case No. 98-11-20-1919-54. According to the memo, a nitrogen gas release was reported within the freezer room of Viro Med Biosafety, 1667 Davis Street, Camden, on November 20, 1998. Four (4) employees and a security guard were overcome by the nitrogen gas release and rescued by firefighters. The document reported that the conditions cited were mitigated to acceptable limits when compared to the NJDEP technical regulations. Based on these findings, CMX recommended no further investigation for this AOC. In the December 2008 NOD, the NJDEP indicated that no further investigation was warranted for AOC-13.

Based on the information presented above, no further action is recommended for AOC-13.

### **8.13 AOC-14: REGIONAL GROUND WATER CONTAMINATION**

Previous reports reviewed as part of CMX's August 2008 PA regulatory review, suggested chlorinated VOC impacts to ground water have migrated from the neighboring RF Products site beneath the Camden Laboratories Site. NJDEP directed ground water investigations to assess the north and east adjacent RF Products site as a potential source of impacted ground water within the Camden Parkside Wellfield. The NJDEP investigations indicated chlorinated solvents (specifically TCE) exceeded NJDEP Ground Water Quality Standards (GWQS) beneath the RF Products site and the Camden Laboratory Site. NJDEP concluded that RF Products is a source of regional ground water contamination and the impacts have migrated to the Camden Laboratories Site property. Based on these findings, CMX recommended no further investigation for this AOC; however, CMX recommended that future site improvements will need to consider vapor intrusion mitigation measures.

In the December 2008 NOD, the NJDEP indicated that the matter had been provided to the NJDEP's geologist for consideration. In addition, the NJDEP requested a site map depicting all AOCs, sample locations, and construction details of the septic systems, dry well, and hydraulic lift.

In response to the December 2008 NOD, CMX reviewed available files and information generated through site assessments and/or investigations including but not limited to a geophysical investigation, soil and ground water sampling, and files obtained from local and state agencies. Based on a review of this information, CMX concluded that chlorinated VOC impacts to site ground water were attributed to the RF Products site and not related to on-site operations. As such, CMX recommended no further investigation of this AOC.

Woodard & Curran conducted a supplemental review of files obtained from the NJDEP for the former RF Products Site (PI No. 015474). A summary of key findings associated with this file review as they pertain to the Camden Labs property are presented below.

- The NJDEP conducted an Unknown Source Investigation related to the Parkside Well Contamination in 2007. This investigation included the collection of one (1) ground water grab sample (RF-14) on the northeastern portion of the Camden Labs Property. Results from this sample identified TCE at a concentration of 13.77 ug/l.
- One ground water monitoring well (MW-23A) associated with the RF Products investigation was installed on the northeast portion of the Camden Labs property in August 2011. Subsequent ground water samples collected from MW-23A have not identified TCE (or any other targeted VOCs) at concentrations exceeding the NJDEP GWQS.



- While ground water sampling results for MW-23A have been non-detect for TCE, the iso-concentration contour maps provided in the RF Products RIR dated August 2013 suggest ground water impacts from the RF Products Site have migrated beneath the Camden Labs property.

This information coupled with on the iso-concentrations shown on figures provided in RF Products August 2015 RIR, suggest that ground water impacts related to the RF Products may extend beneath the northern portion of the Camden Labs Site.

Based on the information presented above, no further investigation is recommended for this AOC; however, should redevelopment include construction of a habitable structure, a vapor intrusion assessment and potentially vapor intrusion mitigation measures may be recommended. Regardless, redevelopment of the property should take into consideration potential impacts associated with vapor intrusion.

### **8.14 AOC-15 CONDUCTIVE AREA**

The April 2008 geophysical survey performed by CMX identified a large conductive area measuring approximately 50 feet by 75 feet within the western grassed portion of the site. Subsequent soil sampling in AOC-15 identified the presence of copper and lead at concentrations exceeding the applicable NJDEP SRS.

In June 2008, CMX re-mobilized to the site in an effort to further characterize the conductive ash-like material and determine the horizontal boundary and vertical limits of this material. CMX advanced sixteen (16) soil borings (AM-1 through AM-16). Soil borings AM-1 through AM-6 were advanced on the site. Soil borings AM-7 through AM-16 were advanced off site on the adjacent property immediately to the south (Whitman Park). Ash-like material was encountered in eleven (11) of the sixteen (16) soil borings advanced. Based on conditions observed during the soil boring investigation, CMX concluded the majority of the ash-like material was located on the south adjacent Whitman Park property and extends off-site to the west beneath Hallowell Avenue and onto the site.

With the exception of soil borings AM-6 and AM-16, all soil borings were advanced to a depth of four (4) feet bgs. Since soil borings AM-6 and AM-16 were advanced in an area which exhibited a large change in topography, these borings were advanced to a depth of eight (8) feet bgs. A total of sixteen (16) soil samples were collected and analyzed for copper and lead. Copper was reported at a concentration exceeding the NJDEP RDCSCC/NRDCSCC of 600 mg/kg for sample AM-2 (1,150 mg/kg). Lead was reported at a concentration exceeding the NJDEP RDCSCC of 400 mg/kg for sample AM-2 (450 mg/kg). Copper and lead were reported at concentrations below their respective most stringent NJDEP SCC for all other samples collected. Based on this information, CMX concluded that the horizontal and vertical extent of copper and lead impacted ash material had been delineated and that the area of impacted material on-site was limited to an approximate 3,750 square foot area on-site. These findings were presented to the NJDEP in the August 2008 PA/SI Report, prepared by CMX. Concurrent with this submittal, CMX prepared and provided a RAWP to the NJDEP in August 2008. The RAWP detailed the proposed excavation and off-site disposal of impacted soil identified in AOC-15. These activities and associated findings are presented below.

In September 2008, the ash-like material was excavated and staged adjacent to the excavation on plastic. Ash-like material encountered ranged between 16 and 24 inches thick. The final excavation was extended vertically to three feet below ground surface, and approximately 167 tons of material was disposed of offsite at an approved beneficial re-use facility. As the final excavation was 3,750 square feet in size, CMX collected ten (10) sidewall samples (PE-1 through PE-10) and five (5) bottom samples (PE-11 through PE-15) to be analyzed for copper and lead. Copper and lead were not detected or reported at a concentration below their respective most stringent NJDEP DCSRS for all post-excavation samples. The excavation area was backfilled with certified clean fill material. Based on these findings, CMX recommended no further action of this AOC. In the December 2008 NOD, the NJDEP indicated that no further remediation was required for AOC-15.

Woodard & Curran conducted a review of analytical data provided in historical reports and determined while copper and lead had been remediated to concentrations below their respective RDCSRS, several lead samples exceed the

NJDEP IGWSSL of 90 mg/kg. Based on this information, Woodard & Curran developed an AOC-Specific Impact to Ground Water Soil Remediation Standard for lead in accordance with the NJDEP “Using the SESOIL Transport Model to Assess the Impact to Ground Water pathway” guidance document (SESOIL guidance). The model results show that lead will not reach the water table within 100 years, therefore, no exceedance of the leachate criterion (LC) will occur and the observed soil concentration profile does not pose an Impact to Ground Water threat. The observed concentration of 150 mg/kg can be used as an alternative AOC-Specific Impact to Ground Water Soil Remediation standard for the 1 to 2 feet bgs interval.

Based on the information presented above, no further action is recommended for AOC-15.

## 8.15 AOC-16: MERCURY SPILL

### Soil

In April 2004, the NJDEP measured elevated levels of mercury in air while installing the on-site weather station tower. Elevated levels of mercury were measured by the NJDEP’s air monitoring equipment while excavating soils for the tower foundation. CMX conducted a soil boring investigation of the potential mercury surface spill area between December 2008 and January 2009. CMX advanced sixteen (16) soil borings to depths ranging between four (4) feet bgs and twenty-five (25) feet bgs. CMX collected soil samples from each of the soil borings corresponding with elevated vapor mercury readings and/or visual indications of mercury contamination (i.e. dark purple staining). Where mercury vapor readings were recorded for multiple intervals, multiple soil samples were collected and analyzed. In addition, CMX collected soil samples from each soil boring at the six-inch interval where no indications of impact were identified in order to horizontally and vertically delineate the mercury contamination. Analytical results reported mercury at a concentration exceeding the RDCSRS of 23 mg/kg and/or the NRDCSRS of 65 mg/kg for subsurface soil samples M-1 (3,700 mg/kg), M-1A (2,100 mg/kg), M-2B (82 mg/kg), M-2D (81 mg/kg), M-5A (34 mg/kg) and M-6B (36 mg/kg). Mercury was not detected or reported at concentrations below the NJDEP RDCSRS for all other soil samples collected. Based on this information, CMX concluded mercury impacts to soil in AOC-16 were delineated to the RDCSRS but not delineated of the default IGWSSL.

In February 2018, soil sampling activities were conducted in AOC-16 by Woodard & Curran in an effort to define the horizontal and vertical extent of previously identified mercury exceedances in soil. Five (5) soil borings (M-8, M-9, M-10, M-11, and M-12) were advanced outbound of previously identified exceedances. A total of eight (8) soil samples (M-8(1.5-2.0), M-8(18.0-18.5), M-9(18.0-18.5), M-10(1.5-2.0), M-10(18.0-18.5), M-11(18.0-18.5), M-12(1.5-2.0), M-12(18.0-18.5)) were collected and analyzed for mercury. With the exception of one soil sample (M-9(18.0-18.5)), mercury was not-detected or reported at a concentration below the NJDEP SRS and/or IGWSSL. Mercury was reported at a concentration exceeding the NJDEP IGWSSL of 0.1 mg/kg in soil sample M-9(18.0-18.5); however, the reported mercury concentration was below the NJDEP RDCSRS and/or NRDCSRS. Based on these results, contingency analysis for mercury using SPLP methods were activated for sample M-9(18.0-18.5) and M-10(1.5-2.0). Using the NJDEP SPLP Spreadsheet (Version 3.1), a site specific IGWSRS was calculated for mercury and results shown below.

Parameter	Default IGWSSL (mg/kg)	Site-Specific IGWSRS (mg/kg)
Mercury	0.1	0.7

No reported mercury concentrations exceeded the Site Specific IGWSRS for mercury for AOC-16 samples collected during the February 2018 soil sampling event.

Based on the findings discussed above, the nature and extent of mercury exceedances identified in AOC-16 have been defined. The horizontal extent of mercury exceedances in AOC-16 are defined by the following:

- Western Extent – Delineation soil sample (M-11) results at or below the NJDEP SRS and/or IGWSRS;



- Northern Extent – Delineation soil sample (M-12) results at or below the NJDEP SRS and/or IGWSRS;
- Eastern Extent – Delineation soil sample (M-10) results at or below the NJDEP SRS and/or IGWSRS; and
- Southern Extent – Delineation soil sample (M-8) results at or below the NJDEP SRS and/or IGWSRS.

The vertical extent of mercury exceedances in soil generally extent to depths ranging from 18 feet bgs to 22.5 feet bgs and have been defined by several soil samples including: M-1-C, M-2E, M-3D, M-4-B, M-5-B, M-6D, and M-9.

It should be noted, while mercury concentrations above the IGWSRS have historically been identified in soil below the water table (15.5-16'), in accordance with N.J.A.C. 7:26E-4.2(a)3:

*“For soil contamination associated with a site-related area of concern, delineate the horizontal and vertical extent of all soil contamination in the unsaturated zone which contains contaminants above the impact to ground water soil remediation standard without regard to the property boundary.”*

Based on the information discussed above, soil RA will be required for AOC-16. The proposed remedial action for AOC-16 is presented in Section 9 of this report.

#### Ground Water

In August 2018, three (3) ground water monitoring wells at the highest reported concentration of mercury in soils at AOC-16 (MW-1) and in the suspected downgradient direction of AOC-16 (MW-2 and MW-3). Following installation, two (2) rounds of ground water samples were collected (August and October 2018). Mercury was not-detected or reported at a concentration below the NJDEP GWQS of 2 ug/l for all ground water samples.

Based on the information presented above, no further investigation of ground water is recommended. If the ground water monitoring wells are no longer needed, they should be properly abandoned by a New Jersey Licensed Well Driller.

### **8.16 AOC-17: UNKNOWN LIQUID IN SUMPS/VAULTS**

During a December 6, 2016 site walk conducted by others, two (2) sub-grade, liquid-filled vaults/sumps in the basement levels of Building 1/F (Sump -1) and Building 6/B (Sump-2). In addition, during building demolition, a third sump (Sump-3) was identified with the footprint of Building 5. In order to evaluate potential impacts, if any, Woodard & Curran conducted additional assessments in January 2009. On January 17, 2019, the liquid contents of all three (3) sumps was removed by Monarch via vacuum truck. Following removal of liquids, the sumps were inspected by Woodard & Curran personnel. Sump-1 contained a small amount of debris in the bottom and Sump-2 and 3 were almost entirely filled with soil and other debris. Upon removal, all three (3) sumps were inspected for integrity and underlying soils evaluated for evidence of a discharge and observations summarized below.

- Sump-1 was almost entirely encased in concrete. The sump appeared in good condition with no evidence of a discharge to the underlying soils.
- Sump-2 was entirely encased in concrete. The sump appeared in good condition with no evidence of a discharge to the underlying soils.
- Sump-3 was not encased in concrete; however, the sump appeared in good condition with no evidence of a discharge.

Based on the information presented above, no further action is recommended for AOC-17.

### **8.17 AOC-18: SOIL PILE**

During the commencement of building demolition activities in 2018, a soil pile was observed in the western portion of the property. The soil pile was containerized in a 20-yard roll-off and disposed offsite by the demolition contractor

(Ambient) in April 2019. In order to evaluate potential impacts associated with pile, Woodard & Curran conducted SI soil sampling of the area following removal on April 19, 2019. Soil sampling was conducted in accordance with Section 3.6.5 of the NJDEPs Technical Guidance for Site Investigation of Soil, Remedial Investigation of Soil, and Remedial Action Verification Sampling for Soil, which states that for storage and staging areas over a permeable cover, “sample frequency should be one per 900 square feet of surface area to characterize soils below a storage or staging area up to 300 feet in perimeter with a minimum of one sample.” Based on an area of 625-ft<sup>2</sup>, one soil sample was collected (AOC-18-1). The soil sample was collected at the surface (0.0-0.5 ft bgs) using decontaminated hand tools and analyzed for Category 2 EPH, TCL/TAL+30, and pH.

With the exception of aluminum, lead, and manganese, all targeted compounds were reported at concentrations below the NJDEP RDC/NRDC SRS and/or IGWSSL. Aluminum, lead, and manganese were reported above the NJDEP IGWSSL but below their respective RDC/NRDC SRS. Based on the results, contingency analysis for aluminum, lead, and manganese using SPLP methods were activated for sample AOC-18-1. Aluminum, lead, and manganese were all below their applicable NJDEP Leachate Criterion. Based on these results, a site specific IGWSRS for aluminum, lead, and manganese has been developed. These standards are summarized on the table below.

Parameter	Default IGWSSL (mg/kg)	Site-Specific IGWSRS (mg/kg)
Aluminum	6,000	7,280
Lead	90	190
Manganese	65	181

No reported aluminum, lead or mercury concentrations exceeded of the Site Specific IGWSRS for aluminum, lead, and manganese for AOC-18 soil samples collected during the April 2019 soil sampling event.

Based on the findings discussed above, Woodard & Curran recommends no further action for AOC-18.

## 9. REMEDIAL ACTION WORK PLAN

The following paragraphs provide a narrative description of the proposed remedial strategy to address mercury impacted soils at AOC-16. The proposed remedial strategies to address the mercury impacted soil were developed based on the findings of assessments and investigations conducted to date.

### 9.1 EXCAVATION OF CONTAMINATED SOILS IN AOC-16

CRA has elected to remediate mercury impacted soils at AOC-16 by excavation with offsite disposal. As shown on Figure 5 the aerial extent of mercury exceedances is approximately 5,400 square feet and defined by the following:

- Western Extent – Delineation soil sample (M-11) results at or below the NJDEP SRS and/or IGWSRS;
- Northern Extent – Delineation soil sample (M-12) results at or below the NJDEP SRS and/or IGWSRS;
- Eastern Extent – Delineation soil sample (M-10) results at or below the NJDEP SRS and/or IGWSRS; and
- Southern Extent – Delineation soil sample (M-8) results at or below the NJDEP SRS and/or IGWSRS.

The vertical extent of mercury exceedances requiring excavation extends to an approximate depth of 20 feet bgs and is defined by several soil samples including: M-1-C, M-2E, M-3D, M-4-B, M-5-B, M-6D, and M-9.

Based on the dimensions discussed above approximately 4,000 cubic yards of mercury impacted soil will be excavated from this AOC, staged on-site, characterized for disposal facility approvals and transported off-site disposal. Alternately, soils to be removed may be characterized prior to excavation and directly loaded for off-site disposal.

### 9.2 POST-EXCAVATION SOIL SAMPLING

In accordance with the NJDEPs Technical Guidance for Site Investigation of Soil, Remedial Investigation of Soil, and Remedial Action Verification Sampling for Soil dated March 2015, post-excavation soil samples will be collected at a frequency of one soil sample for every 30 linear feet of excavation side-wall and one soil sample for every 900-square feet of excavation bottom area. Post-excavation soil samples will be analyzed for mercury. Analytical results will be compared to direct contact soil remediation standards and impact to ground water soil screening levels/calculated impact to ground water soil remediation standards.

### 9.3 EXCAVATION RESTORATION

Upon confirmation of excavation of mercury impacted soils the excavation will be backfilled. Backfill material utilized in AOC-16 will meet the requirements for clean fill or licensed quarry materials described in the NJDEP Alternative and Clean Fill Guidance for SRP sites.

### 9.4 PERMITTING AND PLANS

#### 9.4.1 Health and Safety Plan

A site-specific Health and Safety Plan (HASP) will be developed by the selected remedial action contractor. The HASP, at a minimum, will be prepared in accordance with applicable federal, state and local requirements and will outline the health and safety procedures and equipment required for the work activities. The HASP will also include site control measures, engineering controls and work practices, air monitoring procedures, decontamination and residuals management procedures, and emergency response information.

## **9.4.2 Soil Erosion and Sediment Control**

Soil erosion and sediment control (SESC) measures will be employed as necessary during construction activities. The SESC measures will be employed by the remedial action contractor at the time of construction in accordance with a Camden County Soil Conservation District approved SESC Certification. Specific procedures will be established in concert with the remedial action contractor.

## **9.4.3 Dust Control**

Dust control measures will be employed as necessary during excavation activities through soil wetting or other approved techniques. Dust control measures will include procedures to prevent spreading of potentially contaminated soils by construction and transport equipment. Specific procedures will be established in concert with the remedial action contractor.

## **9.4.4 Site Security Plan**

If needed, a site security plan will be prepared in conjunction with the remedial efforts discussed in this report. The remedial action contractor will be responsible for making sure that the work areas are secured during non-working hours. At a minimum, installation of temporary construction fencing around open excavations will be implemented for site security purposes.

## **9.5 REMEDIAL ACTION REPORT**

Following completion of the remedial action field activities described in this RAWP, a Remedial Action Report (RAR) will be prepared for submittal to NJDEP. The RAR will be prepared in accordance with N.J.A.C. 7:26. The RAR will present the results of the remedial activities and include the following information.

- Summary of remedial investigation results;
- A summary of the remedial actions completed, including documentation of any field changes or other deviations from the RAWP;
- List of the remediation standards applied;
- Tables and figures that summarize pre- and post-remediation data;
- Detailed description of site restoration activities;
- Evaluation of post-remediation compliance status; and
- A summary of actual remediation costs.

## **9.6 REMEDIAL ACTION IMPLEMENTATION/SCHEDULE**

Based on discussions with CRA's representatives we understand that remedial activities will be conducted in Spring 2020.

---

## 10. VARIANCES

No variances were encountered as part of this phase of remedial activities.

## 11. REFERENCES

### Historical Reports and Readily Available Resources:

August 2008 Preliminary Assessment Report, prepared by CMX;

August 2008 Site Investigation Report, prepared by CMX;

August 2008 Remedial Action Work Plan, prepared by CMX;

October 2008 Remedial Action Report, prepared by CMX; and

February 2009 Supplemental Site Investigation (SSI) Report, prepared by CMX.

NJDEP Notice of Deficiency (NOD) dated December 3, 2008.

Natural Resource Conservation Service Soil Survey website. <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>.

NJ Geological Survey. 2009. Kirkwood-Cohansey Water-table Aquifer.

NJDEP GeoWeb website. <http://www.nj.gov/dep/gis/geoweb/splash.htm>.

US Geological Survey. Mineral Resources On-Line Spatial Data: <http://mrddata.usgs.gov/>

### Regulations and Guidance:

NJDEP. *N.J.A.C. 7:26D Remediation Standards*; last amended September 18, 2017.

NJDEP. *N.J.A.C. 7:26C Administrative Requirements for the Remediation of Contaminated Sites*; last amended August 6, 2018.

NJDEP. *N.J.A.C. 7:26E Technical Requirements for Site Remediation*; last amended August 6, 2018.

NJDEP. *Field Sampling Procedures Manual*; dated August 2005.

NJDEP. December 29, 2011, Version 2.0. *Alternative and Clean Fill Guidance for SRP sites*.

NJDEP. *Technical Guidance for Site Investigation of Soil, Remedial Investigation of Soil, and Remedial Action Verification Sampling for Soil*; dated March 2015 – Version 1.2.

NJDEP. *Ecological Evaluation Technical Guidance*; dated August 2018 – Version 2.0.

NJDEP. *Development of Site-Specific Impact to Ground Water Soil Remediation Standards using the Synthetic Precipitation Leaching Procedure*; dated November 2013 – Version 3.0.

# TABLES



Table 1 - Summary of Soil Sampling Results for AOC-1/12. Camden Labs; Camden, NJ.

AOC Sample Name Laboratory ID Sample Date	AOC-1/12				
	NJDEP SRS		NJDEP IGW	WC-S-2	WC-S-3
	NRDC	RDC	SSL/SRS	JC86710-1 4/19/2019	JC86710-2 4/19/2019
<b>Extractable Hydrocarbons (mg/kg)</b>					
EPH (>C28-C40)	NE	NE	NE	58.1	165
EPH (C9-C28)	NE	NE	NE	14.2	42.3
Total (NJDEP EPH)	SS SRC (1)		17000 (2)	72.3	207
<b>General Chemistry</b>					
Solids (%)	-	-	-	89.6	90.2

**Notes:**

NJ-NRDCSRS - NJDEP Non-Residential Direct Contact Soil Remediation Standard

NJ-RDCSRS - NJDEP Residential Direct Contact Soil Remediation Standard

NJ-IGWSSL - NJDEP Default Impact to Groundwater Soil Screening Level

RL - Reporting Limit

MDL - Method Detection Limit

1. NJDEP Category 2 EPH Standards

2. NJDEP Category 2 EPH Product Determination

**Bold/Boxed = Result exceeds NJ-IGWSSL**

Highlight = Result exceeds NJ-RDCSRS

Highlight = Result exceeds NJ-NRDCSRS

Table 2 - Summary of Soil Sampling Results for AOC-5. Camden Labs; Camden, NJ.

AOC: SAMPLE ID: SAMPLE DEPTH (ft bgs) LAB ID: COLLECTION DATE:	NJDEP			AOC-5			
	SRS		IGW	S-1(4-4.5) 4-4.5	S-2(3.5-4) 3.5-4	S-3(4-4.5) 4-4.5	S-4(4-4.5) 4-4.5
	NRDC	RDC	SSL/SRS	JC60250-1 2/5/2018	JC60250-2 2/5/2018	JC60250-3 2/5/2018	JC60250-4 2/5/2018
	VOCs (mg/kg)						
Acetone	NE	70000	19	0.0091 U	0.014	0.01	0.0099
Benzene	5	2	0.005	0.00046 U	0.00045 U	0.0005 U	0.00047 U
Bromochloromethane	NE	NE	NE	0.0046 U	0.0045 U	0.005 U	0.0047 U
Bromodichloromethane	3	1	0.005	0.0018 U	0.0018 U	0.002 U	0.0019 U
Bromoform	280	81	0.03	0.0046 U	0.0045 U	0.005 U	0.0047 U
Bromomethane	59	25	0.04	0.0046 U	0.0045 U	0.005 U	0.0047 U
Butanone (2-)	44000	3100	0.9	0.0091 U	0.009 U	0.0099 U	0.0093 U
Carbon Disulfide	110000	7800	6	0.0018 U	0.0018 U	0.002 U	0.0019 U
Carbon Tetrachloride	4	2	0.005	0.0018 U	0.0018 U	0.002 U	0.0019 U
Chlorobenzene	7400	510	0.6	0.0018 U	0.0018 U	0.002 U	0.0019 U
Chloroethane	1100	220	NE	0.0046 U	0.0045 U	0.005 U	0.0047 U
Chloroform	2	0.6	0.4	0.0018 U	0.0018 U	0.002 U	0.0019 U
Chloromethane	12	4	NE	0.0046 U	0.0045 U	0.005 U	0.0047 U
Cyclohexane	NE	NE	NE	0.0018 U	0.0018 U	0.002 U	0.0019 U
Dibromo-3-chloropropane (1,2-)	0.2	0.08	0.005	0.0018 U	0.0018 U	0.002 U	0.0019 U
Dibromochloromethane	8	3	0.005	0.0018 U	0.0018 U	0.002 U	0.0019 U
Dibromoethane (1,2-)	0.04	0.008	0.005	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Dichlorobenzene (1,2-)	59000	5300	17	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Dichlorobenzene (1,3-)	59000	5300	19	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Dichlorobenzene (1,4-)	13	5	2	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Dichlorodifluoromethane	230000	490	39	0.0046 U	0.0045 U	0.005 U	0.0047 U
Dichloroethane (1,1-)	24	8	0.2	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Dichloroethane (1,2-)	3	0.9	0.005	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Dichloroethene (1,1-)	150	11	0.008	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Dichloroethene (cis-1,2-)	560	230	0.3	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Dichloroethene (trans-1,2-)	720	300	0.6	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Dichloropropane (1,2-)	5	2	0.005	0.0018 U	0.0018 U	0.002 U	0.0019 U
Dichloropropene (cis-1,3-)	7	2	0.005	0.0018 U	0.0018 U	0.002 U	0.0019 U
Dichloropropene (trans-1,3-)	7	2	0.005	0.0018 U	0.0018 U	0.002 U	0.0019 U
Ethylbenzene	110000	7800	13	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Freon 11	340000	23000	34	0.0046 U	0.0045 U	0.005 U	0.0047 U
Freon 113	NE	NE	NE	0.0046 U	0.0045 U	0.005 U	0.0047 U
Hexanone (2-)	NE	NE	NE	0.0046 U	0.0045 U	0.005 U	0.0047 U
Isopropylbenzene	NE	NE	NE	0.0018 U	0.0018 U	0.002 U	0.0019 U
Methyl Acetate	NE	78000	22	0.0046 U	0.0045 U	0.005 U	0.0047 U
Methyl-2-pentanone (4-)	NE	NE	NE	0.0046 U	0.0045 U	0.005 U	0.0047 U
Methylcyclohexane	NE	NE	NE	0.0018 U	0.0018 U	0.002 U	0.0019 U
Methylene Chloride	230	46	0.01	0.0031 J	0.0054	0.0044 J	0.0051
Methyl-t-Butyl Ether	320	110	0.2	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Styrene	260	90	3	0.0018 U	0.0018 U	0.002 U	0.0019 U
Tetrachloroethane (1,1,2,2-)	3	1	0.007	0.0018 U	0.0018 U	0.002 U	0.0019 U
Tetrachloroethene	1500	43	0.005	0.0018 U	0.0018 U	0.002 U	0.0019 U
Toluene	91000	6300	7	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Trichlorobenzene (1,2,3-)	NE	NE	NE	0.0046 U	0.0045 U	0.005 U	0.0047 U
Trichlorobenzene (1,2,4-)	820	73	0.7	0.0046 U	0.0045 U	0.005 U	0.0047 U
Trichloroethane (1,1,1-)	NE	160000	0.3	0.0018 U	0.0018 U	0.002 U	0.0019 U

Table 2 - Summary of Soil Sampling Results for AOC-5. Camden Labs; Camden, NJ.

SAMPLE ID: SAMPLE DEPTH (ft bgs)	NJDEP			S-1(4-4.5)	S-2(3.5-4)	S-3(4-4.5)	S-4(4-4.5)
	SRS		IGW	4-4.5	3.5-4	4-4.5	4-4.5
LAB ID:	NRDC	RDC	SSL/SRS	JC60250-1	JC60250-2	JC60250-3	JC60250-4
COLLECTION DATE:				2/5/2018	2/5/2018	2/5/2018	2/5/2018
Trichloroethane (1,1,2-)	6	2	0.02	0.0018 U	0.0018 U	0.002 U	0.0019 U
Trichloroethene	10	3	0.01	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Vinyl Chloride	2	0.7	0.005	0.0018 U	0.0018 U	0.002 U	0.0019 U
Xylene (o-)	170000	12000	19	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Xylenes (m&p)	170000	12000	19	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Xylenes (Total)	170000	12000	19	0.00091 U	0.0009 U	0.00099 U	0.00093 U
Total Alkanes	NE	NE	NE	ND	ND	ND	ND
Total TIC, Volatile	NE	NE	NE	ND	ND	ND	ND
<b>SVOCs (mg/kg)</b>							
3&4-Methylphenol	NE	NE	NE	0.075 U	0.067 U	0.073 U	0.076 U
Acenaphthene	37000	3400	110	0.037 U	0.034 U	0.037 U	0.038 U
Acenaphthylene	300000	NE	NE	0.037 U	0.034 U	0.037 U	0.038 U
Acetophenone	5	2	3	0.19 U	0.17 U	0.18 U	0.19 U
Anthracene	30000	17000	2400	0.037 U	0.034 U	0.037 U	0.038 U
Atrazine	2400	210	0.2	0.075 U	0.067 U	0.073 U	0.076 U
Benzaldehyde	68000	6100	NE	0.19 U	0.17 U	0.18 U	0.19 U
Benzo[a]anthracene	17	5	0.8	0.021 J	0.042	0.024 J	0.085
Benzo[a]pyrene	2	0.5	0.2	0.037 U	0.034 J	0.023 J	0.077
Benzo[b]fluoranthene	17	5	2	0.023 J	0.044	0.028 J	0.099
Benzo[g,h,i]perylene	30000	380000	NE	0.037 U	0.034 U	0.037 U	0.043
Benzo[k]fluoranthene	170	45	25	0.037 U	0.021 J	0.037 U	0.041
Biphenyl (1,1'-)	240	61	140	0.075 U	0.067 U	0.073 U	0.076 U
Bis(2-Chloroethoxy)methane	NE	NE	NE	0.075 U	0.067 U	0.073 U	0.076 U
Bis(2-Chloroethyl)Ether	2	0.4	0.2	0.075 U	0.067 U	0.073 U	0.076 U
Bis(2-Chloroisopropyl)ether	67	23	5	0.075 U	0.067 U	0.073 U	0.076 U
Bis(2-Ethylhexyl)phthalate	140	35	1200	0.075 U	0.067 U	0.073 U	0.076 U
Bromophenyl-phenylether (4-)	NE	NE	NE	0.075 U	0.067 U	0.073 U	0.076 U
Butylbenzylphthalate	14000	1200	230	0.075 U	0.067 U	0.073 U	0.076 U
Caprolactam	340000	31000	12	0.075 U	0.067 U	0.073 U	0.076 U
Carbazole	96	24	NE	0.075 U	0.067 U	0.073 U	0.076 U
Chloro-3-methylphenol (4-)	NE	NE	NE	0.19 U	0.17 U	0.18 U	0.19 U
Chloroaniline (4-)	NE	NE	NE	0.19 U	0.17 U	0.18 U	0.19 U
Chloronaphthalene (2-)	NE	NE	NE	0.075 U	0.067 U	0.073 U	0.076 U
Chlorophenol (2-)	2200	310	0.8	0.075 U	0.067 U	0.073 U	0.076 U
Chlorophenyl-phenylether (4-)	NE	NE	NE	0.075 U	0.067 U	0.073 U	0.076 U
Chrysene	1700	450	80	0.021 J	0.038	0.023 J	0.089
Dibenzo[a,h]Anthracene	2	0.5	0.8	0.037 U	0.034 U	0.037 U	0.038 U
Dibenzofuran	NE	NE	NE	0.075 U	0.067 U	0.073 U	0.076 U
Dichlorobenzidine (3,3'-)	4	1	0.2	0.075 U	0.067 U	0.073 U	0.076 U
Dichlorophenol (2,4-)	2100	180	0.2	0.19 U	0.17 U	0.18 U	0.19 U
Diethylphthalate	550000	49000	88	0.075 U	0.067 U	0.073 U	0.076 U
Dimethylphenol (2,4-)	14000	1200	1	0.19 U	0.17 U	0.18 U	0.19 U
Dimethylphthalate	NE	NE	NE	0.075 U	0.067 U	0.073 U	0.076 U
Di-n-butylphthalate	68000	6100	760	0.075 U	0.067 U	0.073 U	0.076 U
Dinitro-2-methylphenol (4,6-)	68	6	0.3	0.19 U	0.17 U	0.18 U	0.19 U
Dinitrophenol (2,4-)	1400	120	0.3	0.19 U	0.17 U	0.18 U	0.19 U
Dinitrotoluene (2,4-)	3	0.7	NE	0.037 U	0.034 U	0.037 U	0.038 U

Table 2 - Summary of Soil Sampling Results for AOC-5. Camden Labs; Camden, NJ.

SAMPLE ID: SAMPLE DEPTH (ft bgs)	NJDEP			S-1(4-4.5)	S-2(3.5-4)	S-3(4-4.5)	S-4(4-4.5)
	SRS	IGW		4-4.5	3.5-4	4-4.5	4-4.5
LAB ID:	NRDC	RDC	SSL/SRS	JC60250-1	JC60250-2	JC60250-3	JC60250-4
COLLECTION DATE:				2/5/2018	2/5/2018	2/5/2018	2/5/2018
Dinitrotoluene (2,6-)	3	0.7	NE	0.037 U	0.034 U	0.037 U	0.038 U
Di-n-octylphthalate	27000	2400	3300	0.075 U	0.067 U	0.073 U	0.076 U
Dioxane (1,4-)	NE	NE	NE	0.037 U	0.034 U	0.037 U	0.038 U
Fluoranthene	24000	2300	1300	0.033 J	0.072	0.04	0.16
Fluorene	24000	2300	170	0.037 U	0.034 U	0.037 U	0.038 U
Hexachlorobenzene	1	0.3	0.2	0.075 U	0.067 U	0.073 U	0.076 U
Hexachlorobutadiene	25	6	0.9	0.037 U	0.034 U	0.037 U	0.038 U
Hexachlorocyclopentadiene	110	45	320	0.37 U	0.34 U	0.37 U	0.38 U
Hexachloroethane	48	12	0.2	0.19 U	0.17 U	0.18 U	0.19 U
Indeno[1,2,3-cd]pyrene	17	5	7	0.037 U	0.022 J	0.037 U	0.048
Isophorone	2000	510	0.2	0.075 U	0.067 U	0.073 U	0.076 U
Methylnaphthalene (2-)	2400	230	8	0.037 U	0.034 U	0.037 U	0.038 U
Methylphenol (2-)	3400	310	NE	0.075 U	0.067 U	0.073 U	0.076 U
Naphthalene	17	6	25	0.037 U	0.034 U	0.037 U	0.038 U
Nitroaniline (2-)	23000	39	NE	0.19 U	0.17 U	0.18 U	0.19 U
Nitroaniline (3-)	NE	NE	NE	0.19 U	0.17 U	0.18 U	0.19 U
Nitroaniline (4-)	NE	NE	NE	0.19 U	0.17 U	0.18 U	0.19 U
Nitrobenzene	14	5	0.2	0.075 U	0.067 U	0.073 U	0.076 U
Nitrophenol (2-)	NE	NE	NE	0.19 U	0.17 U	0.18 U	0.19 U
Nitrophenol (4-)	NE	NE	NE	0.37 U	0.34 U	0.37 U	0.38 U
Nitroso-Di-N-Propylamine (N-)	0.3	0.2	0.2	0.075 U	0.067 U	0.073 U	0.076 U
Nitrosodiphenylamine (N-)	390	99	0.4	0.19 U	0.17 U	0.18 U	0.19 U
Pentachlorophenol	3	0.9	0.3	0.15 U	0.13 U	0.15 U	0.15 U
Phenanthrene	300000	NE	NE	0.016 J	0.041	0.022 J	0.11
Phenol	210000	18000	8	0.075 U	0.067 U	0.073 U	0.076 U
Pyrene	18000	1700	840	0.031 J	0.063	0.037	0.14
Tetrachlorobenzene (1,2,4,5-)	NE	NE	NE	0.19 U	0.17 U	0.18 U	0.19 U
Tetrachlorophenol (2,3,4,6-)	NE	NE	NE	0.19 U	0.17 U	0.18 U	0.19 U
Trichlorophenol (2,4,5-)	68000	6100	68	0.19 U	0.17 U	0.18 U	0.19 U
Trichlorophenol (2,4,6-)	74	19	0.2	0.19 U	0.17 U	0.18 U	0.19 U
Total Alkanes	NE	NE	NE	ND	ND	ND	ND
Total TIC, Semi-Volatile	NE	NE	NE	ND	ND	ND	ND
<b>Metals (mg/kg)</b>							
Aluminum	NE	78000	6000	<b>13300</b>	<b>8240</b>	<b>8270</b>	<b>8320</b>
Antimony	450	31	6	2.2 U	2.3 U	2.2 U	2.2 U
Arsenic	19	19	19	7.7	6.7	8	7.9
Barium	59000	16000	2100	35.6	59.5	42.2	48.2
Beryllium	140	16	0.7	0.54	0.61	0.58	0.49
Cadmium	78	78	2	0.56 U	0.57 U	0.55 U	0.56 U
Calcium	NE	NE	NE	842	736	550 U	979
Chromium	20	240	NE	25.2	14	15.6	17.7
Cobalt	590	1600	90	5.6 U	5.7 U	9.1	5.6 U
Copper	45000	3100	11000	7.6	8.3	11.3	11.8
Iron	NE	NE	NE	21200	11000	12000	12000
Lead	800	400	90	25.9	32.6	40	64.6
Magnesium	NE	NE	NE	1790	1140	1110	1170
Manganese	5900	11000	65	<b>89.1</b>	<b>166</b>	<b>264</b>	<b>120</b>

Table 2 - Summary of Soil Sampling Results for AOC-5. Camden Labs; Camden, NJ.

SAMPLE ID: SAMPLE DEPTH (ft bgs)	NJDEP			S-1(4-4.5)	S-2(3.5-4)	S-3(4-4.5)	S-4(4-4.5)
	SRS		IGW	4-4.5	3.5-4	4-4.5	4-4.5
LAB ID:	NRDC	RDC	SSL/SRS	JC60250-1	JC60250-2	JC60250-3	JC60250-4
COLLECTION DATE:				2/5/2018	2/5/2018	2/5/2018	2/5/2018
Mercury	65	23	0.1	0.037 U	0.035 U	0.053	0.081
Nickel	23000	1600	48	7.5	7.2	10.3	6.7
Potassium	NE	NE	NE	1840	1100 U	1100 U	1530
Selenium	5700	390	11	2.2 U	2.3 U	2.2 U	2.2 U
Silver	5700	390	1	0.61	0.57 U	0.55 U	0.56 U
Sodium	NE	NE	NE	1100 U	1100 U	1100 U	1100 U
Thallium	NE	NE	3	1.1 U	1.1 U	1.1 U	1.1 U
Vanadium	1100	78	NE	32.1	18.2	21.2	26.3
Zinc	110000	23000	930	33.4	38.6	41.9	42.2
<b>NJDEP EPH (mg/kg)</b>							
EPH (>C28-C40)	NE	NE	NE	7.7 U	17.6	17.4	19.3
EPH (C9-C28)	NE	NE	NE	7.7 U	7.2 U	6.7 U	7.6 U
Total EPH (C9-C40)	SS SRC (1)		17000 (2)	7.7 U	17.6	17.4	19.3
<b>PCBs (mg/kg)</b>							
Aroclor-1248	1	0.2	0.2	0.036 U	0.037 U	0.035 U	0.035 U
Aroclor-1016	1	0.2	0.2	0.036 U	0.037 U	0.035 U	0.035 U
Aroclor-1221	1	0.2	0.2	0.036 U	0.037 U	0.035 U	0.035 U
Aroclor-1232	1	0.2	0.2	0.036 U	0.037 U	0.035 U	0.035 U
Aroclor-1242	1	0.2	0.2	0.036 U	0.037 U	0.035 U	0.035 U
Aroclor-1254	1	0.2	0.2	0.036 U	0.037 U	0.035 U	0.035 U
Aroclor-1260	1	0.2	0.2	0.036 U	0.037 U	0.035 U	0.035 U
Aroclor-1262	1	0.2	0.2	0.036 U	0.037 U	0.035 U	0.035 U
Aroclor-1268	1	0.2	0.2	0.036 U	0.037 U	0.035 U	0.035 U
<b>Herbicides (mg/kg)</b>							
2,4,5-T	NE	NE	NE	0.0036 U	0.0036 U	0.0035 U	0.0037 U
2,4-D	NE	NE	NE	0.018 U	0.018 U	0.018 U	0.018 U
Silvex	NE	NE	NE	0.0036 U	0.0036 U	0.0035 U	0.0037 U
<b>Pesticides (mg/kg)</b>							
4,4'-DDD	13	3	4	0.0063	0.00074 U	0.0057	0.0007 U
4,4'-DDE	9	2	18	0.09	0.11	0.21	0.34
4,4'-DDT	8	2	11	0.037	0.058	0.19	0.19
Aldrin	0.2	0.04	0.2	0.00071 U	0.00074 U	0.00069 U	0.0007 U
alpha-BHC	0.5	0.1	0.002	0.00071 U	0.00074 U	0.00069 U	0.0007 U
beta-BHC	2	0.4	0.002	0.00071 U	0.00074 U	0.00069 U	0.0007 U
Chlordane	1	0.2	0.05	0.0089	0.0031	0.00069 U	0.04
Chlordane (cis-)	NE	NE	NE	0.0051	0.0018	0.00069 U	0.023
delta-BHC	NE	NE	NE	0.00071 U	0.00074 U	0.00069 U	0.0007 U
Dieldrin	0.2	0.04	0.003	0.00071 U	0.00074 U	0.00069 U	0.0007 U
Endosulfan I	6800	470	4	0.00071 U	0.00074 U	0.00069 U	0.0007 U
Endosulfan II	6800	470	4	0.00071 U	0.00074 U	0.00069 U	0.0007 U
Endosulfan sulfate	6800	470	2	0.00071 U	0.00074 U	0.00069 U	0.0007 U
Endrin	340	23	1	0.00071 U	0.00074 U	0.00069 U	0.0007 U
Endrin aldehyde	NE	NE	NE	0.00071 U	0.00074 U	0.00069 U	0.0007 U
Endrin Ketone	NE	NE	NE	0.00071 U	0.00074 U	0.00069 U	0.0007 U

Table 2 - Summary of Soil Sampling Results for AOC-5. Camden Labs; Camden, NJ.

SAMPLE ID: SAMPLE DEPTH (ft bgs) LAB ID: COLLECTION DATE:	NJDEP			S-1(4-4.5)	S-2(3.5-4)	S-3(4-4.5)	S-4(4-4.5)
	SRS		IGW	4-4.5	3.5-4	4-4.5	4-4.5
	NRDC	RDC	SSL/SRS	JC60250-1	JC60250-2	JC60250-3	JC60250-4
				2/5/2018	2/5/2018	2/5/2018	2/5/2018
gamma-BHC (Lindane)	2	0.4	0.002	0.00071 U	0.00074 U	0.00069 U	0.0007 U
gamma-Chlordane	NE	NE	NE	0.0038	0.0016	0.00069 U	0.017
Heptachlor	0.7	0.1	0.5	0.00071 U	0.00074 U	0.00069 U	0.0007 U
Heptachlor epoxide	0.3	0.07	0.01	0.00071 U	0.00074 U	0.00069 U	0.0037
Methoxychlor	5700	390	160	0.0014 U	0.0015 U	0.0014 U	0.0014 U
Toxaphene	3	0.6	0.3	0.018 U	0.019 U	0.017 U	0.017 U
<b>Cyanide (mg/kg)</b>							
Cyanide, Total	680	47	20	0.22 U	0.15 U	0.15 U	0.19 U
<b>General Chemistry (su)</b>							
pH	NE	NE	NE	6.01	6.41	4.72	6.04

**Notes:**

NJDEP NRDC SRS - NJDEP Non-Residential Direct Contact Soil Remediation Standard

NJDEP RDC SRS - NJDEP Residential Direct Contact Soil Remediation Standard

NJDEP IGW SSL - NJDEP Default Impact to Groundwater Soil Screening Level

RL - Reporting Limit

MDL - Method Detection Limit

ND - Not Detected

J - Estimated Value, result &gt;MDL and &lt;RL

***Bold/Italics = Result exceeds NJ-IGWSSL*****Boxed = Result exceeds NJDEP RDC SRS****Highlight = Result exceeds NJDEP NRDC SRS**

Shaded = RL exceeds one or more standards.

1. NJDEP Category 2 EPH Standards
2. NJDEP Category 2 EPH Product Determination

Table 3 - Summary of Soil Sampling Results for AOC-11. Camden Labs; Camden, NJ.

AOC				AOC-11
Sample Name				HL-1
Laboratory ID	NJDEP SRS		NJDEP IGW	JC81600-1
Sample Date	NRDC	RDC	SSL/SRS	1/17/2019
<b>Extractable Hydrocarbons (mg/kg)</b>				
EPH (>C28-C40)	-	-	-	218
EPH (C9-C28)	-	-	-	832
Total EPH (C9-C40)	-	-	-	1050
Total (NJDEP EPH)	-	-	-	1050
<b>Polyaromatic Hydrocarbon Compounds</b>				
Acenaphthene	37000	3400	110	0.14 U
Acenaphthylene	300000	NA	NA	0.14 U
Anthracene	30000	17000	2400	0.14 U
Benzo(a)anthracene	17	5	0.8	0.14 U
Benzo(a)pyrene	2	0.5	0.2	0.14 U
Benzo(b)fluoranthene	17	5	2	0.14 U
Benzo(g,h,i)perylene	30000	380000	NA	0.14 U
Benzo(k)fluoranthene	170	45	25	0.14 U
Chrysene	1700	450	80	0.14 U
Dibenzo(a,h)anthracene	2	0.5	0.8	0.14 U
Fluoranthene	24000	2300	1300	0.14 U
Fluorene	24000	2300	170	0.14 U
Indeno(1,2,3-cd)pyrene	17	5	7	0.14 U
Naphthalene	17	6	25	0.14 U
Phenanthrene	300000	NA	NA	0.14 U
Pyrene	18000	1700	840	0.14 U
<b>General Chemistry</b>				
Solids (%)	-	-	-	87.9

**Notes:**

NJ-NRDCSRS - NJDEP Non-Residential Direct Contact Soil Remediation Standard

NJ-RDCSRS - NJDEP Residential Direct Contact Soil Remediation Standard

NJ-IGWSSL - NJDEP Default Impact to Groundwater Soil Screening Level

RL - Reporting Limit

MDL - Method Detection Limit

NA - Not Analyzed

J - Estimated Value, result &gt;MDL and &lt;RL

**Bold/Boxed = Result exceeds NJ-IGWSSL**

Highlight = Result exceeds NJ-RDCSRS

Highlight = Result exceeds NJ-NRDCSRS



**Table 4. Summary of Soil Sampling Results for AOC-16. Camden Labs; Camden, New Jersey.**

SAMPLE ID: SAMPLE DEPTH (ft bgs) LAB ID: COLLECTION DATE:	New Jersey Department of Environmental Protection			M-8(1.5-2.0)	M-8(18.0-18.5)	M-9(18.0-18.5)	M-10(1.5-2.0)	M-10(18.0-18.5)	M-11(18.0-18.5)	M-12(1.5-2.0)	M-12(18.0-18.5)
	NRDC	RDC	IGW	1.5-2.0	18.0-18.5	18.0-18.5	1.5-2.0	18.0-18.5	18.0-18.5	1.5-2.0	18.0-18.5
	SRS	SRS	SSL/SRS	JC60251-1	JC60251-2	JC60251-3	JC60251-4	JC60251-5	JC60251-6	JC60251-7	JC60251-8
	SRS	SRS	SSL/SRS	2/5/2018	2/5/2018	2/5/2018	2/5/2018	2/5/2018	2/5/2018	2/5/2018	2/5/2018
<b>Metals (Report in mg/kg)</b>											
Mercury	65	23	0.68†	0.037 U	0.039 U	0.68	0.048	0.039 U	0.038 U	0.039 U	0.035 U
<b>General Chemistry (Reportd in S.U.)</b>											
pH	NE	NE	NE	--	--	--	--	--	--	--	--
<b>SPLP Metals (Reported in ug/l)</b>											
Mercury		40 (3)		--	--	0.68	0.2 U	--	--	--	--
<b>SPLP Parameters</b>											
Dry Weight, SPLP Leachate (kg)	NE	NE	NE	--	--	0.08266	0.08655	--	--	--	--
Leachate Volume (l)	NE	NE	NE	--	--	2.009	2.005	--	--	--	--
pH, Extraction Post-Filtration (su)	NE	NE	NE	--	--	8.22	6.22	--	--	--	--
Sample Weight (kg)	NE	NE	NE	--	--	0.1004	0.1003	--	--	--	--

**Notes:**

- NRDC SRS - NJDEP Non-Residential Direct Contact Soil Remediation Standard
- RDC SRS - NJDEP Residential Direct Contact Soil Remediation Standard
- IGW SSL/SRS - NJDEP Default Impact to Groundwater Soil Screening Level or Soil Remediation Standard
- RL - Reporting Limit
- MDL - Method Detection Limit
- U - Not Detected
- J - Estimated Value, result >MDL and <RL
- † - Site Specific IGW Soil Remediation Standard
- - Compound not analyzed.

**Bold/Boxed = Result exceeds NJ-IGWSSL**

**Highlight = Result exceeds NJ-RDCSRS**

**Highlight = Result exceeds NJ-NRDCSRS**

Table 5 - Summary of Soil Sampling Results for AOC-18. Camden Labs; Camden, NJ.

AOC				AOC-18
Sample Name				AOC-18-1
Laboratory ID	NJDEP SRS		NJDEP IGW	JC86710-3
Sample Date	NRDC	RDC	SSL/SRS	4/19/2019
<b>Extractable Hydrocarbons (mg/kg)</b>				
EPH (>C28-C40)	-	-	-	71.7
EPH (C9-C28)	-	-	-	16.1
Total EPH (C9-C40)	-	-	-	87.8
Total (NJDEP EPH)	-	-	-	87.8
<b>Volatile Organic Compounds (mg/kg)</b>				
1,1,1-Trichloroethane	NA	160000	0.3	0.0022 U
1,1,2,2-Tetrachloroethane	3	1	0.007	0.0022 U
1,1,2-Trichloroethane	6	2	0.02	0.0022 U
1,1-Dichloroethane	24	8	0.2	0.0011 U
1,1-Dichloroethene	150	11	0.008	0.0011 U
1,2,3-Trichlorobenzene	-	-	-	0.0055 U
1,2,4-Trichlorobenzene	820	73	0.7	0.0055 U
1,2-Dibromo-3-chloropropane	0.2	0.08	0.005	0.0022 U
1,2-Dibromoethane	0.04	0.008	0.005	0.0011 U
1,2-Dichlorobenzene	59000	5300	17	0.0011 U
1,2-Dichloroethane	3	0.9	0.005	0.0011 U
1,2-Dichloropropane	5	2	0.005	0.0022 U
1,3-Dichlorobenzene	59000	5300	19	0.0011 U
1,4-Dichlorobenzene	13	5	2	0.0011 U
2-Butanone (MEK)	44000	3100	0.9	0.011 U
2-Hexanone	-	-	-	0.0055 U
4-Methyl-2-pentanone(MIBK)	-	-	-	0.0055 U
Acetone	NA	70000	19	0.011 U
Benzene	5	2	0.005	0.00055 U
Bromochloromethane	-	-	-	0.0055 U
Bromodichloromethane	3	1	0.005	0.0022 U
Bromoform	280	81	0.03	0.0055 U
Bromomethane	59	25	0.04	0.0055 U
Carbon disulfide	110000	7800	6	0.0022 U
Carbon tetrachloride	4	2	0.005	0.0022 U
Chlorobenzene	7400	510	0.6	0.0022 U
Chloroethane	1100	220	NA	0.0055 U
Chloroform	2	0.6	0.4	0.0022 U
Chloromethane	12	4	NA	0.0055 U
cis-1,2-Dichloroethene	560	230	0.3	0.0011 U
cis-1,3-Dichloropropene	7	2	0.005	0.0022 U
Cyclohexane	-	-	-	0.0022 U
Dibromochloromethane	8	3	0.005	0.0022 U
Dichlorodifluoromethane	230000	490	39	0.0055 U
Ethylbenzene	110000	7800	13	0.0011 U
Freon 113	-	-	-	0.0055 U
Isopropylbenzene	-	-	-	0.0022 U
Methyl Acetate	NA	78000	22	0.0055 U
Methyl Tert Butyl Ether	320	110	0.2	0.0011 U
Methylcyclohexane	-	-	-	0.0022 U
Methylene chloride	230	46	0.01	0.0055 U

Table 5 - Summary of Soil Sampling Results for AOC-18. Camden Labs; Camden, NJ.

AOC				AOC-18
Sample Name				AOC-18-1
Laboratory ID	NJDEP SRS		NJDEP IGW	JC86710-3
Sample Date	NRDC	RDC	SSL/SRS	4/19/2019
Styrene	260	90	3	0.0022 U
Tetrachloroethene	1500	43	0.005	0.0022 U
Toluene	91000	6300	7	0.0011 U
trans-1,2-Dichloroethene	720	300	0.6	0.0011 U
trans-1,3-Dichloropropene	7	2	0.005	0.0022 U
Trichloroethene	10	3	0.01	0.0011 U
Trichlorofluoromethane	340000	23000	34	0.0055 U
Vinyl chloride	2	0.7	0.005	0.0022 U
Xylene (total)	170000	12000	19	0.0011 U
Total TIC, Volatile	-	-	-	0
<b>Semi-Volatile Organic Compounds (mg/kg)</b>				
1,1'-Biphenyl	240	61	140	0.073 U
1,2,4,5-Tetrachlorobenzene	-	-	-	0.18 U
1,4-Dioxane	-	-	-	0.036 U
2,2'-Oxybis(1-chloropropane)	67	23	5	0.073 U
2,3,4,6-Tetrachlorophenol	-	-	-	0.18 U
2,4,5-Trichlorophenol	68000	6100	68	0.18 U
2,4,6-Trichlorophenol	74	19	0.2	0.18 U
2,4-Dichlorophenol	2100	180	0.2	0.18 U
2,4-Dimethylphenol	14000	1200	1	0.18 U
2,4-Dinitrophenol	1400	120	0.3	0.18 U
2,4-Dinitrotoluene	3	0.7	NA	0.036 U
2,6-Dinitrotoluene	3	0.7	NA	0.036 U
2-Chloronaphthalene	-	-	-	0.073 U
2-Chlorophenol	2200	310	0.8	0.073 U
2-Methylnaphthalene	2400	230	8	0.036 U
2-Methylphenol	3400	310	NA	0.073 U
2-Nitroaniline	23000	39	NA	0.18 U
2-Nitrophenol	-	-	-	0.18 U
3&4-Methylphenol	-	-	-	0.073 U
3,3'-Dichlorobenzidine	4	1	0.2	0.073 U
3-Nitroaniline	-	-	-	0.18 U
4,6-Dinitro-o-cresol	68	6	0.3	0.18 U
4-Bromophenyl phenyl ether	-	-	-	0.073 U
4-Chloro-3-methyl phenol	-	-	-	0.18 U
4-Chloroaniline	-	-	-	0.18 U
4-Chlorophenyl phenyl ether	-	-	-	0.073 U
4-Nitroaniline	-	-	-	0.18 U
4-Nitrophenol	-	-	-	0.36 U
Acenaphthene	37000	3400	110	0.036 U
Acenaphthylene	300000	NA	NA	0.036 U
Acetophenone	5	2	3	0.18 U
Anthracene	30000	17000	2400	0.036 U
Atrazine	2400	210	0.2	0.073 U
Benzaldehyde	68000	6100	NA	0.18 U
Benzo(a)anthracene	17	5	0.8	0.0714
Benzo(a)pyrene	2	0.5	0.2	0.091

Table 5 - Summary of Soil Sampling Results for AOC-18. Camden Labs; Camden, NJ.

AOC				AOC-18
Sample Name				AOC-18-1
Laboratory ID	NJDEP SRS		NJDEP IGW	JC86710-3
Sample Date	NRDC	RDC	SSL/SRS	4/19/2019
Benzo(b)fluoranthene	17	5	2	0.128
Benzo(g,h,i)perylene	30000	380000	NA	0.0644
Benzo(k)fluoranthene	170	45	25	0.0455
bis(2-Chloroethoxy)methane	-	-	-	0.073 U
bis(2-Chloroethyl)ether	2	0.4	0.2	0.073 U
bis(2-Ethylhexyl)phthalate	140	35	1200	0.073 U
Butyl benzyl phthalate	14000	1200	230	0.073 U
Caprolactam	340000	31000	12	0.073 U
Carbazole	96	24	NA	0.0090 J
Chrysene	1700	450	80	0.0962
Di-n-butyl phthalate	68000	6100	760	0.073 U
Di-n-octyl phthalate	27000	2400	3300	0.073 U
Dibenzo(a,h)anthracene	2	0.5	0.8	0.0170 J
Dibenzofuran	-	-	-	0.073 U
Diethyl phthalate	550000	49000	88	0.073 U
Dimethyl phthalate	-	-	-	0.073 U
Fluoranthene	24000	2300	1300	0.146
Fluorene	24000	2300	170	0.036 U
Hexachlorobenzene	1	0.3	0.2	0.073 U
Hexachlorobutadiene	25	6	0.9	0.036 U
Hexachlorocyclopentadiene	110	45	320	0.36 U
Hexachloroethane	48	12	0.2	0.18 U
Indeno(1,2,3-cd)pyrene	17	5	7	0.0565
Isophorone	2000	510	0.2	0.073 U
N-Nitroso-di-n-propylamine	0.3	0.2	0.2	0.073 U
N-Nitrosodiphenylamine	390	99	0.4	0.18 U
Naphthalene	17	6	25	0.036 U
Nitrobenzene	14	5	0.2	0.073 U
Pentachlorophenol	3	0.9	0.3	0.15 U
Phenanthrene	300000	NA	NA	0.0756
Phenol	210000	18000	8	0.073 U
Pyrene	18000	1700	840	0.155
Total TIC, Semi-Volatile	-	-	-	0.17 J
<b>Pesticides (mg/kg)</b>				
4,4'-DDD	13	3	4	0.0061
4,4'-DDE	9	2	18	0.212
4,4'-DDT	8	2	11	0.0604
Aldrin	0.2	0.04	0.2	0.00074 U
alpha-BHC	0.5	0.1	0.002	0.00074 U
alpha-Chlordane	1	0.2	0.05	0.00074 U
beta-BHC	2	0.4	0.002	0.00074 U
Chlordane (alpha and gamma)	1	0.2	0.05	0.00074 U
delta-BHC	-	-	-	0.00074 U
Dieldrin	0.2	0.04	0.003	0.00074 U
Endosulfan sulfate	6800	470	2	0.00074 U
Endosulfan-I	6800	470	4	0.00074 U
Endosulfan-II	6800	470	4	0.00074 U

Table 5 - Summary of Soil Sampling Results for AOC-18. Camden Labs; Camden, NJ.

AOC				AOC-18
Sample Name				AOC-18-1
Laboratory ID	NJDEP SRS		NJDEP IGW	JC86710-3
Sample Date	NRDC	RDC	SSL/SRS	4/19/2019
Endrin	340	23	1	0.00074 U
Endrin aldehyde	-	-	-	0.00074 U
Endrin ketone	-	-	-	0.00074 U
gamma-BHC (Lindane)	2	0.4	0.002	0.00074 U
gamma-Chlordane	1	0.2	0.05	0.00074 U
Heptachlor	0.7	0.1	0.5	0.00074 U
Heptachlor epoxide	0.3	0.07	0.01	0.00074 U
Methoxychlor	5700	390	160	0.0015 U
Toxaphene	3	0.6	0.3	0.018 U
<b>Polychlorinated Biphenys (mg/kg)</b>				
Aroclor 1016	1	0.2	0.2	0.037 U
Aroclor 1221	1	0.2	0.2	0.037 U
Aroclor 1232	1	0.2	0.2	0.037 U
Aroclor 1242	1	0.2	0.2	0.037 U
Aroclor 1248	1	0.2	0.2	0.037 U
Aroclor 1254	1	0.2	0.2	0.037 U
Aroclor 1260	1	0.2	0.2	0.037 U
Aroclor 1262	1	0.2	0.2	0.037 U
Aroclor 1268	1	0.2	0.2	0.037 U
Total PCBs	-	-	-	ND
<b>Total Metals (mg/kg)</b>				
Aluminum	NA	78000	7280†	7280
Antimony	450	31	6	2.3 U
Arsenic	19	19	19	10
Barium	59000	16000	2100	79.8
Beryllium	140	16	0.7	0.55
Cadmium	78	78	2	0.57 U
Calcium	-	-	-	1470
Chromium	-	-	-	19
Cobalt	590	1600	90	5.7 U
Copper	45000	3100	11000	17.8
Iron	-	-	-	12600
Lead	800	400	190†	190
Magnesium	-	-	-	1120
Manganese	5900	11000	181†	181
Mercury	65	23	0.1	0.064
Nickel	23000	1600	48	9
Potassium	-	-	-	1220
Selenium	5700	390	11	2.3 U
Silver	5700	390	1	0.57 U
Sodium	-	-	-	1100 U
Thallium	-	-	3	1.1 U
Vanadium	1100	78	NA	25.4
Zinc	110000	23000	930	94.9

Table 5 - Summary of Soil Sampling Results for AOC-18. Camden Labs; Camden, NJ.

AOC				AOC-18
Sample Name				AOC-18-1
Laboratory ID	NJDEP SRS		NJDEP IGW	JC86710-3
Sample Date	NRDC	RDC	SSL/SRS	4/19/2019
<b>SPLP Analysis</b>				
pH, SPLP Leachate (su)	-	-	-	8.01
Volume, SPLP Leachate (l)	-	-	-	2.011
Weight, SPLP Leachate (kg)	-	-	-	0.1006
Dry Weight, SPLP Leachate (kg)	-	-	-	0.08719
Aluminum (ug/l)		4000*		1640
Lead (ug/l)		100*		50 U
Manganese (ug/l)		1000*		29.4
<b>General Chemistry</b>				
Cyanide (mg/kg)	680	47	20	0.28 U
pH (S.T.U.)	-	-	-	6.03
Solids (%)	-	-	-	86.7

**Notes:**

NJ-NRDCSRS - NJDEP Non-Residential Direct Contact Soil Remediation Standard

NJ-RDCSRS - NJDEP Residential Direct Contact Soil Remediation Standard

NJ-IGWSSL - NJDEP Default Impact to Groundwater Soil Screening Level

RL - Reporting Limit

MDL - Method Detection Limit

NA - Not Analyzed

J - Estimated Value, result &gt;MDL and &lt;RL

† - Site Specific IGW SRS

\* NJDEP Leachate Criterion.

**Bold/Boxed = Result exceeds NJ-IGWSSL**

Highlight = Result exceeds NJ-RDCSRS

Highlight = Result exceeds NJ-NRDCSRS

Table 6. Summary of Ground Water Sampling Results - Former Camden Labs; Camden, NJ.

Sample ID: Lab Sample ID: Date Sampled:	NJDEP GWQS	MW-1		MW-2		MW-3	
		JC72686-3 8/28/2018	JC75106-1 10/2/2018	JC72686-2 8/28/2018	JC75106-2 10/2/2018	JC72686-1 8/28/2018	JC75106-3 10/2/2018
<b>Metals Analysis</b> <i>(Results Reported in ug/l)</i>							
Mercury	2	0.20 J	0.20 J	0.20 J	0.20 J	0.21	0.87

**Notes:**

NJDEP - New Jersey Department of Environmental Protection.

GWQS - Ground Water Quality Standard.

ug/l - Micrograms per liter.

J - Estimated Concentration.



---

## FIGURES



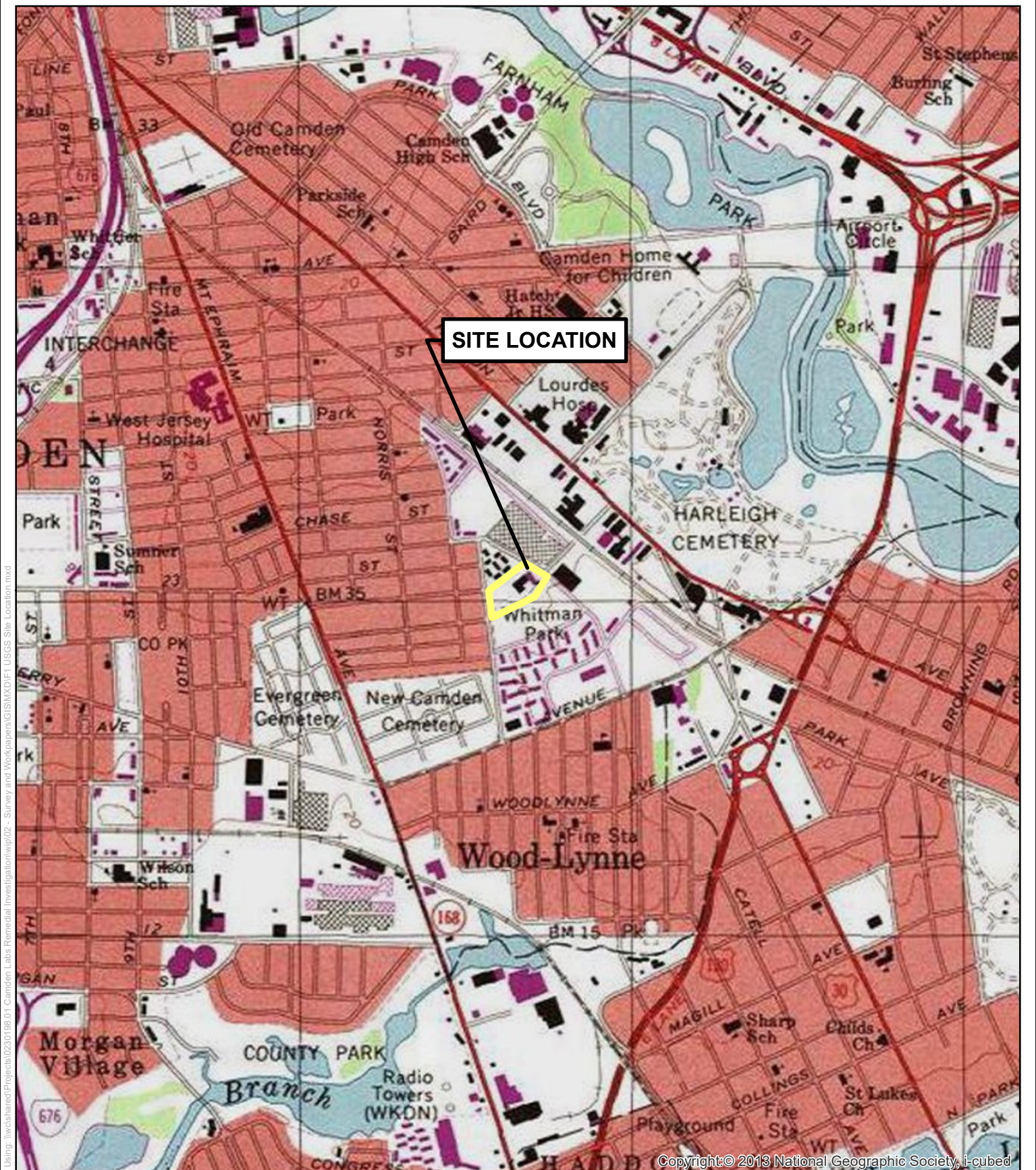


Figure Exported: 1/2/2018. By: alicia Using: Iwoshareshed\Projects\0230198\_01\_Camden\_Labs Remedial Investigation\wp02\_Survey and Workpapers\GIS\MXD\DIFF\USGS\_Site\_Location.mxd

Copyright © 2013 National Geographic Society, I-cubed

### USGS Site Location

Camden Laboratories  
 1667 Davis Street  
 Camden, New Jersey

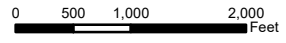
Figure 1

Legend

 Site Boundary



Project #: 230198  
 Map Created: December 2017



Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**





- LIST OF CURRENT AND FORMER AOCs**
- AOC-1: AST and Emergency Generator
  - AOC-2A: Heating Oil USTs
  - AOC-2B: Heating Oil USTs
  - AOC-2C: Heating Oil USTs
  - AOC-3: Storage Containers
  - AOC-4: Building 5/C Floor Drains
  - AOC-5: Septic Systems, Leachfields, Septic Pits
  - AOC-6: Building 6/B Drywell
  - AOC-7: Incinerator
  - AOC-8: Transformers
  - AOC-9A: Staining Building 2/A
  - AOC-9BL Staining Building 4/D
  - AOC-9C: Staining Building 1/F
  - AOC-10: Compressor Blowdown
  - AOC-11: Hydraulic Lift Systems
  - AOC-12: Diesel Fuel Spill
  - AOC-13: Liquid Nitrogen Spill
  - AOC-14: Regional Ground Water Contamination
  - AOC-15: Conductive Area
  - AOC-16: Mercury Spill
  - AOC-17: Unknown Liquid in Sumps/Vaults
  - AOC-18: Soil Pile
- Note: AOC-3, AOC-13, and AOC-14 are site-wide conditions and are therefore not shown on this figure.

**Areas of Concern**

Camden Laboratories  
1667 Davis Street  
Camden, New Jersey

**Figure 2**

**Legend**

- Site Boundary
- Buildings
- Parcel Boundary
- Areas of Concern

0 15 30 60 Feet



Project #: 230198  
Map Created: July 2019

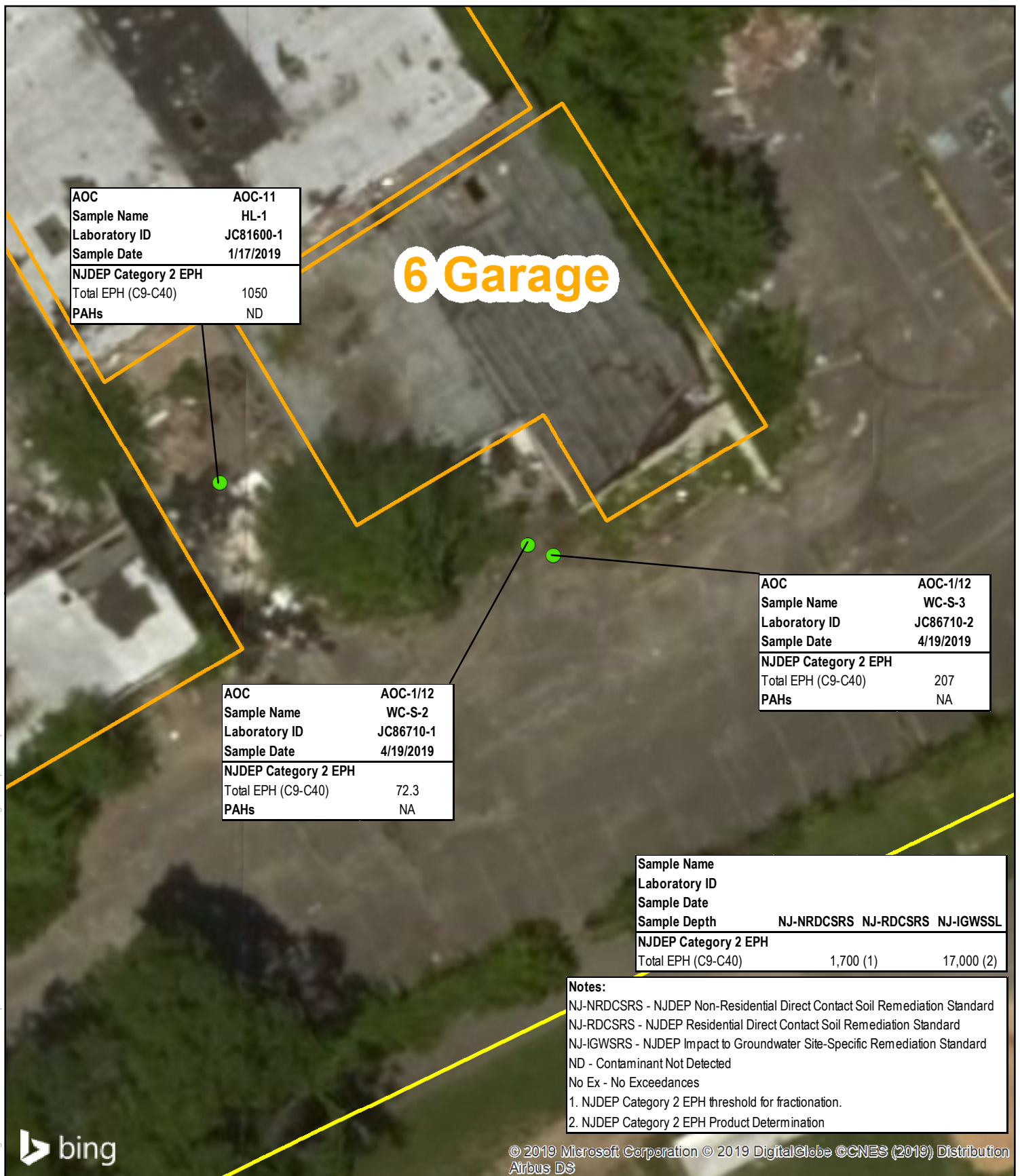
Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**

Figure Exposed: 9/5/2019 By: Meen Using: \woodardcurran.net\share\Projects\020198\01 Camden Labs Remedial Investigation\GIS\Project Files\F3 AOC Map.mxd

© 2019 Microsoft Corporation © 2019 DigitalGlobe © CNES (2019) Distribution Airbus DS



Figure Exported: 7/29/2019 By: dkeem Using: \\woodardcurran.net\shared\Projects\0230198.01 Camden Labs Remedial Investigation\wp\GIS\Project Files\F3 AOC-1 and AOC-11.mxd



AOC	AOC-11
Sample Name	HL-1
Laboratory ID	JC81600-1
Sample Date	1/17/2019
<b>NJDEP Category 2 EPH</b>	
Total EPH (C9-C40)	1050
PAHs	ND

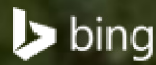
**6 Garage**

AOC	AOC-1/12
Sample Name	WC-S-2
Laboratory ID	JC86710-1
Sample Date	4/19/2019
<b>NJDEP Category 2 EPH</b>	
Total EPH (C9-C40)	72.3
PAHs	NA

AOC	AOC-1/12
Sample Name	WC-S-3
Laboratory ID	JC86710-2
Sample Date	4/19/2019
<b>NJDEP Category 2 EPH</b>	
Total EPH (C9-C40)	207
PAHs	NA

<b>Sample Name</b>			
<b>Laboratory ID</b>			
<b>Sample Date</b>			
<b>Sample Depth</b>	<b>NJ-NRDCSRS</b>	<b>NJ-RDCSRS</b>	<b>NJ-IGWSSL</b>
<b>NJDEP Category 2 EPH</b>			
Total EPH (C9-C40)	1,700 (1)		17,000 (2)

**Notes:**  
 NJ-NRDCSRS - NJDEP Non-Residential Direct Contact Soil Remediation Standard  
 NJ-RDCSRS - NJDEP Residential Direct Contact Soil Remediation Standard  
 NJ-IGWSSL - NJDEP Impact to Groundwater Site-Specific Remediation Standard  
 ND - Contaminant Not Detected  
 No Ex - No Exceedances  
 1. NJDEP Category 2 EPH threshold for fractionation.  
 2. NJDEP Category 2 EPH Product Determination



© 2019 Microsoft Corporation © 2019 DigitalGlobe © CNES (2019) Distribution Airbus DS

**AOC-1/12 and AOC-11  
Soil Sampling Results**  
 Camden Laboratories  
 1667 Davis Street  
 Camden, New Jersey  
**Figure 3**

**Legend**

- Soil Sampling Locations
- Site Boundary
- Buildings
- Parcel Boundary

0 5 10 20 Feet

N

**WOODARD & CURRAN**

Project #: 230198  
Map Created: July 2019

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**

Sample Name	S-3(4-4.5)
Laboratory ID	JC60250-3
Sample Date	2/5/2018
Sample Depth	4-4.5
<b>NJDEP Category 2 EPH</b>	
Total EPH (C9-C40)	17.4
VOCs	No Ex
SVOCs	No Ex
<b>Metals</b>	
Aluminum	<b>8,270</b>
Manganese	<b>264</b>
PCBs	ND
Pesticides	No Ex
Herbicides	ND
Cyanide	ND

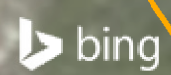
Sample Name	S-2(3.5-4)
Laboratory ID	JC60250-2
Sample Date	2/5/2018
Sample Depth	3.5-4
<b>NJDEP Category 2 EPH</b>	
Total EPH (C9-C40)	17.6
VOCs	No Ex
SVOCs	No Ex
<b>Metals</b>	
Aluminum	<b>8,240</b>
Manganese	<b>166</b>
PCBs	ND
Pesticides	No Ex
Herbicides	ND
Cyanide	ND

Sample Name	S-1(4-4.5)
Laboratory ID	JC60250-1
Sample Date	2/5/2018
Sample Depth	4-4.5
<b>NJDEP Category 2 EPH</b>	
Total EPH (C9-C40)	7.7 U
VOCs	No Ex
SVOCs	No Ex
<b>Metals</b>	
Aluminum	<b>13,300</b>
Manganese	<b>89.1</b>
PCBs	ND
Pesticides	No Ex
Herbicides	ND
Cyanide	ND

Sample Name	S-4(4-4.5)
Laboratory ID	JC60250-4
Sample Date	2/5/2018
Sample Depth	4-4.5
<b>NJDEP Category 2 EPH</b>	
Total EPH (C9-C40)	19.3
VOCs	No Ex
SVOCs	No Ex
<b>Metals</b>	
Aluminum	<b>8,320</b>
Manganese	<b>120</b>
PCBs	ND
Pesticides	No Ex
Herbicides	ND
Cyanide	ND

Sample Name			
Laboratory ID			
Sample Date			
Sample Depth	NJ-NRDCSRS	NJ-RDCSRS	NJ-IGWSSL
<b>NJDEP Category 2 EPH</b>			
Total EPH (C9-C40)	1,700 (1)		17,000 (2)
<b>Metals</b>			
Aluminum	NE	78000	6000
Manganese	5900	11000	65

**Notes:**  
 NJ-NRDCSRS - NJDEP Non-Residential Direct Contact Soil Remediation Standard  
 NJ-RDCSRS - NJDEP Residential Direct Contact Soil Remediation Standard  
 NJ-IGWSRS - NJDEP Impact to Groundwater Soil Screening Level  
 ND - Contaminant Not Detected  
 No Ex - No Exceedances  
 1. NJDEP Category 2 EPH threshold for fractionation.  
 2. NJDEP Category 2 EPH Product Determination  
**Bold/Italic = Result exceeds NJ-IGWSSL**  
 Boxed = Result exceeds NJDEP RDC SRS  
 Highlight = Result exceeds NJDEP NRDC SRS



© 2019 Microsoft Corporation © 2019 DigitalGlobe © CNES (2019) Distribution Airbus DS

**AOC-5 Sample Results**  
 Camden Laboratories  
 1667 Davis Street  
 Camden, New Jersey  
**Figure 4**

**Legend**

- AOC-5 Soil Sample Locations
- - - Abandoned 10" Sewer Line (Steel)
- Existing 10" Sewer Line (Terracotta)
- Existing 4" Sewer Line (PVC/Steel)
- Site Boundary
- Buildings
- Parcel Boundary

0 5 10 20 Feet

**WOODARD & CURRAN**

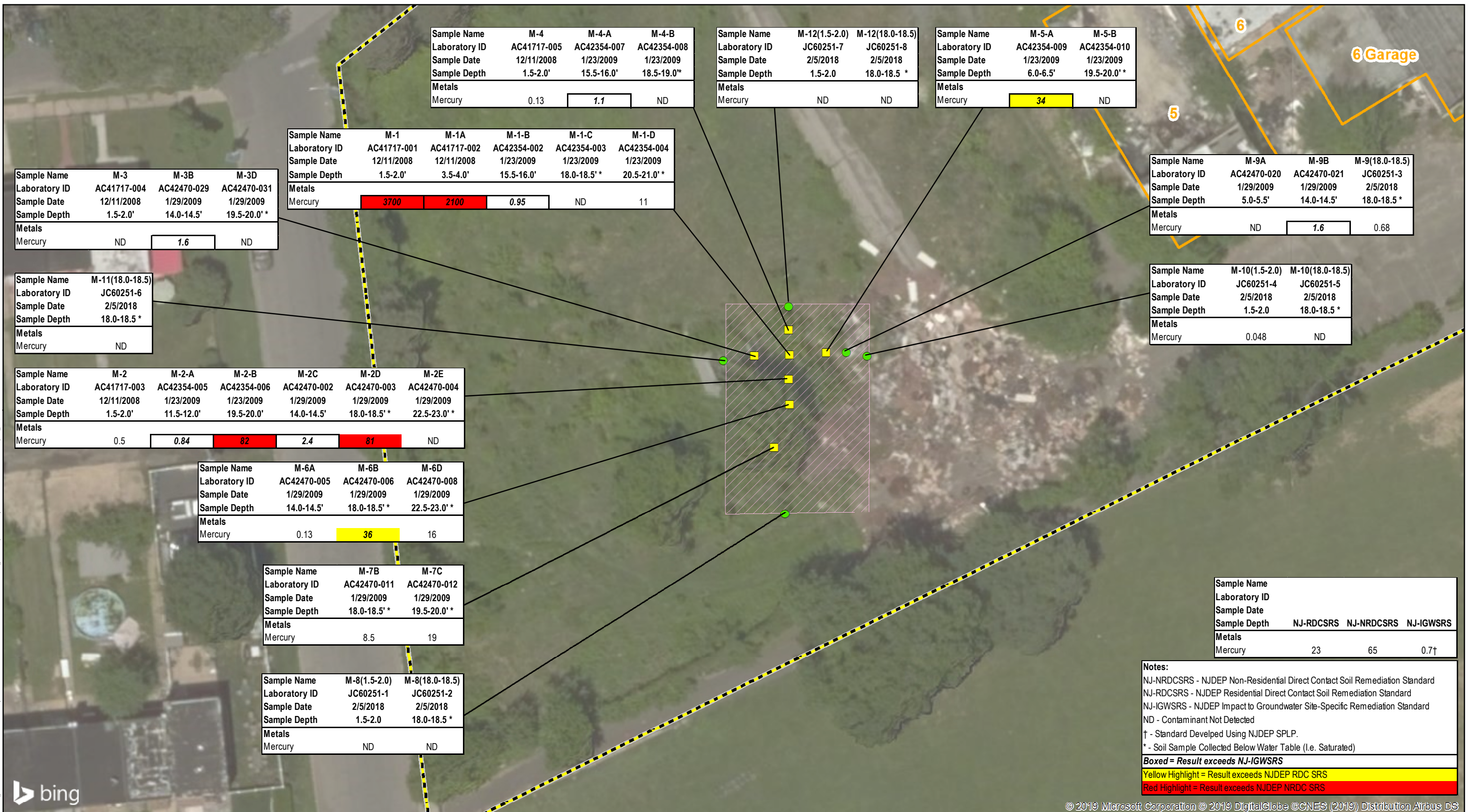
Project #: 230198  
 Map Created: July 2019

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**

Figure Exported: 8/5/2019 8:52:19 AM By: Keen Using: \\woodardcurran.net\shared\Projects\0230198\_01\_Camden\_Labs\_Remedial\_Investigation\GIS\Project\_Files\F4\_AOC5\_Sampling\_Locations\_and\_Results.mxd



Figure Exported: 9/5/2019 10:52:19 AM By: Meen Using: \\woodardcurran.net\share\Projects\020198\01\_Camden\_Labs\_Remedial\_Investigation\GIS\Project Files\F5\_AOC-16\_Sampling\_Locations\_and\_Results.mxd



Sample Name	M-3	M-3B	M-3D
Laboratory ID	AC41717-004	AC42470-029	AC42470-031
Sample Date	12/11/2008	1/29/2009	1/29/2009
Sample Depth	1.5-2.0'	14.0-14.5'	19.5-20.0'*
<b>Metals</b>			
Mercury	ND	1.6	ND

Sample Name	M-1	M-1A	M-1-B	M-1-C	M-1-D
Laboratory ID	AC41717-001	AC41717-002	AC42354-002	AC42354-003	AC42354-004
Sample Date	12/11/2008	12/11/2008	1/23/2009	1/23/2009	1/23/2009
Sample Depth	1.5-2.0'	3.5-4.0'	15.5-16.0'	18.0-18.5'*	20.5-21.0'*
<b>Metals</b>					
Mercury	3700	2100	0.95	ND	11

Sample Name	M-11(18.0-18.5)
Laboratory ID	JC60251-6
Sample Date	2/5/2018
Sample Depth	18.0-18.5'
<b>Metals</b>	
Mercury	ND

Sample Name	M-2	M-2-A	M-2-B	M-2C	M-2D	M-2E
Laboratory ID	AC41717-003	AC42354-005	AC42354-006	AC42470-002	AC42470-003	AC42470-004
Sample Date	12/11/2008	1/23/2009	1/23/2009	1/29/2009	1/29/2009	1/29/2009
Sample Depth	1.5-2.0'	11.5-12.0'	19.5-20.0'	14.0-14.5'	18.0-18.5'*	22.5-23.0'*
<b>Metals</b>						
Mercury	0.5	0.84	82	2.4	81	ND

Sample Name	M-6A	M-6B	M-6D
Laboratory ID	AC42470-005	AC42470-006	AC42470-008
Sample Date	1/29/2009	1/29/2009	1/29/2009
Sample Depth	14.0-14.5'	18.0-18.5'*	22.5-23.0'*
<b>Metals</b>			
Mercury	0.13	36	16

Sample Name	M-7B	M-7C
Laboratory ID	AC42470-011	AC42470-012
Sample Date	1/29/2009	1/29/2009
Sample Depth	18.0-18.5'*	19.5-20.0'*
<b>Metals</b>		
Mercury	8.5	19

Sample Name	M-8(1.5-2.0)	M-8(18.0-18.5)
Laboratory ID	JC60251-1	JC60251-2
Sample Date	2/5/2018	2/5/2018
Sample Depth	1.5-2.0	18.0-18.5'
<b>Metals</b>		
Mercury	ND	ND

Sample Name	M-4	M-4-A	M-4-B
Laboratory ID	AC41717-005	AC42354-007	AC42354-008
Sample Date	12/11/2008	1/23/2009	1/23/2009
Sample Depth	1.5-2.0'	15.5-16.0'	18.5-19.0'*
<b>Metals</b>			
Mercury	0.13	1.1	ND

Sample Name	M-12(1.5-2.0)	M-12(18.0-18.5)
Laboratory ID	JC60251-7	JC60251-8
Sample Date	2/5/2018	2/5/2018
Sample Depth	1.5-2.0	18.0-18.5'
<b>Metals</b>		
Mercury	ND	ND

Sample Name	M-5-A	M-5-B
Laboratory ID	AC42354-009	AC42354-010
Sample Date	1/23/2009	1/23/2009
Sample Depth	6.0-6.5'	19.5-20.0'*
<b>Metals</b>		
Mercury	34	ND

Sample Name	M-9A	M-9B	M-9(18.0-18.5)
Laboratory ID	AC42470-020	AC42470-021	JC60251-3
Sample Date	1/29/2009	1/29/2009	2/5/2018
Sample Depth	5.0-5.5'	14.0-14.5'	18.0-18.5'
<b>Metals</b>			
Mercury	ND	1.6	0.68

Sample Name	M-10(1.5-2.0)	M-10(18.0-18.5)
Laboratory ID	JC60251-4	JC60251-5
Sample Date	2/5/2018	2/5/2018
Sample Depth	1.5-2.0	18.0-18.5'
<b>Metals</b>		
Mercury	0.048	ND

Sample Name			
Laboratory ID			
Sample Date			
Sample Depth	NJ-RDCSRS	NJ-NRDCSRS	NJ-IGWSRS
<b>Metals</b>			
Mercury	23	65	0.7†

**Notes:**  
 NJ-NRDCSRS - NJDEP Non-Residential Direct Contact Soil Remediation Standard  
 NJ-RDCSRS - NJDEP Residential Direct Contact Soil Remediation Standard  
 NJ-IGWSRS - NJDEP Impact to Groundwater Site-Specific Remediation Standard  
 ND - Contaminant Not Detected  
 † - Standard Developed Using NJDEP SPLP.  
 \* - Soil Sample Collected Below Water Table (I.e. Saturated)  
**Boxed = Result exceeds NJ-IGWSRS**  
**Yellow Highlight = Result exceeds NJDEP RDC SRS**  
**Red Highlight = Result exceeds NJDEP NRDC SRS**

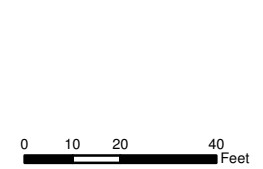
### Mercury Soil Sampling Results

Camden Laboratories  
 1667 Davis Street  
 Camden, New Jersey  
**Figure 5**

Legend

- Woodard & Curran Soil Borings
- Historic Soil Borings
- Site Boundary
- Parcel Boundary
- Buildings
- Estimated Extent of Excavation

© 2019 Microsoft Corporation © 2019 DigitalGlobe © CNES (2019) Distribution Airbus DS



Project #: 230198  
 Map Created: July 2019

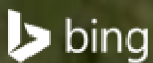
Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**



<b>AOC</b>	<b>AOC-18</b>
<b>Sample Name</b>	<b>AOC-18-1</b>
<b>Laboratory ID</b>	<b>JC86710-3</b>
<b>Sample Date</b>	<b>4/19/2019</b>
<b>NJDEP Category 2 EPH</b>	
Total EPH (C9-C40)	87.8
<b>VOCs</b>	ND
<b>SVOCs</b>	No Ex
<b>Pesticides</b>	No Ex
<b>PCBs</b>	ND
<b>Metals</b>	No Ex

<b>Sample Name</b>			
<b>Laboratory ID</b>			
<b>Sample Date</b>			
<b>Sample Depth</b>	<b>NJ-NRDCSRS</b>	<b>NJ-RDCSRS</b>	<b>NJ-IGWSSL</b>
<b>NJDEP Category 2 EPH</b>			
Total EPH (C9-C40)	1,700 (1)		17,000 (2)

**Notes:**  
 NJ-NRDCSRS - NJDEP Non-Residential Direct Contact Soil Remediation Standard  
 NJ-RDCSRS - NJDEP Residential Direct Contact Soil Remediation Standard  
 NJ-IGWSSL - NJDEP Impact to Groundwater Site-Specific Remediation Standard  
 ND - Contaminant Not Detected  
 No Ex - No Exceedances  
 1. NJDEP Category 2 EPH threshold for fractionation.  
 2. NJDEP Category 2 EPH Product Determination



© 2019 Microsoft Corporation © 2019 DigitalGlobe © CNES (2019) Distribution Airbus DS




## AOC-18 Soil Sampling

### Results

Camden Laboratories  
 1667 Davis Street  
 Camden, New Jersey

**Figure 6**

**Legend**

-  Soil Sampling Locations
-  Site Boundary
-  Buildings



Project #: 230198  
 Map Created: July 2019

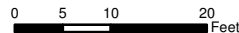
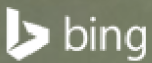


Figure Exported: 8/5/2019, By: Keen, Using: \\woodardcurran.net\shared\Projects\0230198\_01\_Camden\_Labs\_Remedial\_Investigation\wp\GIS\Project\_Files\F7\_GW\_Contour\_082818.mxd



© 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019) Distribution Airbus DS

**August 28, 2018**  
**Ground Water Contour**  
 Camden Laboratories  
 1667 Davis Street  
 Camden, New Jersey  
**Figure 7**

<b>Legend</b>	Monitoring Wells
	Ground Water Contour
	Site Boundary
	Buildings

**WOODARD & CURRAN**

Project #: 230198  
 Map Created: July 2019

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**



Figure Exported: 8/5/2019, By: Keen, Using: \\woodardcurran.net\shared\Projects\0230198\_01\_Camden\_Labs\_Remedial\_Investigation\wp\GIS\Project\_Files\F8\_GW\_Contour\_100218.mxd



**October 2, 2018**  
**Ground Water Contour**  
 Camden Laboratories  
 1667 Davis Street  
 Camden, New Jersey  
**Figure 8**

<b>Legend</b>	 Ground Water Contour
	 Monitoring Wells
	 Site Boundary
	 Buildings





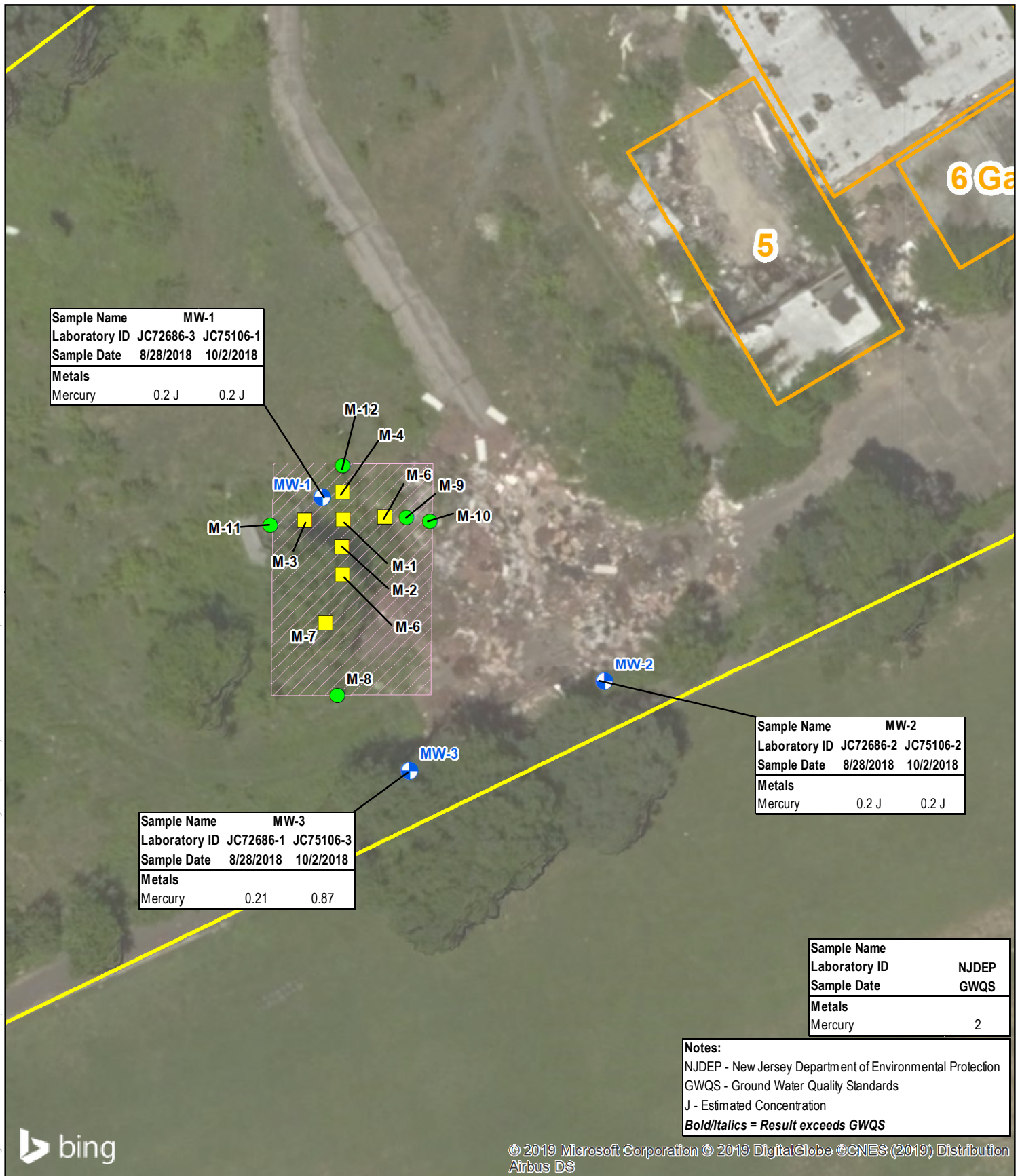

**WOODARD & CURRAN**

Project #: 230198  
 Map Created: July 2019

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**



Figure Exported: 8/5/2019 10:51:00 AM By: Keen Using: \\woodardcurran.net\shared\Projects\0230198\_01\_Camden\_Labs\_Remedial\_Investigation\wip\GIS\Project\_Files\F8\_GW\_Results\_Map.mxd



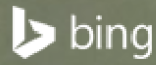
Sample Name	MW-1	
Laboratory ID	JC72686-3	JC75106-1
Sample Date	8/28/2018	10/2/2018
<b>Metals</b>		
Mercury	0.2 J	0.2 J

Sample Name	MW-2	
Laboratory ID	JC72686-2	JC75106-2
Sample Date	8/28/2018	10/2/2018
<b>Metals</b>		
Mercury	0.2 J	0.2 J

Sample Name	MW-3	
Laboratory ID	JC72686-1	JC75106-3
Sample Date	8/28/2018	10/2/2018
<b>Metals</b>		
Mercury	0.21	0.87

Sample Name		
Laboratory ID	NJDEP	
Sample Date	GWQS	
<b>Metals</b>		
Mercury	2	

**Notes:**  
 NJDEP - New Jersey Department of Environmental Protection  
 GWQS - Ground Water Quality Standards  
 J - Estimated Concentration  
**Bold/Italics = Result exceeds GWQS**



© 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019) Distribution Airbus DS

## Ground Water Sampling Results

Camden Laboratories  
 1667 Davis Street  
 Camden, New Jersey

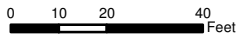
**Figure 9**

**Legend**

- Monitoring Wells
- Historic Soil Borings
- Woodard & Curran Soil Borings
- Estimated Extent of Excavation
- Site Boundary
- Buildings



Project #: 230198  
 Map Created: July 2019



Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**

---

## APPENDIX A: SUPPORTING DOCUMENTS

070235804

**PRELIMINARY ASSESSMENT REPORT**

**FOR**

**Camden Laboratories Property**

1667 Davis Street  
Block 1392 Lot 33  
City of Camden  
Camden County, New Jersey

Prepared For:

**Camden Laboratories LP**

PO Box 2614  
West Chester, PA 19308

Prepared By:

**CMX**

1101 Laurel Oak Road  
Suite 160  
Voorhees, NJ 08043-7346

August 2008

**WORKING TOGETHER FOR A BETTER TOMORROW**

---

1101 LAUREL OAK ROAD | PO BOX 1346 | VOORHEES, NJ 08043-7346  
TEL 856.783.1900 | FAX 856.783.2100 | WWW.CMXENGINEERING.COM

ARIZONA FLORIDA MARYLAND NEVADA NEW JERSEY NEW YORK PENNSYLVANIA MEXICO

**CERTIFICATION**

**N.J.A.C. 7:26-1.2 et. seq.**

Any person making a submission to the Department required by this chapter and pursuant to N.J.A.C. 7:26E, will include the following signature and notarized certification, for each technical submittal. Additionally, the certification will indicate the case name and address, case number, type of documents submitted, e.g. Remedial Action Report, for each technical submittal.

TYPE OF DOCUMENT: Preliminary Assessment Report  
CASE NAME: Camden Laboratories Property  
CASE ADDRESS: 1667 Davis Street, City of Camden, Camden County  
CASE NUMBER: Not Applicable

The following certification will be signed by:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For a partnership or sole proprietorship, by a general partner of the proprietor, respectively, or;
3. For a municipality, State, Federal or other public agency, by either a principal executive officer or ranking elected official.
4. For persons other than 1 through 3 above, by the person with legal responsibility for the Site.

“I certify, under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate, or incomplete information, and that I am committing a crime of the fourth degree if I make a written false statement that I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.”

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

NOTARY SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

## **Preliminary Assessment Summary**

CMX has conducted a Preliminary Assessment (PA) of the Camden Laboratories Property, 1667 Davis Street, consisting of Block 1392, Lot 33, in the City of Camden, Camden County, New Jersey. CMX completed this PA pursuant to the New Jersey Administrative Code (N.J.A.C.) 7:26E-3.1 through 3.2 [a.k.a., the New Jersey Department of Environmental Protection (NJDEP) Technical Requirements for Site Remediation or “Tech Rules”]. CMX completed this PA on behalf of Camden Laboratories LP, PO Box 2614, West Chester, Pennsylvania. CMX has utilized the NJDEP Site Remediation Program (SRP) PA Report form as the body of this report. Where necessary, CMX has attached supplementary appendices. A list of these appendices is provided in the following pages.

Based on the findings of this PA, CMX has determined that there are fourteen (14) areas of concern (AOCs) at the subject site:

### **Bulk Storage Tanks and Appurtenances**

***Above Ground Storage Tanks (AOC-1)*** – One (1) 275-gallon AST which formerly contained diesel fuel and one (1) emergency generator were located at the southwest exterior of Building B. The AST appeared to be in fair condition with no visible staining noted. The AST and generator are located on a concrete slab surrounded by asphalt. CMX recommends no investigation of this AOC.

***Underground Storage Tanks (AOC-2A/AOC-2B/AOC-2C)*** – EDR identified Camden Laboratories, Copewood Street, Camden, New Jersey in the UST database (Facility ID 016718). Two (2) 6,000-gallon heating oil USTs (AOC-2A and AOC-2B) and one (1) 2,000-gallon No. 2 heating oil UST were reportedly removed from the Camden Laboratories site in August 1989. Mr. Manco confirmed the closure and removal of three (3) UST’s in 1989. These UST’s were formerly utilized as fuel for the generators and boilers within the Camden Laboratories building. Mr. Manco stated that the buildings were converted from mixed usage between oil and gas to entirely gas in 1989 when the UST’s were removed.

According to an undated report titled “Removal of Three Underground Storage Tanks” prepared by Edward Kurth and Sons, Inc., two (2) 6,000 gallon UST’s (AOC-2A/AOC-2B) and one (1) 2,000 gallon UST (AOC-2B) containing No. 2 heating oil were closed and removed at the site in August 1989. The tanks were found to be in good condition when removed. Five (5) post-excavation soil samples were collected from each excavation as follows: four (4) soil samples were collected from the east, north, south and west ends of the UST excavation area; and, one (1) post-excavation soil sample was collected from the bottom of the excavation area. Post-excavation soil samples were laboratory analyzed for TPH. TPH was reported as non-detectable or at concentrations below the current NJDEP Health Based Criterion for Total Organic Contaminants (10,000 mg/kg) and the current 1,000 mg/kg threshold for contingency VO+10 analysis.

Based on our review of the post-excavation soil sample analytical results, no exceedances of current NJDEP soil cleanup were identified. CMX recommends no investigation of this AOC.

### **Storage and Staging Areas**

***Storage Containers (AOC-3)*** – Four (4) 55-gallon drums of muriatic acid and five (5) 55-gallon drums of caustic soda were observed within the former freezer room of Building B. Several empty 55-gallon drums, five (5) gallon containers and one (1) gallon paint container were also located within the room. No staining was noted on the concrete beneath the drums. The floors were in good condition, no apparent cracks or migration pathways were noted. Mr. Manco informed CMX that all of the

containers were going to be removed from the property in the near future. CMX recommends no investigation of this AOC; however the containers should be removed and disposed of in accordance with applicable waste regulations.

### **Drainage Systems**

**Building C Floor Drains (AOC-4)** – Building C is the southern most structure of the existing six (6) buildings and is comprised of one (1) ground floor. This building contained equipment for the former cleaning and sterilization of animal cages. All equipment appeared in good condition. The equipment drains to a floor drain system which discharges to the Camden County Municipal Utilities Authority sewer. No staining of the concrete floor was noted. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on a review of information provided by Mr. Manco, with the exception of the Building B boiler room floor drain, all site sanitary, process, Heating Ventilation Air Conditioning and boiler waste streams discharge to a central pit located in Building F and then to the Camden County Municipal Utilities Authority sewer. CMX recommends no investigation of this AOC.

**Septic Systems, Leachfields or Seepage Pits (AOC-5)** – According to the ERI PA report, “available information indicates that a cesspool was once in use at the Site. There is a concern that contaminants may have been discharged to the cesspool. It is recommended that this AOC be investigated in accordance with N.J.A.C. 7:26E-3.9(e)3iii.” Mr. Manco acknowledged that a cesspool associated with the former site structures was located north of the site entrance along Davis Street; however, he could provide no additional details regarding the possible cesspool. CMX recommends investigation of this AOC.

**Building B Drywell (AOC-6)** – Building B is located in the central section of the existing structures and was the largest of the six (6) buildings. This building was comprised of two (2) floors. This building contained former offices and animal quarters on the first floor and former laboratories on the second floor. Building B contained two (2) boiler rooms on the first floor. The pipes and equipment located within the boiler rooms appeared in fair condition. Minor staining of the concrete surface was noted throughout the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. According to the BCM environmental assessment correspondence, Building B boiler blowdown was formerly directed to a floor drain system which discharged to a dry well. ERI indicated that the drywell utilized for collection of Building B boiler blowdown was removed in their PA report. CMX recommends investigation of this AOC.

### **Discharge and Disposal Areas**

**Incinerator (AOC-7)** – According to the BCM environmental assessment correspondence, an incinerator was used for the disposal of dead laboratory animals that were used for the study of disease or virus reaction. Incinerator ash was collected in an on-site dumpster and transported off-site for disposal at a sanitary landfill. During the interview, Mr. Manco indicated that the incinerator was removed from the site. CMX did not observe an incinerator during the site reconnaissance. CMX recommends no investigation of this AOC.

### **Other Areas of Concern**

**Transformers (AOC-8)** – Two (2) electric transformers were observed at the west exterior of the power house (Building D). According to the BCM environmental assessment report, these transformers are of the dry construction type and do not contain oil. In addition, one (1) pole mounted electrical transformer was located along Davis Street. The transformers were in fair

condition and no staining or stressed vegetation was observed at the ground surface beneath any of these transformers. CMX recommends no investigation of this AOC.

**Building A Staining (AOC-9A)** – Building A is located within the northern most section of the existing building compound and is comprised of a first floor and basement. This building contained former laboratories and offices on both floors. Building A also contained a boiler room and water filtration tanks in the basement. The pipes and equipment located within the boiler room appeared in fair to good condition. Minor staining of the concrete surface was noted on the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on a review of information provided by Mr. Manco, with the exception of the Building B boiler room floor drain, all site sanitary, process, Heating Ventilation Air Conditioning and boiler waste streams discharge to a central pit located in Building F and then to the Camden County Municipal Utilities Authority sewer. CMX recommends no investigation of this AOC.

**Building D Staining (AOC-9B)** – Building D is the western most structure and is comprised of one (1) ground floor. Two (2) emergency gas powered generators were observed within Building D. Heavy staining of the concrete surface was noted beneath the generators. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. No floor drains were noted in this building. CMX recommends no investigation of this AOC.

**Building F Staining (AOC-9C)** – Building F is the eastern most structure and consists of ground floor and basement. This building contained laboratories, a library, mechanical room, and Quality Assurance room in the basement. The first floor contained administrative offices and an auditorium. Minor staining observed on the concrete floor in the mechanical room. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. CMX recommends no investigation of this AOC.

**Compressor Blowdown (AOC-10)** – According to the BCM environmental assessment correspondence, refrigeration compressors at the northeast exterior of Building B “are on open ground and show some slight staining of surrounding soils.” In addition, ERI indicated that stained soils identified at the exterior of Building B were removed in their PA report. CMX did not observe stained soils in this area during the site reconnaissance. CMX recommends no investigation of this AOC.

### **Site Specific Areas of Concern**

**Hydraulic Lift System (AOC-11)** – A concrete pad that formerly contained an above ground hydraulic lift was observed in the loading dock area at the southern side of Building B. No evidence of a discharge from the hydraulic lift system was noted. Mr. Manco indicated that the hydraulic lift system tank was removed on November 9, 2007. He also stated that the entire lift was encased within concrete. Mr. Manco provided a Casie Protank Environmental Services non-hazardous manifest and a daily labor/equipment time report which documented the hydraulic lift system pump out and tank removal activities. According to the BCM environmental assessment correspondence, at the time of the BCM site reconnaissance the hydraulic lift system tank at the loading dock was “leaking, covered with oil dry.” In addition, based on their PA, ERI concluded that “a hydraulic lift was observed at the loading docks at the Site. The 1988 assessment indicated that the tank was leaking. There is a concern that contaminants may have discharged to soils at the Site.” CMX recommends investigation of this AOC.

**NJ SPILLS Database Listing (NJDEP Case No. 97-2-21-1440-39) (AOC-12)** – EDR identified Quality Bio-Tech Inc., 1667 Davis Street, Camden, New Jersey in the New Jersey Spills Database (Facility ID



2230; NJDEP Case No. 97-2-21-1440-39). EDR reports that five (5) gallons of diesel fuel were spilled and contained within the building on February 21, 1997. The status of the spill is reported as “spill from generator from leaking fitting. Cleanup being done.” No other pertinent information regarding this spill was recorded in the NJ SPILLS database.

A file completion memo dated October 25, 2007 regarding Case No. 97-0221-1440-39 was provided by the Camden County Department of Health. According to the memo, an oil spill was identified in the generator area at Quality Bio-Tech, 1667 Davis Street, Camden, on February 21, 1997. The initial report provided as an attachment to the file completion memo indicated that “asphalt was impacted and some soils must be excavated and post-excavation samples taken. All waste generated must be disposed of at an approved facility. All remedial activities must be conducted in accordance with N.J.A.C. 7:26D&E.” According to the file completion memo, a reinspection was conducted. At the time of the reinspection, “no spillage was evident” and “the area around the generator is surrounded by asphalt and concrete. No impact to soil could be noted. Therefore, the Camden County Health Department considers the matter closed.” CMX recommends investigation of this AOC.

***NJ SPILLS Database Listing (NJDEP Case No. 98-11-20-1919-54) (AOC-13)*** – EDR identified Quality Bio-Tech Inc., 1667 Davis Street, Camden, New Jersey in the New Jersey Spills Database (Facility ID 35063; NJDEP Case No. 98-11-20-1919-54). EDR reports that liquid nitrogen was spilled in the building and that the building was evacuated on November 28, 1998. At least two (2) people were treated for inhalation. No other pertinent information regarding this spill was recorded in the NJ SPILLS database.

The CCDOH provided a file completion memo dated September 15, 1999 regarding Case No. 98-11-20-1919-54. According to the memo, a nitrogen gas release was reported within the freezer room of Viro Med Biosafety, 1667 Davis Street, Camden, on November 20, 1998. Four (4) employees and a security guard were overcome by the nitrogen gas release and rescued by firefighters. The document also reported that the conditions cited were mitigated to acceptable limits when compared to the NJDEP technical regulations. CMX recommends no investigation of this AOC.

***Regional Ground Water Contamination (AOC-14)*** – EDR reported that the north adjacent RF Products property disposed degreasing solvents through drains. In order to determine the potential for impact to the site from the PF Products property, CMX reviewed available NJDEP records for RF Products on July 2, 2008. Based on a review of available records, RF Products has been identified as a source of a ground water contamination within the region. Ground water contamination has been identified on the Camden Laboratories property and has been attributed to migration of contaminants originating from RF Products. CMX recommends no additional investigation of this AOC; however, future site improvements will need to consider vapor intrusion mitigation measures.

AOC locations are included on Figure 3 (Appendix K).

In summary, CMX recommends Site Investigation (SI) activities pursuant to NJDEP Tech Rules, N.J.A.C. 7:26E-3.3, as applicable, for four (4) of the fourteen (14) AOCs.

## **List of Appendices**

- Appendix A – History of Ownership/Description of Site and Operations
- Appendix B – Environmental Database Search
- Appendix C – Sanborn Fire Insurance Maps
- Appendix D – Federal, State and Local Government Records Review
- Appendix E – Historical Aerial Photographs
- Appendix F – Historical Topographic Maps
- Appendix G – McRae’s Industrial Directory Search
- Appendix H – Site Inspection Photographs
- Appendix I – Previous Investigations
- Appendix J – Areas of Concern
- Appendix K – Site Maps

\\s09svr01\n\project\2007\0702358\04\05\_reports\pa\camden labs pa report.doc

**New Jersey Department of Environmental Protection  
Site Remediation Program**

**PRELIMINARY ASSESSMENT REPORT**

This form has been created to assist in completing a Preliminary Assessment in accordance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E. It must be completed in detail and supplemented with narratives where directed. This form takes the Preliminary Assessment requirements of the Technical Rules and puts them into a question and answer format. It is the foundation for completing an environmental investigation of a site as a means towards obtaining a no-further-action approval from the Department; as well as a means toward meeting the minimum requirements of the due diligence requirements of the innocent purchaser defense as defined by N.J.S.A. 58:10-23.11g

INFORMATION IN THE REPORT SHALL BE USED AS THE INITIAL BASIS FOR ASSESSING POTENTIAL ENVIRONMENTAL CONCERNS. THIS FORM MUST BE CERTIFIED IN ACCORDANCE WITH N.J.A.C. 7:26E-1.5. **SUBMIT ONE ORIGINAL CERTIFIED COPY OF THIS FORM UNLESS IT IS ACCOMPANIED BY A SITE INVESTIGATION REPORT AND A PROPOSED REMEDIAL INVESTIGATION WORKPLAN IN WHICH CASE 3 COPIES SHALL BE SUBMITTED.**

This form should be used as a foundation for completing a preliminary assessment report in accordance with N.J.A.C.7: 26E, the Technical Requirements for Site Remediation, subchapter 3.1 and 3.2. The purpose of a preliminary assessment is to identify the presence of any potentially contaminated areas of concern. And if the information gathered to complete this form identifies any potentially contaminated areas of concern, then there is a need to complete a site investigation pursuant to N.J.A.C. 7:26E-3.3 through 3.13. If this is the case, then continue with the remedial activities and submit the preliminary assessment report with a complete site investigation report and a proposal based on the findings of the site investigation. **Note: A Preliminary Assessment Report does not include the results of a site investigation.**

The Department will accept mimeograph copies or computer-generated copies of this form provided the copies are legible and all questions listed on this form are included.

The application must be notarized.

Should you encounter any problem in completing this form, we recommend that you discuss the matter with your assigned Case Manager for active cases or a representative from the Department if completing the form in anticipation of a future submittal to the NJDEP. Submitting incorrect or insufficient data may cause processing delays and possible postponement of your transaction.

Please call (609) 633-0708 or your assigned case manager between the hours of 8:30 a.m. and 4:30 p.m. to request assistance.

1/2006

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF REMEDIATION SUPPORT  
P.O. Box 435, TRENTON, NJ 08625-0435

PRELIMINARY ASSESSMENT REPORT

Answer all questions. Should you encounter any problems in completing this form, we recommend that you discuss the matter with a representative from the Site Remediation Program. Submitting incorrect or insufficient data may cause processing delays and possible postponement of your transaction

PLEASE PRINT OR TYPE

Date: June 26, 2008

Industrial Establishment/Site Name Camden Laboratories Property

Address 1667 Davis Street

City or Town Camden Zip Code 08104

Municipality Camden County Camden

Block (s) 1392 Lots (s) 33

Site Remediation Program Case Number or EPA Identification Number 08-07-01-1547-19

1. Present a history of ownership and operations at the industrial establishment, in tabular form, from the time the site was naturally vegetated or utilized as farmland in accordance with N.J.A.C. 7:26E-3.1(c)1.ii. (attach additional sheets as necessary)

<b>Ownership History - Block 1392, Lot 33;</b>		
<b>Name of Property Owner</b>	<b>From</b>	<b>To</b>
Camden Laboratories	May 1, 1989	Present
Coriell Institute for Medical Research (South Jersey Medical Research Foundation)	June 26, 1965	May 1, 1989
City of Camden	Unknown	June 26, 1965

- 2A. In accordance with N.J.A.C. 7:26E-3.1(c)1.i, provide a clear and concise description of the past industrial/commercial operation(s) conducted on site by each owner and operator. To the extent available the site history shall include an evaluation of the following sources of information:

(1) Sanborn Fire Insurance Maps; (2) MacRae's Industrial Directory, New Jersey Industrial Directory, New Jersey Manufacturers Directory; (3) Title and Deed; (4) Site plans and facility as-built drawings; (5) federal, state, county and local government files; (6) The Department Geographic Information System. (7) and any additional sources which may be available for a specific site.

Site history is frequently an item where preliminary assessments are incomplete. The Industrial Site Recovery Act requires that a diligent inquiry be made, researching the site history back to January 1, 1932. Common answers to this question have included: "Unknown", or "We are only a tenant on the site and have no knowledge of prior site history". Neither of these answers satisfies the requirement for a due diligent inquiry.

To avoid having a PA found incomplete by the Department due to insufficient information, the site history must be researched. The following are ways of obtaining information regarding site history: title searches; contacting the local and county health officials and municipal agencies (for example, local fire and police departments, and local planning, zoning, adjustment boards) requesting any information these public agencies may have on the specific location; and, interviewing long time neighbors of the industrial establishment. Tenants should always request information from the landlord. The applicant should always document any attempts to locate this information to support a claim that a diligent inquiry has been conducted. The Preliminary Assessment report should not be submitted until all parties contacted for information have responded to the request for information and the information obtained has been reviewed. If the prior site history demonstrates that the current building was built on vacant unimproved property, it should be reported as such. If the site has been, or is now the subject of a site remediation, any prior cases should always be referenced.

Provide the page or appendix number where the site history may be found. Appendix A

Provide a listing of the resources utilized to compile the site history and as appropriate copies of any maps or information, which will assist the Department in evaluating your conclusions.

Name of Resource	Date of document reviewed	Appendix # if providing copies
RealQuest® Report	Various	Appendix A
Environmental Data Resources Database Search	November 13, 2007	Appendix B
Sanborn Fire Insurance Maps	Various	Appendix C
Regulatory Agency Records	Various	Appendix D
Historical Aerial Photographs	Various	Appendix E
Historical Topographic Maps	Various	Appendix F
McRae's Industrial Directory	Various	Appendix G
Previous Investigation Reports	Various	Appendix I
Site Maps	Various	Appendix K

- 2B. Include a detailed description of the most recent operations subject to this preliminary assessment.

Provide the page or appendix # where the description of the most recent operations may be found. Appendix A

3. Hazardous Substance/Waste Inventory: N.J.A.C. 7:26E-3.1(c)1.iii. List all raw materials, finished- products, formulations and hazardous substances, hazardous wastes, hazardous constituents and pollutants, including intermediates and by-products that are or were historically present on the site. Note: If past usage included farming, pesticides may be a concern and should be included in this list. **(Attach additional sheets if necessary).**

Material Name	CAS # if known	Typical annual usage (gallons/lbs.)	Storage method (i.e. Drum, tank, jars)
Diesel Fuel	Unknown	Unknown	275-gallon AST
No.2 Heating Oil	Unknown	Unknown	6,000-gallon UST
No.2 Heating Oil	Unknown	Unknown	6,000-gallon UST
No.2 Heating Oil	Unknown	Unknown	2,000-gallon UST
Muriatic Acid	Unknown	Unknown	Four (4) 55-gallon drums
Caustic Soda	Unknown	Unknown	Five (5) 55-gallon drums

- 4 A. In accordance with N.J.A.C. 7:26E-3.1(c)1iv provide a summary of all current and historic wastewater discharges of **Sanitary and/or Industrial Waste** and/or sanitary sludge. Present and past production processes, including dates and their respective water use shall be identified and evaluated, including ultimate and potential discharge and disposal points and how and where materials are or were received on-site. All discharge and disposal points shall be clearly depicted on a scaled site map. Information required under this item is intended to identify potential discharges to any on-site disposal system, such as a septic system or lagoon or drywell. For example to complete the following table information may include: From 1955 To 1960, Discharge Type - Sanitary and Industrial, Discharge Location - On-Site Septic System: From 1960 To Present, Discharge Type - Sanitary and Industrial, Discharge Location - Public Treatments Works.

**Site Information**

Discharge Period		Discharge Type	Discharge Location
From	To		
1923	1950	Sanitary Waste	On-site Septic System
1950	Present	Sanitary Waste	Camden Sewer System

- 4B. In accordance with N.J.A.C 7:26E-3.1(c)iv provide a narrative of disposal processes for all historic and current process waste streams and disposal points. (Attach additional sheets if necessary)

Not applicable

5. This question requires the applicant to conduct a diligent inquiry into the current and historic operations at the site to identify all of the potential areas of concern, which formerly or currently exists at the industrial establishment as defined in N.J.A.C. 7:26E-1.8.

Diligent inquiry as defined in N.J.A.C.7:26E-1.8 states:

A. Conducting a diligent search of all documents which are reasonably likely to contain information related to the object of the inquiry, which documents are in such person's possession, custody or control, or in the possession, custody or control of any other person from whom the person conducting the search has a legal right to obtain such documents; and

B. Making reasonable inquiries of current and former employees and agents whose duties include or included any responsibility for hazardous substances, hazardous wastes, hazardous constituents, or pollutants, and any other current and former employees or agents who may have knowledge or documents relevant to the inquiry.

In accordance with N.J.A.C. 7:26E3.1(c)1.v., a narrative shall be provided for each area of

environmental concern describing the **(A)** Type; **(B)** Age; **(C)** Dimensions of each container/area; **(D)** Chemical Content; **(E)** Volume; **(F)** Construction materials; **(G)** Location; **(H)** Integrity (i.e., tank test reports, description of drum storage pad); and **(I)** Inventory control records, unless a Department-approved leak detection system, pursuant to N.J.A.C. 7:1E or 7:14B, has always been in place and there is no discharge history. If sampling is not proposed for any identified area of environmental concern, please explain why it is believed that the area of environmental concern does not contain contaminants above the applicable remediation standards. Submit all necessary documentation to verify this belief. The required narrative need not describe the sampling to be completed; however, it should state that sampling will be completed in accordance with the appropriate section of N.J.A.C.7:26E.

Detailed descriptions of all sampling completed in each area of concern shall be described as part of a Site Investigation Report in accordance with N.J.A.C.7:26E-3.13.

Please indicate if any of the potential areas of environmental concern listed below in #5A through #5G, as defined in N.J.A.C. 7:26E-1.8, formerly or currently exist at the industrial establishment by indicating Yes or No in the appropriate space as provided.

For the Location Reference Keyed to Site Map, use either a unique number or a unique letter identification for each area of concern and be consistent throughout each phase of the remediation, referring to the same identification provided herein. Note: If the industrial establishment has multiple locations for one type of area of concern (example: underground storage tanks [UST] are located in 3 separate areas of the facility), each area must be discussed separately and given a separate identification. For example: Area A-1 a 1,000 gallon gasoline UST, Area A-2 a 10,000 gallon heating oil UST and Area A-3 a 500 gallon TCE UST should all be listed on the site maps and have separate narratives provided for each area discussing required information A-I listed above for each UST area.

Provide the required narrative as an appendix to this report. Do not try to provide a narrative in the space provided

I hereby certify that a diligent inquiry has been conducted to identify all current and historical potential areas of environmental concern and based on the diligent inquiry the areas of environmental concern identified below in question 5A through 5G are the only areas of environmental concern believed to exist at the above referenced industrial establishment.

The signatory on the certification page shall initial here. \_\_\_\_\_.

**A. Bulk Storage Tanks and Appurtenances, including, without limitation:**

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Aboveground Storage Tanks and Associated Piping	Yes	AOC-1	Appendix J
Underground Storage tanks and Associated Piping	Yes	AOC-2A/AOC-2B/AOC-2C	Appendix J
Silos	No	Not Applicable	Not Applicable
Rail Cars	No	Not Applicable	Not Applicable
Loading and unloading areas	No	Not Applicable	Not Applicable
Piping, above ground and below	No	Not Applicable	Not Applicable

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
ground pumping stations, sumps and pits			

**B. Storage and Staging Areas, including**

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Storage pads including drum and/or waste storage	No	Not Applicable	Not Applicable
Surface impoundments and lagoons	No	Not Applicable	Not Applicable
Dumpsters	No	Not Applicable	Not Applicable
Chemical storage cabinets or closets	Yes	AOC-3	Appendix J

**C. Drainage systems and areas including without limitation**

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Floor drains, trenches and piping and sumps	Yes	AOC-4	Appendix J
Process area sinks and piping which receive process waste	No	Not Applicable	Not Applicable
Roof leaders when process operations vent to the roof	No	Not Applicable	Not Applicable
Drainage swales & culverts	No	Not Applicable	Not Applicable
Storm sewer collection systems	No	Not Applicable	Not Applicable
Storm water detention ponds and fire ponds	No	Not Applicable	Not Applicable
Surface water bodies	No	Not Applicable	Not Applicable
Septic systems leachfields or seepage pits	Yes	AOC-5	Appendix J
Drywells and sumps	Yes	AOC-6	Appendix J

**D. Discharge and disposal areas, including, without limitation:**

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Areas of discharge per N.J.A.C. 7:1E	No	Not Applicable	Not Applicable
Waste piles as defined by N.J.A.C 7:26	No	Not Applicable	Not Applicable
Waste water collection systems	No	Not Applicable	Not Applicable



Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
including septic systems, seepage pits, & dry wells.			
Landfills or landfarms	No	Not Applicable	Not Applicable
Sprayfields	No	Not Applicable	Not Applicable
Incinerators	Yes	AOC-7	Appendix J
Historic Fill or any other Fill material	No	Not Applicable	Not Applicable
Open Pipe discharges	No	Not Applicable	Not Applicable

**E. Other areas of concern, including, without limitation:**

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Electrical Transformers & Capacitors	Yes	AOC-8	Appendix J
Hazardous material storage or handling areas	No	Not Applicable	Not Applicable
Waste Treatment areas	No	Not Applicable	Not Applicable
Discolored or spill areas	Yes	AOC-9A/AOC-9B/AOC-9C	Appendix J
Open areas away from production areas	No	Not Applicable	Not Applicable
Areas of stressed vegetation	No	Not Applicable	Not Applicable
Underground piping including industrial process sewers	No	Not Applicable	Not Applicable
Compressor vent discharges	Yes	AOC-10	Appendix J
Non-contact cooling water discharges	No	Not Applicable	Not Applicable
Areas which receive flood or storm water from potentially contaminated areas	No	Not Applicable	Not Applicable
Active or Inactive production wells	No	Not Applicable	Not Applicable

**F. Building interior areas with a potential for discharge to the environment, including, without limitation:**

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Loading or Transfer areas	No	Not Applicable	Not Applicable
Waste Treatment areas	No	Not Applicable	Not Applicable
Boiler rooms	No	Not Applicable	Not Applicable
Air vents and ducts	No	Not Applicable	Not Applicable
Hazardous material storage or handling areas	No	Not Applicable	Not Applicable

**G. Any other site-specific area of concern.**

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Hydraulic Lift System	Yes	AOC-11	Appendix J
NJ SPILLS Database Listing	Yes	AOC-12	Appendix J
NJ SPILLS Database Listing	Yes	AOC-13	Appendix J
Regional Ground Water Contamination	Yes	AOC-14	Appendix J

6 If the site area exceeds two acres, an interpretation of the aerial photographic history of the site shall be submitted in accordance with N.J.A.C. 7:26E-3.1(c)1.vi. The interpretation shall focus on the site under review and if any concerns were identified on the site. References to surrounding properties are unnecessary unless a neighboring site is suspected to be directly contributing to environmental factors at the site of concern. The interpretation shall be based on available current and historical color, black and white and infrared aerial photographs (scale 1:18,000 or less) of the site and surrounding area at a frequency that provides the evaluator with a historical perspective of site activities. The photographic history shall date back to 1932 or the earliest photograph available. Aerial photographs are available for review at the New Jersey Department of Environmental Protection, Tidelands Management Program, Aerial Photo Library, 9 Ewing Street, Trenton, New Jersey, (609) 633-7369. Note, the applicant is not required to provide the Department with copies of the aerial photographs reviewed only an interpretation of what was observed in each photograph, which may represent an environmental concern. If photos are submitted please clearly identify the location of the site on each photo.

\_\_\_\_\_ Check here if an aerial photo review was not completed and provide a reason.

---



---

Provide the appendix number for the air photo review narratives Appendix E

7. Discharge History of Hazardous Substances and Wastes, N.J.A.C. 7:26E-3.1(c)1vii :

A. Have there been any known discharges of hazardous substances and wastes at the site?

\_\_\_\_\_ No (Go to question #8) X Yes (Complete Items 7B & 7C)

B. Was the Department notified of the discharge?

X Yes; \_\_\_\_\_ No

If yes, provide the Case # 97-2-21-1440-39; 98-11-20-1919-54

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

\_\_\_\_\_ Yes (Submit a copy of the no-further-action approval) \_\_\_\_\_

X  No (Submit a complete Site Investigation or Remedial Action Report documenting the action taken to address the discharge)

Case Number 97-2-21-1440-39 refers to a five (5) gallon diesel fuel spill which occurred on February 21, 1997. According to a file completion memo dated October 25, 2007 prepared by the Camden County Department of Health, "asphalt was impacted and some soils must be excavated and post-excavation samples taken. All waste generated must be disposed of at an approved facility. All remedial activities must be conducted in accordance with N.J.A.C. 7:26D&E." According to the file completion memo, a reinspection was conducted. At the time of the reinspection, "no spillage was evident" and "the area around the generator is surrounded by asphalt and concrete. No impact to soil could be noted. Therefore, the Camden County Health Department considers the matter closed." See Appendix D for a summary of information pertaining to the spill.

Case Number 98-11-20-1919-54 refers to a liquid nitrogen spill which occurred in the freezer room of the building on November 28, 1998. According to a file completion memo dated September 15, 1999 four (4) employees and a security guard were overcome by the nitrogen gas release and rescued by firefighters. The document also reported that the conditions cited were mitigated to acceptable limits when compared to the NJDEP technical regulations. See Appendix D for a summary of information pertaining to the spill.

- 8 In accordance with N.J.A.C.7:26E-3.1 (c) 1.viii, provide a description of any remediation activities previously conducted or currently underway at the site, including dates of discharges, remedial actions taken, and all existing sample results concerning contaminants which remain at the site. Copies of Department or other governmental agency no-further-action approvals should also be provided with a description of the areas to which the no-further-action approvals apply. This information is especially important if the approval was granted for the remediation of a portion of a site or a specific discharge event rather than the entire site subject to this preliminary assessment.

\_\_\_\_\_ Check here if this question does not apply.

Provide the appendix number for the required narrative and data summary  Appendix I

9. Protectiveness of past remedies N.J.A.C. 7:26E-3.1(c) 1.ix. The owner or operator shall evaluate all remedies previously approved by the Department in a remedial action workplan or equivalent document to determine if the remedy remains protective of public health, safety and the environment. Things to consider as part of this evaluation include but are not limited to; was an engineering control used to cap contamination left on site? If yes, is this cap being maintained? Did the remedy address all of the contamination? Is the remedy working as designed? Have institutional controls been maintained at the local and county level? Please provide a page or appendix number where this written evaluation is included  Not Applicable .

10. Order of Magnitude Analysis, N.J.A.C. 7:26E, 3.2(a)5

A. Have any areas of concern previously received a No-Further-Action approval from the Department or other equivalent government agency for which no additional remediation is proposed?  X  No (go to question #11). \_\_\_\_\_ Yes (complete 10B).

B. In accordance with N.J.S.A 58:10B-13(e) and N.J.A.C. 7:26E, 3.2(a)5 the following evaluation of the protectiveness of past remedies shall be completed for all areas of concern for which no further action was previously approved by the Department or other equivalent government agency and for which no additional remediation is proposed. All final sampling results shall be evaluated to determine if contaminant levels remaining on site are in compliance with current remediation criteria. The applicant shall complete the following:

I hereby certify that the order of magnitude analysis required pursuant to N.J.A.C. 7:26E has been completed, since the issuance of a No-Further-Action approval, negative declaration approval or equivalent remediation approval; and (Check the appropriate statements (1), (2), (3) or (4), complete the summary table and provide a summary of the results comparison)

**(1)** \_\_\_ The areas of concern listed below contain contaminants above the current numerical remediation standard applicable at the time of the comparison, however no further action is required because: (check the appropriate sub statement)

\_\_\_\_\_ (a) The contaminant concentrations remaining in the areas of concern listed below are less than an order of magnitude (factor of 10) greater than the current numerical remediation standard applicable at the time of the comparison;

\_\_\_\_\_ (b) The areas of concern or the site was remediated using engineering and institutional controls approved by the Department and these controls are still protective of public health, safety and the environment; or

\_\_\_\_\_ (c) The area of concern or the site was remediated to an approved site specific remediation standard and all of the factors and assumptions which are the basis for deriving the site specific remediation standard remain valid for the site.

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

Area of Concern	Location Reference Keyed to the Site Map

Include a separate table comparing the levels of contaminants remaining in each area of concern, the numerical remediation standard approved in the remedial action workplan or at the time of no-further-action approval and the current numerical remediation standards applicable at the time of the comparison. The table shall contain all sampling results, including sample location (depth), sample media, field and laboratory identification numbers, and method detection limits, as necessary, and analytical results for all individual contaminants for each area of concern.

**(2)** \_\_\_ The areas of concern listed below contain contaminants above the current numerical remediation standard applicable at the time of the comparison and further remediation is required because: (check the appropriate sub statement)

\_\_\_\_\_ (a) The contaminant concentrations remaining in the areas of concern listed below are more than an order of magnitude (factor of 10) greater than the current numerical remediation standard applicable at the time of the comparison;

\_\_\_\_\_ (b) The areas of concern or the site was remediated using engineering and institutional controls approved by the Department and these controls are no longer protective of public health, safety and the environment; or

\_\_\_\_\_ (c) The area of concern or the site was remediated to an approved site specific remediation standard and some or all of the factors and assumptions which are the basis for deriving the site specific remediation standard are no longer valid;

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

Area of Concern	Location Reference Keyed to the Site Map

Include a separate table comparing the levels of contaminants remaining in each area of concern, the numerical remediation standard approved in the remedial action workplan or at the time of no-further-action approval and the current numerical remediation standards applicable at the time of the comparison. The table shall contain all sampling results, including sample location (depth), sample media, field and laboratory identification numbers, and method detection limits, as necessary, and analytical results for all individual contaminants for each area of concern.

(3)\_\_\_\_\_ The areas of concern listed below do not contain contaminants above the current numerical remediation standard applicable at the time of the comparison and no further remediation is required.

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

Area of Concern	Location Reference Keyed to the Site Map

Include a separate table comparing the levels of contaminants remaining in each area of concern, the numerical remediation standard approved in the remedial action workplan or at the time of no-further-action approval and the current numerical remediation standards applicable at the time of the comparison. The table shall contain all sampling results, including sample location (depth), sample media, field and laboratory identification numbers, and method detection limits, as necessary, and analytical results for all individual contaminants for each area of concern.

(4).\_\_\_\_\_The contaminant concentrations remaining in the below listed areas of concern are more than an order of magnitude greater than the numerical remediation standard applicable at the time of the comparison. However, no further remediation is required by the person conducting this preliminary assessment, because, in accordance with N.J.S.A. 58:10B13(e), that person is not liable for the contamination pursuant to N.J.S.A. 58:10-23.11g

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

Area of Concern	Location Reference Keyed to the Site Map

Include a separate table comparing the levels of contaminants remaining in each area of concern, the numerical remediation standard approved in the remedial action workplan or at the time of no-further-action approval and the current numerical remediation standards applicable at the time of the comparison. The table shall contain all sampling results, including sample location (depth),

sample media, field and laboratory identification numbers, and method detection limits, as necessary, and analytical results for all individual contaminants for each area of concern.

11 Historical Data on environmental quality at the Industrial Establishment

A. Have any previous sampling results documenting environmental quality of the Industrial Establishment not received a no-further-action approval from the Department or been denied approval by the Department? (N.J.A.C. 7:26E-3.1(c)1.viii)

Yes (See Attachment # \_\_\_\_\_)  No (Go to 12)

Two (2) 6,000-gallon USTs and one (1) 1,000-gallon UST utilized for the storage of heating oil (No. 2) were registered for the subject property (UST Registration No. 0167187). According to an undated report titled "Removal of Three Underground Storage Tanks" prepared by Edward Kurth and Sons, Inc., the USTs were closed and removed in August 1989. The tanks were found to be in good condition when removed. Post-excavation soil samples collected from each excavation reported total petroleum hydrocarbons as non-detectable or at concentrations below the current NJDEP Health Based Criterion for Total Organic Contaminants (10,000 mg/kg) and the current 1,000 mg/kg threshold for contingency volatile organic compound with a forward library search (VO+10) analysis. See Appendix I for information pertaining to the USTs.

B. Have there been any known changes in site conditions or new information developed since completion of previous sampling or remediation? If sampling results were obtained, but are not part of this application, please explain below (N.J.A.C. 7:26E-3.1(c)xi):

---



---

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

Check here if no permits are involved  and got to question 13.

A. New Jersey Air Pollution Control

Permit Number	Expiration Date	Type of Permitted Unit

B. Underground Storage Tank Registration Number 0167187

Size of Tank (Gallons)	Tank Contents
6,000-gallon	No. 2 Heating Oil
6,000-gallon	No. 2 Heating Oil
1,000-gallon	No. 2 Heating Oil

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

Permit Number	Discharge Type	Discharge Location Keyed to Site map	Expiration Date

D. Resource Conservation and Recovery Act (RCRA) permit # \_\_\_\_\_

E. EPA Identification Number NJD982738627, NJ000093877

The site was identified as a small quantity generator of hazardous waste (EPA ID No. NJD982738627; NJ0000938977). No violations were reported for the site. See Appendix D for a summary of information pertaining to the USEPA ID Numbers.

F. In accordance with N.J.A.C. 7:26E-3.1(c) xii, list all other federal, state, local government environmental permits for all previous and current owners or operators applied for and/or received for the site including :

- (1) Name and address of the permitting agency
- (2) The reason for the permit
- (3) The permit identification number
- (4) The application date
- (5) The date of approval, denial or status of the application
- (6) The name and current address of the permittees
- (7) The reason for the denial, revocation or suspension if applicable
- (8) The permit expiration date

    X     Check here if no other environmental permits were applied for or received for this site.

Provide the appendix # for the required listing if other environmental permits exist for this site \_\_\_\_\_.

13. In accordance with N.J.A.C. 7:26E-3.1(c)xiii, provide a summary of enforcement actions (including but not limited to, Notice of Violations, Court Orders, official notices or directives) for violations of environmental laws or regulations (attach additional sheets if necessary):

A. Check here if no enforcement actions are involved     X     (Go to 14 otherwise complete 13B)

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

\_\_\_\_\_

\_\_\_\_\_

(2) Date of the enforcement action \_\_\_\_\_

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

---



---

(4) Type of enforcement \_\_\_\_\_

---



---

(5) Description of the violation \_\_\_\_\_

---



---

(6) How was the violation resolved? \_\_\_\_\_

---



---

14. In accordance with N.J.A.C. 7:26E-3.1(c) xiv, please provide a narrative description of all areas where non-indigenous fill materials were used to replace soil or raise the topographic elevation of the site, including the dates of emplacement.

Not Applicable

15. A. In accordance with N.J.A.C. 7:26E-3.2(a) 3.i, submit a scaled site plan, detailing the subject lot and block, property and or leasehold boundaries, location of current and former buildings, fill areas, paved and unpaved areas, vegetated areas, and all areas of concern identified above and all active or inactive wells.
- B. Scaled historical site maps and facility as built drawings (if available).
- C. A copy of the United States Geologic Survey (USGS) 7.5 minute topographical quadrangle that includes the site and an area of at least one mile radius around the site. The facility location shall be clearly noted. If a portion of the USGS quadrangle is used, the scale, north arrow, contour interval, longitude and latitude with the name and date of the USGS quadrangle shall be noted on the map.

16. In accordance with N.J.A.C. 7:26E-3.2, please provide the date that the site visit was completed to verify the findings of the preliminary assessment. \_\_\_\_\_ December 3, 2007

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

Description	Appendix #



## Appendix A

### History of Ownership/Description of Site and Operations

## 1. History of Ownership

CMX obtained property records from RealQuest®, a real estate database system (<http://www.realquest.com>), which indicate that the site is comprised of Block 1392, Lot 33. Furthermore, CMX reviewed available deeds at the City of Camden Tax Assessor's Office on November 27, 2007. A copy of the RealQuest® property detail report is provided as an attachment to this appendix. Table 1 provides a summary of ownership history obtained following a review of property records and deeds for the site.

<b>Table 1 - History of Ownership</b>		
<b>Block 1392, Lot 33</b>		
<b>Owner</b>	<b>From</b>	<b>To</b>
Camden Laboratories	May 1, 1989	Present
Coriell Institute for Medical Research (South Jersey Medical Research Foundation)	June 26, 1965	May 1, 1989
City of Camden	Unknown	June 26, 1965

## 2. Description of Site and Operations

The site consists of one (1) contiguous tax lot located at 1667 Davis Street in the City of Camden, Camden County, New Jersey. The City of Camden designates this property as Block 1392, Lot 33 for tax purposes. This property is 3.9 acres in size. The site is occupied by an approximately 50,000 square foot building compound which is currently vacant. For the purposes of this study, the compound is divided into the following six (6) buildings:

<b>Table 2 - Structure Designations/Layout</b>			
<b>Building</b>	<b>Location</b>	<b>Former Uses</b>	<b>#of Floors</b>
A	Northern Section	Office/Laboratory	1 Story & Basement
B	Central Section	Office/Laboratory/Animal quarters/Freezer room	2 Story
C	Southwestern Section	Cleaning and sterilization of animal cages	1 Story
D	Northwestern Section	Main Generator/Storage	1 Story
E	Central Section	Water Deionizer/Freezer storage	1 Story & Basement
F	Eastern Section	Administration/Laboratory/Library/Auditorium/Quality Assurance	1 Story & Basement

Building A is located within the northern most section of the existing Camden building compound and is comprised of a first floor and basement. This building contained former laboratories and offices on both floors. Building A also contained a boiler room and water filtration tanks in the basement. The pipes and equipment located within the boiler room appeared in fair to good condition. Minor staining of the concrete surface was noted on the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on a review of information provided by Mr. Manco, with the exception of the Building B boiler room floor drain, all site sanitary, process, Heating Ventilation Air Conditioning and boiler waste streams discharge to a central pit located in Building F and then to the Camden County Municipal Utilities Authority sewer. See Appendix I for a summary of information provided by the property owner during the site inspection

interview.

Building B is located in the central section of the existing structures and is the largest of the six (6) buildings. This building was comprised of two (2) floors. This building contained former offices and animal quarters on the first floor and former laboratories on the second floor. Building B contained two (2) boiler rooms on the first floor. The pipes and equipment located within the boiler rooms appeared to be in fair condition. Minor staining of the concrete surface was noted throughout the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on a review of information provided by the property owner, Building B boiler blowdown is directed to a floor drain system which discharges to a dry well. See Appendix I for a summary of information provided by the property owner during the site inspection interview. In addition, four (4) 55-gallon drums of muriatic acid and five (5) 55-gallon drums of caustic soda were observed within the former freezer room of Building B. Several empty 55-gallon drums, five (5) gallon containers and one (1) gallon paint containers were also located within the room. No staining was noted on the concrete beneath the drums. The floors were in good condition and no apparent cracks or migration pathways were noted. Mr. Manco informed CMX that all of the containers were going to be removed from the property in the near future.

Building C is the southern most structure of the existing six (6) buildings and is comprised of one (1) ground floor. This building contained equipment for the former cleaning and sterilization of animal cages. All equipment appeared in good condition. The equipment drains to a floor drain system which discharges to the Camden County Municipal Utilities Authority sewer. No staining of the concrete floor was noted. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted.

Building D is the western most structure and is comprised of one (1) ground floor. Two (2) emergency gas powered generators were observed within Building D. Heavy staining of the concrete surface was noted beneath the generators. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. No floor drains were noted in this building.

Building E is located adjacent to and southeast of Building A and is comprised of a first floor and basement. The first floor appeared to be formerly utilized for office space. Equipment for former water deionization operations was observed in the basement of Building E. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted.

Building F is the eastern most structure and consists of a ground floor and a basement. This building contained laboratories, a library, mechanical room, and Quality Assurance room in the basement. The first floor contained administrative offices and an auditorium. Minor staining observed on the concrete floor in the mechanical room. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted.

One (1) 275-gallon above ground storage tank (AST) which formerly contained diesel fuel and one (1) emergency generator were located at the southwest exterior of Building B. The AST appeared to be in fair condition with no visible staining noted. The AST and generator are located on a concrete slab surrounded by asphalt.

A concrete pad that formerly contained an above ground hydraulic lift was observed in the loading dock area at the southern side of Building B. Mr. Manco indicated that the hydraulic lift system tank was removed on November 9, 2007. He also stated that the entire lift was encased within concrete. No signs of leaking or staining were noted.

Two (2) electric transformers were observed at the west exterior of Building D, also known as the power house. In addition, one (1) pole mounted electrical transformer was located along Davis Street. The transformers were in fair condition and no staining or stressed vegetation was observed at the ground surface beneath any of these transformers.

Asphalt paved areas surround the building compound to the north, south, and west. The western portion of the parcel is currently grass covered.

In addition, a mobile trailer unit is located on the southwestern portion of the site. Based on a review of information provided by the current property owner, the mobile trailer unit is a New Jersey Department of Environmental Protection (NJDEP) air monitoring station is associated with a County wide air monitoring system and is unrelated to operations at the site.

The subject site is bound to the north by residential and commercial uses. The site is bound to the south by Whitman Park, to the east by commercial uses, and the west by residential development. Commercial uses to the east and north of the site include RF Products and the Dr. Charles E. Brimm Medical Arts building.

Based on a review of available historical sources, the site was developed for use as a hospital for municipal diseases, which was located in the northern portion of the site. Construction for the hospital occurred as early as 1923. The site was redeveloped for use for biological, genetic and cancer research beginning in the 1950's. Construction of the current site building compound (Buildings A through F) took place in phases from the 1950's to the 1980's.

## Appendix B

### Environmental Database Search

## **Environmental Database Search**

CMX performed a review of select Federal and State environmental record sources in order to evaluate the potential existence of AOCs at the site. CMX performed this records review utilizing a computer database search report prepared by Environmental Data Resources, Inc. (EDR). This report keys the surrounding sites on the ASTM-specified databases to the Overview Map and Detail Map included in the EDR database search report. A copy of the EDR Report is provided as an attachment to this appendix.

The subject property was identified in federal and state standard or supplemental environmental databases searched by EDR as summarized hereafter.

### **UST**

The New Jersey Underground Storage Tank (UST) database includes sites with registered USTs. UST's are regulated under Subtitle I of RCRA and must be registered with the state department responsible for administering the UST program. The subject site was identified in the UST database as follows.

Camden Laboratories  
Copewood Street  
Camden, New Jersey

EDR identified Camden Laboratories, Copewood Street, Camden, New Jersey in the Underground Storage Tank (UST) database (Facility ID 016718). Two (2) 6,000-gallon and one (1) 2,000-gallon No. 2 heating oil UST were reportedly removed from the Camden Laboratories site in August 1989. While EDR reports the location of the Camden Laboratories to be near the intersection of Copewood Street and Haddon Avenue to northeast of the site, it is CMX's opinion the this listing is for the site based on review of additional information provided by the NJDEP and the current property owner. See Appendices D and I for a summary of pertinent findings obtained following review of information provided by the NJDEP and the current property owner, respectively.

### **RCRA Info**

The Resource Conservation and Recovery Act Information (RCRA Info) database is the United States Environmental Protection Agency (USEPA) database of facilities that generate, transport, treat, store, or dispose of hazardous wastes as defined by the Resource Conservation and Recovery Act (RCRA). The subject site was identified in the RCRA Info as follows.

Coriell Institute Med Res  
Copewood Street  
Camden, New Jersey

EDR identified Coriell Institute Med Res, Copewood Street, Camden, New Jersey in the Resource Conservation and Recovery Act Small Quantity Generator (RCRA-SQG)/Facility Index System (FINDS) database (EPA ID No. NJD982738627). This site was identified in the orphan summary. Since the Coriell Institute for Medical Research was identified as a previous site owner following review of available City of Camden tax records, CMX believes this database listing pertains to the site. EDR reports that the Coriell Institute for Medical Research utilized halogenated solvents and non-halogenated solvents for degreasing. See Appendix A for a summary of site ownership identified following review of available City of Camden tax records.

Quality Bio-Tech Inc.  
1667 Davis Street  
Camden, New Jersey

EDR identified Quality Bio-Tech Inc., 1667 Davis Street, Camden, New Jersey in the RCRA-SQG database (EPA ID No. NJ0000938977). This database includes selective information on sites which generate, transport, store, treat, or dispose of hazardous waste. Small Quantity Generators generate less than 1,000 kg of hazardous waste or less than 1 kg of acutely hazardous waste per month. No violations were reported for the Quality Bio-Tech Inc. site.

#### NJ Spill

The New Jersey Spill (NJ Spill) database includes initial notification information of hazardous material incidents, where there is land contamination, reported to the NJDEP's Environmental Action Line. The NJDEP has not conducted any investigation to determine its validity or accuracy. The subject site was identified in the NJ Spill database as follows.

Quality Bio-Tech Inc.  
1667 Davis Street  
Camden, New Jersey

EDR identified Quality Bio-Tech Inc., 1667 Davis Street, Camden, New Jersey in the New Jersey Spills Database (Facility ID 2230; NJDEP Case No. 97-2-21-1440-39). EDR reports that five (5) gallons of diesel fuel were spilled and contained within the building on February 21, 1997. The status of the spill is reported as "spill from generator from leaking fitting. Cleanup being done." No other pertinent information regarding this spill was recorded in the NJ SPILLS database. See Appendices D and I for additional information obtained regarding NJDEP Case No. 97-2-21-1430-39 following review of agency records and information provided by the current property owner.

EDR identified Quality Bio-Tech Inc., 1667 Davis Street, Camden, New Jersey in the New Jersey Spills Database (Facility ID 35063; NJDEP Case No. 98-11-20-1919-54). EDR reports that liquid nitrogen was spilled in the building and that the building was evacuated on November 28, 1998. At least two (2) people were treated for inhalation. No other pertinent information regarding this spill was recorded in the NJ SPILLS database. See Appendix D for additional information obtained regarding NJDEP Case No. 98-11-20-1919-54 following review agency records.

#### MLTS

The Material Licensing Tracking System database is a listing of approximately 8,100 sites which possess or use radioactive materials and which are subject to Nuclear Regulatory Commission (NRC) licensing requirements.

Quality Bio-Tech Inc.  
1667 Davis Street  
Camden, New Jersey

EDR identified Quality Bio-Tech Inc., 1667 Davis Street, Camden, New Jersey in the Material Licensing Tracking System (MLTS) database (License No. 29-28152-01). The site was last inspected in September 2004. The next scheduled inspection is September 2009. The status of the site was not reported.

#### ICIS

The Integrated Compliance Information System database supports the information needs of the national enforcement and compliance program as well as the needs of National Pollution Discharge Elimination System (NJPDES).

Plant Cell Technology Inc  
1667 Davis Street  
Camden, New Jersey

EDR identified Plant Cell Technology Inc, 1667 Davis Street, Camden, New Jersey in the Integrated Compliance Information System (ICIS)/ Facility Index System (FINDS) database (FRS ID No. 110030468795). The EFA Enforcement Action Type is reported at FIFRA (Federal Insecticide, Fungicide and Rodenticide Act) 14A Action for Penalty (EFA Enforcement Action ID No. 02-2007-5119). No other pertinent information was recorded in the ICIS database.

### SSTS

The Section Seven Tracking System (SSTS) requires all registered pesticide-producing establishments to submit a report to the EPA by March 1<sup>st</sup> each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced.

Plant Cell Technology Inc  
1667 Davis Street  
Camden, New Jersey

EDR identified Plant Cell Technology Inc., 1667 Davis Street, Camden, New Jersey in the Section Seven Tracking Systems (SSTS) database. The database has information regarding 2001, 2003, and 2004 and the site registration number was reported as 071806NJ001. The product was reported as PPM-Preservation for plant tissue culture. Site status was not reported for any of the three (3) years. The product class for 2001 was reported as insect repellents such as DEET. The product class for 2003 and 2004 was reported as disinfectant, germicide, and sanitizer. No other pertinent information was recorded in the SSTS database.

In addition, EDR searched select Federal and State record sources in order to evaluate the potential for environmental impacts to the site from off-site sources. RF Products Inc. was identified in several databases. The following paragraphs present a summary of information obtained from EDR regarding this higher elevation site.

### CERCLIS

The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) database contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

RF Products Inc.  
Davis & Copewood Streets  
Camden, NJ

Based on the information provided in EDR, the site is considered a potential source of regional groundwater contamination. According to EDR, the RF Products site (Site ID 0204504) is a former radio, television, and wireless communication equipment manufacturer. Degreasing solvents were disposed through drains. The site is being investigated as a possible source of the Parkside Wellfield contamination. CERCLIS Assessment history actions include Discovery (8/29/03), Pre-Cerclis Screening (8/29/03), Preliminary Assessment (8/29/03 - 9/10/03) and Site Inspection (9/10/03 - 8/28/06).



### RCRA Info

The Resource Conservation and Recovery Act Information (RCRA Info) database is the United States Environmental Protection Agency (USEPA) database of facilities that generate, transport, treat, store, or dispose of hazardous wastes as defined by the Resource Conservation and Recovery Act (RCRA).

RF Products Inc.  
Davis & Copewood Streets  
Camden, NJ

According to EDR, this site is a large-quantity generator of hazardous waste (Generator ID: NJD096846522) for which one (1) violation is reported. Compliance was achieved for the violation.

### UST

The New Jersey Underground Storage Tank (UST) database includes sites with registered USTs. UST's are regulated under Subtitle I of RCRA and must be registered with the state department responsible for administering the UST program.

RF Products Inc.  
Davis & Copewood Streets  
Camden, NJ

Two (2) 10,000 gallon No. 2 heating oil USTs were abandoned in place at the site on January, 1, 1991 (UST Facility ID No. 015474).

### ISRA

The Industrial Site Recovery Act (ISRA) database contains a list of sites engaged in operations after December 31, 1983 and are involved in the generation, manufacture, refining, transportation, treatment, storage, handling or disposal of hazardous substances or hazardous wastes.

Fast Doors Incorporated  
1661 Davis Street  
Camden City, NJ

EDR reports that the NJDEP made a determination of no further action for the site under Industrial Site Recovery Act (ISRA) Case No. E91067 and E20010307.

Migration of contaminants from the RF Products site to the site would most likely be via ground water. In order to determine the potential for migration of contaminants from the RF Products site to the site, CMX performed a review of available NJDEP records for the RF Products site. See Appendix D for a summary of information obtained following a review of available NJDEP records for the RF Products site.

## Appendix C

### Sanborn Fire Insurance Maps

## **Sanborn Fire Insurance Maps**

CMX obtained a series of Sanborn Fire Insurance Maps (Sanborn Maps) for the subject area from EDR for the dates 1923, 1926, 1950, 1982, and 1994. A summary of information obtained following a review of these maps is presented below. Copies of the EDR Sanborn Fire Insurance Maps are provided as attachment to this appendix.

- 1923 – The site is owned by the Municipal Hospital for Contagious Disease. The hospital detention ward is observed in the northwest portion of the site. The hospital administration building and contagious ward are observed on the northwest and south adjacent properties, respectively. Davis Street, the Heffner Shoe Company, and Kemoshine Products Inc. are observed to the north of the site. Vacant lots are observed to the east and west.
- 1926 – No significant changes to the site or surrounding areas are observed.
- 1950 – No significant changes to the site or surrounding areas are observed.
- 1982 – The site is labeled “Institute for Medical Research” and is occupied by the current Camden Laboratories structures. The buildings are identified as Buildings A through F and are labeled with construction dates indicating that the buildings were constructed between the years of 1956 and 1975. The hospital detention ward is no longer observed. A feature labeled transformers is observed at the west exterior of the main generator/storage building (Building D). Six (6) mobile trailers are located at the west exterior of the animal cage wash building (Building C). Decatur Street is observed to the northwest of the site. The hospital administration building is no longer observed on the northwest adjacent property. It has been replaced with residential buildings. A little league ball park is observed on the south adjacent property.
- 1994 – No significant changes to the site or surrounding areas are observed.

## Appendix D

# Federal, State and Local Government Records Review

## **Federal, State and Local Government Files**

Pursuant to the Freedom of Information Act (FOIA) and the Open Public Records Act (OPRA), CMX submitted information requests for the site to the following agencies:

- United States Environmental Protection Agency (USEPA);
- NJDEP Office of the Records Custodian;
- Camden County Department of Health (CCDOH) and
- City of Camden.

Copies of all requests and information obtained subsequent to each request are provided as an attachment to this appendix. The following paragraphs provide a summary of information obtained as a result of the information requests submitted.

### **USEPA**

CMX submitted a FOIA request to the USEPA on November 13, 2007. The USEPA Resource Conservation and Recovery Act (RCRA) Programs Branch responded to CMX's request on December 3, 2007 via mail. The USEPA provided a Notification of Regulated Waste Activity for Quality Biotech (EPA ID NJ0000938977) dated November 1, 1994. The document stated that Quality Biotech generated less than 100 kg of non-listed hazardous wastes per month. In addition an Envirofacts facility detail report was provided for Quality Biotech. No evidence of violations was identified following review of information provided by the USEPA RCRA Programs Branch. In addition, the USEPA Resource Management/Cost Recovery Section and the USEPA Compliance Assistance and Program Support Branch responded by correspondence dated December 6, 2007 and December 7, 2007, respectively. The USEPA Resource Management/Cost Recovery Section indicated that the site is not listed in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) and CERCLIS-No Further Remedial Action Planned (NFRAP) databases. The USEPA Compliance Assistance and Program Support Branch indicated that no information was held that was responsive to the information request.

### **NJDEP**

CMX submitted an electronic OPRA request to the NJDEP Office of Records Access (ORA) on November 26, 2007. CMX received a response from the Records Custodian via mail on December 3, 2007. The NJDEP provided a copy of correspondence from NJDEP to Coriell Institute dated September 27, 2007 which indicated that the pending sales transaction of the site from Coriell Institute to Martin Manco & Company, Inc. was not subject to the provisions of the Environmental Cleanup responsibility Act (ECRA). This decision was made in light that the site was not an industrial establishment. In addition, NJDEP provided UST facility certification questionnaires, standard reporting forms and other UST related documents which indicated that two (2) 6,000-gallon UST and 1,000-gallon UST utilized for the storage of fuel oil were registered for the site (UST Registration No. 0167187). The documents indicated that the three (3) USTs were closed and removed in August 1989. According to an undated report (Appendix I) titled "Removal of Three Underground Storage Tanks" prepared by Edward Kurth and Sons, Inc., the USTs were closed and removed in August 1989. The tanks were found to be in good condition when removed. Post-excavation soil samples collected from each excavation reported total petroleum hydrocarbons as non-detectable or at concentrations below the current NJDEP Health Based Criterion for Total Organic Contaminants (10,000 mg/kg) and the current 1,000 mg/kg threshold for contingency volatile organic compound with a forward library search (VO+10) analysis.

CMX submitted an electronic OPRA request to the NJDEP ORA on June 18, 2008 for records pertaining to the RF Products site. CMX visited the NDJEP ORA on July 2, 2008 to review available records. According to available records, RF Products operated as a metal working and electronics assembly company from 1988 until 2001, when operations ceased. Historic metal working operations included plating, painting and oven spraying of components.

As part of a pending property transaction between FR Products and Fast Doors, Inc. in 1991, a Preliminary Assessment of the RP Products property was conducted. The following areas of concern (AOCs) were identified at the site following completion of the PA:

- Loading Dock for Hazardous Substances and Wastes;
- Plating Room Floor and Soil Beneath; and
- 1,500-gallon and 10,000-gallon Fuel Oil Tanks.

Investigation conducted for the aforementioned AOCs were documented in the February 1992 Environmental Cleanup Act (ECRA) Sampling and Decommissioning Plan Report, September 1992 ECRA Supplemental Sampling and Decommissioning Plan Report and the January 1993 Second Supplemental Sampling and Decommissioning Plan Report prepared by JCA Associates of Mount Laurel, New Jersey.

Investigations revealed a three (3) to six (6) inch cadmium impacted ash layer located beneath the concrete and asphalt in the loading dock area. The impacted ash was delineated and the ash material was left in place. A Determination of No Further Action was issued by NJDEP for the cadmium impacted area in correspondence dated March 31, 1993. Subsequent to the determination of no further action, NJDEP required a deed notice be established for the cadmium impacted area. A deed notice was filed with NJDEP dated July 29, 2002 in correspondence dated November 13, 2002.

Investigations also identified cadmium and lead impacted soil beneath the plating room floor. Cadmium and lead impacted soil was delineated and the impacted soil was left in place. A Determination of No Further Action was issued by NJDEP for the cadmium and lead impacted area in correspondence dated March 31, 1993. Subsequent to the determination of no further action, NJDEP required a deed notice be established for the cadmium and lead impacted area. A deed notice was filed with NJDEP dated July 29, 2002 in correspondence dated November 13, 2002.

According to the most recent UST Registration Questionnaire dated June 31, 1999, one (1) 1,500-gallon No. 2 heating oil UST (Tank E-1) and one (1) 10,000-gallon No. 2 heating oil UST (Tank A-1) were registered for the RF Products site (UST ID:0154749, ECRA Case No. 91067). An attached figure prepared by James C. Anderson Associates, Inc dated May 1, 1991 depicts the location of the USTs. Tank A-1 is situated at the corner of Davis and Copewood Streets adjacent to a loading dock. Tank E-1 is situated approximately sixty (60) feet from Thorn Street along the northern property boundary. Both tanks were abandoned in place on October 20, 1991 per the approved NJDEP UST Closure Approval dated September 19, 1991. Based on the findings of the investigations completed to date, petroleum impacted soil was confirmed for the 1,500-gallon heating oil tank. In addition, benzo(a)pyrene/ benzo(a)anthracene and petroleum impacted soil was confirmed for the 10,000-gallon heating oil tank. According to available boring logs for the investigations completed, ground water was only encountered in one (1) boring at a depth of fifty-eight (58) feet below grade.

Petroleum/benzo(a)pyrene/benzo(a)anthracene impacted soil was subsequently delineated and the impacted soil was left in place. Due to the lose proximity of the tanks the building foot print and underground utilities, the tanks were abandoned in place. A determination of No Further Action was

issued by NJDEP for the USTs in correspondence dated March 31, 1993. Subsequent to the determination of no further action, NJDEP required a deed notice be established for the petroleum/benzo(a)pyrene/ benzo(a)anthracene impacted soil. A deed notice for the impacted soil associated with the abandoned-in-place USTs was subsequently filed with NJDEP dated July 29, 2002 in correspondence dated November 13, 2002.

According to the Initial Notice Site Evaluation Submission (SES) dated March 3, 1993, sanitary and rinse water from plating practices discharged to the Camden City public sewer system; however, during an inspection of the site by NJDEP personnel, "sediment and a brownish liquid [were] present in the floor drain where oil and paint thinner are stored in the Fast Doors, Inc. leasehold. The area around the floor drain is stained. The integrity of the floor drain is not known. In addition, no building plans are available to verify the discharge point of the drain."

Ground water investigations for the RF Products site were documented in the Expanded Site Investigation report prepared by the NJDEP Site Remediation and Waste Management Program, Division of Remediation Support, Bureau of Environmental Measurement and Site Assessment dated September 2007. Ground water investigations were conducted in order to investigate the RF Products/Fast Doors, Inc. site as a potential source of contamination identified in the Camden Parkside Wellfield.

In March and June 2005, NJDEP conducted a soil boring/grab ground water investigation of the area surrounding the RF Products property. NJDEP installed seventeen (17) soil borings and field screened soil for PCE and TCE using a gas chromatography. With the exception of four (4) soil borings (CCP-9, RF-3, RF-12 and RF-14), refusal was encountered and a grab ground water sample could not be collected. Three (3) soil borings (RF-13 through RF-15) were installed on the Camden Laboratories property. Analytical results reported TCE at a concentration exceeding the NJDEP Ground Water Quality Standard (GWQS) of 1 ug/L for grab ground water samples CCP-9 (20.96 ug/L), RF-3 (84 ug/L), RF-12 (280 ug/L) and RF-14 (13.77 ug/L).

In December 2005, NJDEP conducted a soil gas survey surrounding the RF Products site using soil vapor samplers (RFS-2 through RFS-53). Samplers RFS-2 through RFS-4 were installed in the northern portion of the Camden Laboratories property along Davis Avenue. Samplers were analyzed for "limited chlorinated volatile analysis. The analytical results of the samplers do not identify contaminant concentrations, but assess a contaminant mass present in the soil and/or groundwater." Based on a review of soil gas survey mapping, the TCE identified in the contaminant mass extends onto the Camden Laboratories property.

In May 2007, NJDEP installed two (2) upgradient monitoring wells (MW-1A and MW-4A) on the RF Products property. One (1) downgradient monitoring well (MW-2A) was installed on the RF Products property. One (1) sidegradient monitoring well (MW-3A) was installed in the Davis street right-of way directly north of the Camden Laboratories property. Groundwater flow was determined to be towards the southeast to south-southeast depending on pumping activities associated with the Puchack Wellfield. Depth to water in the ground water monitoring wells ranged from thirty-two (32) to forty-one (41) feet below grade. Ground water samples were collected for volatile organic compound (VOC) analysis on June 27, 2007 and August 15, 2007.

TCE was reported at a concentration exceeding the NJDEP GWQS of 0.02 ug/L for sample MW-1A (2.1 ug/L) during the June 27, 2007 sampling event. Carbon tetrachloride was reported at a concentration exceeding the NJDEP GWQS of 1 ug/L for sample MW-2A (13 ug/L) during the June 27, 2007 sampling event. TCE was reported at a concentration exceeding the NJDEP GWQS of 1 ug/L for samples MW-2A (780 ug/L) and MW-3A (8.2 ug/L) during the June 27, 2007 sampling

event. The compound 1,1,2-TCA was reported at a concentration exceeding the NJDEP GWQS of 3 ug/L for sample MW-2A (6.7 ug/L) during the June 27, 2007 sampling event.

Carbon tetrachloride was reported at a concentration exceeding the NJDEP GWQS of 1 ug/L for sample MW-2A (10.91 ug/L) during the August 15, 2007 sampling event. TCE was reported at a concentration exceeding the NJDEP GWQS of 1 ug/L for samples MW-2A (1419.48 ug/L), MW-3A (2.9 ug/L) and MW-4A (1.48 ug/L) during the August 15, 2007 sampling event. The compound 1,1,2-TCA was reported at a concentration exceeding the NJDEP GWQS of 3 ug/L for sample MW-2A (9.73 ug/L) during the August 15, 2007 sampling event.

Analytical results for groundwater investigations completed by NJDEP to date confirm the presence of a TCE plume in ground water which originates from the RF Products property. The TCE plume extends onto the Camden Laboratories property, and has also been attributed to the Camden Parkside Wellfield contamination.

### **Camden County Health Department**

CMX submitted a records request to the CCDOH on November 13, 2007 to review available records pertaining to the site. CMX received a response from CCDOH via fax on December 17, 2007. The CCDOH provided a file completion memo dated September 15, 1999 regarding Case No. 98-1120-1919-54. According to the memo, a nitrogen gas release was reported within the freezer room of Viro Med Biosafety, 1667 Davis Street, Camden, on November 20, 1998. Four (4) employees and a security guard were overcome by the nitrogen gas release and rescued by firefighters. The document also reported that the conditions cited were mitigated to acceptable limits when compared to the NJDEP technical regulations. In addition, a file completion memo dated October 25, 2007 regarding Case No. 97-02-21-1440-39 was provided. According to the memo, an oil spill was identified in the generator area at Quality Bio-Tech, 1667 Davis Street, Camden, on February 21, 1997. The initial report provided as an attachment to the file completion memo indicated that "asphalt was impacted and some soils must be excavated and post-excavation samples taken. All waste generated must be disposed of at an approved facility. All remedial activities must be conducted in accordance with N.J.A.C. 7:26D&E." According to the file completion memo, a reinspection was conducted. At the time of the reinspection, "no spillage was evident" and "the area around the generator is surrounded by asphalt and concrete. No impact to soil could be noted. Therefore, the Camden County Health Department considers the matter closed."

### **City of Camden**

CMX submitted a records request to the City of Camden Municipals Clerk's Office on November 29, 2007 to review available records pertaining to the site. The City of Camden responded to CMX via correspondence dated December 13, 2007. According to the December 13, 2007 correspondence, the Department of Public Works held no files regarding the site. The Clerk's Office also indicated that other city departments did not respond to CMX's information request at the time of the response. CMX contacted the Clerk's Office via phone on December 13, 2007 and was informed that if additional records are found, they will be forwarded as appropriate.

According to the City of Camden zoning map, the site is zoned Commercial (C).



## Appendix E

### Historical Aerial Photographs

## **Historical Aerial Photographs**

CMX obtained historical aerial photographs available on the NJDEP Imap NJ website (<http://www.state.nj.us/dep/gis/dep splash.htm>) which depict site conditions in 1930, 1995 and 2002. CMX also obtained a series of historical aerial photographs from EDR which depict site conditions in 1940, 1954, 1965, 1973, and 1981. Copies of historical aerial photographs obtained from iMapNJ DEP and EDR are provided as an attachment to this appendix. Table 3 provides a summary of the available aerial photographs.

<b>Date</b>	<b>Scale</b>	<b>Type</b>
1930	1" $\approx$ 635'	Black and White
1940	1" = 750'	Black and White
1954	1" = 750'	Black and White
1965	1" = 750'	Black and White
1973	1" = 750'	Black and White
1981	1" = 1,000'	Black and White
1997	1" $\approx$ 635'	Color
2002	1" $\approx$ 264'	Color

The following is CMX's interpretation of key highlights represented on these aerial photographs:

- 1930 (Black and White, 1"= 750') – The majority of the site appears to be open, grassed area. A small structure is observed in the northwest portion of the site. A large structure and a small structure are observed on the northwest and southeast adjacent properties, respectively. Davis Street and a large commercial structure are observed to the north of the site. Undeveloped land is observed to the east of the site.
- 1940 (Black and White, 1"= 750') – No significant changes to the site are observed. Areas to the southwest of the site are heavily disturbed.
- 1954 (Black and White, 1"= 750') – No significant changes to the site are observed. Additional commercial growth is observed to the north of the site.
- 1965 (Black and White, 1"= 750') – The small structure located on the northwest portion of the site is no longer observed. Three (3) of the current Camden Laboratories structures are observed on the site. The large structure on the northwest adjacent property is no longer observed. Residential dwellings are observed in its place. Baseball fields are observed on the south adjacent property.
- 1973 (Black and White, 1"= 750') – All six (6) of the current Camden Laboratories structures are observed on the site. Residential structures are observed to the south of the baseball fields. Areas to the north, east and west appeared similar to the aerial dated 1965.
- 1981 (Black and White, 1"= 750') – No significant changes to the site or surrounding areas are observed.
- 1997 (Color, 1"= 750') – The southern portion of the existing structure on the site has been expanded. All surrounding areas appear similar to the aerial dated 1973.

- 2002 (Color, 1"= 750') - No significant changes to the site or surrounding areas are observed

## Appendix F

### Historical Topographic Maps

### **USGS 7.5 Minute Topographic Map(s)**

CMX reviewed the USGS 7.5 Minute Topographic Map, Camden Quadrangle, dated 1967 and photorevised 1994 (Figure 1, Appendix K). The site is occupied by the current Camden Laboratories structures. The south adjacent property is cleared. Suspected residential development is observed to the northwest and south of the site. Two (2) large suspected commercial and/or industrial structures are observed to the northeast of the site, across Davis Street. The majority of the subject area is designated “built up” or urban. The topography of the subject area of is relatively flat with a gradual slope to the east-southeast towards the Cooper River.

## Appendix G

### McRae's Directory Search

### **McRae's Directory Search**

CMX requested a search of McRae's Directory files from EDR for the Site on June 23, 2008. The site was identified as Quality Biotech, Inc. for the year 1994. The site was not listed in any of the directories searched for the years 1931, 1940, 1941, 1949, 1954, 1955, 1960, 1961, 1965, 1970, 1975, 1980, 1985, 1990, 1995, 1996, 1998, 2000, 2001, 2002, 2004, 2006, 2007 or 2008. A copy of the Industrial Directory Report obtained from EDR is provided as an attachment to this appendix.

## Appendix H

### Site Inspection Photographs



## Site Inspection Photographs

CMX completed an inspection of the subject site on December 3, 2007. The following photographs were taken during the site inspection to document site conditions.



View of the Camden Laboratories entrance from Davis Street



View of Buildings A, E & F





View of Building B



View of Buildings C and D



View of cleaning supplies located in the first floor laboratories of Building A. No leaking or staining observed.



View of water filter system located in the basement of Building A. Water was visible beneath the filters due to ruptured pipes.





View of second floor lab in Building B



View of freezer room of Building B. Four (4) containers of muriatic acid, five (5) containers of caustic soda and several empty five (5) gallon containers were noted. No staining was observed.

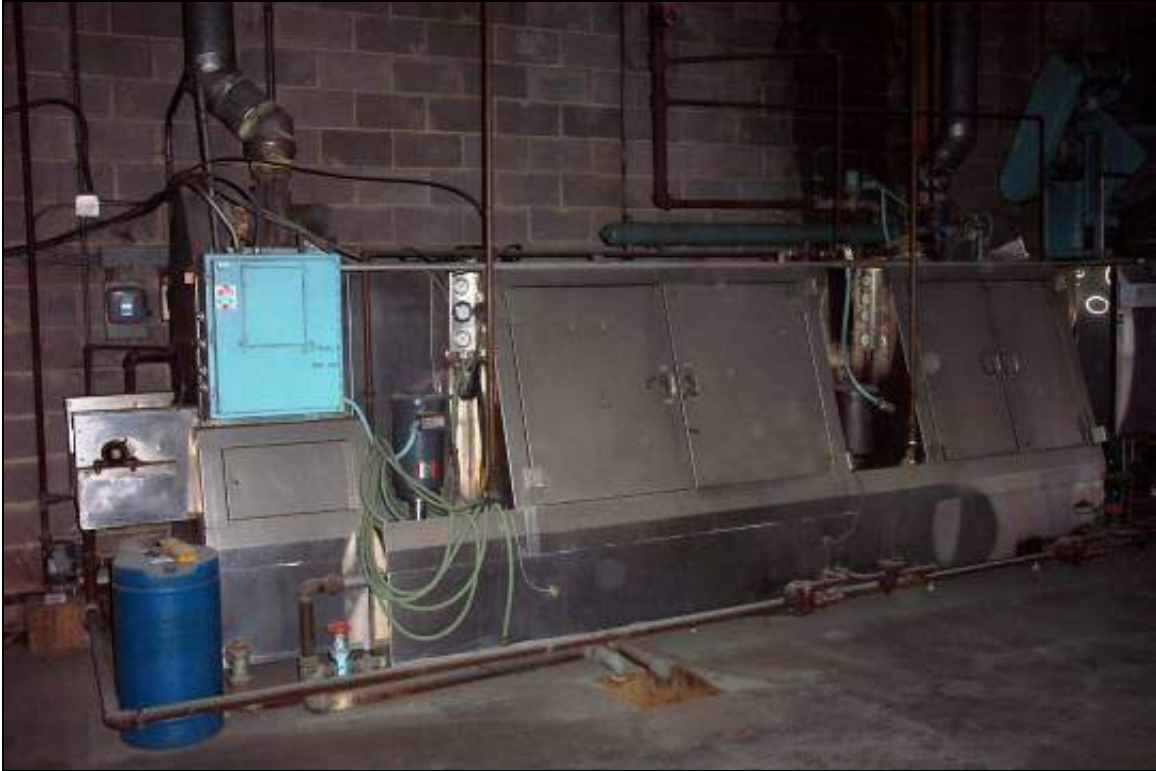


View of animal quarters located on the first floor of Building B



View of boiler room in Building B. No staining noted in the area of the floor drain.





View of animal cage wash machine located in Building C



View of emergency generators located in Building D. Staining observed beneath the generators.



View of first floor of Building E



View of auditorium located in Building F





View of laboratory vent hood located in the ground floor of Building F



View of electric transformers located adjacent to the west of Building D. Staining could not be determined due to overgrown vegetation.





View of empty 275-gallon AST formerly containing diesel fuel located at south exterior of Building B.  
No staining noted.



View of emergency generator associated with the 275-gallon AST located at south exterior of Building B





View of the former location of above ground hydraulic oil tank and former lift located at the dock of Building B



View of pole mounted electric transformer located along Davis Street adjacent to Camden Laboratories. No leaking or staining observed.

## Appendix I

### Previous Investigations

## Previous Investigations

Marty Manco, owner of the site, provided several documents pertaining to previous assessments and investigations completed at the site. A summary of pertinent information obtained following review of the owner provided documents is provided herein as appropriate.

BCM Eastern, Inc. (BCM) performed an environmental assessment of the site on behalf of Mr. Manco. BCM's assessment findings were summarized in correspondence dated September 8, 1988. The following bulleted items provide a summary of BCM environmental assessment findings pertinent to this study.

- Site Operations – BCM indicated that the site was “involved in biological research” with “principal activity in the area of cell culture and development. Cells are human and animal. Some radioactive elements for cells tests. Four to five drums per year of radioactive waste to Teledyne, a licensed permitted operation.”
- Incinerator – BCM indicated that an incinerator was used for the disposal of dead laboratory animals that were used for the study of disease or virus reaction. Incinerator ash was collected in an on-site dumpster and transported off-site for disposal at a sanitary landfill. During the interview, Mr. Manco indicated that the incinerator was removed from the site.
- USTs – BCM identified two (2) 6,000-gallon No. 2 fuel oil USTs at the site.
- Asbestos – BCM indicated that “steam distribution lines in Building A are insulated with what could be asbestos-containing materials. Other boilers and distribution lines in the other buildings appeared to be foam or fiberglass covered. The site had an independent asbestos review in recent weeks.”
- Compressor Blowdown – BCM indicated that refrigeration compressors at the northeast exterior of Building B “are on open ground and show some slight staining of surrounding soils.”
- Dry Well – BCM indicated that “there is a drywell for the collection of blowdown from the boiler in Building B. All other facility boilers and other water-related operations drain to a central, monitored collection pit in Building F, which is connected to the sanitary sewer system. Building B boiler room has a floor drain, which is connected to the pit, and which could be used to collect boiler blowdown.”
- Transformer – BCM indicated that dry transformers were located at the exterior of the Power House (Building D). No evidence of a discharge was identified.
- Air Monitoring Station – BCM indicated that a trailer located to the west of the building compound was utilized by the NJDEP as an air monitoring laboratory. The air monitoring laboratory is “used as a base for County monitoring activities” and unrelated to site operations. At the time of the BCM assessment, the air monitoring laboratory was on site for twenty-five (25) years.
- Hydraulic Lift – BCM indicated that the hydraulic lift system tank at the loading dock was “leaking, covered with oil dry.”

Mr. Manco confirmed the closure and removal of three (3) UST's 1989. These UST's were formerly utilized as fuel for the generators and boilers within the Camden Laboratories building. Mr. Manco stated that the buildings were converted from mixed usage between oil and gas to entirely gas in 1989 when the UST's were removed. According to an undated report titled "Removal of Three Underground Storage Tanks" prepared by Edward Kurth and Sons, Inc., two (2) 6,000 gallon UST's and one (1) 2,000 gallon UST containing No. 2 heating oil were closed and removed in August 1989. The tanks were found to be in good condition when removed. Five (5) post-excavation soil samples were collected from each excavation as follows: four (4) soil samples were collected from the east, north, south and west ends of the UST excavation area; and, one (1) post-excavation soil sample was collected from the bottom of the excavation area. Post-excavation soil samples were laboratory analyzed for total petroleum hydrocarbons (TPH). TPH was reported as non-detectable or at concentrations below the current NJDEP Health Based Criterion for Total Organic Contaminants (10,000 mg/kg) and the current 1,000 mg/kg threshold for contingency volatile organic compound with a forward library search (VO+10) analysis.

Environmental Resolutions Inc. (ERI) prepared a Preliminary Assessment (PA) for the site on behalf of Education Advance Corporation. ERI's PA findings were summarized in their PA report dated September 2007, a copy of which was provided by Mr. Manco. ERI identified the following areas of concern (AOCs) in connection with the site.

- Hydraulic Lift – "A hydraulic lift was observed at the loading docks at the Site. The 1988 assessment indicated that the tank was leaking. There is a concern that contaminants may have discharged to soils at the Site."
- Cesspool – "Available information indicates that a cesspool was once in use at the Site. There is a concern that contaminants may have been discharged to the cesspool. It is recommended that this AOC be investigated in accordance with N.J.A.C. 7:26E-3.9(e)3iii."
- 1997 Oil Spill – "Records indicate that five (5) gallons of diesel fuel were released from a leaking fitting on the generator on February 21, 1997 (Case # 97-2-21-1440-39). It is recommended that soils in the area of the spill be investigated for potential impacts."

In addition, ERI indicated the following as it relates to the conditions identified in the BCM assessment report.

- Compressor Blowdown – Stained soils identified at the exterior of Building B were removed.
- Dry Well – The drywell utilized for collection of Building B boiler blowdown was removed.
- Asbestos – Powell Environmental, Inc. conducted an asbestos inspection and asbestos-containing materials have been removed from the buildings.

Mr. Manco acknowledged that a cesspool associated with the former site structures was potentially located north of the site entrance along Davis Street; however, he could provide no additional details regarding the possible cesspool. Mr. Manco also acknowledged the discharge of diesel fuel (Case No. 97-02-21-1440-39) and provided copy of the CCDOH file completion memo dated October 25, 2007 described in Appendix D. Lastly, Mr. Manco indicated that the hydraulic lift system was pumped out and the hydraulic lift system tank removed on November 9, 2007. Mr. Manco provided a Casie Protank Environmental Services non-hazardous manifest and a daily labor/equipment time report which documented the hydraulic lift system pump out and tank removal activities. Copies of the documents provided by Mr. Manco are provided as an attachment to this Appendix.

## Appendix J

### Areas of Concern

## **Areas of Concern**

Areas of concern (AOCs) were evaluated by researching the history of the subject site and observed during the site inspection on December 3, 2007. Based on the findings of this PA, CMX has determined that there are twenty-three (23) areas of concern (AOCs) at the subject site:

### **Bulk Storage Tanks and Appurtenances**

***Above Ground Storage Tanks (AOC-1)*** – One (1) 275-gallon AST which formerly contained diesel fuel and one (1) emergency generator were located at the southwest exterior of Building B. The AST appeared to be in fair condition with no visible staining noted. The AST and generator are located on a concrete slab surrounded by asphalt. CMX recommends no investigation of this AOC.

***Underground Storage Tanks (AOC-2A/AOC-2B/AOC-2C)*** – EDR identified Camden Laboratories, Copewood Street, Camden, New Jersey in the UST database (Facility ID 016718). Two (2) 6,000-gallon heating oil USTs (AOC-2A and AOC-2B) and one (1) 2,000-gallon No. 2 heating oil UST were reportedly removed from the Camden Laboratories site in August 1989. Mr. Manco confirmed the closure and removal of three (3) UST's in 1989. These UST's were formerly utilized as fuel for the generators and boilers within the Camden Laboratories building. Mr. Manco stated that the buildings were converted from mixed usage between oil and gas to entirely gas in 1989 when the UST's were removed.

According to an undated report titled "Removal of Three Underground Storage Tanks" prepared by Edward Kurth and Sons, Inc., two (2) 6,000 gallon UST's (AOC-2A/AOC-2B) and one (1) 2,000 gallon UST (AOC-2B) containing No. 2 heating oil were closed and removed at the site in August 1989. The tanks were found to be in good condition when removed. Five (5) post-excitation soil samples were collected from each excavation as follows: four (4) soil samples were collected from the east, north, south and west ends of the UST excavation area; and, one (1) post-excitation soil sample was collected from the bottom of the excavation area. Post-excitation soil samples were laboratory analyzed for TPH. TPH was reported as non-detectable or at concentrations below the current NJDEP Health Based Criterion for Total Organic Contaminants (10,000 mg/kg) and the current 1,000 mg/kg threshold for contingency VO+10 analysis.

Based on our review of the post-excitation soil sample analytical results, no exceedances of current NJDEP soil cleanup were identified. CMX recommends no investigation of this AOC.

### **Storage and Staging Areas**

***Storage Containers (AOC-3)*** – Four (4) 55-gallon drums of muriatic acid and five (5) 55-gallon drums of caustic soda were observed within the former freezer room of Building B. Several empty 55-gallon drums, five (5) gallon containers and one (1) gallon paint container were also located within the room. No staining was noted on the concrete beneath the drums. The floors were in good condition, no apparent cracks or migration pathways were noted. Mr. Manco informed CMX that all of the containers were going to be removed from the property in the near future. CMX recommends no investigation of this AOC; however the containers should be removed and disposed of in accordance with applicable waste regulations.

### **Drainage Systems**

***Building C Floor Drains (AOC-4)*** – Building C is the southern most structure of the existing six (6) buildings and is comprised of one (1) ground floor. This building contained equipment for the former

cleaning and sterilization of animal cages. All equipment appeared in good condition. The equipment drains to a floor drain system which discharges to the Camden County Municipal Utilities Authority sewer. No staining of the concrete floor was noted. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on a review of information provided by Mr. Manco, with the exception of the Building B boiler room floor drain, all site sanitary, process, Heating Ventilation Air Conditioning and boiler waste streams discharge to a central pit located in Building F and then to the Camden County Municipal Utilities Authority sewer. CMX recommends no investigation of this AOC.

**Septic Systems, Leachfields or Seepage Pits (AOC-5)** – According to the ERI PA report, “available information indicates that a cesspool was once in use at the Site. There is a concern that contaminants may have been discharged to the cesspool. It is recommended that this AOC be investigated in accordance with N.J.A.C. 7:26E-3.9(e)3iii.” Mr. Manco acknowledged that a cesspool associated with the former site structures was located north of the site entrance along Davis Street; however, he could provide no additional details regarding the possible cesspool. CMX recommends investigation of this AOC.

**Building B Drywell (AOC-6)** – Building B is located in the central section of the existing structures and was the largest of the six (6) buildings. This building was comprised of two (2) floors. This building contained former offices and animal quarters on the first floor and former laboratories on the second floor. Building B contained two (2) boiler rooms on the first floor. The pipes and equipment located within the boiler rooms appeared in fair condition. Minor staining of the concrete surface was noted throughout the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. According to the BCM environmental assessment correspondence, Building B boiler blowdown was formerly directed to a floor drain system which discharged to a dry well. ERI indicated that the drywell utilized for collection of Building B boiler blowdown was removed in their PA report. CMX recommends investigation of this AOC.

#### **Discharge and Disposal Areas**

**Incinerator (AOC-7)** – According to the BCM environmental assessment correspondence, an incinerator was used for the disposal of dead laboratory animals that were used for the study of disease or virus reaction. Incinerator ash was collected in an on-site dumpster and transported off-site for disposal at a sanitary landfill. During the interview, Mr. Manco indicated that the incinerator was removed from the site. CMX did not observe an incinerator during the site reconnaissance. CMX recommends no investigation of this AOC.

#### **Other Areas of Concern**

**Transformers (AOC-8)** – Two (2) electric transformers were observed at the west exterior of the power house (Building D). According to the BCM environmental assessment report, these transformers are of the dry construction type and do not contain oil. In addition, one (1) pole mounted electrical transformer was located along Davis Street. The transformers were in fair condition and no staining or stressed vegetation was observed at the ground surface beneath any of these transformers. CMX recommends no investigation of this AOC.

**Building A Staining (AOC-9A)** – Building A is located within the northern most section of the existing building compound and is comprised of a first floor and basement. This building contained former laboratories and offices on both floors. Building A also contained a boiler room and water filtration tanks in the basement. The pipes and equipment located within the boiler room appeared in fair to good condition. Minor staining of the concrete surface was noted on the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on a



review of information provided by Mr. Manco, with the exception of the Building B boiler room floor drain, all site sanitary, process, Heating Ventilation Air Conditioning and boiler waste streams discharge to a central pit located in Building F and then to the Camden County Municipal Utilities Authority sewer. CMX recommends no investigation of this AOC.

**Building D Staining (AOC-9B)** – Building D is the western most structure and is comprised of one (1) ground floor. Two (2) emergency gas powered generators were observed within Building D. Heavy staining of the concrete surface was noted beneath the generators. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. No floor drains were noted in this building. CMX recommends no investigation of this AOC.

**Building F Staining (AOC-9C)** – Building F is the eastern most structure and consists of ground floor and basement. This building contained laboratories, a library, mechanical room, and Quality Assurance room in the basement. The first floor contained administrative offices and an auditorium. Minor staining observed on the concrete floor in the mechanical room. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. CMX recommends no investigation of this AOC.

**Compressor Blowdown (AOC-10)** – According to the BCM environmental assessment correspondence, refrigeration compressors at the northeast exterior of Building B “are on open ground and show some slight staining of surrounding soils.” In addition, ERI indicated that stained soils identified at the exterior of Building B were removed in their PA report. CMX did not observe stained soils in this area during the site reconnaissance. CMX recommends no investigation of this AOC.

#### **Site Specific Areas of Concern**

**Hydraulic Lift System (AOC-11)** – A concrete pad that formerly contained an above ground hydraulic lift was observed in the loading dock area at the southern side of Building B. No evidence of a discharge from the hydraulic lift system was noted. Mr. Manco indicated that the hydraulic lift system tank was removed on November 9, 2007. He also stated that the entire lift was encased within concrete. Mr. Manco provided a Casie Protank Environmental Services non-hazardous manifest and a daily labor/equipment time report which documented the hydraulic lift system pump out and tank removal activities. According to the BCM environmental assessment correspondence, at the time of the BCM site reconnaissance the hydraulic lift system tank at the loading dock was “leaking, covered with oil dry.” In addition, based on their PA, ERI concluded that “a hydraulic lift was observed at the loading docks at the Site. The 1988 assessment indicated that the tank was leaking. There is a concern that contaminants may have discharged to soils at the Site.” CMX recommends investigation of this AOC.

**NJ SPILLS Database Listing (NJDEP Case No. 97-2-21-1440-39) (AOC-12)** – EDR identified Quality Bio-Tech Inc., 1667 Davis Street, Camden, New Jersey in the New Jersey Spills Database (Facility ID 2230; NJDEP Case No. 97-2-21-1440-39). EDR reports that five (5) gallons of diesel fuel were spilled and contained within the building on February 21, 1997. The status of the spill is reported as “spill from generator from leaking fitting. Cleanup being done.” No other pertinent information regarding this spill was recorded in the NJ SPILLS database.

A file completion memo dated October 25, 2007 regarding Case No. 97-0221-1440-39 was provided by the Camden County Department of Health. According to the memo, an oil spill was identified in the generator area at Quality Bio-Tech, 1667 Davis Street, Camden, on February 21, 1997. The initial report provided as an attachment to the file completion memo indicated that

“asphalt was impacted and some soils must be excavated and post-excavation samples taken. All waste generated must be disposed of at an approved facility. All remedial activities must be conducted in accordance with N.J.A.C. 7:26D&E.” According to the file completion memo, a reinspection was conducted. At the time of the reinspection, “no spillage was evident” and “the area around the generator is surrounded by asphalt and concrete. No impact to soil could be noted. Therefore, the Camden County Health Department considers the matter closed.” CMX recommends investigation of this AOC.

***NJ SPILLS Database Listing (NJDEP Case No. 98-11-20-1919-54) (AOC-13)*** – EDR identified Quality Bio-Tech Inc., 1667 Davis Street, Camden, New Jersey in the New Jersey Spills Database (Facility ID 35063; NJDEP Case No. 98-11-20-1919-54). EDR reports that liquid nitrogen was spilled in the building and that the building was evacuated on November 28, 1998. At least two (2) people were treated for inhalation. No other pertinent information regarding this spill was recorded in the NJ SPILLS database.

The CCDOH provided a file completion memo dated September 15, 1999 regarding Case No. 98-11-20-1919-54. According to the memo, a nitrogen gas release was reported within the freezer room of Viro Med Biosafety, 1667 Davis Street, Camden, on November 20, 1998. Four (4) employees and a security guard were overcome by the nitrogen gas release and rescued by firefighters. The document also reported that the conditions cited were mitigated to acceptable limits when compared to the NJDEP technical regulations. CMX recommends no investigation of this AOC.

***Regional Ground Water Contamination (AOC-14)*** – EDR reported that the north adjacent RF Products property disposed degreasing solvents through drains. In order to determine the potential for impact to the site from the PF Products property, CMX reviewed available NJDEP records for RF Products on July 2, 2008. Based on a review of available records, RF Products has been identified as a source of a ground water contamination within the region. Ground water contamination has been identified on the Camden Laboratories property and has been attributed to migration of contaminants originating from RF Products. CMX recommends no additional investigation of this AOC; however, future site improvements will need to consider vapor intrusion mitigation measures.

AOC locations are included on Figure 3 (Appendix K).

## Appendix K

### Site Maps

070235804

**REMEDIAL ACTION WORKPLAN**

Camden Laboratories  
1667 Davis Street  
Block 1392, Lot 33  
City of Camden  
Camden County, New Jersey  
NJDEP Case No. 08-07-01-1547-19

Prepared for:

**Camden Laboratories L.P.**  
PO Box 2614  
West Chester, Pennsylvania 19380

Prepared by:

**CMX**  
1101 Laurel Oak Road  
Suite 160  
Voorhees, New Jersey 08043-7346

August 2008

**CERTIFICATION**  
**N.J.A.C. 7:26-1.2 et. seq.**

Any person making a submission to the Department required by this chapter and pursuant to N.J.A.C. 7:26E, will include the following signature and notarized certification, for each technical submittal. Additionally, the certification will indicate the case name and address, case number, type of documents submitted, e.g. Remedial Action Report, for each technical submittal.

TYPE OF DOCUMENT:            REMEDIAL ACTION WORK PLAN  
CASE NAME:                    CAMDEN LABORATORIES  
CASE ADDRESS:                1667 Davis Street, Block 13982, Lot 33  
   City of Camden, Camden County, New Jersey  
CASE NUMBER:                 08-07-01-1547-19

The following certification will be signed by:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For a partnership or sole proprietorship, by a general partner of the proprietor, respectively, or;
3. For a municipality, State, Federal or other public agency, by either a principal executive officer or ranking elected official.
4. For persons other than 1 through 3 above, by the person with legal responsibility for the Site.

“I certify, under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate, or incomplete information, and that I am committing a crime of the fourth degree if I make a written false statement that I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.”

PRINTED NAME \_\_\_\_\_

TITLE \_\_\_\_\_

SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

NOTARY SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

## Table of Contents

1.0	Introduction .....	1
2.0	Previous Investigation Summary.....	2
2.1	Preliminary Assessment .....	2
2.2	Site Investigation .....	5
2.2.1	Septic Systems, Leachfields or Seepage Pits (AOC-5) .....	6
2.2.2	Building B Drywell (AOC-6) .....	6
2.2.3	Hydraulic Lift System (AOC-11).....	6
2.2.4	NJ SPILLS Database Listing (NJDEP Case No. 97-2-21-1440-39) (AOC-12) .....	7
2.2.5	Regional Ground Water Contamination (AOC-14) .....	7
2.2.6	Conductive Area (AOC-15).....	8
3.0	Remedial Action Workplan .....	10
3.1	Remediation Standards.....	10
3.2	Permitting and Plans .....	10
3.2.1	Permits .....	10
3.2.2	Health and Safety Plan.....	10
3.2.3	Traffic .....	10
3.2.4	Dust Control.....	10
3.2.5	Site Security Plan .....	11
3.3	Mobilization .....	11
3.4	Soil Excavation .....	11
3.5	Post-Excavation Soil Sampling.....	12
3.6	Site Restoration .....	12
3.7	Remedial Action Report.....	12
3.8	Estimated Remediation Remedial Action Costs .....	13
3.9	Implementation/Schedule .....	13

## List of Figures

- Figure 1 – Site Location Map – USGS 7.5 Minute Topographic Map – Camden Quadrangle
- Figure 2 – Site Location Map – City of Camden Tax Map
- Figure 3 – Area of Concern Location Map
- Figure 4 – Site Investigation Sample Location Map

## Appendices

Appendix A – Health and Safety Plan

## **1.0 Introduction**

CMX has prepared this Remedial Action Workplan (RAWP) for the Camden Laboratories property, designated as Block 1392, Lot 33 in the City of Camden, Camden County, New Jersey (herein referred to as the “site”) on behalf of Camden Laboratories, L.P. This RAWP includes a narrative description of the proposed remediation strategy to be implemented to address copper and lead contaminated ash-like material identified following completion of a Site Investigation (SI) at the site. Since the copper and lead contaminated ash-like material is present on property that is proposed for redevelopment as a charter school, a remedy, consistent with the proposed site use, has been selected for this site. Based on the results of investigations performed to date and the proposed use of the site, Camden Laboratories L.P. intends to address the limited area of copper and lead impacted ash on the Camden Laboratories property through excavation and off-site disposal. Figure 1 displays the approximate location of the property on a portion of the USGS 7.5 Minute Camden Quadrangle. Figure 2 displays the boundaries of the property on the City of Camden Tax Map.

This report is divided into three (3) sections including this Introduction (Section 1), Previous Investigation Summary (Section 2) and Remedial Action Work Plan (Section 3). The previous investigation summary section presents the findings and conclusions of investigation activities completed at the site to date. The remedial action work plan presents the proposed remedial action for the site. This report has been prepared in accordance with the guidelines and recommendations presented in the New Jersey Technical Requirements for Site Remediation (N.J.A.C. 7:26E) or “Tech Rules”.

## 2.0 Previous Investigation Summary

CMX conducted a Preliminary Assessment (PA) and SI of the Camden Laboratories Property on behalf of Camden Laboratories L.P. The findings of the PA and SI were summarized in CMX's PA and SI reports dated August 2008, which are being submitted concurrently with this RAWP. The following sections present a summary of PA and SI findings.

### 2.1 Preliminary Assessment

In August 2008, CMX conducted a Preliminary Assessment (PA) of the Camden Laboratories Property on behalf of Camden Laboratories L.P. The PA was conducted pursuant to N.J.A.C. 7:26E-3.1 through 3.2. CMX identified the following areas of concern (AOCs) in connection with the site following completion of the PA.

- Above Ground Storage Tanks (AOC-1) – One (1) 275-gallon AST which formerly contained diesel fuel and one (1) emergency generator were located at the southwest exterior of Building B. The AST appeared to be in fair condition with no visible staining noted. The AST and generator are located on a concrete slab surrounded by asphalt. CMX recommended no investigation of this AOC.
- Underground Storage Tanks (AOC-2A/AOC-2B/AOC-2C) – EDR identified Camden Laboratories, Copewood Street, Camden, New Jersey in the UST database (Facility ID 016718). Two (2) 6,000-gallon heating oil USTs (AOC-2A and AOC-2B) and one (1) 2,000-gallon No. 2 heating oil UST were reportedly removed from the Camden Laboratories site in August 1989. Mr. Martin Manco, a representative of the current property owner, confirmed the closure and removal of three (3) UST's in 1989. These UST's were formerly utilized as fuel for the generators and boilers within the Camden Laboratories building. Mr. Manco stated that the buildings were converted from mixed usage between oil and gas to entirely gas in 1989 when the UST's were removed.

According to an undated report titled "Removal of Three Underground Storage Tanks" prepared by Edward Kurth and Sons, Inc., two (2) 6,000 gallon UST's (AOC-2A/AOC-2B) and one (1) 2,000 gallon UST (AOC-2C) containing No. 2 heating oil were closed and removed at the site in August 1989. The tanks were found to be in good condition when removed. Five (5) post-excitation soil samples were collected from each excavation as follows: four (4) soil samples were collected from the east, north, south and west ends of the UST excavation area; and, one (1) post-excitation soil sample was collected from the bottom of the excavation area. Post-excitation soil samples were laboratory analyzed for TPH. TPH was reported as non-detectable or at concentrations below the current NJDEP Health Based Criterion for Total Organic Contaminants (10,000 mg/kg) and the current 1,000 mg/kg threshold for contingency VO+10 analysis.

Based on our review of the post-excitation soil sample analytical results, no exceedances of current NJDEP soil cleanup were identified. CMX recommended no investigation of this AOC.

- Storage Containers (AOC-3) – Four (4) 55-gallon drums of muriatic acid and five (5) 55-gallon drums of caustic soda were observed within the former freezer room of Building B. Several empty 55-gallon drums, five (5) gallon containers and one (1) gallon paint container were also located within the room. No staining was noted on the concrete beneath the drums. The floors were in good condition, no apparent cracks or migration pathways were noted. Mr.



Manco informed CMX that all of the containers were going to be removed from the property in the near future. CMX recommended no investigation of this AOC; however the containers should be removed and disposed of in accordance with applicable waste regulations.

- Building C Floor Drains (AOC-4) – Building C is the southern most structure of the existing six (6) buildings and is comprised of one (1) ground floor. This building contained equipment for the former cleaning and sterilization of animal cages. All equipment appeared in good condition. The equipment drains to a floor drain system which discharges to the Camden County Municipal Utilities Authority sewer. No staining of the concrete floor was noted. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on a review of information provided by Mr. Manco, with the exception of the Building B boiler room floor drain, all site sanitary, process, Heating Ventilation Air Conditioning and boiler waste streams discharge to a central pit located in Building F and then to the Camden County Municipal Utilities Authority sewer. CMX recommended no investigation of this AOC.
- Septic Systems, Leachfields or Seepage Pits (AOC-5) – According to an Environmental Resolutions Inc. PA report for the site dated September 2007, “available information indicates that a cesspool was once in use at the Site. There is a concern that contaminants may have been discharged to the cesspool. It is recommended that this AOC be investigated in accordance with N.J.A.C. 7:26E-3.9(e)3iii.” Mr. Manco acknowledged that a cesspool associated with the former site structures was located north of the site entrance along Davis Street; however, he could provide no additional details regarding the possible cesspool. CMX recommended investigation of this AOC.
- Building B Drywell (AOC-6) – Building B is located in the central section of the existing structures and was the largest of the six (6) buildings. This building was comprised of two (2) floors. This building contained former offices and animal quarters on the first floor and former laboratories on the second floor. Building B contained two (2) boiler rooms on the first floor. The pipes and equipment located within the boiler rooms appeared in fair condition. Minor staining of the concrete surface was noted throughout the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. According to BCM Eastern, Inc. environmental assessment correspondence dated September 8, 1988, Building B boiler blowdown was formerly directed to a floor drain system which discharged to a dry well. ERI indicated that the drywell utilized for collection of Building B boiler blowdown was removed in their PA report. CMX recommended investigation of this AOC.
- Incinerator (AOC-7) – According to the BCM environmental assessment correspondence, an incinerator was used for the disposal of dead laboratory animals that were used for the study of disease or virus reaction. Incinerator ash was collected in an on-site dumpster and transported off-site for disposal at a sanitary landfill. During the interview, Mr. Manco indicated that the incinerator was removed from the site. CMX did not observe an incinerator during the site reconnaissance. CMX recommended no investigation of this AOC.
- Transformers (AOC-8) – Two (2) electric transformers were observed at the west exterior of the power house (Building D). According to the BCM environmental assessment report, these transformers are of the dry construction type and do not contain oil. In addition, one (1) pole mounted electrical transformer was located along Davis Street. The transformers were in fair condition and no staining or stressed vegetation was observed at the ground surface beneath any of these transformers. CMX recommended no investigation of this AOC.

- Building A Staining (AOC-9A) – Building A is located within the northern most section of the existing building compound and is comprised of a first floor and basement. This building contained former laboratories and offices on both floors. Building A also contained a boiler room and water filtration tanks in the basement. The pipes and equipment located within the boiler room appeared in fair to good condition. Minor staining of the concrete surface was noted on the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on a review of information provided by Mr. Manco, with the exception of the Building B boiler room floor drain, all site sanitary, process, Heating Ventilation Air Conditioning and boiler waste streams discharge to a central pit located in Building F and then to the Camden County Municipal Utilities Authority sewer. CMX recommended no investigation of this AOC.
- Building D Staining (AOC-9B) – Building D is the western most structure and is comprised of one (1) ground floor. Two (2) emergency gas powered generators were observed within Building D. Heavy staining of the concrete surface was noted beneath the generators. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. No floor drains were noted in this building. CMX recommended no investigation of this AOC.
- Building F Staining (AOC-9C) – Building F is the eastern most structure and consists of ground floor and basement. This building contained laboratories, a library, mechanical room, and Quality Assurance room in the basement. The first floor contained administrative offices and an auditorium. Minor staining observed on the concrete floor in the mechanical room. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. CMX recommended no investigation of this AOC.
- Compressor Blowdown (AOC-10) – According to the BCM environmental assessment correspondence, refrigeration compressors at the northeast exterior of Building B “are on open ground and show some slight staining of surrounding soils.” In addition, ERI indicated that stained soils identified at the exterior of Building B were removed in their PA report. CMX did not observe stained soils in this area during the site reconnaissance. CMX recommended no investigation of this AOC.
- Hydraulic Lift System (AOC-11) – A concrete pad that formerly contained an above ground hydraulic lift was observed in the loading dock area at the southern side of Building B. No evidence of a discharge from the hydraulic lift system was noted. Mr. Manco indicated that the hydraulic lift system tank was removed on November 9, 2007. He also stated that the entire lift was encased within concrete. Mr. Manco provided a Casie Protank Environmental Services non-hazardous manifest and a daily labor/equipment time report which documented the hydraulic lift system pump out and tank removal activities. According to the BCM environmental assessment correspondence, at the time of the BCM site reconnaissance the hydraulic lift system tank at the loading dock was “leaking, covered with oil dry.” In addition, based on their PA, ERI concluded that “a hydraulic lift was observed at the loading docks at the Site. The 1988 assessment indicated that the tank was leaking. There is a concern that contaminants may have discharged to soils at the Site.” CMX recommended investigation of this AOC.
- NJ SPILLS Database Listing (NJDEP Case No. 97-2-21-1440-39) (AOC-12) – EDR identified Quality Bio-Tech Inc., 1667 Davis Street, Camden, New Jersey in the New Jersey Spills Database (Facility ID 2230; NJDEP Case No. 97-2-21-1440-39). EDR reports that five (5) gallons of diesel fuel were spilled and contained within the building on February 21, 1997. The status of the spill is reported as “spill from generator from leaking fitting. Cleanup being

done.” No other pertinent information regarding this spill was recorded in the NJ SPILLS database.

A file completion memo dated October 25, 2007 regarding Case No. 97-0221-1440-39 was provided by the Camden County Department of Health. According to the memo, an oil spill was identified in the generator area at Quality Bio-Tech, 1667 Davis Street, Camden, on February 21, 1997. The initial report provided as an attachment to the file completion memo indicated that “asphalt was impacted and some soils must be excavated and post-excavation samples taken. All waste generated must be disposed of at an approved facility. All remedial activities must be conducted in accordance with N.J.A.C. 7:26D&E.” According to the file completion memo, a reinspection was conducted. At the time of the reinspection, “no spillage was evident” and “the area around the generator is surrounded by asphalt and concrete. No impact to soil could be noted. Therefore, the Camden County Health Department considers the matter closed.” CMX recommended investigation of this AOC.

- NJ SPILLS Database Listing (NJDEP Case No. 98-11-20-1919-54) (AOC-13) – EDR identified Quality Bio-Tech Inc., 1667 Davis Street, Camden, New Jersey in the New Jersey Spills Database (Facility ID 35063; NJDEP Case No. 98-11-20-1919-54). EDR reports that liquid nitrogen was spilled in the building and that the building was evacuated on November 28, 1998. At least two (2) people were treated for inhalation. No other pertinent information regarding this spill was recorded in the NJ SPILLS database.

The CCDOH provided a file completion memo dated September 15, 1999 regarding Case No. 98-11-20-1919-54. According to the memo, a nitrogen gas release was reported within the freezer room of Viro Med Biosafety, 1667 Davis Street, Camden, on November 20, 1998. Four (4) employees and a security guard were overcome by the nitrogen gas release and rescued by firefighters. The document also reported that the conditions cited were mitigated to acceptable limits when compared to the NJDEP technical regulations. CMX recommended no investigation of this AOC.

- Regional Ground Water Contamination (AOC-14) – EDR reported that the north adjacent RF Products property disposed degreasing solvents through drains. In order to determine the potential for impact to the site from the PF Products property, CMX reviewed available NJDEP records for RF Products on July 2, 2008. Based on a review of available records, RF Products has been identified as a source of a ground water contamination within the region. Ground water contamination has been identified on the Camden Laboratories property and has been attributed to migration of contaminants originating from RF Products. CMX recommended no additional investigation of this AOC; however, future site improvements will need to consider vapor intrusion mitigation measures.

The locations of AOC's identified following completion of the PA are presented on Figure 3.

## 2.2 Site Investigation

CMX completed a SI of the site on behalf of the Camden Laboratories, L.P. SI activities were conducted between April and June 2008 and included a geophysical survey, soil boring investigation and ground water investigation. SI soil boring/sampling locations and temporary well point locations are presented on Figure 4. The following paragraphs present a summary of SI findings and recommendations by AOC investigated.

### **2.2.1 Septic Systems, Leachfields or Seepage Pits (AOC-5)**

Upon verification of the septic system location during the geophysical survey, CMX advanced one (1) soil boring at the suspected downgradient side of the septic tank and one (1) soil boring at the terminus of the associated pipe. No evidence of contamination (i.e. odors, staining, elevated PID readings) was observed in the soil borings advanced. All priority pollutant compounds and total petroleum hydrocarbons (TPH) were reported as non-detect or at concentrations below their respective most stringent NJDEP Soil Cleanup Criteria (SCC) for soil samples collected from the soil borings. Based on the analytical results, CMX recommends no additional investigation of this AOC; however, if the septic system will not be used as part of future site redevelopment, CMX recommended closure of the septic system in accordance with applicable state and local requirements.

### **2.2.2 Building B Drywell (AOC-6)**

Piping associated with a large sump, floor drain and sanitary sewer line were identified within the Building B south boiler room. Due to the thickness of the building's concrete floor, GPR penetration was limited to approximately one (1) foot below grade. Therefore, piping associated with the floor drain could not be traced and the discharge location of the sump and floor drain system was not identified. As discussed in our PA report, ERI prepared a PA for the site on behalf of Education Advance Corporation. ERI's PA findings were summarized in their PA report dated September 2007. According to the ERI PA report, the drywell utilized for collection of Building B boiler blowdown was removed. Based on all of the above, CMX recommended no additional investigation of this AOC.

### **2.2.3 Hydraulic Lift System (AOC-11)**

CMX advanced three (3) soil borings along the southern perimeter of the concrete pad associated with the hydraulic lift system and one (1) soil boring adjacent to the associated anomaly identified during the geophysical survey. No evidence of contamination (i.e. odors, staining, elevated PID readings) was observed in any of the borings advanced. TPH was reported as non-detect or at concentrations below the NJDEP threshold of 1,000 mg/kg for soil samples collected from the soil borings.

CMX installed one (1) temporary well point to investigate the potential for impact to ground water from the hydraulic lift system (AOC-11). CMX collected one (1) groundwater sample (TWP-1) from this temporary well point. Volatile organic and base neutral compounds were reported as non-detect or at concentrations below their respective most stringent NJDEP Ground Water Quality Standard

(GWQS) for sample TWP-1. Based on the analytical results, CMX recommended no additional investigation of this AOC.

#### **2.2.4 NJ SPILLS Database Listing (NJDEP Case No. 97-2-21-1440-39) (AOC-12)**

CMX advanced two (2) soil borings in the vicinity of the generator located at the exterior of Building B. No evidence of contamination (i.e. odors, staining, elevated PID readings) was observed in either of the borings advanced. Analytical results reported TPH as non-detect or at concentrations below the NJDEP threshold of 1,000 mg/kg for soil samples collected from the soil borings. Based on the analytical results, CMX recommended no additional investigation of this AOC.

#### **2.2.5 Regional Ground Water Contamination (AOC-14)**

CMX installed five (5) temporary well points to investigate the potential for impact to ground water at the site. Since four (4) of the five (5) temporary well points did not yield enough ground water for collection of samples and clay was identified within the soil column of several of the soil borings, CMX suspects that the ground water conditions observed during the soil boring investigation are representative of a perched ground water condition. Analytical results for sample (TWP-1) collected from the temporary well point installed adjacent to the hydraulic lift system (AOC-11) reported all VO+10 and BN+15 compounds as non-detect or at concentrations below their respective most stringent NJDEP GWQS. Based on these results, CMX concluded that shallow/perched ground water at the site has not been impacted.

As discussed in our July 2008 PA report, the NJDEP Site Remediation and Waste Management Program, Division of Remediation Support, Bureau of Environmental Measurement and Site Assessment conducted ground water investigations to evaluate the north adjacent RF Products/Fast Doors, Inc. site as a potential source of contamination identified in the Camden Parkside Wellfield. The NJDEP findings were summarized in an Expanded Site Investigation Report dated September 2007. According to the report, TCE was indentified at concentrations exceeding the NJDEP GWQS in ground water beneath the RF Products/Fast Doors, Inc. site and the Camden Laboratories property. The NJDEP concluded that the RF Products/Fast Doors, Inc. site was the source of the TCE ground water contamination and that the TCE ground water contamination has migrated to the Camden Laboratories property from the RF Products/Fast Doors, Inc. site. Since depth to ground water during NJDEP's ground water investigation was identified between thirty-two (32) to forty-one (41) feet below grade, TCE impact to the deep aquifer has been confirmed.

CMX recommended no additional investigation of this AOC; however, future site improvements will need to consider vapor intrusion mitigation measures.

### **2.2.6 Conductive Area (AOC-15)**

During the geophysical survey conducted on April 8, 2008, CMX identified a large conductive anomaly measuring approximately fifty (50) feet by seventy-five (75) feet within the western grassed portion of the site. CMX initially investigated this AOC on April 9, 2008. CMX advanced two (2) soil borings east and west flank of the conductive area identified during the geophysical survey. Soil samples were collected from each soil boring to characterize an ash-like material identified within the soil column. Copper was reported at a concentration exceeding the NJDEP Residential Direct Contact Soil Cleanup Criteria (RDCSCC)/Non-Residential Direct Contact Soil Cleanup Criteria (NRDCSCC) of 600 mg/kg for sample SB-8 (1,380 mg/kg). Lead was reported at a concentration exceeding the NJDEP RDCSCC of 400 mg/kg and NRDCSCC of 600 mg/kg for sample SB-8 (667 mg/kg). All other priority pollutant compounds and TPH were reported as non-detect or at concentrations below their respective most stringent NJDEP SCC for both soil samples.

Based on the above, CMX performed follow-up investigations of this AOC on June 23, 2008. CMX advanced four (4) soil borings through the conductive area. One (1) sample was collected from each boring to characterize the ash-like material identified within the soil column. One (1) additional sample was collected from each boring in order to establish the vertical limit of the ash-like material. In addition, twelve (12) borings were advanced in an effort to determine the perimeter of the conductive area. One (1) soil sample was collected from each boring where no indications of impact (i.e. the presence of ash-like material) were identified in order to establish the horizontal limit of material. With the exception of one (1) sample (AM-2), copper and lead were reported at concentrations below the NJDEP most stringent SCC for all samples collected. Copper was reported at a concentration exceeding the NJDEP RDCSCC/NRDCSCC of 600 mg/kg for sample AM-2 (1,150 mg/kg). Lead was reported at a concentration exceeding the NJDEP RDCSCC of 400 mg/kg for sample AM-2 (450 mg/kg).

The extent of ash-like material was horizontally delineated to the north by soil borings AM-4 and AM-5; to the east by soil borings AM-3 and AM-12; and to the south by soil borings AM-14 and AM-15. While ash-like material was identified on a portion of the Camden Laboratories property, a substantial area of ash-like material was observed across the south adjacent Whitman Park. The ash-like material was thicker on Whitman Park when compared to the Camden Laboratories



property, and extended to a greater depth. Based on these observations, the ash-like material originates on Whitman Park and extends onto the Camden Laboratories property.

Based on the analytical results for samples collected to investigate the conductive area, copper and lead impacted subsurface soil has been horizontally and vertically delineated by samples collected during the April 9 and June 23, 2008 soil boring investigations. Impacted subsurface soil has been horizontally delineated to the north by on-site subsurface soil samples AM-4 and AM-5; to the east by on-site subsurface soil sample AM-3; to the south by off-site subsurface soil samples AM-7 and AM-8; and to the west by on-site subsurface soil samples AM-6. Furthermore, impacted subsurface soil has been vertically delineated by on-site subsurface soil sample AM-1A and AM-2A.

Analytical results indicated that the area of copper and lead impacted ash is limited to the on-site conductive area initially identified during the geophysical survey. Therefore, the extent of impact is limited to an approximate 3,750 square foot area. The ash-like material was 1.1 feet thick. The copper and lead impacted area is estimated to be 4,125 cubic feet (152.8 cubic yards), or approximately 230 tons in volume.

### **3.0 Remedial Action Workplan**

This RAWP presents the proposed remedial actions to address the copper and lead contaminated ash-like material (AOC-15) identified on the site following completion of the SI. Since the copper and lead contaminated ash-like material is present on property that is proposed for redevelopment as a charter school, a remedy, consistent with the proposed site use, has been selected for this site. Based on the results of investigations performed to date and the proposed use of the site, Camden Laboratories L.P. intends to address the limited area of copper and lead impacted ash on the Camden Laboratories property through excavation and off-site disposal.

### **3.1 Remediation Standards**

Analytes detected at the site at concentrations exceeding NJDEP RDCSCC include copper and lead. The remediation standard selected is the NJDEP RDCSCC.

### **3.2 Permitting and Plans**

#### **3.2.1 Permits**

CMX does not anticipate that any permits will be required to perform the selected remedial action.

#### **3.2.2 Health and Safety Plan**

A site-specific Health and Safety Plan (HASP) has been prepared for the proposed remediation activities. The HASP was prepared in accordance with applicable federal, state and local requirements, including but not limited to, the Occupational Safety and Health Administration Regulations 29 CFR Part 1910 (Occupational Safety and Health Standards) and 29 CFR Part 126 (Safety and Health Regulations for Construction). The HASP outlines the health and safety procedures and equipment required for the work activities to minimize the potential for exposure and/or increased risk to field personnel and the community. The HASP includes site control measures, engineering controls and work practices, air monitoring procedures, decontamination and residuals management procedures, and emergency response information. A copy of the site-specific HASP is provided in Appendix A.

#### **3.2.3 Traffic**

Truck routes will be developed prior to implementation of the remedial action in order to minimize impacts to the surrounding community.

#### **3.2.4 Dust Control**

Dust control measures will be employed as necessary during excavation activities through soil wetting or other approved technique. Dust control measures will include procedures to prevent

spreading of potentially contaminated soils by excavation and transport equipment. Specific procedures will be established in concert with the remediation contractor.

### **3.2.5 Site Security Plan**

The remediation contractor will be responsible for making sure that the work areas are secured during non-working hours.

### **3.3 Mobilization**

Construction equipment will be mobilized to the site and staged in a designated equipment staging area during the project. The following control measures will be implemented, as necessary:

- A temporary equipment decontamination/staging area will be established to facilitate collection of soil and mud from equipment;
- Trucks and equipment will be restricted to designated travel routes and staging locations; and
- Water spray will be available onsite and used as necessary to suppress unacceptable dust encountered during remediation.

### **3.4 Soil Excavation**

Based on the results of the site investigation, the impacted area is estimated to measure 50' in length, 75' in width and 1.1' in thickness and is approximately 152.8 cubic yards in volume. The anticipated excavation area location is presented on Figure 4. Due to the fact that field screening with a calibrated PID did not reveal measurable differences between the contaminant and the surrounding matrix, field observation of gross contamination (horizontal extent of the conductive anomaly and vertical limits of ash-like material) will be the deciding factor used to determine the final limits of the excavation. Impacted soil will be excavated using a backhoe to mitigate the soil source.

Soil from this impacted zone will stockpiled on-site over and covered with plastic. A waste classification sample will be collected from the stockpiled materials and an appropriate disposal facility will be chosen based upon the waste classification analytical results. Surficial overburden soil which was determined not to contain impacted ash-like material will be stockpiled on-site for later reuse as backfill and augmented with certified clean soil from an off-site source as necessary.

### 3.5 Post-Excavation Soil Sampling

Post-excavation soil samples will be collected in accordance with the frequency outlined in N.J.A.C. 7:26E-6.4(a)2.ii.(2) which states “one sample from the bottom of each sidewall for every 30 linear feet of sidewall and one sample from the excavation bottom for every 900 square feet of bottom area.” Post-excavation soil samples will be forwarded to a New Jersey certified laboratory for copper and lead analysis. Based on the anticipated extent of soil to be excavated, CMX proposes a minimum of ten (10) sidewall and five (5) bottom samples be collected from the approximate 3,750 square foot area of impact. The following table provides a summary of proposed post-remediation samples.

<b>ID</b>	<b>Location</b>	<b>Parameter</b>
PE-1	Excavation Sidewall	Copper, Lead
PE-2	Excavation Sidewall	Copper, Lead
PE-3	Excavation Sidewall	Copper, Lead
PE-4	Excavation Sidewall	Copper, Lead
PE-5	Excavation Sidewall	Copper, Lead
PE-6	Excavation Sidewall	Copper, Lead
PE-7	Excavation Sidewall	Copper, Lead
PE-8	Excavation Sidewall	Copper, Lead
PE-9	Excavation Sidewall	Copper, Lead
PE-10	Excavation Sidewall	Copper, Lead
PE-11	Excavation Bottom	Copper, Lead
PE-12	Excavation Bottom	Copper, Lead
PE-13	Excavation Bottom	Copper, Lead
PE-14	Excavation Bottom	Copper, Lead
PE-15	Excavation Bottom	Copper, Lead

### 3.6 Site Restoration

Site restoration will include backfill of the excavation areas with certified clean fill materials. The area will be rough graded and seeded following completion of the remedial action.

### 3.7 Remedial Action Report

A Remedial Action Report (RAR) will be prepared following completion of the remedial action field activities described in this RAWP. The RAR will be prepared in accordance with the NJDEP Technical Requirements for Site Remediation (N.J.A.C. 7:26 E-6.6). The RAR will present the results of the remedial activities and include the following information:

- A summary of the remedial actions completed, including documentation of any field changes or other deviations from the RAWP;
- List of the remediation standards applied;
- Post-excavation soil sampling analytical results;
- Evaluation of post-remediation compliance status;
- Detailed description of site restoration activities;

- Documentation of the source, quality and the amount of backfill material;
- Bills of lading for backfill material;
- Certificates of recycling/disposal for waste material that is transported offsite; and
- A summary of actual remediation costs.

### **3.8 Estimated Remediation Remedial Action Costs**

Proposed remedial activities associated with this phase of the project include the following major components:

- Mobilization and Site preparations including utility mark-outs, and installation of temporary fencing if necessary;
- Soil excavation, offsite transportation and recycling and/or disposal of contaminated soils;
- Post-excavation soil sampling;
- Excavation backfilling;
- Site restoration including placement of clean fill material;
- Demobilization; and
- Remedial Action reporting.

The total cost for the proposed Remedial Action is estimated to be \$50,000.00. This estimated cost was prepared utilizing typical contractor costs for similar projects. Actual costs will vary based upon characterization of the soils generated requiring off-site disposal/recycling and contractor selected to complete the work.

### **3.9 Implementation/Schedule**

The anticipated duration of the remediation phase is approximately three (3) months. This includes initial soil excavation activities and appropriate reporting. CMX anticipates that the soil excavation, off-site recycling/disposal, excavation area backfill and site restoration will require five (5) field days to complete. Upon receipt of laboratory analytical results, CMX will prepare a RAR for submittal to NJDEP.

# Figures



**Appendix A**  
**Health and Safety Plan**



070235804

**SITE INVESTIGATION REPORT**  
**FOR**

**Camden Laboratories**  
1667 Davis Street  
City of Camden  
Camden County, New Jersey  
NJDEP Case No. 08-07-01-1547-19

Prepared for:

**Camden Laboratories LP**  
PO Box 2614  
West Chester, PA 19380

Prepared by:

**CMX**  
1101 Laurel Oak Road  
Suite 160  
Voorhees, New Jersey 08043-7346

August 2008

**WORKING TOGETHER FOR A BETTER TOMORROW**

1101 LAUREL OAK ROAD | PO Box 1346 | VOORHEES, NJ 08043-7346  
TEL 856.783.1900 | FAX 856.783.2100 | WWW.CMXENGINEERING.COM

ARIZONA FLORIDA MARYLAND NEVADA NEW JERSEY NEW YORK PENNSYLVANIA MEXICO

CERTIFICATION

N.J.A.C. 7:26-1.2 et. seq.

Any person making a submission to the Department required by this chapter and pursuant to N.J.A.C. 7:26E, will include the following signature and notarized certification, for each technical submittal. Additionally, the certification will indicate the case name and address, case number, type of documents submitted, e.g. Remedial Action Report, for each technical submittal.

TYPE OF DOCUMENT: SITE INVESTIGATION REPORT  
CASE NAME: CAMDEN LABORATORIES  
CASE ADDRESS: 1667 Davis Street, Block 1392, Lot 33, City of Camden, Camden County, New Jersey  
CASE NUMBER: 08-07-01-1547-19

The following certification will be signed by:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For a partnership or sole proprietorship, by a general partner of the proprietor, respectively, or;
3. For a municipality, State, Federal or other public agency, by either a principal executive officer or ranking elected official.
4. For persons other than 1 through 3 above, by the person with legal responsibility for the Site.

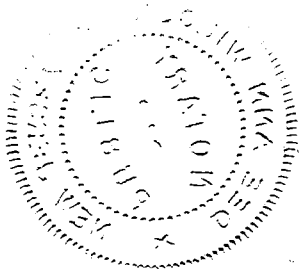
"I certify, under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate, or incomplete information, and that I am committing a crime of the fourth degree if I make a written false statement that I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

PRINTED NAME: MARTIN P. MANCO TITLE GENERAL PARTNER

SIGNATURE [Signature] DATE 8/11/2008

NOTARY SIGNATURE [Signature] DATE August 11, 2008

DEE ANN WILCOX  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires Dec. 18, 2008



ՀԱՅԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ  
ԱՆՈՒՅՑԱԿԱՆ ԿՐԹԱԿՈՒՆԵՐՈՒԹՅԱՆ  
ՄԻՆԻՍՏԵՐԱՆ

ՀԱՅԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ  
ԱՆՈՒՅՑԱԿԱՆ ԿՐԹԱԿՈՒՆԵՐՈՒԹՅԱՆ  
ՄԻՆԻՍՏԵՐԱՆ

ՀԱՅԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ  
ԱՆՈՒՅՑԱԿԱՆ ԿՐԹԱԿՈՒՆԵՐՈՒԹՅԱՆ  
ՄԻՆԻՍՏԵՐԱՆ

## TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
2.0	HISTORICAL INFORMATION.....	2
2.1	SITE DESCRIPTION .....	2
2.2	SITE HISTORY.....	2
2.3	CURRENT USE.....	2
2.4	JULY 2008 PRELIMINARY ASSESSMENT SUMMARY .....	3
3.0	PHYSICAL SETTING.....	7
3.1	TOPOGRAPHY.....	7
3.2	GEOLOGY .....	7
3.3	SOILS.....	7
3.4	HYDROGEOLOGY .....	7
4.0	TECHNICAL OVERVIEW .....	8
4.1	APRIL 8, 2008 GEOPHYSICAL SURVEY .....	8
4.2	APRIL 9, 2008 SOIL BORING INVESTIGATION SOIL BORING INVESTIGATION .....	9
4.3	APRIL 9 AND 11 2008 GROUNDWATER INVESTIGATION .....	12
4.4	JUNE 23, 2008 SOIL BORING INVESTIGATION.....	13
4.5	RELIABILITY OF DATA .....	14
5.0	BASELINE ECOLOGICAL EVALUATION.....	15
5.1	CONTAMINANTS OF POTENTIAL ECOLOGICAL CONCERN .....	15
5.2	ENVIRONMENTALLY SENSITIVE AREAS .....	16
5.3	POTENTIAL CONTAMINANT MIGRATION PATHWAYS .....	16
5.4	BEE RESULTS AND CONCLUSIONS .....	16
5.5	WELL SEARCH .....	17
6.0	FINDINGS/RECOMMENDATIONS .....	18
6.1	SEPTIC SYSTEMS, LEACHFIELDS OR SEEPAGE PITS (AOC-5).....	18
6.2	BUILDING B DRYWELL (AOC-6).....	18
6.3	HYDRAULIC LIFT SYSTEM (AOC-11).....	18
6.4	NJ SPILLS DATABASE LISTING (NJDEP CASE NO. 97-2-21-1440-39) (AOC-13).....	19
6.5	SITES LOCATED WITHIN ASTM SEARCH DISTANCES (AOC-19) .....	19
6.6	CONDUCTIVE AREA (AOC-20).....	20

## LIST OF FIGURES

- Figure 1 – Site Location Map – USGS 7.5 Minute Topographic Map – Camden Quadrangle
- Figure 2 – Site Location Map – City of Camden Tax Map
- Figure 3 – Area of Concern Location Map
- Figure 4 – Site Investigation Sample Location Map

## LIST OF TABLES

- Table 1 – Summary of Analytical Methods and Quality Assurance Indicators
- Table 2 – Soil Boring Investigation Analytical Results (AOC-5) – April 9, 2008
- Table 3 – Soil Boring Investigation Analytical Results (AOC-11) – April 9, 2008
- Table 4 – Soil Boring Investigation Analytical Results (AOC-13) – April 9, 2008
- Table 5 – Soil Boring Investigation Analytical Results (AOC-20) – April 9, 2008
- Table 6 – Ground Water Investigation Analytical Results (AOC-11) – April 11, 2008
- Table 7 – Soil Boring Investigation Analytical Results (AOC-20) – April 11, 2008

## APPENDICES

- Appendix A – Geophysical Investigation Report
- Appendix B – Soil Boring Logs
- Appendix C – Laboratory Analytical Results and Electronic Data Deliverables
- Appendix D – BEE Comparison Tables

## 1.0 Introduction

CMX has performed a Site Investigation (SI) at Camden Laboratories, designated as Block 1392, Lot 33 in the City of Camden, Camden County, New Jersey (herein referred to as the “site”) on behalf of Camden Laboratories, L.P. This SI Report SIR presents a summary of the SI activities completed at the site to date.

This SIR is divided into six (6) sections including this introduction (Section 1), historical information (Section 2), physical setting (Section 3), technical overview (Section 4), baseline ecological evaluation (Section 5) and findings and recommendations (Section 6). The historical information section details information relating to site use and history of ownership for the site. The physical setting section details physical characteristics of the site. The technical overview section documents SI activities completed to date. The Baseline Ecological Evaluation (BEE) section includes an evaluation of the SI data to identify site-specific contaminants that are of ecological concern. The conclusion section provides CMX’s conclusions and recommendations based on the findings of the SI to date. This report has been prepared in accordance with the guidelines and recommendations presented in the New Jersey Technical Requirements for Site Remediation (N.J.A.C. 7:26E).



## 2.0 Historical Information

### 2.1 Site Description

The site is located at 1667 Davis Street in the City of Camden, Camden County, New Jersey. The property is designated Lot 33 of Block 1392 by the City of Camden for tax purposes. The subject site is bound to the north by residential and commercial uses. The site is bound to the south by Whitman Park, to the east by commercial uses, and the west by residential development. Commercial uses to the east and north of the site include RF Products and the Dr. Charles E. Brimm Medical Arts building. Figure 1 displays the approximate location of the property on a portion of the USGS 7.5 Minute Camden Quadrangle. Figure 2 displays the boundaries of the property on the City of Camden Tax Map.

### 2.2 Site History

The site consists of one (1) contiguous parcel that is 3.9 acres in size. Based on a review of available historical sources, the site was developed for use as a hospital for municipal diseases, which was located in the northern portion of the site. Construction for the hospital occurred as early as 1923. The site was redeveloped for use for biological, genetic and cancer research. Construction of the current site building compound (Buildings A through F) took place in phases from the 1950's to the 1980's.

### 2.3 Current Use

The site is currently occupied by an approximately 50,000 square foot building compound which is currently vacant. Construction of the building compound took place in phases from the 1950's to the 1980's. The Camden Laboratories compound is divided into the following six (6) buildings:

Building	Location	Former Uses	#of Floors
A	Northern Section	Office/Laboratory	1 Story & Basement
B	Central Section	Office/Laboratory/Animal quarters/Freezer room	2 Story
C	Southwestern Section	Cleaning and sterilization of animal cages	1 Story
D	Northwestern Section	Main Generator/Storage	1 Story
E	Central Section	Water Deionizer/Freezer storage	1 Story & Basement
F	Eastern Section	Administration/Laboratory/Library/Auditorium/Quality Assurance	1 Story & Basement

An asphalt paved road provides access to the site from Davis Street. Asphalt parking lots surround the site buildings to the north, south, and west. Remaining portions of the site, predominantly the western portion consists of an open grasses lawn.

#### 2.4 August 2008 Preliminary Assessment Summary

CMX completed a Preliminary Assessment (PA) of the site on behalf of Camden Laboratories. L.P. CMX's findings were summarized in a PA Report dated August 2008. CMX identified the following areas of concern (AOCs) in connection with the subject site following completion of the PA.

- Above Ground Storage Tanks (AOC-1) – One (1) 275-gallon AST which formerly contained diesel fuel and one (1) emergency generator were located at the southwest exterior of Building B. The AST appeared to be in fair condition with no visible staining noted. The AST and generator are located on a concrete slab surrounded by asphalt. CMX recommended no investigation of this AOC.
- Underground Storage Tanks (AOC-2A/AOC-2B/AOC-2C) – EDR identified Camden Laboratories, Copewood Street, Camden, New Jersey in the UST database (Facility ID 016718). Two (2) 6,000-gallon heating oil USTs (AOC-2A and AOC-2B) and one (1) 2,000-gallon No. 2 heating oil UST were reportedly removed from the Camden Laboratories site in August 1989. Mr. Martin Manco, a representative of the current property owner, confirmed the closure and removal of three (3) UST's in 1989. These UST's were formerly utilized as fuel for the generators and boilers within the Camden Laboratories building. Mr. Manco stated that the buildings were converted from mixed usage between oil and gas to entirely gas in 1989 when the UST's were removed.

According to an undated report titled "Removal of Three Underground Storage Tanks" prepared by Edward Kurth and Sons, Inc., two (2) 6,000 gallon UST's (AOC-2A/AOC-2B) and one (1) 2,000 gallon UST (AOC-2C) containing No. 2 heating oil were closed and removed at the site in August 1989. The tanks were found to be in good condition when removed. Five (5) post-excitation soil samples were collected from each excavation as follows: four (4) soil samples were collected from the east, north, south and west ends of the UST excavation area; and, one (1) post-excitation soil sample was collected from the bottom of the excavation area. Post-excitation soil samples were laboratory analyzed for TPH. TPH was reported as non-detectable or at concentrations below the current NJDEP Health Based Criterion for Total Organic Contaminants (10,000 mg/kg) and the current 1,000 mg/kg threshold for contingency VO+10 analysis.

Based on our review of the post-excitation soil sample analytical results, no exceedances of current NJDEP soil cleanup were identified. CMX recommended no investigation of this AOC.

- Storage Containers (AOC-3) – Four (4) 55-gallon drums of muriatic acid and five (5) 55-gallon drums of caustic soda were observed within the former freezer room of Building B. Several empty 55-gallon drums, five (5) gallon containers and one (1) gallon paint container were also located within the room. No staining was noted on the concrete beneath the drums. The floors were in good condition, no apparent cracks or migration pathways were noted. Mr. Manco informed CMX that all of the containers were going to be removed from the property

in the near future. CMX recommended no investigation of this AOC; however the containers should be removed and disposed of in accordance with applicable waste regulations.

- Building C Floor Drains (AOC-4) – Building C is the southern most structure of the existing six (6) buildings and is comprised of one (1) ground floor. This building contained equipment for the former cleaning and sterilization of animal cages. All equipment appeared in good condition. The equipment drains to a floor drain system which discharges to the Camden County Municipal Utilities Authority sewer. No staining of the concrete floor was noted. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on a review of information provided by Mr. Manco, with the exception of the Building B boiler room floor drain, all site sanitary, process, Heating Ventilation Air Conditioning and boiler waste streams discharge to a central pit located in Building F and then to the Camden County Municipal Utilities Authority sewer. CMX recommended no investigation of this AOC.
- Septic Systems, Leachfields or Seepage Pits (AOC-5) – According to an Environmental Resolutions Inc. PA report for the site dated September 2007, “available information indicates that a cesspool was once in use at the Site. There is a concern that contaminants may have been discharged to the cesspool. It is recommended that this AOC be investigated in accordance with N.J.A.C. 7:26E-3.9(e)3iii.” Mr. Manco acknowledged that a cesspool associated with the former site structures was located north of the site entrance along Davis Street; however, he could provide no additional details regarding the possible cesspool. CMX recommended investigation of this AOC.
- Building B Drywell (AOC-6) – Building B is located in the central section of the existing structures and was the largest of the six (6) buildings. This building was comprised of two (2) floors. This building contained former offices and animal quarters on the first floor and former laboratories on the second floor. Building B contained two (2) boiler rooms on the first floor. The pipes and equipment located within the boiler rooms appeared in fair condition. Minor staining of the concrete surface was noted throughout the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. According to BCM Eastern, Inc. environmental assessment correspondence dated September 8, 1988, Building B boiler blowdown was formerly directed to a floor drain system which discharged to a dry well. ERI indicated that the drywell utilized for collection of Building B boiler blowdown was removed in their PA report. CMX recommended investigation of this AOC.
- Incinerator (AOC-7) – According to the BCM environmental assessment correspondence, an incinerator was used for the disposal of dead laboratory animals that were used for the study of disease or virus reaction. Incinerator ash was collected in an on-site dumpster and transported off-site for disposal at a sanitary landfill. During the interview, Mr. Manco indicated that the incinerator was removed from the site. CMX did not observe an incinerator during the site reconnaissance. CMX recommended no investigation of this AOC.
- Transformers (AOC-8) – Two (2) electric transformers were observed at the west exterior of the power house (Building D). According to the BCM environmental assessment report, these transformers are of the dry construction type and do not contain oil. In addition, one (1) pole mounted electrical transformer was located along Davis Street. The transformers were in fair condition and no staining or stressed vegetation was observed at the ground surface beneath any of these transformers. CMX recommended no investigation of this AOC.

- Building A Staining (AOC-9A) – Building A is located within the northern most section of the existing building compound and is comprised of a first floor and basement. This building contained former laboratories and offices on both floors. Building A also contained a boiler room and water filtration tanks in the basement. The pipes and equipment located within the boiler room appeared in fair to good condition. Minor staining of the concrete surface was noted on the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on a review of information provided by Mr. Manco, with the exception of the Building B boiler room floor drain, all site sanitary, process, Heating Ventilation Air Conditioning and boiler waste streams discharge to a central pit located in Building F and then to the Camden County Municipal Utilities Authority sewer. CMX recommended no investigation of this AOC.
- Building D Staining (AOC-9B) – Building D is the western most structure and is comprised of one (1) ground floor. Two (2) emergency gas powered generators were observed within Building D. Heavy staining of the concrete surface was noted beneath the generators. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. No floor drains were noted in this building. CMX recommended no investigation of this AOC.
- Building F Staining (AOC-9C) – Building F is the eastern most structure and consists of ground floor and basement. This building contained laboratories, a library, mechanical room, and Quality Assurance room in the basement. The first floor contained administrative offices and an auditorium. Minor staining observed on the concrete floor in the mechanical room. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. CMX recommended no investigation of this AOC.
- Compressor Blowdown (AOC-10) – According to the BCM environmental assessment correspondence, refrigeration compressors at the northeast exterior of Building B “are on open ground and show some slight staining of surrounding soils.” In addition, ERI indicated that stained soils identified at the exterior of Building B were removed in their PA report. CMX did not observe stained soils in this area during the site reconnaissance. CMX recommended no investigation of this AOC.
- Hydraulic Lift System (AOC-11) – A concrete pad that formerly contained an above ground hydraulic lift was observed in the loading dock area at the southern side of Building B. No evidence of a discharge from the hydraulic lift system was noted. Mr. Manco indicated that the hydraulic lift system tank was removed on November 9, 2007. He also stated that the entire lift was encased within concrete. Mr. Manco provided a Casie Protank Environmental Services non-hazardous manifest and a daily labor/equipment time report which documented the hydraulic lift system pump out and tank removal activities. According to the BCM environmental assessment correspondence, at the time of the BCM site reconnaissance the hydraulic lift system tank at the loading dock was “leaking, covered with oil dry.” In addition, based on their PA, ERI concluded that “a hydraulic lift was observed at the loading docks at the Site. The 1988 assessment indicated that the tank was leaking. There is a concern that contaminants may have discharged to soils at the Site.” CMX recommended investigation of this AOC.
- NJ SPILLS Database Listing (NJDEP Case No. 97-2-21-1440-39) (AOC-12) – EDR identified Quality Bio-Tech Inc., 1667 Davis Street, Camden, New Jersey in the New Jersey Spills Database (Facility ID 2230; NJDEP Case No. 97-2-21-1440-39). EDR reports that five (5) gallons of diesel fuel were spilled and contained within the building on February 21, 1997.

The status of the spill is reported as “spill from generator from leaking fitting. Cleanup being done.” No other pertinent information regarding this spill was recorded in the NJ SPILLS database.

A file completion memo dated October 25, 2007 regarding Case No. 97-0221-1440-39 was provided by the Camden County Department of Health. According to the memo, an oil spill was identified in the generator area at Quality Bio-Tech, 1667 Davis Street, Camden, on February 21, 1997. The initial report provided as an attachment to the file completion memo indicated that “asphalt was impacted and some soils must be excavated and post-excavation samples taken. All waste generated must be disposed of at an approved facility. All remedial activities must be conducted in accordance with N.J.A.C. 7:26D&E.” According to the file completion memo, a reinspection was conducted. At the time of the reinspection, “no spillage was evident” and “the area around the generator is surrounded by asphalt and concrete. No impact to soil could be noted. Therefore, the Camden County Health Department considers the matter closed.” CMX recommended investigation of this AOC.

- NJ SPILLS Database Listing (NJDEP Case No. 98-11-20-1919-54) (AOC-13) – EDR identified Quality Bio-Tech Inc., 1667 Davis Street, Camden, New Jersey in the New Jersey Spills Database (Facility ID 35063; NJDEP Case No. 98-11-20-1919-54). EDR reports that liquid nitrogen was spilled in the building and that the building was evacuated on November 28, 1998. At least two (2) people were treated for inhalation. No other pertinent information regarding this spill was recorded in the NJ SPILLS database.

The CCDOH provided a file completion memo dated September 15, 1999 regarding Case No. 98-11-20-1919-54. According to the memo, a nitrogen gas release was reported within the freezer room of Viro Med Biosafety, 1667 Davis Street, Camden, on November 20, 1998. Four (4) employees and a security guard were overcome by the nitrogen gas release and rescued by firefighters. The document also reported that the conditions cited were mitigated to acceptable limits when compared to the NJDEP technical regulations. CMX recommended no investigation of this AOC.

- Regional Ground Water Contamination (AOC-14) – EDR reported that the north adjacent RF Products property disposed degreasing solvents through drains. In order to determine the potential for impact to the site from the PF Products property, CMX reviewed available NJDEP records for RF Products on July 2, 2008. Based on a review of available records, RF Products has been identified as a source of a ground water contamination within the region. Ground water contamination has been identified on the Camden Laboratories property and has been attributed to migration of contaminants originating from RF Products. CMX recommended no additional investigation of this AOC; however, future site improvements will need to consider vapor intrusion mitigation measures.

The locations of AOC's identified following completion of the PA are presented on Figure 3.

### 3.0 Physical Setting

#### 3.1 Topography

Figure 1 shows the topography of the subject area, along with local drainage patterns. Based on a review of this map, the site slopes from east to west. Elevation of the site ranges from approximately twenty-two (22) to twenty-six (26) feet above mean sea level (ft msl).

#### 3.2 Geology

According to the Bedrock Geological Survey Map of Central & Southern New Jersey prepared by the U.S. Geologic Survey, the site lies within the Magothy Formation (Kmg) of the Coastal Plain Physiographic Province. The Magothy Formation consists of fine to coarse-grained white sand and quartz that weathers yellow-brown to orange-brown. This Formation is interbedded with grey clay or dark grey clay-silt near the top. Muscovite and feldspar are minor constituents. Large wood fragments occur in many clay layers.

#### 3.3 Soils

According to the New Jersey Department of Environmental Protection (NJDEP) i-MapNJ application (<http://www.state.nj.us/dep/gis/depsplash.htm#>), the subject site is underlain by urban land soils. Urban land soils are classified as anthrotransported, or consisting of parent material from miscellaneous sources. Urban land soils are not typically represented in a soil survey as a specific soil series.

#### 3.4 Hydrogeology

Based on a review of historical sources, depth to groundwater ranges between thirty-two (32) to forty-one (41) feet below grade within the subject area. Groundwater flow within the immediate subject area was determined during previous investigation activities conducted by NJDEP at the east adjacent RF Products property in 2007, as documented in our July 2007 PA report. Based on the investigative findings, ground water flow was determined to be in a southeast to south-southeast direction, depending on pumping activities associated with the Puchack Wellfield.

## 4.0 Technical Overview

CMX completed SI activities at the site between April and June 2008. SI activities included a geophysical survey, soil boring investigation and ground water investigation. SI soil boring/sampling locations and temporary well point locations are presented on Figure 4. A tabulated summary of analytical methods and quality assurance indicators is provided in Table 1. The following paragraphs document and summarize CMX's site investigation (SI) activities performed to date.

### 4.1 April 8, 2008 Geophysical Survey

CMX and its subcontractor completed a geophysical survey of the subject site on April 8, 2008. The geophysical survey was completed in an effort to identify the following: the location of the potential septic system (AOC-5); the location of any potential subsurface floor drain systems associated with the Building B dry well (AOC-6) and subsurface anomalies associated with the former hydraulic lift system (AOC-11). An electromagnetic (EM) survey, or ground conductivity survey, was completed using a Geonics EM31 Electro Magnetic (EM) induction unit by a qualified operator. A Fisher TW-6 Magnetic Locator and a 250Mhz Ground Penetrating Radar (GPR) equipment were also used. The EM survey was performed in a linear pattern on a maximum of ten foot (10') centers. The Magnetic Locator and GPR were used to further investigate areas of concern found with the EM. All EM data was digitally stored, downloaded to an in-field computer, and reviewed to ensure data quality for use in decisions regarding additionally focused surveys. The grid was located in the field with a total data station and Global Positioning System (GPS) coordinates so that anomalous areas could be located and a subsurface anomaly location map could be prepared. Anomalies identified following completion of the geophysical survey are presented on Sheets 1 and 2 of the Geophysical Investigation Report provided in Appendix A. The following paragraphs provide a summary of pertinent geophysical survey findings by AOC investigated.

#### *Septic System (AOC-5)*

An anomaly indicative of an approximate 10,000-gallon subsurface septic tank was located in the eastern portion of the site adjacent to Building F. An associated discharge pipe was identified at a location directly north of the anomaly. The subsurface septic tank and discharge pipe were situated approximately fifteen (15) feet to the east of the building.

#### *Building B Dry Well (AOC-6)*

A geophysical investigation was conducted within the interior of Building B boiler rooms. The geophysical survey revealed piping associated with a large sump, floor drain and sanitary sewer line



within the south boiler room. The floor drain appeared to be clogged, as water and debris was observed within the drain. Due to the thickness of the building's concrete floor, GPR penetration was limited to approximately one (1) foot below grade. Therefore, piping associated with the floor drain could not be traced and the discharge location of the sump and floor drain system was not identified.

#### *Hydraulic Lift System (AOC-11)*

A round anomaly of unidentified origin was identified approximately twenty (20) feet southeast of the hydraulic lift system. The anomaly was located within a small depression in the asphalt and appeared to be connected to the lift system by subsurface piping.

#### *Other Features*

During the geophysical survey, a large conductive area (AOC-15) measuring approximately fifty (50) feet by seventy-five (75) feet was encountered within the western grassed portion of the site. Two (2) pipes were also identified in this area, one (1) of which traversed the site and extended off-site to the east and west.

Two (2) vent pipes were identified along the north exterior of Building B. The vent pipes are consistent with the location of a former 2,000-gallon heating oil UST and a former 6,000-gallon heating oil UST previously removed from the site. Furthermore, a large excavation was identified at the south corner of Building C. This excavation corresponds with the location of a former 6,000-gallon heating oil UST removed from the site. No evidence of USTs was identified in these areas.

Several subsurface utilities were identified at the north exterior of Buildings A and F during the geophysical survey. Subsurface utilities identified were consistent with a stormsewer line, natural gas line and electrical conduit.

#### **4.2 April 9, 2008 Soil Boring Investigation Soil Boring Investigation**

CMX and its subcontractor completed a soil boring investigation at the subject site on April 9, 2008. Soil boring and sampling locations were recorded using Trimble GPS survey equipment and are presented on Figure 4. Soil boring logs are provided in Appendix B. The following paragraphs present a summary of the soil boring investigation activities by AOC investigated.

*Septic Systems, Leachfields or Seepage Pits (AOC-5)*

CMX advanced two (2) soil borings (SB-6 and SB-7) in the vicinity of the septic system. The soil boring locations were determined following completion of the geophysical survey described above. One (1) soil boring was advanced at the suspected downgradient side of the septic tank. An additional soil boring was advanced at the terminus of the discharge pipe. The soil borings were advanced to sixteen (16) feet below grade utilizing direct push equipment. The soil borings were field screened with a photo-ionization detector (PID) for the presence of organic vapor and logged. A soil sample was collected from each soil boring (SB-6 and SB-7 respectively). Since no evidence of contamination (i.e. odors, staining, elevated PID readings) was observed, the soil samples were collected from the six-inch (6") interval at the suspected invert of the septic tank or immediately above the observed groundwater table. Therefore, sample SB-6 was collected from a depth of 5.5 to 6.0' below grade and sample SB-7 was collected from a depth of 13.5 to 14.0' below grade. The soil samples were forwarded to Accutest Laboratories of Dayton, New Jersey (Accutest) for priority pollutant (PP+40) analysis and total petroleum hydrocarbons analysis by NJDEP Method OQA-QAM-025, Rev.6 (TPH-QAM).

All PP+40 and TPH-QAM compounds were reported as non-detect or at concentrations below their respective most stringent NJDEP Soil Cleanup Criteria (SCC) for samples SB-6 and SB-7. A tabulated summary of laboratory analytical results for soil samples collected to investigate AOC-5 is provided in Table 2.

*Hydraulic Lift System (AOC-11)*

CMX advanced three (3) soil borings (SB-3 through SB-5) to investigate the hydraulic lift system. The locations of the soil borings were determined following completion of the geophysical survey described in Section 4.1. Two (2) soil borings were advanced along the southern perimeter of the concrete pad associated with the hydraulic lift system. An additional soil boring was advanced adjacent to the round anomaly of unidentified origin located to the southeast of the hydraulic lift system. Soil borings were advanced to a depth of sixteen (16) feet below grade utilizing direct push equipment. Soil borings were field screened with a PID for the presence of organic vapor and logged. A soil sample was collected from each soil boring (SB-3 through SB-5 respectively). Since no evidence of contamination (i.e. odors, staining, elevated PID readings) was observed, the soil samples were collected from the six-inch (6") interval immediately above the observed groundwater table. Samples SB-3 and SB-5 were collected from a depth of 13.5 to 14.0' below grade. Sample SB-4 was collected from a depth of 14.5-15.0' below grade. Soil samples were forwarded to

Accutest for TPH-QAM analysis. Contingent polynuclear aromatic hydrocarbon (PAH) analysis was to be performed in the event that TPH was reported at a concentration exceeding 100 mg/kg.

TPH-QAM was reported as non-detect or at concentrations below the NJDEP PAH contingency threshold of 100 mg/kg for samples SB-3 through SB-5; therefore, contingent PAH analysis was not performed. A tabulated summary of laboratory analytical results for soil samples collected to investigate AOC-11 is provided in Table 3.

*NJ SPILLS Database Listing (NJDEP Case No. 97-2-21-1440-39) (AOC-12)*

CMX advanced two (2) soil borings (SB-1 and SB-2) at accessible areas in the vicinity of the generator located at the exterior of Building B. The soil borings were advanced to a maximum of sixteen (16) feet below grade utilizing direct push equipment. The soil borings were field screened with a PID for the presence of organic vapor and logged. A soil sample was collected from each soil boring (SB-1 and SB-2 respectively). Since no evidence of contamination (i.e. odors, staining, elevated PID readings) was observed, the soil samples were collected from the six-inch (6") interval immediately above the observed groundwater table (14.5-15.0' below grade). Since the material spilled was reportedly diesel fuel, the soil samples were forwarded to Accutest for total petroleum hydrocarbon-diesel range organics (TPH-DRO) analysis. Contingency volatile organic compound with a forward library search (VO+10) analysis was to be performed in the event that TPH-DRO was reported at a concentration exceeding 1,000 mg/kg.

TPH-DRO was reported as non-detect or at concentrations below the NJDEP VO+10 contingency threshold of 1,000 mg/kg for samples SB-1 and SB-2; therefore, contingent VO+10 analysis was not performed. A tabulated summary of laboratory analytical results for soil samples collected to investigate AOC-13 is provided in Table 4.

*Conductive Area (AOC-15)*

On April 8, 2008, CMX advanced two (2) soil borings (SB-8 and SB-9) at the perimeter of the conductive area identified during the geophysical survey in order to investigate the potential for impact. Soil borings were advanced along the east and west flank of conductive area to a depth of sixteen (16) feet below grade utilizing direct push equipment. The soil borings were field screened with a PID for the presence of organic vapor and logged. Ash-like material was encountered in each of the borings within the upper fourteen (14) inches of the soil column. No indications of impact (i.e. odors, staining, elevated PID readings) were observed and groundwater was not encountered in the

borings. A soil sample was collected from each soil boring to characterize the ash-like material (SB-8 and SB-9 respectively). Sample SB-8 was collected from a depth of 0.5 to 1.0' below grade. Sample SB-9 was collected from a depth of 0.75 to 1.25' below grade. The soil samples were forwarded to Accutest for PP+40 and TPH-QAM analyses.

Copper was reported at a concentration exceeding the NJDEP Residential Direct Contact Soil Cleanup Criteria/Non-Residential Direct Contact Soil Cleanup Criteria (RDCSCC/NRDCSCC) of 600 mg/kg for sample SB-8 (1,380 mg/kg). Lead was reported at a concentration exceeding the NJDEP RDCSCC of 400 mg/kg and NRDCSCC of 600 mg/kg for sample SB-8 (667 mg/kg). All other PP+40 and TPH-QAM compounds were reported as non-detect or at concentrations below their respective most stringent NJDEP SCC for samples SB-8 and SB-9. A tabulated summary of laboratory analytical results for soil samples collected to investigate the AOC-15 is provided in Table 5.

#### **4.3 April 9 and 11, 2008 Groundwater Investigation**

CMX installed five (5) temporary well points on April 9, 2008 in conjunction with the soil boring investigation activities described in Section 4.2. Temporary well points were installed at the following locations: one (1) temporary well point (TWP-1) was installed at soil boring SB-5 advanced adjacent to the hydraulic lift system (AOC-11); one (1) temporary well point (TWP-2) was installed at soil boring SB-6 installed in the vicinity of the septic system (AOC-5); one (1) temporary well point (TWP-3) was installed at soil boring SB-1 advanced within the vicinity of the generator to investigate potential impacts from the reported spill (AOC-12); and, two (2) temporary well points (TWP-4 and TWP-5) were installed at soil borings SB-10 and SB-11 advanced at the east property line to evaluate the potential for migration of contaminants to the site from the east adjacent RF Products property via ground water (AOC-14). Temporary well point locations were recorded using Trimble GPS survey equipment and are presented on Figure 4. Temporary well points were installed in accordance with the August 2005 NJDEP Field Sampling Procedures Manual and the July 1994 NJDEP Alternative Ground Water Sampling Techniques guidance for passively placed narrow diameter points.

CMX returned to the site on April 11, 2008 to collect grab ground water samples from the temporary well points in order to characterize the potential for impacts to ground water at the site. Upon inspection of the temporary well points, only TWP-1 installed adjacent to the round anomaly of unidentified origin the southeast of the hydraulic lift system (AOC-11) yielded enough water to facilitate collection of a groundwater sample. Since the remaining temporary well points did not yield enough ground water for collection of samples and clay was identified within the soil column of

several of the soil borings, CMX suspects that the ground water conditions observed during the soil boring investigation are representative of a perched ground water condition. Based on the above, CMX collected one (1) groundwater sample (TWP-1) from the temporary well point installed at soil boring location SB-5. The groundwater sample was collected as close to the 48<sup>th</sup> hour as practical, prior to removal of the well point. The ground water sample was forwarded to Accutest for VO+10 and base neutral compounds with a forward library search (BN+15) analyses.

All VO+10 and BN+15 compounds were reported as non-detect or at concentrations below their respective most stringent NJDEP Ground Water Quality Standard (GWQS) for sample TWP-1. A tabulated summary of laboratory analytical results for the groundwater sample collected to investigate AOC-11 is provided in Table 6. The laboratory analytical report and electronic data deliverables are provided in Appendix C.

#### **4.4 June 23, 2008 Soil Boring Investigation**

On June 23, 2008, CMX mobilized to the site to perform a soil boring investigation to characterize the conductive ash-like material and determine the horizontal boundary and vertical limits of this material. CMX advanced sixteen (16) soil borings (AM-1 through AM-16) to investigate the conductive area. Soil borings AM-1 through AM-6 were advanced on the site. Since it was determined that the majority of the ash-like material is located on the south adjacent Whitman Park property, soil borings AM-7 through AM-16 were advanced off site. Soil boring and sampling locations were recorded using Trimble GPS survey equipment and are presented on Figure 4.

Ash-like material was encountered in eleven (11) of the sixteen (16) soil borings advanced. The extent of ash-like material was horizontally delineated to the north by soil borings AM-4 and AM-5, to the east by soil borings AM-3 and AM-12, and to the south by soil borings AM-14 and AM-15. The west boundary of the ash-like material was not determined as it extended into the Hallowell Avenue right of way. Based on conditions observed during the soil boring investigation, the majority of the ash-like material is located on the south adjacent Whitman Park property and extends off-site to the west into Hallowell Avenue and onto the site. The known extent of ash-like material is presented on Figure 4.

With the exception of soil borings AM-6 and AM-16, all soil borings were advanced to a depth of four (4) feet bgs. Since soil borings AM-6 and AM-16 were advanced in an area which exhibited a large change in topography, these borings were advanced to a depth of eight (8) feet bgs. Four (4) soil

borings (AM-1, AM-2, AM-7 and AM-8) were advanced through the conductive area. One (1) sample (e.g. AM-1) was collected from each boring in an effort to characterize the ash-like material. One (1) additional sample (e.g. AM-1A) was collected from each boring in order to establish the vertical limit of the ash-like material. Twelve (12) borings (AM-3 through AM-6 and AM-9 through AM-16) were advanced in an effort to establish the perimeter of the conductive area. One (1) soil sample was collected from each boring where no indications of impact (i.e. the presence of ash-like material) were identified in order to establish the horizontal limit of material. Soil samples were forwarded to Accutest for copper and lead analyses.

Copper was reported at a concentration exceeding the NJDEP RDCSCC of 600 mg/kg for sample AM-2 (1,150 mg/kg). Lead was reported at a concentration exceeding the NJDEP RDCSCC of 400 mg/kg for sample AM-2 (450 mg/kg). Copper and lead were reported at concentrations below their respective most stringent NJDEP SCC for all other samples collected. A tabulated summary of laboratory analytical results is provided in Table 7. The laboratory analytical report and electronic data deliverables are provided in Appendix C.

#### **4.5 Reliability of Data**

SI activities included collection of soil and groundwater samples in order to investigate potential contaminants at concentrations above applicable NJDEP remediation standards. Soil and groundwater samples were biased towards locations and depths exhibiting greatest anticipated contamination based on visual and olfactory indicators. Where appropriate, each sample was laboratory analyzed for parameters outlined in Table 2-1 of N.J.A.C. 7:26E. All soil and groundwater samples were collected in accordance with N.J.A.C. 7:26E and the 2005 NJDEP Field Sampling Procedures Manual.

Soil and groundwater samples were analyzed at Accutest. Reliability of laboratory analytical data is indicated by compliance with USEPA and NJDEP sample holding times, the laboratory's ability to achieve method detection limits (MDLs), precision and accuracy with respect to the analytical method used, and/or any other indicators of data quality. Information pertaining to the reliability of laboratory analytical data was obtained from the Reduced Tier II Laboratory Data Deliverable report for each sampling event. Chain of Custody documentation, laboratory Quality Assurance/Quality Control (QA/QC) data, and laboratory non-conformance summaries (which contain details with respect to laboratory contamination) are included in the laboratory analytical data package compiled for each sampling event and have been provided in Appendix C.

## **5.0 Baseline Ecological Evaluation**

A BEE was conducted at the site pursuant to N.J.A.C.7:26E-3.11. This BEE was performed in order to evaluate the potential for adverse ecological effects potentially associated with historic or current operations conducted at the site. The BEE process utilizes three (3) main assessment strategies to make a determination on how sensitive resources proximal to the site could be potentially impacted detrimentally:

- Determination if Contaminants of Potential Ecological Concern (COPEC) exist onsite;
- Determination if an environmentally sensitive natural resource exists on, or immediately adjacent to, the site; and
- Determination if potential contaminant migration pathways to an environmentally sensitive natural resource exist, or an impact to an environmentally sensitive natural resource is indicated based on visual observation.

If a co-occurrence of the three (3) conditions above is identified following completion of the BEE, additional ecological investigation is required pursuant to N.J.A.C. 7:26E-4.7.

### **5.1 Contaminants of Potential Ecological Concern**

The BEE includes an analysis of COPECs. In order to identify COPECs associated with the Site, the results of data gathered from the SI conducted between April and June 2008 was reviewed and compared to appropriate screening criteria. The screening values that were used included: Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Terrestrial Plants (Will and Suter, 1995); Toxicological Benchmarks for Contaminants of Potential Concern for Effects on Soil and Litter Invertebrates and Heterotrophic Process: 1997 Revision (Efroymsen, Will, and Suter, 1997); and National Oceanographic & Atmospheric Administration's Screening Quick Reference Tables or "SQuiRTs" (NOAA, 1999). CMX utilized data from twenty-six (26) samples to determine whether COPECs were present in the soils and ground water for this BEE. Tabulated summaries of SI analytical data with comparisons to BEE screening criteria are provided in Appendix D.

The results of the subsurface investigation have determined that COPECs do exist on-site in soil. COPECs identified in site soils include certain metals. Arsenic, cadmium, chromium, copper, lead, mercury, silver and/or zinc were identified at concentrations exceeding their most stringent screening values for subsurface soil samples SB-6, SB-7, SB-8, SB-9, AM-6, AM-7, AM-8 and AM-16.

The results of the subsurface investigation have determined that no COPECs exist on-site in ground water. All results were reported below their respective BEE screening criteria for ground water samples collected at the site to date.



## **5.2 Environmentally Sensitive Areas**

The site consists of 3.9 acres in size and is developed for use as the Camden Laboratories. Site improvements include an approximate 50,000 square foot building compound which is currently vacant. An asphalt paved road provides access to the site from Davis Street. Asphalt parking lots surround the site buildings to the north, south, and west. Remaining portions of the site, predominantly the western portion, consists of an open grasses lawn. The surrounding area is primarily developed for residential and industrial use. The site is bound to the south by Whitman Park, to the east by commercial uses, and the west by residential development. Commercial uses to the east and north of the site include RF Products and the Dr. Charles E. Brimm Medical Arts building.

Based on a review of topographic maps for the site, as well as a site inspection, no primary sensitive resource areas are located on the site or were identified within proximity of the site boundary.

## **5.3 Potential Contaminant Migration Pathways**

In order for a COPEC to present risk to ecological receptors there must be a complete pathway from the source of the COPEC to an ecological receptor. Based on a review of topographic maps the site slopes from east to west. Elevation of the site ranges from approximately twenty-two (22) and twenty-six (26) feet above mean sea level (ft msl). Surface water drainage is expected to flow across the site to the east towards Hallowell Lane.

Results for subsurface samples collected to investigate the septic system (AOC-5) and the conductive area (AOC-20) identified arsenic, cadmium, chromium, copper, lead, mercury, silver and/or zinc at concentrations exceeding the screening values for subsurface soil samples SB-6, SB-7, SB-8, SB-9, AM-6, AM-7, AM-8 and AM-16. COPECs identified in subsurface soils are effectively segregated from the Cooper River area to the east by Davis Street, Haddon Avenue and portions of Harleigh Cemetery. Horizontal and vertical migration of contaminants is limited since the impacted area is encapsulated by overburden, underlying and peripheral soils which were determined not to be impacted during delineation investigation activities. Furthermore, temporary well point sampling conducted at the site to date has confirmed that ground water has not been impacted by site operations. Therefore, there is no potential for impact via an exposure pathway to an ecological receptor.

## **5.4 BEE Results and Conclusions**

Based on the findings of the BEE, COPECs were identified in the site soils; however, no COPECs have been identified in ground water on the site. No primary sensitive resource areas have been

identified. Horizontal and vertical migration of contaminants is limited by overburden soils and the absence of a shallow groundwater table. Due to the absence of a sensitive resource area, and the lack of a migration pathway, there is no potential for impact via an exposure pathway to an ecological receptor. Therefore, CMX has determined that further ecological investigation is not required pursuant to 7:26E-4.7.

#### **5.5 Well Search**

Based on the results of the April 2008 groundwater sampling event conducted at the site during the SI, no groundwater impacts associated with site operations have been identified to date. Therefore, CMX did not conduct a well search pursuant to N.J.A.C. 7:26E-3.7(e)3i.

## **6.0 Findings/Recommendations**

CMX has performed a Site Investigation (SI) at Camden Laboratories, designated as Block 1392, Lot 33 in the City of Camden, Camden County, on behalf of Camden Laboratories, L.P. SI activities were conducted between April and June 2008 and included a geophysical survey, soil boring investigation and ground water investigation. The following paragraphs present CMX's findings and recommendations based on SI activities completed to date.

### **6.1 Septic Systems, Leachfields or Seepage Pits (AOC-5)**

Upon verification of the septic system location during the geophysical survey, CMX advanced one (1) soil boring at the suspected downgradient side of the septic tank and one (1) soil boring at the terminus of the associated pipe. No evidence of contamination (i.e. odors, staining, elevated PID readings) was observed in the soil borings advanced. All PP+40 and TPH-QAM compounds were reported as non-detect or at concentrations below their respective most stringent NJDEP SCC for soil samples collected from the soil borings. Based on the analytical results, CMX recommends no additional investigation of this AOC; however, if the septic system will not be used as part of future site redevelopment, CMX recommends closure of the septic system in accordance with applicable state and local requirements.

### **6.2 Building B Drywell (AOC-6)**

Piping associated with a large sump, floor drain and sanitary sewer line were identified within the Building B south boiler room. Due to the thickness of the building's concrete floor, GPR penetration was limited to approximately one (1) foot below grade. Therefore, piping associated with the floor drain could not be traced and the discharge location of the sump and floor drain system was not identified. As discussed in our PA report, ERI prepared a PA for the site on behalf of Education Advance Corporation. ERI's PA findings were summarized in their PA report dated September 2007. According to the ERI PA report, the drywell utilized for collection of Building B boiler blowdown was removed. Based on all of the above, CMX recommends no additional investigation of this AOC.

### **6.3 Hydraulic Lift System (AOC-11)**

CMX advanced three (3) soil borings along the southern perimeter of the concrete pad associated with the hydraulic lift system and one (1) soil boring adjacent to the associated anomaly identified during the geophysical survey. No evidence of contamination (i.e. odors, staining, elevated PID readings) was observed in any of the borings advanced. Analytical results reported TPH-QAM as

non-detect or at concentrations below the NJDEP threshold of 1,000 mg/kg for soil samples collected from the soil borings.

CMX installed one (1) temporary well point to investigate the potential for impact to ground water from the hydraulic lift system (AOC-11). CMX collected one (1) groundwater sample (TWP-1) from this temporary well point. All VO+10 and BN+15 compounds were reported as non-detect or at concentrations below their respective most stringent NJDEP GWQS for sample TWP-1. Based on the analytical results, CMX recommends no additional investigation of this AOC.

#### **6.4 NJ SPILLS Database Listing (NJDEP Case No. 97-2-21-1440-39) (AOC-12)**

CMX advanced two (2) soil borings in the vicinity of the generator located at the exterior of Building B. No evidence of contamination (i.e. odors, staining, elevated PID readings) was observed in either of the borings advanced. Analytical results reported TPH-DRO as non-detect or at concentrations below the NJDEP threshold of 1,000 mg/kg for soil samples collected from the soil borings. Based on the analytical results, CMX recommends no additional investigation of this AOC.

#### **6.5 Regional Ground Water Contamination (AOC-14)**

CMX installed five (5) temporary well points to investigate the potential for impact to ground water at the site. Since four (4) of the five (5) temporary well points did not yield enough ground water for collection of samples and clay was identified within the soil column of several of the soil borings, CMX suspects that the ground water conditions observed during the soil boring investigation are representative of a perched ground water condition. Analytical results for sample (TWP-1) collected from the temporary well point installed adjacent to the hydraulic lift system (AOC-11) reported all VO+10 and BN+15 compounds as non-detect or at concentrations below their respective most stringent NJDEP GWQS. Based on these results, CMX concludes that shallow/perched ground water at the site has not been impacted.

As discussed in our July 2008 PA report, the NJDEP Site Remediation and Waste Management Program, Division of Remediation Support, Bureau of Environmental Measurement and Site Assessment conducted ground water investigations to evaluate the north adjacent RF Products/Fast Doors, Inc. site as a potential source of contamination identified in the Camden Parkside Wellfield. The NJDEP findings were summarized in an Expanded Site Investigation Report dated September 2007. According to the report, TCE was identified at concentrations exceeding the NJDEP GWQS in ground water beneath the RF Products/Fast Doors, Inc. site and the Camden Laboratories property.

The NJDEP concluded that the RF Products/Fast Doors, Inc. site was the source of the TCE ground water contamination and that the TCE ground water contamination has migrated to the Camden Laboratories property from the RF Products/Fast Doors, Inc. site. Since depth to ground water during NJDEP's ground water investigation was identified between thirty-two (32) to forty-one (41) feet below grade, TCE impact to the deep aquifer has been confirmed.

CMX recommends no additional investigation of this AOC; however, future site improvements will need to consider vapor intrusion mitigation measures.

#### **6.6 Conductive Area (AOC-15)**

CMX initially investigated this AOC on April 9, 2008. CMX advanced two (2) soil borings east and west flank of the conductive area identified during the geophysical survey. Soil samples were collected from each soil boring to characterize an ash-like material identified within the soil column. Copper was reported at a concentration exceeding the NJDEP RDCSCC/NRDCSCC of 600 mg/kg for sample SB-8 (1,380 mg/kg). Lead was reported at a concentration exceeding the NJDEP RDCSCC of 400 mg/kg and NRDCSCC of 600 mg/kg for sample SB-8 (667 mg/kg). All other PP+40 and TPH-QAM compounds were reported as non-detect or at concentrations below their respective most stringent NJDEP SCC for both soil samples.

Based on the above, CMX performed follow-up investigations of this AOC on June 23, 2008. CMX advanced four (4) soil borings through the conductive area. One (1) sample was collected from each boring to characterize the ash-like material identified within the soil column. One (1) additional sample was collected from each boring in order to establish the vertical limit of the ash-like material. In addition, twelve (12) borings were advanced in an effort to determine the perimeter of the conductive area. One (1) soil sample was collected from each boring where no indications of impact (i.e. the presence of ash-like material) were identified in order to establish the horizontal limit of material. With the exception of one (1) sample (AM-2), copper and lead were reported at concentrations below the NJDEP most stringent SCC for all samples collected. Copper was reported at a concentration exceeding the NJDEP RDCSCC/NRDCSCC of 600 mg/kg for sample AM-2 (1,150 mg/kg). Lead was reported at a concentration exceeding the NJDEP RDCSCC of 400 mg/kg for sample AM-2 (450 mg/kg).

The extent of ash-like material was horizontally delineated to the north by soil borings AM-4 and AM-5; to the east by soil borings AM-3 and AM-12; and to the south by soil borings AM-14 and AM-15.

While ash-like material was identified on a portion of the Camden Laboratories property, a substantial area of ash-like material was observed across the south adjacent Whitman Park. The ash-like material was thicker on Whitman Park when compared to the Camden Laboratories property, and extended to a greater depth. Based on these observations, the ash-like material originates on Whitman Park and extends onto the Camden Laboratories property.

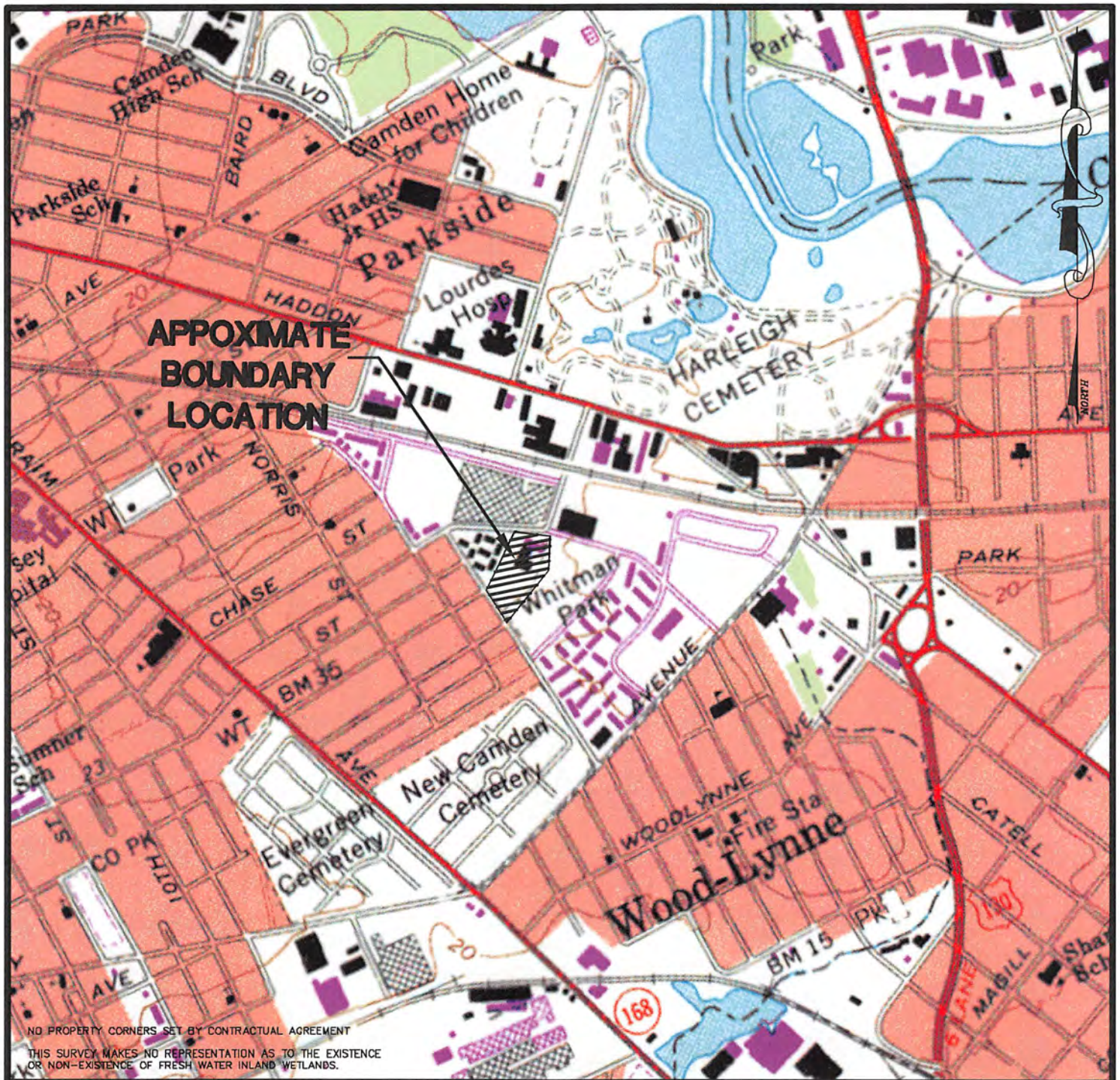
Based on the analytical results for samples collected to investigate the conductive area, copper and lead impacted subsurface soil has been horizontally and vertically delineated by samples collected during the April 9 and June 23, 2008 soil boring investigations. Impacted subsurface soil has been horizontally delineated to the north by on-site subsurface soil samples AM-4 and AM-5; to the east by on-site subsurface soil sample AM-3; to the south by off-site subsurface soil samples AM-7 and AM-8; and to the west by on-site subsurface soil samples AM-6. Furthermore, impacted subsurface soil has been vertically delineated by on-site subsurface soil sample AM-1A and AM-2A.

Analytical results indicated that the area of copper and lead impacted ash is limited to the on-site conductive area initially identified during the geophysical survey. Therefore, the extent of impact is limited to an approximate 3,750 square foot area. The ash-like material was 1.1 feet thick. The copper and lead impacted area is estimated to be 4,125 cubic feet (152.8 cubic yards), or approximately 230 tons in volume.

Camden Laboratories L.P. intends to address the limited area of copper and lead impacted soils on the Camden Laboratories property through excavation and off-site disposal, as this remedy is permanent and will not require a deed notice or long term monitoring if executed appropriately. Therefore, a Remedial Action Workplan (RAWP) proposing the excavation and off-site disposal remediation strategy will be submitted.

# FIGURES





NO PROPERTY CORNERS SET BY CONTRACTUAL AGREEMENT  
 THIS SURVEY MAKES NO REPRESENTATION AS TO THE EXISTENCE  
 OR NON-EXISTENCE OF FRESH WATER INLAND WETLANDS.

**FIGURE 1 - SITE LOCATION**  
**1667 DAVIS STREET**  
 BLOCK 1392, LOT 33  
 CITY OF CAMDEN CAMDEN COUNTY NEW JERSEY

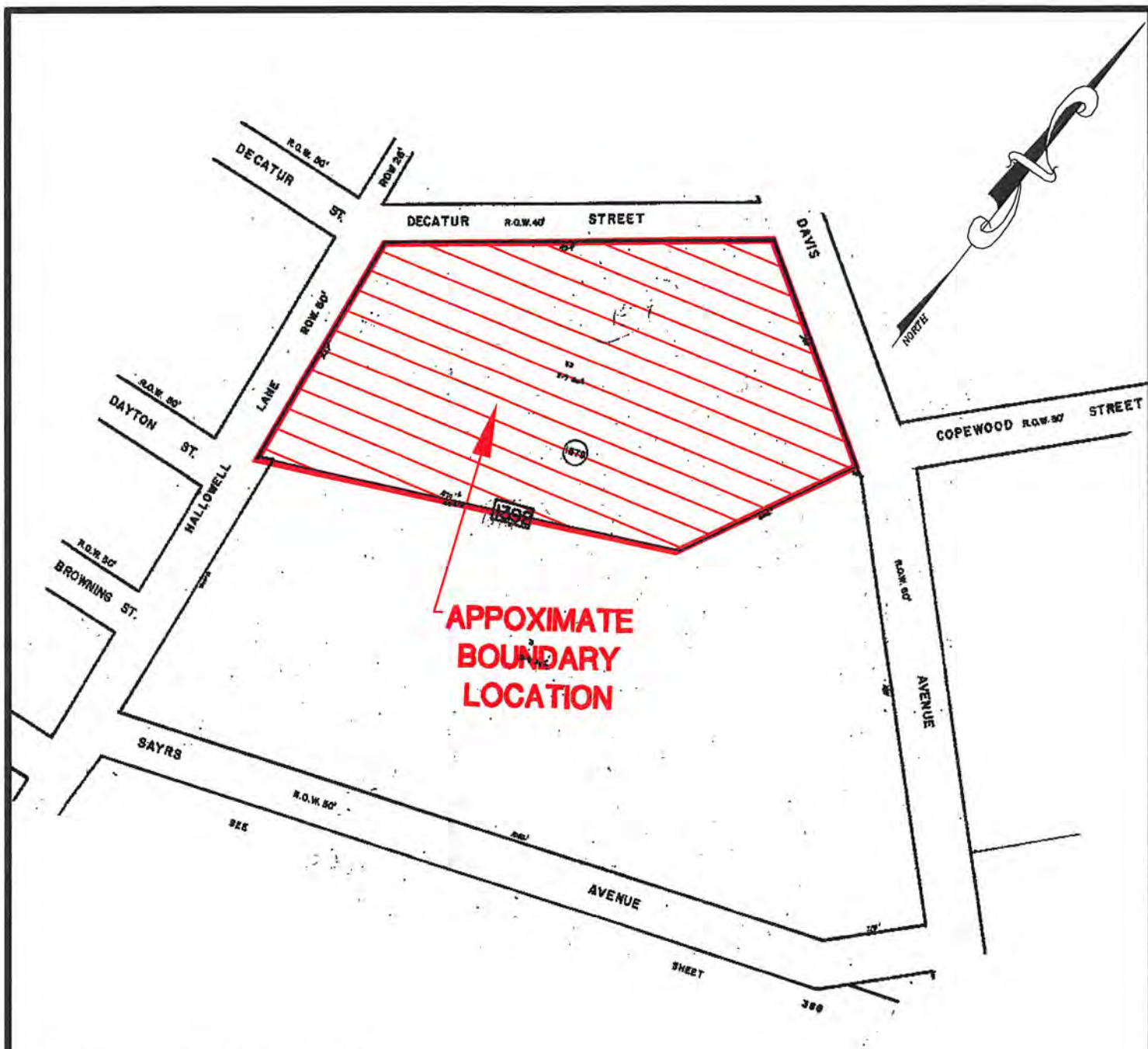
**U.S.G.S. TOPOGRAPHIC MAP**  
 CAMDEN QUADRANGLE

—NOTICE—  
 THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS  
 AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK  
 WAS CONTRACTED OR TO WHOM IT IS CERTIFIED.  
 THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED,  
 DISTRIBUTED OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT  
 THE WRITTEN CONSENT OF CMX.  
 COPYRIGHT 2007 CMX. ALL RIGHTS RESERVED

Cert. Of Authorization 24GA27926200  
 1101 LAUREL OAK ROAD, SUITE 160  
 P.O. BOX 1346 VOORHEES, NJ 08043  
 TEL (856)783-1900 FAX (856)783-2100

DATE	REVISIONS	ORDER NO.	SCALE	DATE	DRAWN BY	DES. BY	FILE NO.	CHECKED BY
			1"=1,000'	12/3/2007	RQ	MP	070235802	MP





NO PROPERTY CORNERS SET BY CONTRACTUAL AGREEMENT  
 THIS SURVEY MAKES NO REPRESENTATION AS TO THE EXISTENCE  
 OR NON-EXISTENCE OF FRESH WATER INLAND WETLANDS.

**FIGURE 2 - SITE LOCATION**  
**1667 DAVIS STREET**  
 BLOCK 1392 LOT 33  
 CITY OF CAMDEN CAMDEN COUNTY NEW JERSEY

**CITY OF CAMDEN TAX MAP**

—NOTICE—  
 THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS  
 AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK  
 WAS CONTRACTED OR TO WHOM IT IS CERTIFIED.

THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED,  
 DISTRIBUTED OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT  
 THE WRITTEN CONSENT OF CMX.

COPYRIGHT 2007 CMX. ALL RIGHTS RESERVED



Cert. Of Authorization 24GA27926200  
 1101 LAUREL OAK ROAD, SUITE 160  
 P.O. BOX 1346 VOORHEES, NJ 08043  
 TEL (856)783-1900 FAX (856)783-2100

DATE	REVISIONS	ORDER NO.	SCALE	DATE	DRAWN BY	DES. BY	FILE NO.	CHECKED BY
			N.T.S.	12/03/2007	RQ	MP	070235802	MP

# TABLES

Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

AOC	Sample ID	Sample Date	Sample Depth	Matrix	Sampling Method	Parameter	Analytical Method	Preservative	Container	Volume	Holding Time
AOC-5	SB-6	4/8/2008	5.5-6.0'	Soil	Direct Push Geoprobe	PP+40, TPH-QAM	8260B, 8270C, 8081A, 6010B, C10-C28	Ice, Encore	Glass	8 oz., Encore	14 Days, 7 days, 28 Days
AOC-5	SB-7	4/8/2008	13.5-14.0'	Soil	Direct Push Geoprobe	PP+40, TPH-QAM	8260B, 8270C, 8081A, 6010B, C10-C28	Ice, Encore	Glass	8 oz., Encore	14 Days, 7 days, 28 Days
AOC-11	SB-3	4/8/2008	13.5-14.0'	Soil	Direct Push Geoprobe	TPH-QAM	C10-C28	Ice	Glass	8 oz.	28 Days
AOC-11	SB-4	4/8/2008	14.5-15.0'	Soil	Direct Push Geoprobe	TPH-QAM	C10-C28	Ice	Glass	8 oz.	28 Days
AOC-11	SB-5	4/8/2008	13.5-14.0'	Soil	Direct Push Geoprobe	TPH-QAM	C10-C28	Ice	Glass	8 oz.	28 Days
AOC-13	SB-1	4/8/2008	14.5-15.0'	Soil	Direct Push Geoprobe	TPH-DRO, VO+10	C10-C28, 8260B	Ice, Encore	Glass	8 oz., 5 g.	28 Days, 14 Days
AOC-13	SB-2	4/8/2008	14.5-15.0'	Soil	Direct Push Geoprobe	TPH-DRO, VO+10	C10-C28, 8260B	Ice, Encore	Glass	8 oz., 5 g.	28 Days, 14 Days
AOC-20	SB-8	4/8/2008	0.5-1.0'	Soil	Direct Push Geoprobe	PP+40, TPH-QAM	8260B, 8270C, 8081A, 6010B, C10-C28	Ice, Encore	Glass	8 oz., Encore	14 Days, 7 days, 28 Days
AOC-20	SB-9	4/8/2008	0.75-1.25'	Soil	Direct Push Geoprobe	PP+40, TPH-QAM	8260B, 8270C, 8081A, 6010B, C10-C28	Ice, Encore	Glass	8 oz., Encore	14 Days, 7 days, 28 Days
AOC-11	TWP-1	4/9/2008	14.5-15.0'	Aqueous	Direct Push Geoprobe	VO+10, BN+15	8260B, 8270C	Ice, HCL	Glass	120 mL., 1 L.	14 Days, 7 Days
AOC-11	Field Blank	4/9/2008	NA	Aqueous	Direct Push Geoprobe	VO+10, BN+15	8260B, 8270C	Ice, HCL	Glass	120 mL., 1 L.	14 Days, 7 Days
AOC-11	Trip Blank	4/9/2008	NA	Aqueous	Direct Push Geoprobe	VO+10	8260B	Ice, HCL	Glass	120 mL.	14 Days
AOC-20	AM-1	6/23/2008	0.85-1.35'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-1A	6/23/2008	1.75-2.25'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-2	6/23/2008	1.0-1.5'	Soil	Direct Push Geoprobe	As, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-2A	6/23/2008	1.75-2.25'	Soil	Direct Push Geoprobe	As, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-3	6/23/2008	0.85-1.35'	Soil	Direct Push Geoprobe	As, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-4	6/23/2008	0.85-1.35'	Soil	Direct Push Geoprobe	As, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-5	6/23/2008	1.0-1.5'	Soil	Direct Push Geoprobe	As, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-6	6/23/2008	5.0-5.5'	Soil	Direct Push Geoprobe	As, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-7	6/23/2008	1.75-2.25'	Soil	Direct Push Geoprobe	As, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-7A	6/23/2008	2.75-3.25'	Soil	Direct Push Geoprobe	As, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-8	6/23/2008	2.25-2.75'	Soil	Direct Push Geoprobe	As, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-8A	6/23/2008	2.75-3.25'	Soil	Direct Push Geoprobe	As, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-12	6/23/2008	0.85-1.35'	Soil	Direct Push Geoprobe	As, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-14	6/23/2008	0.85-1.35'	Soil	Direct Push Geoprobe	As, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-15	6/23/2008	1.75-2.25'	Soil	Direct Push Geoprobe	As, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-20	AM-16	6/23/2008	2.5-3.0'	Soil	Direct Push Geoprobe	As, Pb	6010B	Ice	Glass	4 oz.	6 mos.

Table 2: Tabulated Summary of Soil Sample Analytical Results  
 Septic Systems, Leachfields or Seepage Pits (AOC-5)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-6			SB-7		
	Residential	Non-Residential	Impact to	J87954-6			J87954-7		
Lab ID	Direct Contact	Direct Contact	Groundwater	4/9/2008			4/9/2008		
Sampling Date									
Sample Depth				5.5-6.0'			13.5-14.0'		
Result				Result	Qual	RDL	Result	Qual	RDL
<b>GC/MS Volatiles (ppm)</b>									
Acrolein	NS	NS	NS	ND		3200	ND		2900
Acrylonitrile	1	5	1	ND		3200	ND		2900
Benzene	3	13	1	ND		64	ND		58
Bromodichloromethane	11	46	1	ND		320	ND		290
Bromoform	86	370	1	ND		320	ND		290
Bromomethane	79	1000	1	ND		320	ND		290
Carbon tetrachloride	2	4	1	ND		320	ND		290
Chlorobenzene	37	680	1	ND		320	ND		290
Chloroethane	NS	NS	NS	ND		320	ND		290
2-Chloroethyl vinyl ether	NS	NS	NS	ND		1600	ND		1400
Chloroform	19	28	1	ND		320	ND		290
Chloromethane	520	1000	10	ND		320	ND		290
Dibromochloromethane	110	1000	1	ND		320	ND		290
1,2-Dichlorobenzene	5100	10000	50	ND		320	ND		290
1,3-Dichlorobenzene	5100	10000	100	ND		320	ND		290
1,4-Dichlorobenzene	570	10000	100	ND		320	ND		290
Dichlorodifluoromethane	NS	NS	NS	ND		320	ND		290
1,1-Dichloroethane	570	1000	10	ND		320	ND		290
1,2-Dichloroethane	6	24	1	ND		64	ND		58
1,1-Dichloroethene	8	150	10	ND		320	ND		290
cis-1,2-Dichloroethene	79	1000	1	ND		320	ND		290
trans-1,2-Dichloroethene	1000	1000	50	ND		320	ND		290
1,2-Dichloropropane	10	43	NS	ND		320	ND		290
cis-1,3-Dichloropropene	NS	NS	NS	ND		320	ND		290
trans-1,3-Dichloropropene	NS	NS	NS	ND		320	ND		290
Ethylbenzene	1000	1000	100	ND		64	ND		58
Methylene chloride	49	210	1	ND		320	ND		290
1,1,2,2-Tetrachloroethane	34	70	1	ND		320	ND		290
Tetrachloroethene	4	6	1	ND		320	ND		290
Toluene	1000	1000	500	ND		64	ND		58
1,1,1-Trichloroethane	210	1000	50	ND		320	ND		290
1,1,2-Trichloroethane	22	420	1	ND		320	ND		290
Trichloroethene	23	54	1	ND		320	ND		290
Trichlorofluoromethane	NS	NS	NS	ND		320	ND		290
Vinyl chloride	2	7	10	ND		320	ND		290
Xylene (total)	410	1000	67	ND		130	ND		120
Total TIC, Volatile	NS	NS	NS	0			0		
<b>GC/MS Semi-volatiles (ppm)</b>									
2-Chlorophenol	280	5200	10	ND		200	ND		190
4-Chloro-3-methyl phenol	10000	10000	100	ND		200	ND		190
2,4-Dichlorophenol	170	3100	10	ND		200	ND		190
2,4-Dimethylphenol	1100	10000	10	ND		200	ND		190
2,4-Dinitrophenol	110	2100	10	ND		780	ND		770
4,6-Dinitro-o-cresol	NS	NS	NS	ND		780	ND		770
2-Nitrophenol	NS	NS	NS	ND		200	ND		190
4-Nitrophenol	NS	NS	NS	ND		780	ND		770
Pentachlorophenol	6	24	100	ND		390	ND		390
Phenol	10000	10000	50	ND		78	ND		77
2,4,6-Trichlorophenol	62	270	10	ND		200	ND		190
Acenaphthene	3400	10000	100	ND		78	ND		77
Acenaphthylene	NS	NS	NS	ND		78	ND		77

Table 2: Tabulated Summary of Soil Sample Analytical Results  
 Septic Systems, Leachfields or Seepage Pits (AOC-5)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-6			SB-7		
	Residential	Non-Residential	Impact to	J87954-6			J87954-7		
Lab ID	Direct Contact	Direct Contact	Groundwater	4/9/2008			4/9/2008		
Sampling Date	Direct Contact	Direct Contact	Groundwater	4/9/2008			4/9/2008		
Sample Depth				5.5-6.0'			13.5-14.0'		
Result				Result	Qual	RDL	Result	Qual	RDL
Anthracene	10000	10000	100	ND		78	ND		77
Benzidine	NS	NS	NS	ND		780	ND		770
Benzo(a)anthracene	0.9	4	500	ND		78	ND		77
Benzo(a)pyrene	0.66	0.66	100	ND		78	ND		77
Benzo(b)fluoranthene	0.9	4	50	ND		78	ND		77
Benzo(g,h,i)perylene	NS	NS	NS	ND		78	ND		77
Benzo(k)fluoranthene	0.9	4	500	ND		78	ND		77
4-Bromophenyl phenyl ether	NS	NS	NS	ND		78	ND		77
Butyl benzyl phthalate	1100	10000	100	ND		78	ND		77
2-Chloronaphthalene	NS	NS	NS	ND		78	ND		77
4-Chloroaniline	230	4200	NS	ND		200	ND		190
Chrysene	9	40	500	ND		78	ND		77
bis(2-Chloroethoxy)methane	NS	NS	NS	ND		78	ND		77
bis(2-Chloroethyl)ether	0.66	3	10	ND		78	ND		77
bis(2-Chloroisopropyl)ether	2300	10000	10	ND		78	ND		77
4-Chlorophenyl phenyl ether	NS	NS	NS	ND		78	ND		77
1,2-Dichlorobenzene	5100	10000	50	ND		78	ND		77
1,2-Diphenylhydrazine	NS	NS	NS	ND		78	ND		77
1,3-Dichlorobenzene	5100	10000	100	ND		78	ND		77
1,4-Dichlorobenzene	570	10000	100	ND		78	ND		77
2,4-Dinitrotoluene	NS	NS	NS	ND		78	ND		77
2,6-Dinitrotoluene	NS	NS	NS	ND		78	ND		77
3,3'-Dichlorobenzidine	2	6	100	ND		200	ND		190
Dibenzo(a,h)anthracene	0.66	0.66	100	ND		78	ND		77
Di-n-butyl phthalate	5700	10000	100	ND		78	ND		77
Di-n-octyl phthalate	1100	10000	100	ND		78	ND		77
Diethyl phthalate	10000	10000	50	ND		78	ND		77
Dimethyl phthalate	10000	10000	50	ND		78	ND		77
bis(2-Ethylhexyl)phthalate	49	210	100	ND		78	ND		77
Fluoranthene	2300	10000	100	ND		78	ND		77
Fluorene	2300	10000	100	ND		78	ND		77
Hexachlorobenzene	0.66	2	100	ND		78	ND		77
Hexachlorobutadiene	1	21	100	ND		78	ND		77
Hexachlorocyclopentadiene	400	7300	100	ND		780	ND		770
Hexachloroethane	6	100	100	ND		200	ND		190
Indeno(1,2,3-cd)pyrene	0.9	4	500	ND		78	ND		77
Isophorone	1100	10000	50	ND		78	ND		77
Naphthalene	230	4200	100	ND		78	ND		77
Nitrobenzene	28	520	10	ND		78	ND		77
n-Nitrosodimethylamine	NS	NS	NS	ND		78	ND		77
N-Nitroso-di-n-propylamine	0.66	0.66	10	ND		78	ND		77
N-Nitrosodiphenylamine	140	600	100	ND		200	ND		190
Phenanthrene	NS	NS	NS	ND		78	ND		77
Pyrene	1700	10000	100	ND		78	ND		77
1,2,4-Trichlorobenzene	68	1200	100	ND		78	ND		77
Total TIC, Semi-Volatile	NS	NS	NS	0			0		
<b>Pesticides/PCBs (ppm)</b>									
Aldrin	0.04	0.17	50	ND		1.6	ND		1.5
alpha-BHC	NS	NS	NS	ND		1.6	ND		1.5
beta-BHC	NS	NS	NS	ND		1.6	ND		1.5
delta-BHC	NS	NS	NS	ND		1.6	ND		1.5
gamma-BHC (Lindane)	0.52	2.2	50	ND		1.6	ND		1.5

Table 2: Tabulated Summary of Soil Sample Analytical Results  
 Septic Systems, Leachfields or Seepage Pits (AOC-5)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-6			SB-7		
	Residential	Non-Residential	Impact to	J87954-6			J87954-7		
Sampling Date	Direct Contact	Direct Contact	Groundwater	4/9/2008			4/9/2008		
Sample Depth				5.5-6.0'			13.5-14.0'		
Result				Result	Qual	RDL	Result	Qual	RDL
Chlordane	0.25	2.1	NS	ND		39	ND		39
Dieldrin	0.042	0.18	50	ND		1.6	ND		1.5
4,4'-DDD	3	12	50	ND		1.6	ND		1.5
4,4'-DDE	2	9	50	ND		1.6	ND		1.5
4,4'-DDT	2	9	500	ND		1.6	ND		1.5
Endrin	17	310	50	ND		1.6	ND		1.5
Endosulfan sulfate	NS	NS	NS	ND		1.6	ND		1.5
Endrin aldehyde	NS	NS	NS	ND		1.6	ND		1.5
Endosulfan-I	34	620	NS	ND		1.6	ND		1.5
Endosulfan-II	34	620	NS	ND		1.6	ND		1.5
Heptachlor	0.15	0.65	50	ND		1.6	ND		1.5
Heptachlor epoxide	NS	NS	NS	ND		1.6	ND		1.5
Methoxychlor	280	5200	50	ND		1.6	ND		1.5
Toxaphene	0.1	0.2	50	ND		20	ND		19
Aroclor 1016	0.49	2	50	ND		39	ND		39
Aroclor 1221	0.49	2	50	ND		39	ND		39
Aroclor 1232	0.49	2	50	ND		39	ND		39
Aroclor 1242	0.49	2	50	ND		39	ND		39
Aroclor 1248	0.49	2	50	ND		39	ND		39
Aroclor 1254	0.49	2	50	ND		39	ND		39
Aroclor 1260	0.49	2	50	ND		39	ND		39
Total PHC (mg/kg)	NS	NS	NS	ND		1.6	ND		1.6
<b>Metals Analysis (ppm)</b>									
Antimony	14	340	NS	<2.3		2.3	<2.5		2.5
Arsenic	20	20	NS	9.7		2.3	5.4		2.5
Beryllium	2	2	NS	<0.58		0.58	<0.62		0.62
Cadmium	39	100	NS	<0.58		0.58	<0.62		0.62
Chromium	NS	NS	NS	26.8		1.2	12.2		1.2
Copper	600	600	NS	6.9		2.9	10.6		3.1
Lead	400	600	NS	7.1		2.3	10.4		2.5
Mercury	14	270	NS	<0.039		0.039	<0.036		0.036
Nickel	250	2400	NS	5.7		4.6	<5.0		5
Selenium	63	3100	NS	<2.3		2.3	<2.5		2.5
Silver	110	4100	NS	<1.2		1.2	<1.2		1.2
Thallium	2	2	NS	<1.2		1.2	<1.2		1.2
Zinc	1500	1500	NS	20.9		2.3	8.4		2.5
<b>General Chemistry (ppm)</b>									
Cyanide	1100	21000	NS	<0.31		0.31	<0.31		0.31
Phenols	NS	NS	NS	<2.7		2.7	<2.7		2.7
Solids, Percent (%)	NS	NS	NS	84.0			85.0		
TPH-DRO (C10-C28) (mg/kg)	NS	NS	NS	ND		1.6	ND		1.6

ND=Not detected at the indicated concentration  
 NS=No standard



Table 3: Tabulated Summary of Soil Sample Analytical Results  
 Hydraulic Lift System (AOC-11)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-3			SB-4			SB-5		
Lab ID	Residential	Non-Residential	Impact to	J87954-3			J87954-4			J87954-5		
Sampling Date	Direct Contact	Direct Contact	Groundwater	4/9/2008			4/9/2008			4/9/2008		
Sample Depth				13.5-14.0'			14.5-15.0'			13.5-14.0'		
Result				Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
Total PHC (mg/kg)	NS	NS	NS	ND		1.4	ND		1.5	22.8		1.4
<b>General Chemistry (ppm)</b>												
Solids, Percent (%)	NS	NS	NS	93.4			86.1			93.5		

ND=Not detected at the indicated concentration  
 NS=No standard

Table 4: Tabulated Summary of Soil Sample Analytical Results  
 NJ Spills Database Listing (AOC-13)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-1			SB-2		
	Residential	Non-Residential	Impact to	J87954-1			J87954-2		
Sampling Date	Direct Contact	Direct Contact	Groundwater	4/9/2008			4/9/2008		
Sample Depth				14.5-15.0'			14.5-15.0'		
Result				Result	Qual	RDL	Result	Qual	RDL
TPH-DRO (C10-C28) (mg/kg)	NS	NS	NS	ND		7.4	8.40		7.6
<b>General Chemistry (ppm)</b>									
Solids, Percent (%)	NS	NS	NS	88.7			86.8		

ND=Not detected at the indicated concentration

NS=No standard

Table 5: Tabulated Summary of Soil Sample Analytical Results  
 Conductive Area (AOC-20)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070236804

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-8			SB-9		
	Residential	Non-Residential	Impact to	J87954-8			J87954-9		
Lab ID	Direct Contact	Direct Contact	Groundwater	4/9/2008			4/9/2008		
Sampling Date	Direct Contact	Direct Contact	Groundwater	0.5-1.0'			0.75-1.25'		
Sample Depth				Result	Qual	RDL	Result	Qual	RDL
<b>GC/MS Volatiles (ppm)</b>									
Acrolein	NS	NS	NS	ND		6500	ND		7100
Acrylonitrile	1	5	1	ND		6500	ND		7100
Benzene	3	13	1	ND		130	ND		140
Bromodichloromethane	11	46	1	ND		650	ND		710
Bromoform	86	370	1	ND		650	ND		710
Bromomethane	79	1000	1	ND		650	ND		710
Carbon tetrachloride	2	4	1	ND		650	ND		710
Chlorobenzene	37	680	1	ND		650	ND		710
Chloroethane	NS	NS	NS	ND		650	ND		710
2-Chloroethyl vinyl ether	NS	NS	NS	ND		3300	ND		3600
Chloroform	19	28	1	ND		650	ND		710
Chloromethane	520	1000	10	ND		650	ND		710
Dibromochloromethane	110	1000	1	ND		650	ND		710
1,2-Dichlorobenzene	5100	10000	50	ND		650	ND		710
1,3-Dichlorobenzene	5100	10000	100	ND		650	ND		710
1,4-Dichlorobenzene	570	10000	100	ND		650	ND		710
Dichlorodifluoromethane	NS	NS	NS	ND		650	ND		710
1,1-Dichloroethane	570	1000	10	ND		650	ND		710
1,2-Dichloroethane	6	24	1	ND		130	ND		140
1,1-Dichloroethene	8	150	10	ND		650	ND		710
cis-1,2-Dichloroethene	79	1000	1	ND		650	ND		710
trans-1,2-Dichloroethene	1000	1000	50	ND		650	ND		710
1,2-Dichloropropane	10	43	NS	ND		650	ND		710
cis-1,3-Dichloropropene	NS	NS	NS	ND		650	ND		710
trans-1,3-Dichloropropene	NS	NS	NS	ND		650	ND		710
Ethylbenzene	1000	1000	100	ND		130	ND		140
Methylene chloride	49	210	1	ND		650	ND		710
1,1,2,2-Tetrachloroethane	34	70	1	ND		650	ND		710
Tetrachloroethene	4	6	1	ND		650	ND		710
Toluene	1000	1000	500	ND		130	ND		140
1,1,1-Trichloroethane	210	1000	50	ND		650	ND		710
1,1,2-Trichloroethane	22	420	1	ND		650	ND		710
Trichloroethene	23	54	1	ND		650	ND		710
Trichlorofluoromethane	NS	NS	NS	ND		650	ND		710
Vinyl chloride	2	7	10	ND		650	ND		710
Xylene (total)	410	1000	67	ND		260	ND		290
Total TIC, Volatile	NS	NS	NS	0			0		
<b>GC/MS Semi-volatiles (ppm)</b>									
2-Chlorophenol	280	5200	10	ND		1200	ND		1300
4-Chloro-3-methyl phenol	10000	10000	100	ND		1200	ND		1300
2,4-Dichlorophenol	170	3100	10	ND		1200	ND		1300
2,4-Dimethylphenol	1100	10000	10	ND		1200	ND		1300
2,4-Dinitrophenol	110	2100	10	ND		5000	ND		5100
4,6-Dinitro-o-cresol	NS	NS	NS	ND		5000	ND		5100
2-Nitrophenol	NS	NS	NS	ND		1200	ND		1300
4-Nitrophenol	NS	NS	NS	ND		5000	ND		5100
Pentachlorophenol	6	24	100	ND		2500	ND		2600
Phenol	10000	10000	50	ND		500	ND		510
2,4,6-Trichlorophenol	62	270	10	ND		1200	ND		1300
Acenaphthene	3400	10000	100	ND		500	ND		510
Acenaphthylene	NS	NS	NS	ND		500	ND		510

Table 5: Tabulated Summary of Soil Sample Analytical Results  
 Conductive Area (AOC-20)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070236804

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-8			SB-9		
	Residential	Non-Residential	Impact to	J87954-8			J87954-9		
Lab ID	Direct Contact	Direct Contact	Groundwater	4/9/2008			4/9/2008		
Sampling Date	Direct Contact	Direct Contact	Groundwater	0.5-1.0'			0.75-1.25'		
Sample Depth				Result	Qual	RDL	Result	Qual	RDL
Anthracene	10000	10000	100	ND		500	ND		510
Benzidine	NS	NS	NS	ND		5000	ND		5100
Benzo(a)anthracene	0.9	4	500	ND		500	108	J	510
Benzo(a)pyrene	0.66	0.66	100	ND		500	ND		510
Benzo(b)fluoranthene	0.9	4	50	109	J	500	ND		510
Benzo(g,h,i)perylene	NS	NS	NS	ND		500	ND		510
Benzo(k)fluoranthene	0.9	4	500	ND		500	ND		510
4-Bromophenyl phenyl ether	NS	NS	NS	ND		500	ND		510
Butyl benzyl phthalate	1100	10000	100	ND		500	ND		510
2-Chloronaphthalene	NS	NS	NS	ND		500	ND		510
4-Chloroaniline	230	4200	NS	ND		1200	ND		1300
Chrysene	9	40	500	ND		500	105	J	510
bis(2-Chloroethoxy)methane	NS	NS	NS	ND		500	ND		510
bis(2-Chloroethyl)ether	0.66	3	10	ND		500	ND		510
bis(2-Chloroisopropyl)ether	2300	10000	10	ND		500	ND		510
4-Chlorophenyl phenyl ether	NS	NS	NS	ND		500	ND		510
1,2-Dichlorobenzene	5100	10000	50	ND		500	ND		510
1,2-Diphenylhydrazine	NS	NS	NS	ND		500	ND		510
1,3-Dichlorobenzene	5100	10000	100	ND		500	ND		510
1,4-Dichlorobenzene	570	10000	100	ND		500	ND		510
2,4-Dinitrotoluene	NS	NS	NS	ND		500	ND		510
2,6-Dinitrotoluene	NS	NS	NS	ND		500	ND		510
3,3'-Dichlorobenzidine	2	6	100	ND		1200	ND		1300
Dibenzo(a,h)anthracene	0.66	0.66	100	ND		500	ND		510
Di-n-butyl phthalate	5700	10000	100	ND		500	ND		510
Di-n-octyl phthalate	1100	10000	100	ND		500	ND		510
Diethyl phthalate	10000	10000	50	ND		500	ND		510
Dimethyl phthalate	10000	10000	50	ND		500	ND		510
bis(2-Ethylhexyl)phthalate	49	210	100	ND		500	ND		510
Fluoranthene	2300	10000	100	120	J	500	201	J	510
Fluorene	2300	10000	100	ND		500	ND		510
Hexachlorobenzene	0.66	2	100	ND		500	ND		510
Hexachlorobutadiene	1	21	100	ND		500	ND		510
Hexachlorocyclopentadiene	400	7300	100	ND		5000	ND		5100
Hexachloroethane	6	100	100	ND		1200	ND		1300
Indeno(1,2,3-cd)pyrene	0.9	4	500	ND		500	ND		510
Isophorone	1100	10000	50	ND		500	ND		510
Naphthalene	230	4200	100	ND		500	ND		510
Nitrobenzene	28	520	10	ND		500	ND		510
n-Nitrosodimethylamine	NS	NS	NS	ND		500	ND		510
N-Nitroso-di-n-propylamine	0.66	0.66	10	ND		500	ND		510
N-Nitrosodiphenylamine	140	600	100	ND		1200	ND		1300
Phenanthrene	NS	NS	NS	ND		500	182	J	510
Pyrene	1700	10000	100	111	J	500	177	J	510
1,2,4-Trichlorobenzene	68	1200	100	ND		500	ND		510
Total TIC, Semi-Volatile	NS	NS	NS	1300	J		0		
<b>Pesticides/PCBs (ppm)</b>									
Aldrin	0.04	0.17	50	ND		1.7	ND		1.7
alpha-BHC	NS	NS	NS	ND		1.7	ND		1.7
beta-BHC	NS	NS	NS	ND		1.7	ND		1.7
delta-BHC	NS	NS	NS	ND		1.7	ND		1.7
gamma-BHC (Lindane)	0.52	2.2	50	ND		1.7	ND		1.7

Table 5: Tabulated Summary of Soil Sample Analytical Results  
 Conductive Area (AOC-20)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070236804

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-8		SB-9			
	Residential	Non-Residential	Impact to	J87954-8		J87954-9			
Lab ID	Direct Contact	Direct Contact	Groundwater	4/9/2008		4/9/2008			
Sampling Date				0.5-1.0'		0.75-1.25'			
Sample Depth				Result	Qual	RDL	Result	Qual	RDL
Chlordane	0.25	2.1	NS	ND		42	ND		43
Dieldrin	0.042	0.18	50	ND		1.7	ND		1.7
4,4'-DDD	3	12	50	1.9		1.7	3.3		1.7
4,4'-DDE	2	9	50	18.5		1.7	14.8		1.7
4,4'-DDT	2	9	500	9.1		1.7	3.6		1.7
Endrin	17	310	50	ND		1.7	ND		1.7
Endosulfan sulfate	NS	NS	NS	ND		1.7	ND		1.7
Endrin aldehyde	NS	NS	NS	ND		1.7	ND		1.7
Endosulfan-I	34	620	NS	ND		1.7	ND		1.7
Endosulfan-II	34	620	NS	ND		1.7	ND		1.7
Heptachlor	0.15	0.65	50	ND		1.7	ND		1.7
Heptachlor epoxide	NS	NS	NS	ND		1.7	ND		1.7
Methoxychlor	280	5200	50	ND		1.7	ND		1.7
Toxaphene	0.1	0.2	50	ND		21	ND		21
Aroclor 1016	0.49	2	50	ND		42	ND		43
Aroclor 1221	0.49	2	50	ND		42	ND		43
Aroclor 1232	0.49	2	50	ND		42	ND		43
Aroclor 1242	0.49	2	50	ND		42	ND		43
Aroclor 1248	0.49	2	50	ND		42	ND		43
Aroclor 1254	0.49	2	50	ND		42	ND		43
Aroclor 1260	0.49	2	50	ND		42	ND		43
Total PHC (mg/kg)	NS	NS	NS	64.4		4.7	53.8		4.8
<b>Metals Analysis (ppm)</b>									
Antimony	14	340	NS	2.6		2.6	<2.7		2.7
Arsenic	20	20	NS	14.5		2.6	11.0		2.7
Beryllium	2	2	NS	1.0		0.66	0.89		0.68
Cadmium	39	100	NS	7.2		0.66	3.4		0.68
Chromium	NS	NS	NS	26.5		1.3	9.9		1.4
Copper	600	600	NS	1380		3.3	271		3.4
Lead	400	600	NS	667		2.6	146		2.7
Mercury	14	270	NS	0.13		0.038	0.27		0.041
Nickel	250	2400	NS	57.4		5.3	14.8		5.4
Selenium	63	3100	NS	<2.6		2.6	<2.7		2.7
Silver	110	4100	NS	2.5		1.3	3.9		1.4
Thallium	2	2	NS	<1.3		1.3	<1.4		1.4
Zinc	1500	1500	NS	626		2.6	231		2.7
<b>General Chemistry (ppm)</b>									
Cyanide	1100	21000	NS	<0.32		0.32	<0.34		0.34
Phenols	NS	NS	NS	<3.4		3.4	<3.2		3.2
Solids, Percent (%)	NS	NS	NS	79.2			77.9		
Total PHC (mg/kg)	NS	NS	NS	64.4		4.7	53.8		4.8

ND=Not detected at the indicated concentration  
 NS=No standard

Table 6: Tabulated Summary of Ground Water Sample Analytical Results  
Hydraulic Lift System (AOC-11)  
Camden Laboratories  
1667 Davis Street  
City of Camden, Camden County, New Jersey  
Project Number: 070235804

Sample ID	New Jersey Class	TWP-1			FB-1			TRIP BLANK		
Lab ID	IIA Groundwater	J88150-1			J88150-2			J88150-3		
Sampling Date	Quality Criteria	4/11/2008			4/11/2008			4/11/2008		
Sample Depth		14.5-15.0'			NA			NA		
		Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
<b>GC/MS Volatiles (ppb)</b>										
Acrolein	5	ND		50	ND		50	ND		50
Acrylonitrile	2	ND		50	ND		50	ND		50
Benzene	1	ND		1	ND		1	ND		1
Bromodichloromethane	1	ND		1	ND		1	ND		1
Bromoform	4	ND		4	ND		4	ND		4
Bromomethane	10	ND		2	ND		2	ND		2
Carbon tetrachloride	1	ND		1	ND		1	ND		1
Chlorobenzene	50	ND		1	ND		1	ND		1
Chloroethane	NS	ND		1	ND		1	ND		1
2-Chloroethyl vinyl ether	NS	ND		10	ND		10	ND		10
Chloroform	70	0.56	J	1	ND		1	ND		1
Chloromethane	NS	ND		1	ND		1	ND		1
Dibromochloromethane	1	ND		1	ND		1	ND		1
1,2-Dichlorobenzene	600	ND		1	ND		1	ND		1
1,3-Dichlorobenzene	600	ND		1	ND		1	ND		1
1,4-Dichlorobenzene	75	ND		1	ND		1	ND		1
Dichlorodifluoromethane	1000	ND		5	ND		5	ND		5
1,1-Dichloroethane	50	ND		1	ND		1	ND		1
1,2-Dichloroethane	2	ND		1	ND		1	ND		1
1,1-Dichloroethene	1	ND		1	ND		1	ND		1
cis-1,2-Dichloroethene	70	ND		1	ND		1	ND		1
trans-1,2-Dichloroethene	100	ND		1	ND		1	ND		1
1,2-Dichloropropane	1	ND		1	ND		1	ND		1
cis-1,3-Dichloropropene	NS	ND		1	ND		1	ND		1
trans-1,3-Dichloropropene	NS	ND		1	ND		1	ND		1
Ethylbenzene	700	ND		1	ND		1	ND		1
Methylene chloride	3	ND		2	ND		2	ND		2
1,1,2,2-Tetrachloroethane	1	ND		1	ND		1	ND		1
Tetrachloroethene	1	ND		1	ND		1	ND		1
Toluene	600	0.24	J	1	ND		1	ND		1
1,1,1-Trichloroethane	30	ND		1	ND		1	ND		1
1,1,2-Trichloroethane	3	ND		1	ND		1	ND		1
Trichloroethene	1	ND		1	ND		1	ND		1
Trichlorofluoromethane	2000	ND		5	ND		5	ND		5
Vinyl chloride	1	ND		1	ND		1	ND		1
Xylene (total)	1000	ND		1	ND		1	ND		1
Total TIC, Volatile	NS	6.7	J		0			0		
<b>GC/MS Semi-volatiles (ppb)</b>										
Acenaphthene	400	ND		0.22	ND		0.2	NA		
Acenaphthylene	NS	ND		0.22	ND		0.2	NA		
Anthracene	2000	ND		0.22	ND		0.2	NA		
Benzdine	20	ND		22	ND		20	NA		
Benzo(a)anthracene	0.1	ND		0.11	ND		0.1	NA		
Benzo(a)pyrene	0.1	ND		0.11	ND		0.1	NA		
Benzo(b)fluoranthene	0.2	ND		0.22	ND		0.2	NA		
Benzo(g,h,i)perylene	NS	ND		0.22	ND		0.2	NA		
Benzo(k)fluoranthene	0.5	ND		0.22	ND		0.2	NA		
4-Bromophenyl phenyl ether	NS	ND		2.2	ND		2	NA		
Butyl benzyl phthalate	100	ND		2.2	ND		2	NA		
2-Chloronaphthalene	600	ND		5.4	ND		5	NA		
4-Chloroaniline	30	ND		5.4	ND		5	NA		

Table 6: Tabulated Summary of Ground Water Sample Analytical Results  
 Hydraulic Lift System (AOC-11)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

Sample ID	New Jersey Class	TWP-1			FB-1			TRIP BLANK		
Lab ID	IIA Groundwater	J88150-1			J88150-2			J88150-3		
Sampling Date	Quality Criteria	4/11/2008			4/11/2008			4/11/2008		
Sample Depth		14.5-15.0'			NA			NA		
		Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
Chrysene	5	ND		0.22	ND		0.2	NA		
bis(2-Chloroethoxy)methane	NS	ND		2.2	ND		2	NA		
bis(2-Chloroethyl)ether	7	ND		2.2	ND		2	NA		
bis(2-Chloroisopropyl)ether	300	ND		2.2	ND		2	NA		
4-Chlorophenyl phenyl ether	NS	ND		2.2	ND		2	NA		
1,2-Dichlorobenzene	600	ND		2.2	ND		2	NA		
1,2-Diphenylhydrazine	20	ND		2.2	ND		2	NA		
1,3-Dichlorobenzene	600	ND		2.2	ND		2	NA		
1,4-Dichlorobenzene	75	ND		2.2	ND		2	NA		
2,4-Dinitrotoluene	NS	ND		2.2	ND		2	NA		
2,6-Dinitrotoluene	NS	ND		2.2	ND		2	NA		
3,3'-Dichlorobenzidine	30	ND		5.4	ND		5	NA		
Dibenzo(a,h)anthracene	0.3	ND		0.22	ND		0.2	NA		
Di-n-butyl phthalate	700	ND		2.2	ND		2	NA		
Di-n-octyl phthalate	100	ND		2.2	ND		2	NA		
Diethyl phthalate	6000	2.2		2.2	ND		2	NA		
Dimethyl phthalate	NS	ND		2.2	ND		2	NA		
bis(2-Ethylhexyl)phthalate	3	1.3	J	2.2	ND		2	NA		
Fluoranthene	300	ND		0.22	ND		0.2	NA		
Fluorene	300	ND		0.22	ND		0.2	NA		
Hexachlorobenzene	0.02	ND		0.022	ND		0.02	NA		
Hexachlorobutadiene	1	ND		2.2	ND		2	NA		
Hexachlorocyclopentadiene	40	ND		22	ND		20	NA		
Hexachloroethane	7	ND		5.4	ND		5	NA		
Indeno(1,2,3-cd)pyrene	0.2	ND		0.22	ND		0.2	NA		
Isophorone	40	ND		2.2	ND		2	NA		
Naphthalene	300	ND		0.22	ND		0.2	NA		
Nitrobenzene	6	ND		2.2	ND		2	NA		
n-Nitrosodimethylamine	0.8	ND		2.2	ND		2	NA		
N-Nitroso-di-n-propylamine	10	ND		2.2	ND		2	NA		
N-Nitrosodiphenylamine	10	ND		5.4	ND		5	NA		
Phenanthrene	NS	ND		0.22	ND		0.2	NA		
Pyrene	200	ND		0.22	ND		0.2	NA		
1,2,4-Trichlorobenzene	9	ND		2.2	ND		2	NA		
Total TIC, Semi-Volatile	NS	10.1	J		0			NA		

ND=Not detected at the indicated concentration  
 NS=No standard



Table 7: Tabulated Summary of Soil Sample Analytical Results  
 Conductive Area (AOC-20)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070236804

Sample ID	New Jersey Class Soil Cleanup Criteria			AM-1			AM-1A			AM-2		
Lab ID	Residential	Non-Residential	Impact to	J93728-1			J93728-2			J93728-3		
Sampling Date	Direct Contact	Direct Contact	Groundwater	6/20/2008			6/20/2008			6/20/2008		
Sample Depth				Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
<b>Metals Analysis (ppm)</b>												
Copper	600	600	NS	321		3.2	8.8		2.9	1150		2.9
Lead	400	600	NS	73.9		2.6	8.5		2.3	450		2.3
<b>General Chemistry (ppm)</b>												
Solids, Percent (%)	NS	NS	NS	79.8			87.6			88.5		

NS=No standard

Table 7: Tabulated Summary of Soil Sample Analytical Results  
 Conductive Area (AOC-20)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070236804

Sample ID	New Jersey Class Soil Cleanup Criteria			AM-2A			AM-3			AM-4		
Lab ID	Residential	Non-Residential	Impact to	J93728-4			J93728-5			J93728-6		
Sampling Date	Direct Contact	Direct Contact	Groundwater	6/20/2008			6/20/2008			6/20/2008		
Sample Depth				Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
<b>Metals Analysis (ppm)</b>												
Copper	600	600	NS	10		3.1	5.3		3	7.0		2.9
Lead	400	600	NS	7.2		2.5	7.2		2.4	8.6		2.3
<b>General Chemistry (ppm)</b>												
Solids, Percent (%)	NS	NS	NS	84.3			81.6			85.9		

NS=No standard

Table 7: Tabulated Summary of Soil Sample Analytical Results  
 Conductive Area (AOC-20)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070236804

Sample ID	New Jersey Class Soil Cleanup Criteria			AM-5			AM-6			AM-7		
Lab ID	Residential	Non-Residential	Impact to	J93728-7			J93728-8			J93728-9		
Sampling Date	Direct Contact	Direct Contact	Groundwater	6/20/2008			6/20/2008			6/20/2008		
Sample Depth				Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
<b>Metals Analysis (ppm)</b>												
Copper	600	600	NS	8.6		3	105		2.8	132		2.9
Lead	400	600	NS	8.8		2.4	92.1		2.3	18.5		2.3
General Chemistry (ppm)												
Solids, Percent (%)	NS	NS	NS	87.2			88.4			89.2		

NS=No standard

Table 7: Tabulated Summary of Soil Sample Analytical Results  
 Conductive Area (AOC-20)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070236804

Sample ID	New Jersey Class Soil Cleanup Criteria			AM-7A			AM-8			AM-8A		
Lab ID	Residential	Non-Residential	Impact to	J93728-10			J93728-11			J93728-12		
Sampling Date	Direct Contact	Direct Contact	Groundwater	6/20/2008			6/20/2008			6/20/2008		
Sample Depth				Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
<b>Metals Analysis (ppm)</b>												
Copper	600	600	NS	8.1		3	50.1		3.2	5.6		3
Lead	400	600	NS	6.8		2.4	58.8		2.6	7.0		2.4
General Chemistry (ppm)												
Solids, Percent (%)	NS	NS	NS	86.6			80.7			87.3		

NS=No standard

Table 7: Tabulated Summary of Soil Sample Analytical Results  
 Conductive Area (AOC-20)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070236804

Sample ID	New Jersey Class Soil Cleanup Criteria			AM-12			AM-14			AM-15		
Lab ID	Residential	Non-Residential	Impact to	J93728-13			J93728-14			J93728-15		
Sampling Date	Direct Contact	Direct Contact	Groundwater	6/20/2008			6/20/2008			6/20/2008		
Sample Depth				Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
<b>Metals Analysis (ppm)</b>												
Copper	600	600	NS	12.8		2.7	5.1		2.8	5.8		2.7
Lead	400	600	NS	41.8		2.2	9.3		2.2	9.8		2.1
General Chemistry (ppm)												
Solids, Percent (%)	NS	NS	NS	89.6			93.2			92.2		

NS=No standard

Table 7: Tabulated Summary of Soil Sample Analytical Results  
 Conductive Area (AOC-20)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070236804

Sample ID	New Jersey Class Soil Cleanup Criteria			AM-16		
Lab ID	Residential	Non-Residential	Impact to	J93728-16		
Sampling Date	Direct Contact	Direct Contact	Groundwater	6/20/2008		
Sample Depth				Result	Qual	RDL
<b>Metals Analysis (ppm)</b>						
Copper	600	600	NS	67.2		3.2
Lead	400	600	NS	53.9		2.5
General Chemistry (ppm)						
Solids, Percent (%)	NS	NS	NS	81.8		

NS=No standard

**APPENDIX A**  
**GEOPHYSICAL INVESTIGATION REPORT**





## **GEOPHYSICAL INVESTIGATION REPORT**

**PERFORMED AT:**

**1667 Davis Street  
Camden, NJ 08103**

**PREPARED FOR:**

**CMX Engineering  
1101 Laurel Oak Road  
PO Box 1346  
Voorhees, NJ 08043-7346**

**PREPARED BY:**

**Shan Wei  
Senior Geophysicist  
Enviroprobe Service, Inc.  
221 Haddon Avenue  
Westmont, New Jersey 08108**

**April 10, 2008**

## 1.0 INTRODUCTION

Enviroprobe Service, Inc. (Enviroprobe) is an environmental investigation services firm which provides Geoprobe (DPT), mobile Gas Chromatography (GC), and Environmental & Engineering Geophysics (EEG) services to the environmental consulting and engineering community.

Enviroprobe conducted a subsurface geophysical investigation at the subject property within client-specified areas of concern. Due to conditions and objectives, the investigation utilized a Mala Geoscience Ramac X3M cart-mounted Ground Penetrating Radar (GPR) unit with a 250 MHz antenna, Sensors and software cart mounted GPR with 250 MHz, a Radiodetection RD4000 receiver, a Radiodetection RD4000T10 transmitter, a Fisher TW-6 metal detector and Geonics EM31-MK2 system with a Differential Global Positioning System.

GPR has been developed over the past thirty years for shallow, high-resolution, subsurface investigations of the earth. GPR uses high frequency pulsed electromagnetic waves (generally 10 MHz to 1,600 MHz) to acquire subsurface information. Energy is propagated downward into the ground and is reflected back to the surface from boundaries where there are electrical property contrasts. GPR is a method commonly used for environmental, engineering, archeological, and other shallow investigations. The penetration depth of the Ramac X3M/Sensors and software unit varies from several inches to tens of feet according to site-specific conditions. The penetration depth decreases with increased soil conductivity. The penetration depth is the greatest in ice, dry sands and fine gravels. Clayey, highly saline or saturated soils, areas covered by steel reinforced concrete, foundry slag, of other highly conductive materials greatly reduces GPR penetration.

The Radiodetection RD4000 receiver and the RD T10 transmitter are commonly used for pipe and cable locating. The RD T10 is a transmitter that can be directly connected, clamped, or induced to a target line while the RD4000 receiver is used to get the signal from energized lines.

The TW-6 is designed to find pipes, cables and other metallic objects such as USTs. One surveyor can carry both the transmitter and receiver together, making it ideal for “blindly” searching for bulk metals.

The Geonics EM31-MK2 maps geological, environmental, geotechnical and other subsurface features associated with changes in ground conductivity. It has two sets of readings: apparent conductivity in millisiemens per metre (mS/m) and in-phase ratio of the secondary to primary magnetic field in parts per thousand (ppt). The in-phase reading is very useful for locating metallic objects. The depth of exploration can be as deep as about 20 feet. However, the effective detecting range may be much shallower depending on the target sizes and host materials.

## **2.0 SCOPE OF WORK**

On April 10, 2008, a geophysicist and a geophysical technician from Enviroprobe Service Inc. were at the subject site to locate storm drain pipes, a septic system and other geophysical anomalies for potential environmental concerns within client-specified areas of the property. Underground utilities were also located for the purpose of clearing proposed boring locations. The property measured approximately three acres. The ground surface materials were mainly concrete inside the buildings, and varied from asphalt pavement, concrete to grass outside the buildings.

## **3.0 SURVEY RESULTS**

The EM31 survey was carried out first. One highly conductive area measuring approximately 50'x 60' was detected in the grassy area. Two unknown pipes were also identified from the data and confirmed by further surveys using Radiodetection instruments and the GPR.

A suspected septic tank was also detected with the EM31. It was located on the Davis St. side of the property, in the northern corner. This area of concern was also confirmed by the T-W6 metal detector and GPR.

A drain line investigation inside the building produced inconclusive results when making the correlation to a suspected drywell. Also, in the hydraulic lift location no sufficient evidence was found, consistent with a UST. A circular anomaly was located approximately 20' from the lift.

Specific boring locations were cleared for drilling and discussed with the on site consultant.

The EM31 conductivity and inphase data maps are attached with the report. The GPR anomaly close to the hydraulic lift, the suspected septic tank and their associated pipes were also shown in the maps.

## **4.0 LIMITATIONS**

The GPR penetration depth was estimated as about 5 feet in the grassy areas, about 4 feet in the asphalt pavement areas, and less than 1 foot in the concrete areas inside the building.

## **5.0 WARRANTIES**

The field observations and measurements reported herein are considered sufficient in detail and scope for this project. Enviroprobe Service, Inc. warrants that the findings and conclusions contained herein have been promulgated in accordance with generally accepted environmental engineering methods. There is a possibility that conditions may exist which could not be identified within the scope of this project and were not apparent during the site activities performed for this project.

Enviroprobe represents that the services were performed in a manner consistent with that level of care and skill ordinarily exercised by environmental consultants under similar circumstances. No other representations to Client, express or implied, and no warranty or guarantee is included or intended in this agreement, or in any report, document, or otherwise.

Enviroprobe Service, Inc. believes that the information provided in this report is reliable. However, Enviroprobe cannot warrant or guarantee that the information provided by others is complete or accurate. No other warranties or guarantees are implied or expressed.

GPR data is subject to signal anomalies and operator interpretation. The GPR data is intended to provide the locations of areas of concern (AOC's) requiring additional investigation or the approximate location of underground structures and utilities. Great care must be utilized when excavating and/or drilling around underground structures and utilities since GPR data can only be used for estimation purposes and GPR data is subject to misinterpretation.

This report was prepared pursuant to the contract Enviroprobe has with the Client. That contractual relationship included an exchange of information about the property that was unique and between Enviroprobe and its client and serves as the basis upon which this report was prepared. Because of the importance of the communication between Enviroprobe and its client, reliance or any use of this report by anyone other than the Client, for whom it was prepared, is prohibited and therefore not foreseeable to Enviroprobe.

Reliance or use by any such third party without explicit authorization in the report does not make said third party a third party beneficiary to Enviroprobe contract with the Client. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

**APPENDIX B  
SOIL BORING LOGS**

# LOG OF SOIL BORING \_\_SB-1\_\_

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235803	DATE/TIME STARTED 04/09/08	DATE/TIME COMPLETE 04/09/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 16'
PROJECT LOCATION 1667 Davis Street		REC-2			

BORING LOCATION (sketch)	N ↑	DRILLING METHOD Direct Puch Geoprobe	DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in)	2"	DRILLER NAME	INSPECTOR	DRILLING EQUIPMENT
	DRILLING FLUID	NA	John	MAG	Geoprobe
	SAMPLER DIAM./TYPE	2"	HAMMER WEIGHT (lbs)		HAMMER DROP (in)
	ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT
	METHOD	Backfill	Depth	15'	Date/Time
MATERIAL	Soil/Betonite	Depth		Date/Time	
QUANTITY	NA	Depth		Date/Time	

INTERVAL	DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS			ORGANIC VAPOR METER INFORMATION			REMARKS
							Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (ev)	SOURCE	
0-4'	30" Recovery 0-6" Asphalt 6-14" Orange sand with gravel		0																PID 0.0 ppm
			1																PID 0.0 ppm
	14-30" Orange silty sand		2																PID 0.0 ppm
			3																PID 0.0 ppm
4-8'	36" Recovery 48-52" SAA 52-60" Orange sand		4																PID 0.0 ppm
			5																PID 0.0 ppm
	60-84" Tan and orange fine sand		6																PID 0.0 ppm
			7																PID 0.0 ppm
8-12'	48" Recovery 96-144" SAA		8																PID 0.0 ppm
			9																PID 0.0 ppm
			10																PID 0.0 ppm
			11																PID 0.0 ppm
			12																PID 0.0 ppm

LOG OF SOIL BORING SB-1

PROJECT NAME: Camden Laboratories PROJECT NUMBER: 070235803 DATE STARTED: 04/09/08 DATE COMPLETED: 04/09/08 GROUND ELEVATION (FT. MSL): 16' TOTAL DEPTH (ft): 16'

ORGANIC VAPOR METER INFORMATION		READINGS		SAMPLES		ANALYSIS		REMARKS	
MANUFACTURE	MODEL	ORGANIC VAPOR	Space	Bkg	Sample	RQD	Time	Recouped (feet)	Drken (feet)
SOURCE		ORGANIC VAPOR METER INFORMATION	Head	Space		Time		Recouped (feet)	Drken (feet)

Interval	Description	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Sample No.	Blows per 6 inches	Drken (feet)	Recouped (feet)	RQD	Time	Bkg	Sample	Space	Remarks
12-16'	48" Recovery 144-180" SAA	12													
	180-192" SAA, Wet	15													Collected sample SB-1 at 9:05 for TPH-DRO and contingent VO+10 from 14.5-15.0' bgs
		16													Set temporary well point



LOG OF SOIL BORING SB-2

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235803	DATE/TIME STARTED 04/09/08	DATE/TIME COMPLETE 04/09/08	GRDUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 16'
PROJECT LOCATION 1667 Davis Street		REC-2			

BORING LOCATION (sketch)	DRILLING METHOD Direct Puch Geoprobe	DRILLING CONTRACTOR Enviroprobe				
	BORING DIAMETER (in) 2"	DRILLER NAME John	INSPECTOR MAG	DRILLING EQUIPMENT Geoprobe		
	DRILLING FLUID NA	HAMMER WEIGHT (lbs)		HAMMER DRDP (in)		
	SAMPLER DIAM./TYPE 2"					
	ABANDONMENT Backfill	GRUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT		
	METHOD Soil/Betonite	Depth 15'	Date/Time	Seasonal High WT		
	MATERIAL NA	Depth	Date/Time			
	QUANTITY NA	Depth	Date/Time			

INTERVAL	DESCRIPTION	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS			ORGANIC VAPOR METER INFORMATION			REMARKS	
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (eV)	SOURCE		
0-4'	36" Recovery 0-6" Asphalt 6-12" Orange sand with gravel  12-36" Orange silty sand	0 - - 1 - - 2 - - 3																PID 0.0 ppm PID 0.0 ppm PID 0.0 ppm PID 0.0 ppm PID 0.0 ppm	
4-8'	48" Recovery 48-52" SAA 52-96" Orange sand  60-84" Tan and orange fine sand	4 - - 5 - - 6 - - 7																	PID 0.0 ppm PID 0.0 ppm PID 0.0 ppm PID 0.0 ppm PID 0.0 ppm PID 0.0 ppm
8-12'	48" Recovery 96-144" SAA	8 - - 9 - - 10 - - 11 - - 12																	PID 0.0 ppm PID 0.0 ppm PID 0.0 ppm PID 0.0 ppm PID 0.0 ppm PID 0.0 ppm PID 0.0 ppm



LOG OF SOIL BORING SB-3

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235803	DATE/TIME STARTED 04/09/08	DATE/TIME COMPLETE 04/09/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 16'
PROJECT LOCATION 1667 Davis Street		REC-4			

BORING LOCATION (sketch)	DRILLING METHOD Direct Puch Geoprobe	DRILLING CONTRACTOR Enviroprobe			
	BORING DIAMETER (in) 2"	DRILLER NAME John	INSPECTOR MAG	DRILLING EQUIPMENT Geoprobe	
	DRILLING FLUID NA				
	SAMPLER DIAM./TYPE 2"	HAMMER WEIGHT (lbs)		HAMMER DROP (in)	
	ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT
	METHOD Backfill	Depth 15'	Date/Time		Seasonal High WT
	MATERIAL Soil/Betonite	Depth	Date/Time		
	QUANTITY NA	Depth	Date/Time		

INTERVAL	DESCRIPTION	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS			ORGANIC VAPOR METER INFORMATION			REMARKS
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQO	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (eV)	SOURCE	
0-4'	40" Recovery 0-6" Asphalt 6-12" Orange sand with gravel  12-40" Orange silty sand	0																PID 0.0 ppm
																		PID 0.0 ppm
		1																PID 0.0 ppm
																		PID 0.0 ppm
		2																PID 0.0 ppm
																		PID 0.0 ppm
		3																PID 0.0 ppm
																		PID 0.0 ppm
4-8'	40" Recovery 48-58" SAA  58-88" Tan and orange fine sand	4																PID 0.0 ppm
																		PID 0.0 ppm
		5																PID 0.0 ppm
																		PID 0.0 ppm
		6																PID 0.0 ppm
																		PID 0.0 ppm
		7																PID 0.0 ppm
																		PID 0.0 ppm
8-12'	48" Recovery 96-144" Tan fine sand	8																PID 0.0 ppm
																		PID 0.0 ppm
		9																PID 0.0 ppm
																		PID 0.0 ppm
		10																PID 0.0 ppm
																		PID 0.0 ppm
		11																PID 0.0 ppm
																		PID 0.0 ppm
		12																PID 0.0 ppm

### LOG OF SOIL BORING SB-6

PROJECT NAME		PROJECT NUMBER		DATE STARTED		DATE COMPLETED		GROUND ELEVATION (FT. MSL)		TOTAL DEPTH (ft)	
Camden Laboratories		070235803		04/09/08		04/09/08		16		16	
INTERVAL DESCRIPTION	Sample Interval (ft bgs)	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	Samples	
										RQD	Time
ORGANIC VAPOR READINGS		ORGANIC VAPOR HEAD SPACE		REMARKS							
MANUFACTURE MODEL SOURCE		Bkg Sample		REMARKS							
12-16'	48" Recovery	12									PID 0.0 ppm
	144-168" SAA										PID 0.0 ppm
	168-192" SAA, Wet	14									PID 0.0 ppm
		13									PID 0.0 ppm
		12									PID 0.0 ppm
		15									PID 0.0 ppm
		16									PID 0.0 ppm
											Collected sample SB-6 at 14:00 for TPH-QAM and PP+40 from 62-68" bgs
											Set temporary well point

## LOG OF SOIL BORING \_\_SB-7\_\_

PROJECT NAME		PROJECT NUMBER		DATE STARTED		DATE COMPLETED		GROUND ELEVATION (FT. MSL)		TOTAL DEPTH (ft)								
Camden Laboratories		070235803		04/09/08		04/09/08				18'								
INTERVAL	DESCRIPTION	Sample Interval (ft bgs)	Groundwater	Graphic Log	Stratum	Samples					ORGANIC VAPOR READINGS			ORGANIC VAPOR METER INFORMATION				
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	REMARKS	MANUFACTURE	MODEL	SOURCE
12-16'	48" Recovery 144-168" SAA	12																PID-0.0 ppm
		13																PID 0.0 ppm
		14																PID 0.0 ppm
	168-192" SAA, Wet	15																PID 0.0 ppm
		16																PID 0.0 ppm
																		Collected sample SB-7 at 14:30 for TPH-QAM and PP+40 from 13.5-14.0' bgs

# LOG OF SOIL BORING \_\_SB-8\_\_

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235803	DATE/TIME STARTED 04/09/08	DATE/TIME COMPLETE 04/09/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 12'
PROJECT LOCATION 1667 Davis Street			Conductive Area		

BORING LOCATION (sketch)	DRILLING METHOD Direct Puch Geoprobe	DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in) 2"	DRILLER NAME John	INSPECTOR MAG	DRILLING EQUIPMENT Geoprobe
	DRILLING FLUID NA	HAMMER WEIGHT (lbs)		
	SAMPLER DIAM./TYPE 2"	HAMMER DROP (in)		
	ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)	
METHOD Backfill	Depth 15'	Date/Time	Seasonal High WT	
MATERIAL Soil/Bentonite	Depth	Date/Time		
QUANTITY NA	Depth	Date/Time		

INTERVAL	DESCRIPTION	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS			ORGANIC VAPOR METER INFORMATION			REMARKS	
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (eV)	SOURCE		
0-4'	40" Recovery 0-6" OM, Grass 6-12" Ash-like fill material  12-40" Orange sand	0																	PID 0.0 ppm
		1																	PID 0.0 ppm
		2																	PID 0.0 ppm
		3																	PID 0.0 ppm
4-8'	48" Recovery 48-96" SAA	4																	PID 0.0 ppm
		5																	PID 0.0 ppm
		6																	PID 0.0 ppm
		7																	PID 0.0 ppm
8-12'	48" Recovery 96-144" SAA	8																	PID 0.0 ppm
		9																	PID 0.0 ppm
		10																	PID 0.0 ppm
		11																	PID 0.0 ppm
		12																	PID 0.0 ppm

LOG OF SOIL BORING SB-9

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235803	DATE/TIME STARTED 04/09/08	DATE/TIME COMPLETE 04/09/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 12'
PROJECT LOCATION 1667 Davis Street		Conductive Area			

BDRING LOCATION (sketch)		DRILLING METHOD Direct Push Geoprobe		DRILLING CONTRACTOR Enviroprobe	
		BDRING DIAMETER (in) 2"		DRILLER NAME John	
		DRILLING FLUID NA		INSPECTOR MAG	
		SAMPLER DIAM./TYPE 2"		HAMMER DRDP (In)	
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT	
METHOD Backfill		Depth 15'		Date/Time Seasonal High WT	
MATERIAL Soil/Bentonite		Depth		Date/Time	
QUANTITY NA		Depth		Date/Time	

INTERVAL	DESCRIPTION	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR			ORGANIC VAPOR METER INFORMATION			
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	READINGS			MANUF./MODEL	LAMP (eV)	SOURCE	
												Bkg	Sample	Head Space				
REMARKS																		
0-4'	40" Recovery 0-8" OM, Grass 8-14" Ash-like fill material  14-40" Orange sand	0															PID 0.0 ppm	
		1															PID 0.0 ppm	Collected sample SB-9 at 16:00 for TPH-QAM and PP+40 from 8-14" bgs
		2															PID 0.0 ppm	
		3															PID 0.0 ppm	
4-8'	48" Recovery 48-96" SAA	4															PID 0.0 ppm	
		5															PID 0.0 ppm	
		6															PID 0.0 ppm	
		7															PID 0.0 ppm	
8-12'	48" Recovery 96-144" SAA	8															PID 0.0 ppm	
		9															PID 0.0 ppm	
		10															PID 0.0 ppm	
		11															PID 0.0 ppm	
		12															PID 0.0 ppm	

## LOG OF SOIL BORING SB-10

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235803	DATE/TIME STARTED 04/09/08	DATE/TIME COMPLETE 04/09/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 16'
PROJECT LOCATION 1667 Davis Street		REC-3			

BORING LOCATION (sketch)	N ↑	DRILLING METHOD Direct Puch Geoprobe	DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in)	2"	DRILLER NAME John	INSPECTOR MAG	DRILLING EQUIPMENT Geoprobe
	DRILLING FLUID	NA	HAMMER WEIGHT (lbs)		
	SAMPLER OIAM./TYPE	2"	HAMMER DROP (in)		
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT	
METHOD	Backfill	Depth	15'	Date/Time	Seasonal High WT
MATERIAL	Soil/Bentonite	Depth		Date/Time	
QUANTITY	NA	Depth		Date/Time	

INTERVAL	DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples							ORGANIC VAPOR READINGS			ORGANIC VAPOR METER INFORMATION			REMARKS
							Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sampla	Head Space	MANUF./MODEL	LAMP (eV)	SOURCE		
0-4'	48" Recovery 0-6" OM, grass 6-12" Strong brown loam  12-48" Strong brown clay loam		0																PID 0.0 ppm	
			1																PID 0.0 ppm	
			2																PID 0.0 ppm	
			3																PID 0.0 ppm	
			4																PID 0.0 ppm	
4-8'	48" Recovery 48-96" SAA		5																PID 0.0 ppm	
			6																PID 0.0 ppm	
			7																PID 0.0 ppm	
			8																PID 0.0 ppm	
8-12'	48" Recovery 96-144" Strong brown clay loam		9																PID 0.0 ppm	
			10																PID 0.0 ppm	
			11																PID 0.0 ppm	
			12																PID 0.0 ppm	



PROJECT NAME		PROJECT NUMBER		DATE STARTED		DATE COMPLETED		GROUND ELEVATION (FT. MSL)		TOTAL DEPTH (ft)						
Camden Laboratories		070235803		04/09/08		04/09/08		16'		16'						
INTERVAL DESCRIPTION			Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	R/D	Time	Bkg	Sample	Space	REMARKS
ORGANIC VAPOR			SAMPLES		READINGS		ORGANIC VAPOR METER INFORMATION									
							MANUFACTURE MODEL SOURCE									
							ORGANIC VAPOR METER INFORMATION									
12-16'			12													PID 0.0 ppm
48" Recovery																PID 0.0 ppm
144-168" SAA																PID 0.0 ppm
168-192" SAA, Wet			14	▲												PID 0.0 ppm
			13													PID 0.0 ppm
			15													PID 0.0 ppm
			16													PID 0.0 ppm
																Set temporary well point

# LOG OF SOIL BORING \_\_SB-11\_\_

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235803	DATE/TIME STARTED 04/09/08	DATE/TIME COMPLETE 04/09/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 16'
PROJECT LOCATION 1667 Davis Street		REC-3			

BORING LOCATION (sketch)	N ↑	DRILLING METHOD Direct Puch Geoprobe		DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in) 2"		DRILLER NAME John		INSPECTOR MAG	DRILLING EQUIPMENT Geoprobe
DRILLING FLUID NA		SAMPLER DIAM./TYPE 2"		HAMMER WEIGHT (lbs)		HAMMER DROP (in)
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)			Observed WT	
METHOD Backfill		Depth	15'	Date/Time		Seasonal High WT
MATERIAL Soil/Betonite		Depth		Date/Time		
QUANTITY NA		Depth		Date/Time		

INTERVAL	DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples										ORGANIC VAPOR READINGS			ORGANIC VAPOR METER INFORMATION			REMARKS
							Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (eV)	SOURCE					
																			Observed WT	Seasonal High WT			
0-4'	48" Recovery 0-6" OM, grass 6-12" Strong brown loam		0																				PID 0.0 ppm
	12-48" Strong brown clay loam		1																				PID 0.0 ppm
			2																				PID 0.0 ppm
			3																				PID 0.0 ppm
4-8'	48" Recovery 48-96" SAA		4																				PID 0.0 ppm
			5																				PID 0.0 ppm
			6																				PID 0.0 ppm
			7																				PID 0.0 ppm
8-12'	48" Recovery 96-144" Strong brown and tan clay loam		8																				PID 0.0 ppm
			9																				PID 0.0 ppm
			10																				PID 0.0 ppm
			11																				PID 0.0 ppm
			12																				PID 0.0 ppm



# LOG OF SOIL BORING AM-1

PROJECT NAME Camden Laboratories	PROJECT NUMBER 070235803	DATE/TIME STARTED 06/23/08	DATE/TIME COMPLETE 06/23/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 4'
PROJECT LOCATION 1667 Davis Street		REC-2			

BORING LOCATION (sketch)	DRILLING METHOD Direct Puch Geoprobe		DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in)	2"	DRILLER NAME	INSPECTOR	DRILLING EQUIPMENT
	DRILLING FLUID	NA	John	MAG	Geoprobe
	SAMPLER DIAM./TYPE	2"	HAMMER WEIGHT (lbs)		HAMMER DROP (in)
	ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT

METHOD	Backfill	Depth	15'	Date/Time	Seasonal High WT
MATERIAL	Soil/Betonite	Depth		Date/Time	
QUANTITY	NA	Depth		Date/Time	

INTERVAL	DESCRIPTION	Sample Interval (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR			ORGANIC VAPOR METER INFORMATION			REMARKS
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	ROD	Time	READINGS			MANUF./MODEL	LAMP (eV)	SOURCE	
												Bkg	Sample	Head Space				
0-4'	36" Recovery 0-4" Organic matter, grass 4-10" Strong brown sandy loam 10-15" Ash  15-36" Orange silty sand	0																
		1																Collected AM-1 from ash at 10-16" at 8:30 for copper and lead analysis
		2																Collected AM-1A at 20-26" at 8:35 for copper and lead analysis
		3																
		4																
		5																
		6																
		7																
		8																
		9																
		10																
		11																
		12																







LOG OF SOIL BORING AM-5

PROJECT NAME Camden Laboratories	PROJECT NUMBER 070235803	DATE/TIME STARTED 06/23/08	DATE/TIME COMPLETE 06/23/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 4'
PROJECT LOCATION 1667 Davis Street		REC-2			

BORING LOCATION (sketch)	DRILLING METHOD Direct Puch Geoprobe	DRILLING CONTRACTOR Enviroprobe			
	BORING DIAMETER (in) 2"	DRILLER NAME John	INSPECTOR MAG	DRILLING EQUIPMENT Geoprobe	
	DRILLING FLUID NA	HAMMER WEIGHT (lbs)		HAMMER DROP (in)	
	SAMPLER DIAM./TYPE 2"				
	ABANDONMENT METHOD Backfill		GROUNDWATER OBSERVATIONS (depth in ft bgs) Depth 15'		Observed WT Seasonal High WT
MATERIAL Soil/Betonite		Depth		Date/Time	
QUANTITY NA		Depth		Date/Time	

INTERVAL	DESCRIPTION	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples							ORGANIC VAPOR READINGS			ORGANIC VAPOR METER INFORMATION			REMARKS
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQO	Time	Bkg	Sample	Heed Spece	MANUF./MODEL	LAMP (eV)	SOURCE		
0-4'	36" Recovery 0-4" Organic matter, grass 4-18" Strong brown sandy loam  18-36" Orange silty sand	0																	Collected AM-5 at 12-18" at 9:55 for copper and lead analysis
		1																	
		2																	
		3																	
		4																	
		5																	
		6																	
		7																	
		8																	
		9																	
		10																	
		11																	
		12																	



# LOG OF SOIL BORING \_\_AM-6\_\_

PROJECT NAME Camden Laboratories	PROJECT NUMBER 070235803	DATE/TIME STARTED 06/23/08	DATE/TIME COMPLETE 06/23/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 8'
PROJECT LOCATION 1667 Davis Street		REC-2			

BORING LOCATION (sketch)		DRILLING METHOD Direct Puch Geoprobe		DRILLING CONTRACTOR Enviroprobe	
		BORING DIAMETER (in) 2"		DRILLER NAME John	
		DRILLING FLUID NA		INSPECTOR MAG	
		SAMPLER DIAM./TYPE 2"		DRILLING EQUIPMENT Geoprobe	
		HAMMER WEIGHT (lbs)		HAMMER DROP (in)	
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)			Observed WT
METHOD Backfill		Depth	15'	Date/Time	Seasonal High WT
MATERIAL Soil/Betonite		Depth		Date/Time	
QUANTITY NA		Depth		Date/Time	

INTERVAL	DESCRIPTION	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS			ORGANIC VAPOR METER INFORMATION			
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (eV)	SOURCE	
																		REMARKS
0-4'	32" Recovery 0-4" Organic matter, grass 4-32" Strong brown sandy loam	0																
4-8'	33" Recovery 48-60" SAA  60-70" Ash  70-81" Orange silty sand	4																Collected AM-6 at 60-66" at 9:30 for copper and lead analysis
		5																
		6																
		7																
		8																
		9																
		10																
		11																
		12																





# LOG OF SOIL BORING \_\_AM-9\_\_

PROJECT NAME Camden Laboratories	PROJECT NUMBER 070235803	DATE/TIME STARTED 06/23/08	DATE/TIME COMPLETE 06/23/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 4'
PROJECT LOCATION 1667 Davis Street		REC-2			

BORING LOCATION (sketch)	N ↑	DRILLING METHOD Direct Puch Geoprobe	DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in)	2"	DRILLER NAME John	INSPECTOR MAG	DRILLING EQUIPMENT Geoprobe
	DRILLING FLUID	NA			
	SAMPLER OIAM./TYPE	2"	HAMMER WEIGHT (lbs)	HAMMER DROP (in)	
	ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT
METHOO	Backfill	Depth	15'	Date/Time	Seasonal High WT
MATERIAL	Soil/Betonite	Depth			
QUANTITY	NA	Depth			

INTERVAL	DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples							ORGANIC VAPOR READINGS			ORGANIC VAPOR METER INFORMATION		
							Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	ROD	Time	Bkg	Sample	Head Space	MANUF./MOEEL	LAMP (eV)	SOURCE	
																			REMARKS
0-4'	36" Recovery 0-4" Organic matter, grass 4-22" Medium brown loam		0																
			1																
	22-32" Ash		2																
	32-36" Orange sity sand		3																
			4																
			5																
			6																
			7																
			8																
			9																
			10																
			11																
			12																

LOG OF SOIL BORING AM-10

PROJECT NAME Camden Laboratories	PROJECT NUMBER 070235803	DATE/TIME STARTED 06/23/08	DATE/TIME COMPLETE 06/23/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 4'
PROJECT LOCATION 1667 Davis Street		REC-2			

BORING LOCATION (sketch)	DRILLING METHOD Direct Puch Geoprobe	DRILLING CONTRACTOR Enviroprobe			
	BORING DIAMETER (in) 2"	DRILLER NAME John	INSPECTOR MAG	DRILLING EQUIPMENT Geoprobe	
	DRILLING FLUID NA	HAMMER WEIGHT (lbs)		HAMMER DROP (in)	
	SAMPLER OIAM./TYPE 2"				
	ABANDONMENT	GROUNDWATER OBSERVATIONS (depth in ft bgs)			Observed WT

METHOD Backfill	Depth 15'	Date/Time	Seasonal High WT
MATERIAL Soil/Betonite	Depth	Date/Time	
QUANTITY NA	Depth	Date/Time	

INTERVAL	DESCRIPTION	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR			ORGANIC VAPOR METER INFORMATION			REMARKS
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	READINGS			MANUF./MODEL	LAMP (eV)	SOURCE	
												Bkg	Sample	Head Spec				
0-4'	32" Recovery 0-4" Organic matter, grass 4-20" Medium brown loam	0																
		1																
	20-30" Ash	2																
	30-32" Orange sity sand	3																
		4																
		5																
		6																
		7																
		8																
		9																
		10																
		11																
		12																

# LOG OF SOIL BORING \_AM-11\_

PROJECT NAME Camden Laboratories	PROJECT NUMBER 070235803	DATE/TIME STARTED 06/23/08	DATE/TIME COMPLETE 06/23/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 4'
PROJECT LOCATION 1667 Davis Street		REC-2			

BORING LOCATION (sketch)	N ↑	DRILLING METHOD Direct Puch Geoprobe	DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in)	2"	DRILLER NAME	INSPECTOR	DRILLING EQUIPMENT
	DRILLING FLUID	NA	John	MAG	Geoprobe
	SAMPLER DIAM./TYPE	2"	HAMMER WEIGHT (lbs)		HAMMER DROP (in)
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT	
METHOD	Backfill	Depth	15'	Date/Time	Seesonal High WT
MATERIAL	Soil/Betonite	Depth		Date/Time	
QUANTITY	NA	Depth		Date/Time	

INTERVAL	DESCRIPTION	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples							ORGANIC VAPOR			ORGANIC VAPOR METER INFORMATION			REMARKS	
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	READINGS			MANUF./MODEL	LAMP (eV)	SOURCE			
												Bkg	Sample	Head Space						
0-4'	44" Recovery 0-30" Orange sand	0																		
		1																		
		2																		
	30-40" Ash	3																		
	40-44" Orange sity sand	4																		
		5																		
		6																		
		7																		
		8																		
		9																		
		10																		
		11																		
		12																		

# LOG OF SOIL BORING \_AM-12\_

PROJECT NAME Camden Laboratories	PROJECT NUMBER 070235803	DATE/TIME STARTED 06/23/08	DATE/TIME COMPLETE 06/23/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 4'
PROJECT LOCATION 1667 Davis Street		REC-2			

BORING LOCATION (sketch)	DRILLING METHOD Direct Puch Geoprobe	DRILLING CONTRACTOR Enviroprobe	
	BORING DIAMETER (in) 2"	DRILLER NAME John	INSPECTOR MAG
	DRILLING FLUID NA	DRILLING EQUIPMENT Geoprobe	
	SAMPLER DIAM./TYPE 2"	HAMMER WEIGHT (lbs)	HAMMER DROP (in)
	ABANDONMENT METHOD Backfill		GROUNDWATER OBSERVATIONS (depth in ft bgs) Depth 15'
MATERIAL Soil/Betonite		Date/Time	Date/Time
QUANTITY NA		Date/Time	Date/Time

Interval	Description	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples							ORGANIC VAPOR READINGS			ORGANIC VAPOR METER INFORMATION			REMARKS
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Specie	MANUF./MODEL	LAMP (eV)	SOURCE		
0-4'	44" Recovery 0-4" Organic matter, grass 4-20" Medium brown loam  20-44" Orange silty sand	0																	Collected AM-12 at 10-16" at 10:30 for copper and lead analysis
		1																	
		2																	
		3																	
		4																	
		5																	
		6																	
		7																	
		8																	
		9																	
		10																	
		11																	
		12																	

# LOG OF SOIL BORING AM-13

PROJECT NAME Camden Laboratories	PROJECT NUMBER 070235803	DATE/TIME STARTED 06/23/08	DATE/TIME COMPLETE 06/23/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 4'
PROJECT LOCATION 1667 Davis Street		REC-2			

BORING LOCATION (sketch)	N ↑	DRILLING METHOD Direct Puch Geoprobe	DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in)	2"	DRILLER NAME John	INSPECTOR MAG	DRILLING EQUIPMENT Geoprobe
	DRILLING FLUID	NA			
	SAMPLER DIAM./TYPE	2"	HAMMER WEIGHT (lbs)	HAMMER DROP (in)	
	ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT

METHOD	Backfill	Depth	15'	Date/Time	Seasonal High WT
MATERIAL	Soil/Bentonite	Depth		Date/Time	
QUANTITY	NA	Depth		Date/Time	

INTERVAL	DESCRIPTION	Sample Interval (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS			ORGANIC VAPOR METER INFORMATION			REMARKS
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Heed	MANUF./MODEL	LAMP (eV)	SOURCE	
0-4'	42" Recovery 0-4" Organic matter, grass 4-30" Medium brown loam	0																
		1																
		2																
	30-38" Ash	3																
	38-42" Orange silty sand	4																
		5																
		6																
		7																
		8																
		9																
		10																
		11																
		12																



LOG OF SOIL BORING AM-14

PROJECT NAME Camden Laboratories	PROJECT NUMBER 070235803	DATE/TIME STARTED 06/23/08	DATE/TIME COMPLETE 06/23/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 4'
PROJECT LOCATION 1667 Davis Street		REC-2			

BORING LOCATION (sketch)	DRILLING METHOD Direct Puch Geoprobe	DRILLING CONTRACTOR Enviroprobe			
	BORING DIAMETER (in) 2"	DRILLER NAME John	INSPECTOR MAG	DRILLING EQUIPMENT Geoprobe	
	DRILLING FLUID NA	HAMMER WEIGHT (lbs)		HAMMER DROP (in)	
	SAMPLER DIAM./TYPE 2"				
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT	
METHOD	Backfill	Depth	15'	Date/Time	Seasonal High WT
MATERIAL	Soil/Bentonite	Depth		Date/Time	
QUANTITY	NA	Depth		Date/Time	

INTERVAL	DESCRIPTION	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples							ORGANIC VAPOR READINGS			ORGANIC VAPOR METER INFORMATION			REMARKS
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	ROD	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (eV)	SOURCE		
0-4'	40" Recovery 0-4" Organic matter, grass 4-32" Medium brown loam	0																	
		1																	
		2																	
	32-40" Orange silty sand	3																	
		4																	
		5																	
		6																	
		7																	
		8																	
		9																	
		10																	
		11																	
		12																	





**APPENDIX C**  
**LABORATORY ANALYTICAL RESULTS AND**  
**ELECTRONIC DATA DELIVERABLES**



IT'S ALL IN THE CHEMISTRY

07/08/08

# Table of Contents

-1-

Section 1: Sample Summary .....	4
Section 2: Case Narrative/Conformance Summary .....	5
Section 3: Sample Results .....	9
3.1: J87954-1: SB-1 .....	10
3.2: J87954-2: SB-2 .....	11
3.3: J87954-3: SB-3 .....	12
3.4: J87954-4: SB-4 .....	13
3.5: J87954-5: SB-5 .....	14
3.6: J87954-6: SB-6 .....	15
3.7: J87954-7: SB-7 .....	25
3.8: J87954-8: SB-8 .....	35
3.9: J87954-9: SB-9 .....	44
3.10: J87954-10: TRIP BLANK .....	53
Section 4: Misc. Forms .....	55
4.1: Chain of Custody .....	56
4.2: Sample Tracking Chronicle .....	57
4.3: Internal Chain of Custody .....	60
Section 5: GC/MS Volatiles - QC Data Summaries .....	70
5.1: Method Blank Summary .....	71
5.2: Blank Spike Summary .....	75
5.3: Matrix Spike/Matrix Spike Duplicate Summary .....	79
5.4: Matrix Spike Summary .....	81
5.5: Duplicate Summary .....	83
5.6: Instrument Performance Checks (BFB) .....	85
5.7: Internal Standard Area Summaries .....	89
5.8: Surrogate Recovery Summaries .....	91
5.9: Initial and Continuing Calibration Summaries .....	93
Section 6: GC/MS Semi-volatiles - QC Data Summaries .....	111
6.1: Method Blank Summary .....	112
6.2: Blank Spike Summary .....	115
6.3: Matrix Spike/Matrix Spike Duplicate Summary .....	117
6.4: Instrument Performance Checks (DFTPP) .....	119
6.5: Internal Standard Area Summaries .....	128
6.6: Surrogate Recovery Summaries .....	133
6.7: Initial and Continuing Calibration Summaries .....	134
Section 7: GC Semi-volatiles - QC Data Summaries .....	160
7.1: Method Blank Summary .....	161
7.2: Blank Spike Summary .....	165
7.3: Matrix Spike/Matrix Spike Duplicate Summary .....	169
7.4: Internal Standard Area Summaries .....	173
7.5: DDT/Endrin Breakdown Checks .....	175
7.6: Surrogate Recovery Summaries .....	177

## Technical Report for

CMX

Camden Laboratories, 1667 Davis Street, Camden, NJ

Accutest Job Number: J87954

Sampling Date: 04/09/08

### Report to:

CMX

mgilmore@cmxengineering.com

ATTN: Mary Ann Gilmore

Total number of pages in report: 307



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Client Service contact: Nadine Yakes 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, PA, RI, SC, TN, VA, WV

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories. Test results relate only to samples analyzed.

Vincent J. Pugliese  
President

1  
2  
3  
4  
5  
6  
7  
8  
9

# Table of Contents

Sections:

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

-2-

7.7: GC Surrogate Retention Time Summaries .....	181
7.8: Initial and Continuing Calibration Summaries .....	187
Section 8: Metals Analysis - QC Data Summaries .....	217
8.1: Inst QC MA20753: Sb,As,Be,Cd,Cr,Cu,Pb,Ni,Se,Ag,Tl,Zn .....	218
8.2: Inst QC MA20758: Cd .....	246
8.3: Inst QC MA20769: Hg .....	267
8.4: Prep QC MP43273: Sb,As,Be,Cd,Cr,Cu,Pb,Ni,Se,Ag,Tl,Zn .....	275
8.5: Prep QC MP43326: Hg .....	280
Section 9: General Chemistry - QC Data Summaries .....	284
9.1: Method Blank and Spike Results Summary .....	285
9.2: Duplicate Results Summary .....	286
9.3: Matrix Spike Results Summary .....	287
9.4: Inst QC GN13773: Phenols .....	288
9.5: Inst QC GN13868: Phenols .....	293
9.6: Inst QC GN14077: Cyanide .....	297
9.7: Inst QC GN14099: Phenols .....	302
9.8: Inst QC GN14207: Phenols .....	304
9.9: Percent Solids Raw Data Summary .....	306

Accutest LabLink@450775 11:35 08-Jul-2008

## Sample Summary

CMX

Job No: J87954

Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
J87954-1	04/09/08	09:05 MG	04/10/08	SO	Soil	SB-1
J87954-2	04/09/08	09:35 MG	04/10/08	SO	Soil	SB-2
J87954-3	04/09/08	10:20 MG	04/10/08	SO	Soil	SB-3
J87954-4	04/09/08	11:00 MG	04/10/08	SO	Soil	SB-4
J87954-5	04/09/08	11:30 MG	04/10/08	SO	Soil	SB-5
J87954-6	04/09/08	14:00 MG	04/10/08	SO	Soil	SB-6
J87954-7	04/09/08	14:30 MG	04/10/08	SO	Soil	SB-7
J87954-8	04/09/08	15:10 MG	04/10/08	SO	Soil	SB-8
J87954-9	04/09/08	16:00 MG	04/10/08	SO	Soil	SB-9
J87954-10	04/09/08	16:00 MG	04/10/08	AQ	Trip Blank Soil	TRIP BLANK

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

**CASE NARRATIVE / CONFORMANCE SUMMARY**

Client: CMX Job No J87954  
 Site: Camden Laboratories, 1667 Davis Street, Camden, NJ Report Date 4/29/2008 12:20:52 PM

On 04/10/2008, 9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a temperature of 4.2 C. Samples were intact and properly preserved, unless noted below. An Accutest Job Number of J87954 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

**Volatiles by GCMS By Method SW846 8260B**

Matrix: AQ Batch ID: V3A2092

- All samples were analyzed within the recommended method holding time.
- Sample(s) J87904-1MS, J87904-3DUP, J87904-1MS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to acid preservation.

Matrix: SO Batch ID: VD5601

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) J87833-1MS, J87833-1MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for 2-Chloroethyl vinyl ether, Acrolein, Bromomethane are outside control limits.
- Matrix Spike Recovery(s) for Bromomethane are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Bromomethane are outside control limits. Probable cause due to matrix interference.
- VD5601-BS for Acrolein: High percent recoveries and no associated positive found in the QC batch.
- VD5601-BS for 2-Chloroethyl vinyl ether: High percent recoveries and no associated positive found in the QC batch.
- VD5601-BS for Bromomethane: High percent recoveries and no associated positive found in the QC batch.

**Extractables by GCMS By Method SW846 8270C**

Matrix: SO Batch ID: OP32143

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) J87968-8MS, J87968-8MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Benzidine, Butyl benzyl phthalate are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Benzidine, Butyl benzyl phthalate are outside control limits. Probable cause due to matrix interference.
- RPD(s) for MSD for 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol, Benzo(k)fluoranthene are outside control limits for sample OP32143-MSD. Probable cause due to sample homogeneity.
- J87954-7: Confirmation run.
- J87954-6: Confirmation run.
- OP32143-MSD for 2,4-Dinitrophenol: Outside control limits due to matrix interference.
- OP32143-MSD for 4,6-Dinitro-o-cresol: Outside control limits due to matrix interference.
- OP32143-MSD for Benzo(k)fluoranthene: Outside control limits due to matrix interference.

**Extractables by GC By Method OQA-QAM-025**

Matrix: SO Batch ID: OP32144

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) J88003-1MS, J88003-1MSD were used as the QC samples indicated.
- Matrix Spike Duplicate Recovery(s) for Total PHC are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Matrix Spike Recovery(s) for Total PHC are outside control limits. Outside control limits due to high level in sample relative to spike amount.

**Extractables by GC By Method SW846 8081A**

Matrix: SO Batch ID: OP32147

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) J87954-6MS, J87954-6MSD, OP32147-MSMSD were used as the QC samples indicated.
- J87954-8 for 4,4'-DDD: Reported from 2nd signal due to interference on 1st signal.
- J87954-9 for 4,4'-DDD: Reported from 2nd signal due to interference on 1st signal.

**Extractables by GC By Method SW846 8082**

Matrix: SO Batch ID: OP32146

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) J87954-6MS, J87954-6MSD, OP32146-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Extractables by GC By Method SW846-8015  
Matrix: SO  
Batch ID: OP2131

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) 187954-2MS, 187954-2MSD were used as the QC samples indicated.

**Metals By Method SW846 6010B**

Matrix: SO  
Batch ID: MP43273

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) 187950-1MS, 187950-1MSD, 187950-1SD, 187950-1SDL were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Arsenium are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Duplicate Recovery(s) for Arsenium are outside control limits. Probable cause due to matrix interference.
- RPD(s) for Strontium, Cadmium, Copper, Thallium are outside control limits for sample MP43273-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

**Metals By Method SW846 7471A**

Matrix: SO  
Batch ID: MP43326

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) 187943-76MS, 187943-76MSD were used as the QC samples for metals.

**Wet Chemistry By Method ASTM 4643-00**

Matrix: SO  
Batch ID: ON13757

- The data for ASTM 4643-00 meets quality control requirements.

**Wet Chemistry By Method EPA 160.3 M**

Matrix: SO  
Batch ID: ON13987

- The data for EPA 160.3 M meets quality control requirements.

**Wet Chemistry By Method SW846 9012 M/LACHAT**

Matrix: SO  
Batch ID: GP43702

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) 188158-1DUP, 188158-1MS were used as the QC samples for Cyanide.

2

Wet Chemistry By Method SW846 9066 M/LACHAT  
Matrix: SO  
Batch ID: GP43587

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) 186351-10RDUP, 186351-10RMS were used as the QC samples for Phenols.
- 187954-6 for Phenols: NIDEP does not offer laboratory accreditation for this compound which excludes it from regulatory reporting use in New Jersey.
- 187954-7 for Phenols: NIDEP does not offer laboratory accreditation for this compound which excludes it from regulatory reporting use in New Jersey.
- 187954-8 for Phenols: NIDEP does not offer laboratory accreditation for this compound which excludes it from regulatory reporting use in New Jersey.

Matrix: SO  
Batch ID: GP43763

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) 188612-1MS, 188612-1DUP were used as the QC samples for Phenols.
- RPD(s) for Duplicate for Phenols are outside control limits for sample GP43763-D1. High RPD due to possible sample nonhomogeneity.
- 187954-9 for Phenols: NIDEP does not offer laboratory accreditation for this compound which excludes it from regulatory reporting use in New Jersey.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover.

2



Report of Analysis

Client Sample ID:	SB-2	Date Sampled:	04/09/08
Lab Sample ID:	J87954-2	Date Received:	04/10/08
Matrix:	SO - Soil	Percent Solids:	86.8
Method:	SW846-8015 SW846 3545		
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3Y4821.D	1	04/14/08	PM	04/11/08	OP32131	G3Y165
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	8.40	7.6	1.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	51%		31-152%
16416-32-3	Tetracosane-d50	72%		34-153%
438-22-2	5a-Androstane	76%		36-151%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-3	Date Sampled:	04/09/08
Lab Sample ID:	J87954-3	Date Received:	04/10/08
Matrix:	SO - Soil	Percent Solids:	93.4
Method:	OQA-QAM-025 SW846 3550B		
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z8399.D	1	04/16/08	VDT	04/11/08	OP32144	G2Z321
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	Total PHC	ND	1.4	0.91	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
108-90-7	Chlorobenzene	93%		50-120%
84-15-1	o-Terphenyl	93%		50-120%
16416-32-3	Tetracosane-d50	98%		50-120%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

Client Sample ID:	SB-4	Date Sampled:	04/09/08
Lab Sample ID:	J87954-4	Date Received:	04/10/08
Matrix:	SO - Soil	Method:	OQA-QAM-025 SW846 3550B
Method:	OQA-QAM-025 SW846 3550B	Percent Solids:	86.1
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z8400.D	1	04/16/08	VDT	04/11/08	OP32144	G2Z321
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	Total PHC	ND	1.5	0.97	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
108-90-7	Chlorobenzene	100%		50-120%
84-15-1	o-Terphenyl	95%		50-120%
16416-32-3	Tetracosane-d50	101%		50-120%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

**Report of Analysis**

Client Sample ID:	SB-5	Date Sampled:	04/09/08
Lab Sample ID:	J87954-5	Date Received:	04/10/08
Matrix:	SO - Soil	Method:	OQA-QAM-025 SW846 3550B
Method:	OQA-QAM-025 SW846 3550B	Percent Solids:	93.5
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z8401.D	1	04/16/08	VDT	04/11/08	OP32144	G2Z321
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	Total PHC	22.8	1.4	0.92	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
108-90-7	Chlorobenzene	92%		50-120%
84-15-1	o-Terphenyl	95%		50-120%
16416-32-3	Tetracosane-d50	99%		50-120%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-6	Date Sampled: 04/09/08
Lab Sample ID: J87954-6	Date Received: 04/10/08
Matrix: SO - Soil	Percent Solids: 84.0
Method: SW846 8260B SW846 5035	
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	D140143.D	1	04/12/08	YL	04/10/08 15:00	n/a	VD5601
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.5 g	5.0 ml	100 ul
Run #2			

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	3200	1500	ug/kg	
107-13-1	Acrylonitrile	ND	3200	270	ug/kg	
71-43-2	Benzene	ND	64	22	ug/kg	
75-27-4	Bromodichloromethane	ND	320	17	ug/kg	
75-25-2	Bromoform	ND	320	21	ug/kg	
74-83-9	Bromomethane	ND	320	56	ug/kg	
56-23-5	Carbon tetrachloride	ND	320	60	ug/kg	
108-90-7	Chlorobenzene	ND	320	19	ug/kg	
75-00-3	Chloroethane	ND	320	43	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	1600	87	ug/kg	
67-66-3	Chloroform	ND	320	30	ug/kg	
74-87-3	Chloromethane	ND	320	45	ug/kg	
124-48-1	Dibromochloromethane	ND	320	17	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	320	23	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	320	19	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	320	20	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	320	100	ug/kg	
75-34-3	1,1-Dichloroethane	ND	320	25	ug/kg	
107-06-2	1,2-Dichloroethane	ND	64	27	ug/kg	
75-35-4	1,1-Dichloroethene	ND	320	33	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	320	23	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	320	20	ug/kg	
78-87-5	1,2-Dichloropropane	ND	320	25	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	320	15	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	320	16	ug/kg	
100-41-4	Ethylbenzene	ND	64	26	ug/kg	
75-09-2	Methylene chloride	ND	320	19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	320	16	ug/kg	
127-18-4	Tetrachloroethene	ND	320	30	ug/kg	
108-88-3	Toluene	ND	64	21	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	320	34	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	320	16	ug/kg	

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-6	Date Sampled: 04/09/08
Lab Sample ID: J87954-6	Date Received: 04/10/08
Matrix: SO - Soil	Percent Solids: 84.0
Method: SW846 8260B SW846 5035	
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	320	19	ug/kg	
75-69-4	Trichlorofluoromethane	ND	320	180	ug/kg	
75-01-4	Vinyl chloride	ND	320	40	ug/kg	
1330-20-7	Xylene (total)	ND	130	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		68-123%
17060-07-0	1,2-Dichloroethane-D4	89%		59-136%
2037-26-5	Toluene-D8	97%		75-123%
460-00-4	4-Bromofluorobenzene	90%		65-140%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-6		
Lab Sample ID:	J87954-6	Date Sampled:	04/09/08
Matrix:	SO - Soil	Date Received:	04/10/08
Method:	SW846 8270C SW846 3550B	Percent Solids:	84.0
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3M4536.D	1	04/18/08	LP	04/11/08	OP32143	E3M174
Run #2	3M4589.D	1	04/19/08	LP	04/11/08	OP32143	E3M176

	Initial Weight	Final Volume
Run #1	30.5 g	1.0 ml
Run #2	30.5 g	1.0 ml

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	200	25	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	200	53	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	200	41	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	200	48	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	780	43	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	780	72	ug/kg	
88-75-5	2-Nitrophenol	ND	200	45	ug/kg	
100-02-7	4-Nitrophenol	ND	780	69	ug/kg	
87-86-5	Pentachlorophenol	ND	390	41	ug/kg	
108-95-2	Phenol	ND	78	37	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	200	79	ug/kg	
83-32-9	Acenaphthene	ND	78	12	ug/kg	
208-96-8	Acenaphthylene	ND	78	7.9	ug/kg	
120-12-7	Anthracene	ND	78	36	ug/kg	
92-87-5	Benzidine	ND	780	6.2	ug/kg	
56-55-3	Benzo(a)anthracene	ND	78	8.1	ug/kg	
50-32-8	Benzo(a)pyrene	ND	78	19	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	78	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	78	16	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	78	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	78	17	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	78	14	ug/kg	
91-58-7	2-Chloronaphthalene	ND	78	12	ug/kg	
106-47-8	4-Chloroaniline	ND	200	14	ug/kg	
218-01-9	Chrysene	ND	78	16	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	78	15	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	78	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	78	23	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	78	11	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	78	13	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	78	13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	78	12	ug/kg	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-6		
Lab Sample ID:	J87954-6	Date Sampled:	04/09/08
Matrix:	SO - Soil	Date Received:	04/10/08
Method:	SW846 8270C SW846 3550B	Percent Solids:	84.0
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	78	10	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	78	13	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	78	16	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	200	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	78	10	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	78	11	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	78	16	ug/kg	
84-66-2	Diethyl phthalate	ND	78	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	78	11	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	78	24	ug/kg	
206-44-0	Fluoranthene	ND	78	7.3	ug/kg	
86-73-7	Fluorene	ND	78	7.9	ug/kg	
118-74-1	Hexachlorobenzene	ND	78	19	ug/kg	
87-68-3	Hexachlorobutadiene	ND	78	18	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	780	18	ug/kg	
67-72-1	Hexachloroethane	ND	200	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	78	36	ug/kg	
78-59-1	Isophorone	ND	78	13	ug/kg	
91-20-3	Naphthalene	ND	78	8.8	ug/kg	
98-95-3	Nitrobenzene	ND	78	13	ug/kg	
62-75-9	n-Nitrosodimethylamine	ND	78	17	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	78	13	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	200	8.6	ug/kg	
85-01-8	Phenanthrene	ND	78	9.8	ug/kg	
129-00-0	Pyrene	ND	78	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	78	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%	50%	29-114%
4165-62-2	Phenol-d5	51%	52%	31-111%
118-79-6	2,4,6-Tribromophenol	80%	77%	27-133%
4165-60-0	Nitrobenzene-d5	45%	45%	36-116%
321-60-8	2-Fluorobiphenyl	47%	47%	44-111%
1718-51-0	Terphenyl-d14	68%	67%	37-131%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Cono.	Units	Q
Total TIC, Semi-Volatile			0	ug/kg	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-6  
 Lab Sample ID: J87954-6  
 Matrix: SO - Soil  
 Method: SW846 8270C SW846 3550B  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Data Sampled: 04/09/08  
 Data Received: 04/10/08  
 Percent Solids: 84.0

ABN PPL List

CAS No. Compound Result RL MDL Units Q  
 (a) Confirmation run.



Report of Analysis

Client Sample ID: SB-6  
 Lab Sample ID: J87954-6  
 Matrix: SO - Soil  
 Method: OQA-QAM-025 SW846 3550B  
 Project: Camden Laboratories, 1867 Davis Street, Camden, NJ

Data Sampled: 04/09/08  
 Data Received: 04/10/08  
 Percent Solids: 84.0

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z8402.D	1	04/18/08	VDT	04/11/08	OP32144	GZ2321
Run #2							
Run #1	Initial Weight						
Run #2	Final Volume						

CAS No.	Compound	Result	RL	MDL	Units	Q
	Total PHC	ND	1.6	1.0	mg/kg	
	Surrogate Recoveries					
108-90-7	Chlorobenzene	95%			50-120%	
84-15-1	o-Terphenyl	95%			50-120%	
16416-32-3	Tetracosane-d50	99%			50-120%	

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound



ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound



Report of Analysis

Client Sample ID:	SB-6	Date Sampled:	04/09/08
Lab Sample ID:	J87954-6	Date Received:	04/10/08
Matrix:	SO - Soil	Percent Solids:	84.0
Method:	SW846 8081A SW846 3545		
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G36433.D	1	04/22/08	OPM	04/11/08	OP32147	G1G1317
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

Pesticide PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.6	0.32	ug/kg	
319-84-6	alpha-BHC	ND	1.6	0.29	ug/kg	
319-85-7	beta-BHC	ND	1.6	0.53	ug/kg	
319-86-8	delta-BHC	ND	1.6	0.29	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.6	0.39	ug/kg	
12789-03-6	Chlordane	ND	39	17	ug/kg	
60-57-1	Dieldrin	ND	1.6	0.31	ug/kg	
72-54-8	4,4'-DDD	ND	1.6	0.26	ug/kg	
72-55-9	4,4'-DDE	ND	1.6	0.39	ug/kg	
50-29-3	4,4'-DDT	ND	1.6	0.37	ug/kg	
72-20-8	Endrin	ND	1.6	0.34	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.6	0.34	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.6	0.37	ug/kg	
959-98-8	Endosulfan-I	ND	1.6	0.32	ug/kg	
33213-65-9	Endosulfan-II	ND	1.6	0.52	ug/kg	
76-44-8	Heptachlor	ND	1.6	0.42	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.6	0.32	ug/kg	
72-43-5	Methoxychlor	ND	1.6	0.42	ug/kg	
8001-35-2	Toxaphene	ND	20	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	72%		38-130%
877-09-8	Tetrachloro-m-xylene	76%		38-130%
2051-24-3	Decachlorobiphenyl	99%		32-142%
2051-24-3	Decachlorobiphenyl	100%		32-142%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-6	Date Sampled:	04/09/08
Lab Sample ID:	J87954-6	Date Received:	04/10/08
Matrix:	SO - Soil	Percent Solids:	84.0
Method:	SW846 8082 SW846 3545		
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB73096.D	1	04/12/08	JSE	04/11/08	OP32146	GAB4089
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	39	7.5	ug/kg	
11104-28-2	Aroclor 1221	ND	39	24	ug/kg	
11141-16-5	Aroclor 1232	ND	39	21	ug/kg	
53469-21-9	Aroclor 1242	ND	39	13	ug/kg	
12672-29-6	Aroclor 1248	ND	39	14	ug/kg	
11097-69-1	Aroclor 1254	ND	39	19	ug/kg	
11096-82-5	Aroclor 1260	ND	39	8.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		37-140%
877-09-8	Tetrachloro-m-xylene	78%		37-140%
2051-24-3	Decachlorobiphenyl	97%		40-151%
2051-24-3	Decachlorobiphenyl	103%		40-151%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

Client Sample ID: SB-6	Date Sampled: 04/09/08
Lab Sample ID: J87954-6	Date Received: 04/10/08
Matrix: SO - Soil	Percent Solids: 84.0
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ	

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	< 2.3	2.3	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	9.7	2.3	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	< 0.58	0.58	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	< 0.58	0.58	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	26.8	1.2	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	6.9	2.9	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	7.1	2.3	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	< 0.039	0.039	mg/kg	1	04/22/08	04/22/08	JW SW846 7471A <sup>2</sup>	SW846 7471A <sup>4</sup>
Nickel	5.7	4.6	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	< 2.3	2.3	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	< 1.2	1.2	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	< 1.2	1.2	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	20.9	2.3	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA20753
- (2) Instrument QC Batch: MA20769
- (3) Prep QC Batch: MP43273
- (4) Prep QC Batch: MP43326

RL = Reporting Limit

**Report of Analysis**

Client Sample ID: SB-6	Date Sampled: 04/09/08
Lab Sample ID: J87954-6	Date Received: 04/10/08
Matrix: SO - Soil	Percent Solids: 84.0
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ	

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.31	0.31	mg/kg	1	04/23/08 11:02	JA	SW846 9012 M/LCHAT
Phenols <sup>a</sup>	< 2.7	2.7	mg/kg	1	04/16/08 16:16	WP	SW846 9086 M/LCHAT
Solids, Percent	84		%	1	04/21/08	BR	EPA 160.3 M

(a) NJDEP does not offer laboratory accreditation for this compound which excludes it from regulatory reporting use in New Jersey

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SB-7		
Lab Sample ID:	J87954-7	Date Sampled:	04/09/08
Matrix:	SO - Soil	Date Received:	04/10/08
Method:	SW846 8260B SW846 5035	Percent Solids:	85.0
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	D140144.D	1	04/12/08	YL	04/10/08 15:00	n/a	VD5601

Run #1	Initial Weight	Final Volume	Methanol Aliquot
Run #2	6.0 g	5.0 ml	100 ul

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	2900	1300	ug/kg	
107-13-1	Acrylonitrile	ND	2900	240	ug/kg	
71-43-2	Benzene	ND	58	20	ug/kg	
75-27-4	Bromodichloromethane	ND	290	15	ug/kg	
75-25-2	Bromoform	ND	290	19	ug/kg	
74-83-9	Bromomethane	ND	290	51	ug/kg	
56-23-5	Carbon tetrachloride	ND	290	54	ug/kg	
108-90-7	Chlorobenzene	ND	290	17	ug/kg	
75-00-3	Chloroethane	ND	290	39	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	1400	79	ug/kg	
67-66-3	Chloroform	ND	290	27	ug/kg	
74-87-3	Chloromethane	ND	290	41	ug/kg	
124-48-1	Dibromochloromethane	ND	290	16	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	290	21	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	18	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	18	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	290	93	ug/kg	
75-34-3	1,1-Dichloroethane	ND	290	23	ug/kg	
107-06-2	1,2-Dichloroethane	ND	58	25	ug/kg	
75-35-4	1,1-Dichloroethene	ND	290	30	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	290	21	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	290	19	ug/kg	
78-87-5	1,2-Dichloropropane	ND	290	23	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	290	14	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	290	14	ug/kg	
100-41-4	Ethylbenzene	ND	58	23	ug/kg	
75-09-2	Methylene chloride	ND	290	17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	290	15	ug/kg	
127-18-4	Tetrachloroethene	ND	290	27	ug/kg	
108-88-3	Toluene	ND	58	19	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	290	30	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	290	15	ug/kg	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-7		
Lab Sample ID:	J87954-7	Date Sampled:	04/09/08
Matrix:	SO - Soil	Date Received:	04/10/08
Method:	SW846 8260B SW846 5035	Percent Solids:	85.0
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	290	17	ug/kg	
75-69-4	Trichlorofluoromethane	ND	290	170	ug/kg	
75-01-4	Vinyl chloride	ND	290	37	ug/kg	
1330-20-7	Xylene (total)	ND	120	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		68-123%
17060-07-0	1,2-Dichloroethane-D4	90%		59-136%
2037-26-5	Toluene-D8	96%		75-123%
460-00-4	4-Bromofluorobenzene	89%		65-140%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound



Report of Analysis

Client Sample ID:	SB-7	Date Sampled:	04/09/08
Lab Sample ID:	J87954-7	Date Received:	04/10/08
Matrix:	SO - Soil	Method:	SW846 8270C SW846 3550B
Method:	SW846 8270C SW846 3550B	Percent Solids:	85.0
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3M4537.D	1	04/18/08	LP	04/11/08	OP32143	E3M174
Run #2	3M4590.D	1	04/19/08	LP	04/11/08	OP32143	E3M176

Run #	Initial Weight	Final Volume
Run #1	30.5 g	1.0 ml
Run #2	30.5 g	1.0 ml

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	190	25	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	190	52	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	190	40	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	190	47	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	770	42	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	770	71	ug/kg	
88-75-5	2-Nitrophenol	ND	190	45	ug/kg	
100-02-7	4-Nitrophenol	ND	770	68	ug/kg	
87-86-5	Pentachlorophenol	ND	390	41	ug/kg	
108-95-2	Phenol	ND	77	36	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	190	78	ug/kg	
83-32-9	Acenaphthene	ND	77	12	ug/kg	
208-96-8	Acenaphthylene	ND	77	7.8	ug/kg	
120-12-7	Anthracene	ND	77	36	ug/kg	
92-87-5	Benzidine	ND	770	6.1	ug/kg	
56-55-3	Benzo(a)anthracene	ND	77	8.0	ug/kg	
50-32-8	Benzo(a)pyrene	ND	77	19	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	77	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	77	15	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	77	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	77	17	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	77	14	ug/kg	
91-58-7	2-Chloronaphthalene	ND	77	12	ug/kg	
106-47-8	4-Chloroaniline	ND	190	14	ug/kg	
218-01-9	Chrysene	ND	77	16	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	77	15	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	77	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	77	23	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	77	11	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	77	13	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	77	13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	77	12	ug/kg	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-7	Date Sampled:	04/09/08
Lab Sample ID:	J87954-7	Date Received:	04/10/08
Matrix:	SO - Soil	Method:	SW846 8270C SW846 3550B
Method:	SW846 8270C SW846 3550B	Percent Solids:	85.0
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	77	10	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	77	12	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	77	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	190	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	77	9.9	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	77	11	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	77	16	ug/kg	
84-66-2	Diethyl phthalate	ND	77	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	77	10	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	77	23	ug/kg	
206-44-0	Fluoranthene	ND	77	7.2	ug/kg	
86-73-7	Fluorene	ND	77	7.8	ug/kg	
118-74-1	Hexachlorobenzene	ND	77	19	ug/kg	
87-68-3	Hexachlorobutadiene	ND	77	18	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	770	18	ug/kg	
67-72-1	Hexachloroethane	ND	190	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	77	36	ug/kg	
78-59-1	Isophorone	ND	77	12	ug/kg	
91-20-3	Naphthalene	ND	77	8.7	ug/kg	
98-95-3	Nitrobenzene	ND	77	13	ug/kg	
62-75-9	n-Nitrosodimethylamine	ND	77	17	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	77	13	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	190	8.5	ug/kg	
85-01-8	Phenanthrene	ND	77	9.6	ug/kg	
129-00-0	Pyrene	ND	77	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	77	12	ug/kg	

CAS No.	Surrrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%	72%	29-114%
4165-62-2	Phenol-d5	76%	76%	31-111%
118-79-6	2,4,6-Tribromophenol	92%	92%	27-133%
4165-60-0	Nitrobenzene-d5	70%	70%	36-116%
321-60-8	2-Fluorobiphenyl	67%	67%	44-111%
1718-51-0	Terphenyl-d14	75%	76%	37-131%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
Total TIC, Semi-Volatile			0	ug/kg	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-7	Date Sampled:	04/09/08
Lab Sample ID:	J87954-7	Date Received:	04/10/08
Matrix:	SO - Soil	Method:	SW846 8270C SW846 3550B
Method:	SW846 8270C SW846 3550B	Percent Solids:	85.0
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
---------	----------	--------	----	-----	-------	---

(a) Confirmation run.

Report of Analysis

Client Sample ID:	SB-7	Date Sampled:	04/09/08
Lab Sample ID:	J87954-7	Date Received:	04/10/08
Matrix:	SO - Soil	Method:	OQA-QAM-025 SW846 3550B
Method:	OQA-QAM-025 SW846 3550B	Percent Solids:	85.0
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z8403.D	1	04/16/08	VDT	04/11/08	OP32144	G2Z321
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	Total PHC	ND	1.6	1.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
108-90-7	Chlorobenzene	86%		50-120%
84-15-1	o-Terphenyl	90%		50-120%
16416-32-3	Tetracosane-d50	92%		50-120%

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-7		
Lab Sample ID:	J87954-7	Date Sampled:	04/09/08
Matrix:	SO - Soil	Date Received:	04/10/08
Method:	SW846 8081A SW846 3545	Percent Solids:	85.0
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G36434.D	1	04/22/08	OPM	04/11/08	OP32147	G1G1317
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

Pesticide PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.5	0.31	ug/kg	
319-84-6	alpha-BHC	ND	1.5	0.29	ug/kg	
319-85-7	beta-BHC	ND	1.5	0.52	ug/kg	
319-86-8	delta-BHC	ND	1.5	0.28	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.5	0.38	ug/kg	
12789-03-6	Chlordane	ND	39	17	ug/kg	
60-57-1	Dieldrin	ND	1.5	0.30	ug/kg	
72-54-8	4,4'-DDD	ND	1.5	0.25	ug/kg	
72-55-9	4,4'-DDE	ND	1.5	0.39	ug/kg	
50-29-3	4,4'-DDT	ND	1.5	0.36	ug/kg	
72-20-8	Endrin	ND	1.5	0.33	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.5	0.33	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.5	0.36	ug/kg	
959-98-8	Endosulfan-I	ND	1.5	0.32	ug/kg	
33213-65-9	Endosulfan-II	ND	1.5	0.51	ug/kg	
76-44-8	Heptachlor	ND	1.5	0.41	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.5	0.31	ug/kg	
72-43-5	Methoxychlor	ND	1.5	0.41	ug/kg	
8001-35-2	Toxaphene	ND	19	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	51%		38-130%
877-09-8	Tetrachloro-m-xylene	53%		38-130%
2051-24-3	Decachlorobiphenyl	81%		32-142%
2051-24-3	Decachlorobiphenyl	82%		32-142%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-7		
Lab Sample ID:	J87954-7	Date Sampled:	04/09/08
Matrix:	SO - Soil	Date Received:	04/10/08
Method:	SW846 8082 SW846 3545	Percent Solids:	85.0
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB73097.D	1	04/12/08	JSE	04/11/08	OP32146	GAB4089
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	39	7.4	ug/kg	
11104-28-2	Aroclor 1221	ND	39	23	ug/kg	
11141-16-5	Aroclor 1232	ND	39	21	ug/kg	
53469-21-9	Aroclor 1242	ND	39	12	ug/kg	
12672-29-6	Aroclor 1248	ND	39	13	ug/kg	
11097-69-1	Aroclor 1254	ND	39	18	ug/kg	
11096-82-5	Aroclor 1260	ND	39	7.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	55%		37-140%
877-09-8	Tetrachloro-m-xylene	53%		37-140%
2051-24-3	Decachlorobiphenyl	82%		40-151%
2051-24-3	Decachlorobiphenyl	84%		40-151%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-7	Date Sampled: 04/09/08
Lab Sample ID: J87954-7	Date Received: 04/10/08
Matrix: SO - Soil	Percent Solids: 85.0
Project: Camden Laboratories, 1667 Davls Street, Camden, NJ	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	<2.5	2.5	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	5.4	2.5	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	<0.62	0.62	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	<0.62	0.62	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	12.2	1.2	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	10.6	3.1	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	10.4	2.5	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	<0.036	0.036	mg/kg	1	04/22/08	04/22/08	JW SW846 7471A <sup>2</sup>	SW846 7471A <sup>4</sup>
Nickel	<5.0	5.0	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	<2.5	2.5	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	<1.2	1.2	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	<1.2	1.2	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	8.4	2.5	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA20753
- (2) Instrument QC Batch: MA20769
- (3) Prep QC Batch: MP43273
- (4) Prep QC Batch: MP43326

RL = Reporting Limit

Report of Analysis

Client Sample ID: SB-7	Date Sampled: 04/09/08
Lab Sample ID: J87954-7	Date Received: 04/10/08
Matrix: SO - Soil	Percent Solids: 85.0
Project: Camden Laboratories, 1667 Davls Street, Camden, NJ	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	<0.31	0.31	mg/kg	1	04/23/08 11:03	JA	SW846 9012 M/LACHAT
Phenols <sup>a</sup>	<2.7	2.7	mg/kg	1	04/16/08 16:17	WP	SW846 9066 M/LACHAT
Solids, Percent	85		%	1	04/21/08	BR	EPA 160.3 M

(a) NJDEP does not offer laboratory accreditation for this compound which excludes it from regulatory reporting use in New Jersey

RL = Reporting Limit

Report of Analysis

Client Sample ID: SB-8	Date Sampled: 04/09/08
Lab Sample ID: J87954-8	Date Received: 04/10/08
Matrix: SO - Soil	Percent Solids: 79.2
Method: SW846 8260B SW846 5035	
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	D140145.D	1	04/12/08	YL	04/10/08 15:00	n/a	VD5601
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	2.7 g	5.0 ml	100 ul
Run #2			

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	6500	3000	ug/kg	
107-13-1	Acrylonitrile	ND	6500	550	ug/kg	
71-43-2	Benzene	ND	130	46	ug/kg	
75-27-4	Bromodichloromethane	ND	650	34	ug/kg	
75-25-2	Bromoform	ND	650	44	ug/kg	
74-83-9	Bromomethane	ND	650	110	ug/kg	
58-23-5	Carbon tetrachloride	ND	650	120	ug/kg	
108-90-7	Chlorobenzene	ND	650	39	ug/kg	
75-00-3	Chloroethane	ND	650	88	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	3300	180	ug/kg	
67-66-3	Chloroform	ND	650	60	ug/kg	
74-87-3	Chloromethane	ND	650	92	ug/kg	
124-48-1	Dibromochloromethane	ND	650	35	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	650	48	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	650	39	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	650	41	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	650	210	ug/kg	
75-34-3	1,1-Dichloroethane	ND	650	51	ug/kg	
107-06-2	1,2-Dichloroethane	ND	130	56	ug/kg	
75-35-4	1,1-Dichloroethene	ND	650	68	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	650	47	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	650	42	ug/kg	
78-87-5	1,2-Dichloropropane	ND	650	51	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	650	32	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	650	32	ug/kg	
100-41-4	Ethylbenzene	ND	130	53	ug/kg	
75-09-2	Methylene chloride	ND	650	38	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	650	33	ug/kg	
127-18-4	Tetrachloroethene	ND	650	61	ug/kg	
108-88-3	Toluene	ND	130	43	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	650	69	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	650	33	ug/kg	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-8	Date Sampled: 04/08/08
Lab Sample ID: J87954-8	Date Received: 04/10/08
Matrix: SO - Soil	Percent Solids: 79.2
Method: SW846 8260B SW846 5035	
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	650	38	ug/kg	
75-69-4	Trichlorofluoromethane	ND	650	370	ug/kg	
75-01-4	Vinyl chloride	ND	650	82	ug/kg	
1330-20-7	Xylene (total)	ND	260	39	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		68-123%
17060-07-0	1,2-Dichloroethane-D4	88%		59-136%
2037-26-5	Toluene-D8	96%		75-123%
460-00-4	4-Bromofluorobenzene	89%		65-140%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-8	Date Sampled:	04/09/08
Lab Sample ID:	J87954-8	Date Received:	04/10/08
Matrix:	SO - Soil	Method:	SW846 8270C SW846 3550B
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ	Percent Solids:	79.2

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3M4538.D	1	04/18/08	LP	04/11/08	OP32143	E3M174
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	1.0 ml
Run #2		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1200	160	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1200	340	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1200	260	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	1200	300	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5000	270	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	5000	450	ug/kg	
88-75-5	2-Nitrophenol	ND	1200	290	ug/kg	
100-02-7	4-Nitrophenol	ND	5000	440	ug/kg	
87-86-5	Pentachlorophenol	ND	2500	260	ug/kg	
108-95-2	Phenol	ND	500	230	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1200	500	ug/kg	
83-32-9	Acenaphthene	ND	500	79	ug/kg	
208-96-8	Acenaphthylene	ND	500	50	ug/kg	
120-12-7	Anthracene	ND	500	230	ug/kg	
92-87-5	Benzidine	ND	5000	40	ug/kg	
56-55-3	Benzo(a)anthracene	ND	500	51	ug/kg	
50-32-8	Benzo(a)pyrene	ND	500	120	ug/kg	
205-99-2	Benzo(b)fluoranthene	109	500	82	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	500	99	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	500	110	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	500	110	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	500	90	ug/kg	
91-58-7	2-Chloronaphthalene	ND	500	75	ug/kg	
106-47-8	4-Chloroaniline	ND	1200	90	ug/kg	
218-01-9	Chrysene	ND	500	100	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	500	97	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	500	110	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	500	150	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	500	71	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	500	85	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	500	81	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	500	75	ug/kg	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-8	Date Sampled:	04/09/08
Lab Sample ID:	J87954-8	Date Received:	04/10/08
Matrix:	SO - Soil	Method:	SW846 8270C SW846 3550B
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ	Percent Solids:	79.2

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	500	67	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	500	81	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	500	99	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1200	180	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	500	64	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	500	69	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	500	100	ug/kg	
84-66-2	Diethyl phthalate	ND	500	87	ug/kg	
131-11-3	Dimethyl phthalate	ND	500	67	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	500	150	ug/kg	
206-44-0	Fluoranthene	120	500	46	ug/kg	J
86-73-7	Fluorene	ND	500	50	ug/kg	
118-74-1	Hexachlorobenzene	ND	500	120	ug/kg	
87-68-3	Hexachlorobutadiene	ND	500	120	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	5000	120	ug/kg	
67-72-1	Hexachloroethane	ND	1200	100	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	500	230	ug/kg	
78-59-1	Isophorone	ND	500	80	ug/kg	
91-20-3	Naphthalene	ND	500	56	ug/kg	
98-95-3	Nitrobenzene	ND	500	84	ug/kg	
62-75-9	n-Nitrosodimethylamine	ND	500	110	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	500	85	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1200	55	ug/kg	
85-01-8	Phenanthrene	ND	500	62	ug/kg	
129-00-0	Pyrene	111	500	86	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	500	78	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	72%		29-114%
4165-62-2	Phenol-d5	80%		31-111%
118-79-6	2,4,6-Trihromophenol	80%		27-133%
4165-60-0	Nitrobenzene-d5	74%		36-116%
321-60-8	2-Fluorobiphenyl	70%		44-111%
1718-51-0	Terphenyl-d14	73%		37-131%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
unknown		23.64	1300	ug/kg	J
Total TIC, Semit-Volatile			1300	ug/kg	J

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-8  
 Lab Sample ID: J87954-8 Date Sampled: 04/09/08  
 Matrix: SO - Soil Date Received: 04/10/08  
 Method: OQA-QAM-025 SW846 3550B Percent Solids: 79.2  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z8404.D	1	04/16/08	VDT	04/11/08	OP32144	G2Z321
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	Total PHC	64.4	4.7	3.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
108-90-7	Chlorobenzene	88%		50-120%
84-15-1	o-Terphenyl	88%		50-120%
16416-32-3	Tetracosane-d50	91%		50-120%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-8  
 Lab Sample ID: J87954-8 Date Sampled: 04/09/08  
 Matrix: SO - Soil Date Received: 04/10/08  
 Method: SW846 8081A SW846 3545 Percent Solids: 79.2  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G36435.D	1	04/22/08	OPM	04/11/08	OP32147	G1G1317
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

Pesticide PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.7	0.34	ug/kg	
319-84-6	alpha-BHC	ND	1.7	0.31	ug/kg	
319-85-7	beta-BHC	ND	1.7	0.56	ug/kg	
319-86-8	delta-BHC	ND	1.7	0.31	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.7	0.41	ug/kg	
12789-03-6	Chlordane	ND	42	18	ug/kg	
60-57-1	Dieldrin	ND	1.7	0.33	ug/kg	
72-54-8	4,4'-DDD <sup>a</sup>	1.9	1.7	0.27	ug/kg	
72-55-9	4,4'-DDE	18.5	1.7	0.42	ug/kg	
50-29-3	4,4'-DDT	9.1	1.7	0.39	ug/kg	
72-20-8	Endrin	ND	1.7	0.36	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.7	0.36	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.7	0.39	ug/kg	
959-98-8	Endosulfan-I	ND	1.7	0.34	ug/kg	
33213-65-9	Endosulfan-II	ND	1.7	0.55	ug/kg	
76-44-8	Heptachlor	ND	1.7	0.44	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.7	0.33	ug/kg	
72-43-5	Methoxychlor	ND	1.7	0.45	ug/kg	
8001-35-2	Toxaphene	ND	21	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	71%		38-130%
877-09-8	Tetrachloro-m-xylene	92%		38-130%
2051-24-3	Decachlorobiphenyl	105%		32-142%
2051-24-3	Decachlorobiphenyl	107%		32-142%

(a) Reported from 2nd signal due to interference on 1st signal.

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-8	Date Sampled: 04/09/08
Lab Sample ID: J87954-8	Date Received: 04/10/08
Matrix: SO - Soil	Percent Solids: 79.2
Method: SW846 8082 SW846 3545	
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB73098.D	1	04/12/08	JSE	04/11/08	OP32146	GAB4089
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	42	8.0	ug/kg	
11104-28-2	Aroclor 1221	ND	42	25	ug/kg	
11141-16-5	Aroclor 1232	ND	42	23	ug/kg	
53469-21-9	Aroclor 1242	ND	42	13	ug/kg	
12672-29-6	Aroclor 1248	ND	42	14	ug/kg	
11097-69-1	Aroclor 1254	ND	42	20	ug/kg	
11096-82-5	Aroclor 1260	ND	42	8.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		37-140%
877-09-8	Tetrachloro-m-xylene	88%		37-140%
2051-24-3	Decachlorobiphenyl	106%		40-151%
2051-24-3	Decachlorobiphenyl	112%		40-151%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-8	Date Sampled: 04/09/08
Lab Sample ID: J87954-8	Date Received: 04/10/08
Matrix: SO - Soil	Percent Solids: 79.2
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	2.6	2.6	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	14.5	2.6	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	1.0	0.66	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	7.2	0.66	mg/kg	1	04/17/08	04/18/08	DM SW846 6010B <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	26.5	1.3	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	1380	3.3	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	667	2.6	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.13	0.038	mg/kg	1	04/22/08	04/22/08	JW SW846 7471A <sup>3</sup>	SW846 7471A <sup>5</sup>
Nickel	57.4	5.3	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	< 2.6	2.6	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	2.5	1.3	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	< 1.3	1.3	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	626	2.6	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA20753
- (2) Instrument QC Batch: MA20758
- (3) Instrument QC Batch: MA20769
- (4) Prep QC Batch: MP43273
- (5) Prep QC Batch: MP43326

RL = Reporting Limit



Report of Analysis

Client Sample ID:	SB-8	Date Sampled:	04/09/08
Lab Sample ID:	J87954-8	Date Received:	04/10/08
Matrix:	SO - Soil	Percent Solids:	79.2
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.32	0.32	mg/kg	1	04/23/08 11:04	JA	SW846 9012 M/LACHAT
Phenols <sup>a</sup>	< 3.4	3.4	mg/kg	1	04/16/08 16:59	WP	SW846 9066 M/LACHAT
Solids, Percent	79.2		%	1	04/21/08	BR	EPA 160.3 M

(a) NJDEP does not offer laboratory accreditation for this compound which excludes it from regulatory reporting use in New Jersey

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SB-9	Date Sampled:	04/09/08
Lab Sample ID:	J87954-9	Date Received:	04/10/08
Matrix:	SO - Soil	Percent Solids:	77.9
Method:	SW846 8260B SW846 5035		
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	D140146.D	1	04/12/08	YL	04/10/08 15:00	n/a	VD5601
Run #2							

Run #1	Initial Weight	Final Volume	Methanol Aliquot
Run #1	2.5 g	5.0 ml	100 ul
Run #2			

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	7100	3300	ug/kg	
107-13-1	Acrylonitrile	ND	7100	600	ug/kg	
71-43-2	Benzene	ND	140	50	ug/kg	
75-27-4	Bromodichloromethane	ND	710	37	ug/kg	
75-25-2	Bromoforn	ND	710	48	ug/kg	
74-83-9	Bromomethane	ND	710	130	ug/kg	
56-23-5	Carbon tetrachloride	ND	710	130	ug/kg	
108-90-7	Chlorobenzene	ND	710	42	ug/kg	
75-00-3	Chloroethane	ND	710	97	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	3600	200	ug/kg	
67-66-3	Chloroform	ND	710	66	ug/kg	
74-87-3	Chloromethane	ND	710	100	ug/kg	
124-48-1	Dibromochloromethane	ND	710	38	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	710	53	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	710	43	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	710	45	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	710	230	ug/kg	
75-34-3	1,1-Dichloroethane	ND	710	56	ug/kg	
107-06-2	1,2-Dichloroethane	ND	140	61	ug/kg	
75-35-4	1,1-Dichloroethene	ND	710	75	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	710	51	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	710	46	ug/kg	
78-87-5	1,2-Dichloropropane	ND	710	56	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	710	35	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	710	35	ug/kg	
100-41-4	Ethylbenzene	ND	140	58	ug/kg	
75-09-2	Methylene chloride	ND	710	41	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	710	36	ug/kg	
127-18-4	Tetrachloroethene	ND	710	66	ug/kg	
108-88-3	Toluene	ND	140	47	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	710	75	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	710	36	ug/kg	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

Client Sample ID:	SB-9	Date Sampled:	04/09/08
Lab Sample ID:	J87954-9	Date Received:	04/10/08
Matrix:	SO - Soil	Method:	SW846 8260B SW846 5035
Method:	SW846 8260B SW846 5035	Percent Solids:	77.9
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	710	42	ug/kg	
75-69-4	Trichlorofluoromethane	ND	710	410	ug/kg	
75-01-4	Vinyl chloride	ND	710	90	ug/kg	
1330-20-7	Xylene (total)	ND	290	43	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		68-123%
17060-07-0	1,2-Dichloroethane-D4	89%		59-136%
2037-26-5	Toluene-D8	97%		75-123%
460-00-4	4-Bromofluorobenzene	88%		65-140%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 2

Client Sample ID:	SB-9	Date Sampled:	04/09/08
Lab Sample ID:	J87954-9	Date Received:	04/10/08
Matrix:	SO - Soil	Method:	SW846 8270C SW846 3550B
Method:	SW846 8270C SW846 3550B	Percent Solids:	77.9
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3M4557.D	1	04/18/08	LP	04/11/08	OP32143	E3M175
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	1.0 ml
Run #2		

## ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1300	160	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1300	350	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1300	270	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	1300	310	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5100	280	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	5100	470	ug/kg	
88-75-5	2-Nitrophenol	ND	1300	300	ug/kg	
100-02-7	4-Nitrophenol	ND	5100	450	ug/kg	
87-86-5	Pentachlorophenol	ND	2600	270	ug/kg	
108-95-2	Phenol	ND	510	240	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1300	520	ug/kg	
83-32-9	Acenaphthene	ND	510	82	ug/kg	
208-96-8	Acenaphthylene	ND	510	52	ug/kg	
120-12-7	Anthracene	ND	510	240	ug/kg	
92-87-5	Benzidine	ND	5100	41	ug/kg	
56-55-3	Benzo(a)anthracene	108	510	53	ug/kg	J
50-32-8	Benzo(a)pyrene	ND	510	130	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	510	84	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	510	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	510	110	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	510	110	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	510	93	ug/kg	
91-58-7	2-Chloronaphthalene	ND	510	78	ug/kg	
106-47-8	4-Chloroaniline	ND	1300	93	ug/kg	
218-01-9	Chrysene	105	510	100	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	510	100	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	510	120	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	510	150	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	510	73	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	510	87	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	510	83	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	510	77	ug/kg	

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-9	Date Sampled: 04/09/08
Lab Sample ID: J87954-9	Date Received: 04/10/08
Matrix: SO - Soil	Percent Solids: 77.9
Method: SW846 8270C SW846 3550B	
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ	

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	510	69	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	510	83	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	510	100	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	190	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	510	66	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	510	71	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	510	110	ug/kg	
84-66-2	Diethyl phthalate	ND	510	90	ug/kg	
131-11-3	Dimethyl phthalate	ND	510	70	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	510	150	ug/kg	
206-44-0	Fluoranthene	201	510	48	ug/kg	J
86-73-7	Fluorene	ND	510	52	ug/kg	
118-74-1	Hexachlorobenzene	ND	510	120	ug/kg	
87-68-3	Hexachlorobutadiene	ND	510	120	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	5100	120	ug/kg	
67-72-1	Hexachloroethane	ND	1300	110	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	510	240	ug/kg	
78-59-1	Isophorone	ND	510	83	ug/kg	
91-20-3	Naphthalene	ND	510	58	ug/kg	
98-95-3	Nitrobenzene	ND	510	87	ug/kg	
62-75-9	n-Nitrosodimethylamine	ND	510	110	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	510	88	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	56	ug/kg	
85-01-8	Phenanthrene	182	510	64	ug/kg	J
129-00-0	Pyrene	177	510	89	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	510	81	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	71%		29-114%
4165-62-2	Phenol-d5	78%		31-111%
118-79-6	2,4,6-Tribromophenol	81%		27-133%
4165-60-0	Nitrobenzene-d5	70%		36-116%
321-60-8	2-Fluorobiphenyl	67%		44-111%
1718-51-0	Terpbenyl-d14	72%		37-131%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/kg	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-9	Date Sampled: 04/09/08
Lab Sample ID: J87954-9	Date Received: 04/10/08
Matrix: SO - Soil	Percent Solids: 77.9
Method: OQA-QAM-025 SW846 3550B	
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z8405.D	i	04/16/08	VDT	04/11/08	OP32144	G2Z321
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	Total PHC	53.8	4.8	3.1	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
108-90-7	Chlorobenzene	85%		50-120%
84-15-1	o-Terphenyl	90%		50-120%
16416-32-3	Tetracosane-d50	98%		50-120%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-9  
 Lab Sample ID: J87954-9 Date Sampled: 04/09/08  
 Matrix: SO - Soil Date Received: 04/10/08  
 Method: SW846 8081A SW846 3545 Percent Solids: 77.9  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G36436.D	1	04/22/08	OPM	04/11/08	OP32147	G1G1317
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.0 g	10.0 ml
Run #2		

Pesticide PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.7	0.34	ug/kg	
319-84-6	alpha-BHC	ND	1.7	0.32	ug/kg	
319-85-7	beta-BHC	ND	1.7	0.57	ug/kg	
319-86-8	delta-BHC	ND	1.7	0.31	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.7	0.42	ug/kg	
12789-03-6	Chlordane	ND	43	19	ug/kg	
60-57-1	Dieldrin	ND	1.7	0.33	ug/kg	
72-54-8	4,4'-DDD <sup>a</sup>	3.3	1.7	0.28	ug/kg	
72-55-9	4,4'-DDE	14.8	1.7	0.43	ug/kg	
50-29-3	4,4'-DDT	3.6	1.7	0.40	ug/kg	
72-20-8	Endrin	ND	1.7	0.37	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.7	0.36	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.7	0.40	ug/kg	
959-98-8	Endosulfan-I	ND	1.7	0.35	ug/kg	
33213-65-9	Endosulfan-II	ND	1.7	0.57	ug/kg	
76-44-8	Heptachlor	ND	1.7	0.45	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.7	0.34	ug/kg	
72-43-5	Methoxychlor	ND	1.7	0.46	ug/kg	
8001-35-2	Toxaphene	ND	21	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	63%		38-130%
877-09-8	Tetrachloro-m-xylene	73%		38-130%
2051-24-3	Decachlorobiphenyl	106%		32-142%
2051-24-3	Decachlorobiphenyl	110%		32-142%

(a) Reported from 2nd signal due to interference on 1st signal.

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-9  
 Lab Sample ID: J87954-9 Date Sampled: 04/09/08  
 Matrix: SO - Soil Date Received: 04/10/08  
 Method: SW846 8082 SW846 3545 Percent Solids: 77.9  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB73099.D	1	04/12/08	JSE	04/11/08	OP32146	GAB4089
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	43	8.1	ug/kg	
11104-28-2	Aroclor 1221	ND	43	26	ug/kg	
11141-16-5	Aroclor 1232	ND	43	23	ug/kg	
53469-21-9	Aroclor 1242	ND	43	14	ug/kg	
12672-29-6	Aroclor 1248	ND	43	15	ug/kg	
11097-69-1	Aroclor 1254	ND	43	20	ug/kg	
11096-82-5	Aroclor 1260	ND	43	8.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	77%		37-140%
877-09-8	Tetrachloro-m-xylene	74%		37-140%
2051-24-3	Decachlorobiphenyl	105%		40-151%
2051-24-3	Decachlorobiphenyl	116%		40-151%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value  
 RL = Reporting Limit B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

39  
23

Client Sample ID: SB-9	Date Sampled: 04/09/08
Lab Sample ID: J87954-9	Date Received: 04/10/08
Matrix: SO - Soil	Percent Solids: 77.9
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	<2.7	2.7	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	11.0	2.7	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.89	0.68	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	3.4	0.68	mg/kg	1	04/17/08	04/18/08	DM SW846 6010B <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	9.9	1.4	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	271	3.4	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	146	2.7	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.27	0.041	mg/kg	1	04/22/08	04/22/08	JW SW846 7471A <sup>3</sup>	SW846 7471A <sup>5</sup>
Nickel	14.8	5.4	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	<2.7	2.7	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	3.9	1.4	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	<1.4	1.4	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	231	2.7	mg/kg	1	04/17/08	04/18/08	ND SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA20753
- (2) Instrument QC Batch: MA20758
- (3) Instrument QC Batch: MA20769
- (4) Prep QC Batch: MP43273
- (5) Prep QC Batch: MP43326

RL = Reporting Limit

Report of Analysis

39  
23

Client Sample ID: SB-9	Date Sampled: 04/09/08
Lab Sample ID: J87954-9	Date Received: 04/10/08
Matrix: SO - Soil	Percent Solids: 77.9
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	<0.34	0.34	mg/kg	1	04/23/08 11:06	JA	SW846 9012 M/LACHAT
Phenols <sup>a</sup>	<3.2	3.2	mg/kg	1	04/28/08 08:58	WP	SW846 9086 M/LACHAT
Solids, Percent	77.9		%	1	04/21/08	BR	EPA 160.3 M

(a) NJDEP does not offer laboratory accreditation for this compound which excludes it from regulatory reporting use in New Jersey

RL = Reporting Limit

## Report of Analysis

Page 1 of 2

Client Sample ID:	TRIP BLANK	Date Sampled:	04/09/08
Lab Sample ID:	J87954-10	Date Received:	04/10/08
Matrix:	AQ - Trip Blank Soil	Method:	SW846 8260B
Method:	SW846 8260B	Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ	Percent Solids:	n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A49658.D	1	04/12/08	LY	n/a	n/a	V3A2092
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	50	4.3	ug/l	
107-13-1	Acrylonitrile	ND	50	1.3	ug/l	
71-43-2	Benzene	ND	1.0	0.26	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.14	ug/l	
75-25-2	Bromoform	ND	4.0	0.18	ug/l	
74-83-9	Bromomethane	ND	2.0	0.32	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.18	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.14	ug/l	
75-00-3	Chloroethane	ND	1.0	0.22	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	10	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	0.16	ug/l	
74-87-3	Chloromethane	ND	1.0	0.29	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.12	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.18	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.32	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.88	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.16	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.29	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.16	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.18	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.11	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.16	ug/l	
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.0	0.13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.29	ug/l	
108-88-3	Toluene	ND	1.0	0.15	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.17	ug/l	

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

Client Sample ID:	TRIP BLANK	Date Sampled:	04/09/08
Lab Sample ID:	J87954-10	Date Received:	04/10/08
Matrix:	AQ - Trip Blank Soil	Method:	SW846 8260B
Method:	SW846 8260B	Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ
Project:	Camden Laboratories, 1667 Davis Street, Camden, NJ	Percent Solids:	n/a

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.18	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-123%
17060-07-0	1,2-Dichloroethane-D4	107%		63-140%
2037-26-5	Toluene-D8	95%		78-117%
460-00-4	4-Bromofluorobenzene	102%		73-125%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



Section 4

Client / Reporting Laboratory #		Project Information		Received Analysis		Sample Codes	
Company Name <b>CMX</b>		Project Name <b>Camden Laboratories</b>		Date of Receipt <b>10/10/08</b>		<input type="checkbox"/> CW - Drinking Water <input type="checkbox"/> CW - Ground Water <input type="checkbox"/> SW - Rain <input type="checkbox"/> SW - Surface Water <input type="checkbox"/> SW - Soil <input type="checkbox"/> SW - Other Liquid <input type="checkbox"/> AIR - Air <input type="checkbox"/> SOL - Other Solid <input type="checkbox"/> SOL - Other	
Address <b>1611 Laurel Road</b>		City <b>Camden NJ</b>		State <b>NJ</b>		<input type="checkbox"/> CHL - Chloride <input type="checkbox"/> COC - Carbonate <input type="checkbox"/> COP - Copper <input type="checkbox"/> CRP - Chromium <input type="checkbox"/> CYC - Cyanide <input type="checkbox"/> DIB - Dibutyltin <input type="checkbox"/> DIB - Dimethyltin <input type="checkbox"/> DIB - Diethyltin <input type="checkbox"/> DIB - Dioctyltin <input type="checkbox"/> DIB - Dioctyltin <input type="checkbox"/> DIB - Dodecyltin <input type="checkbox"/> DIB - Dimethyltin <input type="checkbox"/> DIB - Diethyltin <input type="checkbox"/> DIB - Dioctyltin <input type="checkbox"/> DIB - Dodecyltin	
City <b>Lancaster NJ</b>		Project #		Project #		<input type="checkbox"/> DIB - Dodecyltin <input type="checkbox"/> DIB - Dimethyltin <input type="checkbox"/> DIB - Diethyltin <input type="checkbox"/> DIB - Dioctyltin <input type="checkbox"/> DIB - Dodecyltin	
Project Contact <b>Mark Re-tucha</b>		Phone # <b>609-283-1900</b>		Fax # <b>856-783-2100</b>		<input type="checkbox"/> DIB - Dodecyltin <input type="checkbox"/> DIB - Dimethyltin <input type="checkbox"/> DIB - Diethyltin <input type="checkbox"/> DIB - Dioctyltin <input type="checkbox"/> DIB - Dodecyltin	
Sample Name <b>Mary Ann Gilmore</b>		Client Purchase Order #		<input type="checkbox"/> DIB - Dodecyltin <input type="checkbox"/> DIB - Dimethyltin <input type="checkbox"/> DIB - Diethyltin <input type="checkbox"/> DIB - Dioctyltin <input type="checkbox"/> DIB - Dodecyltin		<input type="checkbox"/> DIB - Dodecyltin <input type="checkbox"/> DIB - Dimethyltin <input type="checkbox"/> DIB - Diethyltin <input type="checkbox"/> DIB - Dioctyltin <input type="checkbox"/> DIB - Dodecyltin	
Field ID / Point of Collection		Detection		Number of preservatives		<input type="checkbox"/> DIB - Dodecyltin <input type="checkbox"/> DIB - Dimethyltin <input type="checkbox"/> DIB - Diethyltin <input type="checkbox"/> DIB - Dioctyltin <input type="checkbox"/> DIB - Dodecyltin	
Accutest Sample #	LAB #	Date	Time	Matrix	# of bottles		
-1 98-1 *	4908	9/3	10:00	PC	1		1703
-2 98-2 *	4908	9/5	11:00	PC	1		6765
-3 98-3 *	4908	10/20	11:00	PC	1		2231
-4 98-4 *	4908	11/20	11:00	PC	1		
-5 98-5 *	4908	11/20	11:00	PC	1		
-6 98-6	4908	11/20	11:00	PC	1		
-7 98-7	4908	11/20	11:00	PC	1		
-8 98-8 ***	4908	11/20	11:00	PC	1		
-9 98-9 ***	4908	11/20	11:00	PC	1		
-10 Ino blank	4908	6/24/06	09:00	PC	1		
Emergency & Rush TIA data available via Lab Link		Emergency Time (Business Days)		Emergency Time (Business Days)		Emergency Time (Business Days)	
<input type="checkbox"/> 15 Business Days <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 7 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input type="checkbox"/> Other		Approved by / Date:		<input type="checkbox"/> Commercial 'A' <input type="checkbox"/> Commercial 'B' <input type="checkbox"/> EPA/Reduced <input type="checkbox"/> NJ Fed <input type="checkbox"/> Other		<input type="checkbox"/> FULL CLP <input type="checkbox"/> MWSP Category A <input type="checkbox"/> MWSP Category B <input type="checkbox"/> State Form <input type="checkbox"/> EDI Form	
Includes the following where applicable: • Chain of Custody • Sample Tracking Chronicle • Internal Chain of Custody		Contingent Volatile analysis Contingent PAH analysis Held analysis until confirmation with PM		016304462 PC 4/10/08		Samples Custody must be documented below each time custody changes transfer, including on-site delivery	
Received by	Date/Time	Received by	Date/Time	Received by	Date/Time	Received by	Date/Time
<i>[Signature]</i>	4/10/08 17:00	<i>[Signature]</i>	4/10/08 17:00	<i>[Signature]</i>	4/10/08 17:00	<i>[Signature]</i>	4/10/08 17:00
Received by	Date/Time	Received by	Date/Time	Received by	Date/Time	Received by	Date/Time
<i>[Signature]</i>	4/10/08 17:00	<i>[Signature]</i>	4/10/08 17:00	<i>[Signature]</i>	4/10/08 17:00	<i>[Signature]</i>	4/10/08 17:00

Internal Sample Tracking Chronicle

CMX

Job No: J87954

Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
J87954-1 SB-1	Collected: 09-APR-08 09:05 By: MG	Received: 10-APR-08 By: MP				
J87954-1	ASTM 4643-00	12-APR-08	NS			%SOLFT
J87954-1	SW846-8015	15-APR-08 00:09	PM	11-APR-08	JPB	B8015DROFT
J87954-2 SB-2	Collected: 09-APR-08 09:35 By: MG	Received: 10-APR-08 By: MP				
J87954-2	ASTM 4643-00	12-APR-08	NS			%SOLFT
J87954-2	SW846-8015	14-APR-08 23:29	PM	11-APR-08	JPB	B8015DROFT
J87954-3 SB-3	Collected: 09-APR-08 10:20 By: MG	Received: 10-APR-08 By: MP				
J87954-3	ASTM 4643-00	12-APR-08	NS			%SOLFT
J87954-3	OQA-QAM-025	16-APR-08 01:32	VDT	11-APR-08	TKF	BNJ025TPHCFT
J87954-4 SB-4	Collected: 09-APR-08 11:00 By: MG	Received: 10-APR-08 By: MP				
J87954-4	ASTM 4643-00	12-APR-08	NS			%SOLFT
J87954-4	OQA-QAM-025	16-APR-08 02:12	VDT	11-APR-08	TKF	BNJ025TPHCFT
J87954-5 SB-5	Collected: 09-APR-08 11:30 By: MG	Received: 10-APR-08 By: MP				
J87954-5	ASTM 4643-00	12-APR-08	NS			%SOLFT
J87954-5	OQA-QAM-025	16-APR-08 02:52	VDT	11-APR-08	TKF	BNJ025TPHCFT
J87954-6 SB-6	Collected: 09-APR-08 14:00 By: MG	Received: 10-APR-08 By: MP				
J87954-6	SW846 8260B	12-APR-08 06:52	YL			V8260PPL +
J87954-6	SW846 8082	12-APR-08 19:01	JSE	11-APR-08	WSH	P8082PCBAO
J87954-6	OQA-QAM-025	16-APR-08 03:32	VDT	11-APR-08	TKF	BNJ025TPHC
J87954-6	SW846 9066 M/LACHA	16-APR-08 16:16	WP	16-APR-08	NR	PN
J87954-6	SW846 8270C	18-APR-08 00:35	LP	11-APR-08	TKF	AB8270PPL +
J87954-6	SW846 6010B	18-APR-08 02:31	ND	17-APR-08	TC	AC,AS,BE,CD,CR,CU,NI,PB,SB,SE,TL,ZN

Internal Sample Tracking Chronicle

CMX

Job No: J87954

Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
J87954-6	SW846 8270C	19-APR-08 03:51	LP	11-APR-08	TKF	AB8270PPL +
J87954-6	EPA 160.3 M	21-APR-08	BR			%SOL
J87954-6	SW846 8081A	22-APR-08 03:19	OPM	11-APR-08	WSH	P8081PESTPPL
J87954-6	SW846 7471A	22-APR-08 16:02	JW	22-APR-08	JW	HG
J87954-6	SW846 9012 M/LACHA	19-APR-08 11:02	JA	19-APR-08	NR	CN
J87954-7 SB-7	Collected: 09-APR-08 14:30 By: MG	Received: 10-APR-08 By: MP				
J87954-7	SW846 8260B	12-APR-08 07:22	YL			V8260PPL +
J87954-7	SW846 8082	12-APR-08 19:45	JSE	11-APR-08	WSH	P8082PCBAO
J87954-7	OQA-QAM-025	16-APR-08 04:12	VDT	11-APR-08	TKF	BNJ025TPHC
J87954-7	SW846 9066 M/LACHA	16-APR-08 16:17	WP	16-APR-08	NR	PN
J87954-7	SW846 8270C	18-APR-08 01:08	LP	11-APR-08	TKF	AB8270PPL +
J87954-7	SW846 6010B	18-APR-08 02:37	ND	17-APR-08	TC	AC,AS,BE,CD,CR,CU,NI,PB,SB,SE,TL,ZN
J87954-7	SW846 8270C	19-APR-08 04:24	LP	11-APR-08	TKF	AB8270PPL +
J87954-7	EPA 160.3 M	21-APR-08	BR			%SOL
J87954-7	SW846 8081A	22-APR-08 03:52	OPM	11-APR-08	WSH	P8081PESTPPL
J87954-7	SW846 7471A	22-APR-08 16:04	JW	22-APR-08	JW	HG
J87954-7	SW846 9012 M/LACHA	19-APR-08 11:03	JA	19-APR-08	NR	CN
J87954-8 SB-8	Collected: 09-APR-08 15:10 By: MG	Received: 10-APR-08 By: MP				
J87954-8	SW846 8260B	12-APR-08 07:52	YL			V8260PPL +
J87954-8	SW846 8082	12-APR-08 20:12	JSE	11-APR-08	WSH	P8082PCBAO
J87954-8	OQA-QAM-025	16-APR-08 04:53	VDT	11-APR-08	TKF	BNJ025TPHC
J87954-8	SW846 9066 M/LACHA	16-APR-08 16:59	WP	16-APR-08	NR	PN
J87954-8	SW846 8270C	18-APR-08 01:41	LP	11-APR-08	TKF	AB8270PPL +
J87954-8	SW846 6010B	18-APR-08 02:43	ND	17-APR-08	TC	AC,AS,BE,CD,CR,CU,NI,PB,SB,SE,TL,ZN
J87954-8	SW846 6010B	18-APR-08 12:33	DM	17-APR-08	TC	CD
J87954-8	EPA 160.3 M	21-APR-08	BR			%SOL
J87954-8	SW846 8081A	22-APR-08 04:25	OPM	11-APR-08	WSH	P8081PESTPPL
J87954-8	SW846 7471A	22-APR-08 16:05	JW	22-APR-08	JW	HG
J87954-8	SW846 9012 M/LACHA	19-APR-08 11:04	JA	19-APR-08	NR	CN



Internal Sample Tracking Chronicle

CMX

Camden Laboratories, 1667 Davis Street, Camden, NJ

Job No: J87954

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
---------------	--------	----------	----	---------	----	------------

J87954-9 SB-9	Collected: 08-APR-08 16:00	By: MG	Received: 10-APR-08	By: MP		
J87954-9	SW846 8260B	12-APR-08 08:22	YL			V8260PPL+
J87954-9	SW846 8082	12-APR-08 20:56	JSE	11-APR-08	WSH	P8082PCBAO
J87954-9	OQA-QAM-025	16-APR-08 05:33	VDT	11-APR-08	TKF	BNJ025TPHC
J87954-9	SW846 6010B	18-APR-08 02:49	ND	17-APR-08	TG	AG,AS,BE,CR,CU,NI,PB,SB,SE,TL,ZN
J87954-9	SW846 6010B	18-APR-08 12:40	DM	17-APR-08	TG	CD
J87954-9	SW846 8270C	18-APR-08 13:09	LP	11-APR-08	TKF	AB8270PPL+ %SOL
J87954-9	EPA 160.3 M	21-APR-08	BR			
J87954-9	SW846 8081A	22-APR-08 04:58	OPM	11-APR-08	WSH	P8081PESTPPL
J87954-9	SW846 7471A	22-APR-08 16:06	JW	22-APR-08	JW	HG
J87954-9	SW846 9012 M/LACHA/B-APR-08	11:06	JA	19-APR-08	NR	CN
J87954-9	SW846 9066 M/LACHA/B-APR-08	08:58	WP	26-APR-08	NR	PN

J87954-10 Collected: 08-APR-08 16:00 By: MG Received: 10-APR-08 By: MP  
TRIP BLANK

J87954-10	SW846 8260B	12-APR-08 19:51	LY			V8260PPL+
-----------	-------------	-----------------	----	--	--	-----------

Job Number: J87954  
Account: DEPALMA CMX  
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ  
Received: 04/10/08

Sample/Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
J87954-1.1	Secured Storage	Adam Scott	04/11/08 07:13	Retrieve from Storage
J87954-1.1	Adam Scott	Dayu Song	04/11/08 07:57	Custody Transfer
J87954-1.1	Dayu Song	Jolecia Bartholomew	04/11/08 08:07	Custody Transfer
J87954-1.1	Jolecia Bartholomew	Funmilayo Ogundare	04/11/08 08:18	Custody Transfer
J87954-1.1	Funmilayo Ogundare	Secured Storage	04/11/08 15:17	Return to Storage
J87954-1.1	Secured Storage	Erik Moody	04/12/08 07:38	Retrieve from Storage
J87954-1.1	Erik Moody	Niyati Shah	04/12/08 07:44	Custody Transfer
J87954-1.1	Niyati Shah	Secured Storage	04/12/08 11:46	Return to Storage
J87954-1.1	Dave Hunkele		05/19/08 05:58	Disposed
J87954-1.1.1	Jolecia Bartholomew	Organics Prep	04/11/08 08:10	Extract from J87954-1.1
J87954-1.1.1	Organics Prep	Jolecia Bartholomew	04/11/08 16:42	Extract from J87954-1.1
J87954-1.1.1	Jolecia Bartholomew	Extract Storage	04/11/08 16:42	Return to Storage
J87954-1.1.1	Extract Storage	Punita Muir	04/15/08 08:15	Retrieve from Storage
J87954-1.1.1	Punita Muir	CC3Y	04/15/08 08:15	Load on Instrument
J87954-1.1.1	CC3Y	Punita Muir	04/16/08 16:44	Unload from Instrument
J87954-1.1.1	Punita Muir	Extract Freezer	04/16/08 16:44	Return to Storage
J87954-1.1.1	Extract Freezer		05/22/08 09:00	Disposed
J87954-1.3	Secured Storage	Frank Zhu	04/10/08 15:38	Retrieve from Storage
J87954-1.3	Frank Zhu	Secured Storage	04/10/08 15:55	Return to Storage
J87954-1.3	Dave Hunkele		05/19/08 05:58	Disposed
J87954-2.1	Secured Storage	Adam Scott	04/11/08 07:13	Retrieve from Storage
J87954-2.1	Adam Scott	Dayu Song	04/11/08 07:57	Custody Transfer
J87954-2.1	Dayu Song	Jolecia Bartholomew	04/11/08 08:07	Custody Transfer
J87954-2.1	Jolecia Bartholomew	Funmilayo Ogundare	04/11/08 08:18	Custody Transfer
J87954-2.1	Funmilayo Ogundare	Secured Storage	04/11/08 15:17	Return to Storage
J87954-2.1	Secured Storage	Erik Moody	04/12/08 07:38	Retrieve from Storage
J87954-2.1	Erik Moody	Niyati Shah	04/12/08 07:44	Custody Transfer
J87954-2.1	Niyati Shah	Secured Storage	04/12/08 11:46	Return to Storage
J87954-2.1	Dave Hunkele		05/19/08 05:58	Disposed
J87954-2.1.1	Jolecia Bartholomew	Organics Prep	04/11/08 08:10	Extract from J87954-2.1
J87954-2.1.1	Organics Prep	Jolecia Bartholomew	04/11/08 16:42	Extract from J87954-2.1
J87954-2.1.1	Jolecia Bartholomew	Extract Storage	04/11/08 16:42	Return to Storage
J87954-2.1.1	Extract Storage	Punita Muir	04/15/08 08:15	Retrieve from Storage
J87954-2.1.1	Punita Muir	CC3Y	04/15/08 08:15	Load on Instrument
J87954-2.1.1	CC3Y	Punita Muir	04/16/08 16:44	Unload from Instrument
J87954-2.1.1	Punita Muir	Extract Freezer	04/16/08 16:44	Return to Storage
J87954-2.1.1	Extract Freezer		05/22/08 09:00	Disposed
J87954-2.3	Secured Storage	Frank Zhu	04/10/08 15:38	Retrieve from Storage
J87954-2.3	Frank Zhu	Secured Storage	04/10/08 15:55	Return to Storage

Accutest Internal Chain of Custody

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ  
 Received: 04/10/08

Sample/Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
J87954-2.3	Dave Hunkele		05/19/08 05:58	Disposed
J87954-3.1	Secured Storage	Tyler Strauss	04/11/08 13:44	Retrieve from Storage
J87954-3.1	Tyler Strauss	Secured Storage	04/11/08 17:31	Return to Storage
J87954-3.1	Dave Hunkele		05/19/08 05:58	Disposed
J87954-3.2	Secured Storage	Tyler Strauss	04/11/08 13:44	Retrieve from Storage
J87954-3.2	Tyler Strauss	Taher K. Fatakdawala	04/11/08 17:08	Custody Transfer
J87954-3.2	Taher K. Fatakdawala	Secured Storage	04/12/08 00:50	Return to Storage
J87954-3.2	Secured Storage	Erik Moody	04/12/08 07:38	Retrieve from Storage
J87954-3.2	Erik Moody	Niyati Shah	04/12/08 07:44	Custody Transfer
J87954-3.2	Niyati Shah	Secured Storage	04/12/08 11:46	Return to Storage
J87954-3.2	Dave Hunkele		05/19/08 05:58	Disposed
J87954-3.2.1	Taher K. Fatakdawala	Organics Prep	04/11/08 17:11	Extract from J87954-3.2
J87954-3.2.1	Organics Prep	Taher K. Fatakdawala	04/12/08 00:46	Extract from J87954-3.2
J87954-3.2.1	Taher K. Fatakdawala	Extract Storage	04/12/08 00:46	Return to Storage
J87954-3.2.1	Extract Storage	Vincent Drago	04/15/08 18:12	Retrieve from Storage
J87954-3.2.1	Vincent Drago	GC2Z	04/15/08 18:12	Load on Instrument
J87954-3.2.1	GC2Z	Vincent Drago	04/17/08 18:31	Unload from Instrument
J87954-3.2.1	Vincent Drago	Extract Freezer	04/17/08 18:31	Return to Storage
J87954-3.2.1	Extract Freezer		05/22/08 09:00	Disposed
J87954-4.1	Secured Storage	Tyler Strauss	04/11/08 13:44	Retrieve from Storage
J87954-4.1	Tyler Strauss	Taher K. Fatakdawala	04/11/08 17:08	Custody Transfer
J87954-4.1	Taher K. Fatakdawala	Secured Storage	04/12/08 00:50	Return to Storage
J87954-4.1	Secured Storage	Erik Moody	04/12/08 07:38	Retrieve from Storage
J87954-4.1	Erik Moody	Niyati Shah	04/12/08 07:44	Custody Transfer
J87954-4.1	Niyati Shah	Secured Storage	04/12/08 11:46	Return to Storage
J87954-4.1	Dave Hunkele		05/19/08 05:58	Disposed
J87954-4.1.1	Taher K. Fatakdawala	Organics Prep	04/11/08 17:11	Extract from J87954-4.1
J87954-4.1.1	Organics Prep	Taher K. Fatakdawala	04/12/08 00:46	Extract from J87954-4.1
J87954-4.1.1	Taher K. Fatakdawala	Extract Storage	04/12/08 00:46	Return to Storage
J87954-4.1.1	Extract Storage	Vincent Drago	04/15/08 18:12	Retrieve from Storage
J87954-4.1.1	Vincent Drago	GC2Z	04/15/08 18:12	Load on Instrument
J87954-4.1.1	GC2Z	Vincent Drago	04/17/08 18:31	Unload from Instrument
J87954-4.1.1	Vincent Drago	Extract Freezer	04/17/08 18:31	Return to Storage
J87954-4.1.1	Extract Freezer		05/22/08 09:00	Disposed
J87954-4.2	Secured Storage	Tyler Strauss	04/11/08 13:44	Retrieve from Storage
J87954-4.2	Tyler Strauss	Secured Storage	04/11/08 17:31	Return to Storage
J87954-4.2	Dave Hunkele		05/19/08 05:58	Disposed

4.3  
4

Accutest Internal Chain of Custody

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ  
 Received: 04/10/08

Sample/Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
J87954-5.1	Secured Storage	Tyler Strauss	04/11/08 13:44	Retrieve from Storage
J87954-5.1	Tyler Strauss	Taher K. Fatakdawala	04/11/08 17:08	Custody Transfer
J87954-5.1	Taher K. Fatakdawala	Secured Storage	04/12/08 00:50	Return to Storage
J87954-5.1	Secured Storage	Erik Moody	04/12/08 07:38	Retrieve from Storage
J87954-5.1	Erik Moody	Niyati Shah	04/12/08 07:44	Custody Transfer
J87954-5.1	Niyati Shah	Secured Storage	04/12/08 11:46	Return to Storage
J87954-5.1	Dave Hunkele		05/19/08 05:58	Disposed
J87954-5.1.1	Taher K. Fatakdawala	Organics Prep	04/11/08 17:11	Extract from J87954-5.1
J87954-5.1.1	Organics Prep	Taher K. Fatakdawala	04/12/08 00:46	Extract from J87954-5.1
J87954-5.1.1	Taher K. Fatakdawala	Extract Storage	04/12/08 00:46	Return to Storage
J87954-5.1.1	Extract Storage	Vincent Drago	04/15/08 18:12	Retrieve from Storage
J87954-5.1.1	Vincent Drago	GC2Z	04/15/08 18:12	Load on Instrument
J87954-5.1.1	GC2Z	Vincent Drago	04/17/08 18:31	Unload from Instrument
J87954-5.1.1	Vincent Drago	Extract Freezer	04/17/08 18:31	Return to Storage
J87954-5.1.1	Extract Freezer		05/22/08 09:00	Disposed
J87954-5.2	Secured Storage	Tyler Strauss	04/11/08 13:44	Retrieve from Storage
J87954-5.2	Tyler Strauss	Secured Storage	04/11/08 17:31	Return to Storage
J87954-5.2	Dave Hunkele		05/19/08 05:58	Disposed
J87954-6.1	Secured Storage	Tyler Strauss	04/11/08 13:44	Retrieve from Storage
J87954-6.1	Tyler Strauss	Taher K. Fatakdawala	04/11/08 15:27	Custody Transfer
J87954-6.1	Taher K. Fatakdawala	Tyler Strauss	04/11/08 16:01	Custody Transfer
J87954-6.1	Tyler Strauss	Secured Storage	04/11/08 17:31	Return to Storage
J87954-6.1	Secured Storage	William Shew	04/11/08 17:42	Retrieve from Storage
J87954-6.1	William Shew	Secured Storage	04/11/08 22:16	Return to Storage
J87954-6.1	Secured Storage	Todd Shoemaker	04/16/08 08:32	Retrieve from Storage
J87954-6.1	Todd Shoemaker	Natalie Romanoff	04/16/08 08:34	Custody Transfer
J87954-6.1	Natalie Romanoff	Secured Storage	04/16/08 14:40	Return to Storage
J87954-6.1	Secured Storage	Todd Shoemaker	04/17/08 08:11	Retrieve from Storage
J87954-6.1	Todd Shoemaker	Teresa Guziak	04/17/08 08:14	Custody Transfer
J87954-6.1	Teresa Guziak	Secured Storage	04/17/08 12:05	Return to Storage
J87954-6.1	Secured Storage	Dave Hunkele	04/19/08 08:10	Retrieve from Storage
J87954-6.1	Dave Hunkele	Natalie Romanoff	04/19/08 08:11	Custody Transfer
J87954-6.1	Natalie Romanoff	Secured Storage	04/19/08 15:04	Return to Storage
J87954-6.1	Secured Storage	Erik Moody	04/21/08 08:50	Retrieve from Storage
J87954-6.1	Erik Moody	Brenda Rodriguez	04/21/08 08:51	Custody Transfer
J87954-6.1	Brenda Rodriguez	Secured Storage	04/21/08 11:15	Return to Storage
J87954-6.1	Secured Storage	Dave Hunkele	04/22/08 08:08	Retrieve from Storage
J87954-6.1	Dave Hunkele	Jieyu Wang	04/22/08 08:09	Custody Transfer
J87954-6.1	Jieyu Wang	Secured Storage	04/22/08 12:26	Return to Storage
J87954-6.1	Dave Hunkele		05/19/08 05:58	Disposed

4.3  
4

**Accutest Internal Chain of Custody**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ  
 Received: 04/10/08

Sample/Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
J87954-6.1.1	Taher K. Fatakdawala	Organics Prep	04/11/08 15:31	Extract from J87954-6.1
J87954-6.1.1	Organics Prep	Taher K. Fatakdawala	04/12/08 00:47	Extract from J87954-6.1
J87954-6.1.1	Taher K. Fatakdawala	Extract Storage	04/12/08 00:50	Return to Storage
J87954-6.1.1	Extract Storage	Larisa Pejdah	04/17/08 19:46	Retrieve from Storage
J87954-6.1.1	Larisa Pejdah	GCMS3M	04/17/08 19:46	Load on Instrument
J87954-6.1.1	GCMS3M	Kristi Schollenberger	04/18/08 09:24	Unload from Instrument
J87954-6.1.1	Kristi Schollenberger	Extract Freezer	04/18/08 09:24	Return to Storage
J87954-6.1.1	Extract Freezer		05/22/08 09:00	Disposed
J87954-6.1.2	Taher K. Fatakdawala	Organics Prep	04/11/08 15:58	Extract from J87954-6.1
J87954-6.1.2	Organics Prep	Taher K. Fatakdawala	04/12/08 00:46	Extract from J87954-6.1
J87954-6.1.2	Taher K. Fatakdawala	Extract Storage	04/12/08 00:46	Return to Storage
J87954-6.1.2	Extract Storage	Vincent Drago	04/15/08 18:12	Retrieve from Storage
J87954-6.1.2	Vincent Drago	GC2Z	04/15/08 18:12	Load on Instrument
J87954-6.1.2	GC2Z	Vincent Drago	04/17/08 18:31	Unload from Instrument
J87954-6.1.2	Vincent Drago	Extract Freezer	04/17/08 18:31	Return to Storage
J87954-6.1.2	Extract Freezer		05/22/08 09:00	Disposed
J87954-6.1.3	William Shew	Organics Prep	04/11/08 17:42	Extract from J87954-6.1
J87954-6.1.3	Organics Prep	William Shew	04/12/08 15:04	Extract from J87954-6.1
J87954-6.1.3	William Shew	Extract Storage	04/12/08 15:04	Return to Storage
J87954-6.1.3	Extract Storage	Vincent Drago	04/12/08 15:54	Retrieve from Storage
J87954-6.1.3	Vincent Drago	GCAB	04/12/08 15:54	Load on Instrument
J87954-6.1.3	GCAB	Jennifer Elliott	04/15/08 10:59	Unload from Instrument
J87954-6.1.3	Jennifer Elliott	Extract Freezer	04/15/08 10:59	Return to Storage
J87954-6.1.3	Extract Freezer		05/22/08 09:00	Disposed
J87954-6.1.4	William Shew	Organics Prep	04/11/08 18:01	Extract from J87954-6.1
J87954-6.1.4	Organics Prep	William Shew	04/12/08 15:04	Extract from J87954-6.1
J87954-6.1.4	William Shew	Extract Storage	04/12/08 15:04	Return to Storage
J87954-6.1.4	Extract Storage	Owen McKenna	04/21/08 17:24	Retrieve from Storage
J87954-6.1.4	Owen McKenna	GC1G	04/21/08 17:24	Load on Instrument
J87954-6.1.4	GC1G	Owen McKenna	04/23/08 11:52	Unload from Instrument
J87954-6.1.4	Owen McKenna	Extract Freezer	04/23/08 11:52	Return to Storage
J87954-6.1.4	Extract Freezer		05/22/08 09:00	Disposed
J87954-6.1.5	Teresa Guziak	Metals Digestion	04/17/08 11:52	Digestate from J87954-6.1
J87954-6.1.5	Metals Digestion	Deepa Muralidharan	04/17/08 15:00	Digestate from J87954-6.1
J87954-6.1.5	Deepa Muralidharan	Metals Digestate Storage	04/17/08 16:58	Return to Storage
J87954-6.1.5	Metals Digestate Storage	Deepa Muralidharan	04/18/08 12:04	Retrieve from Storage
J87954-6.1.5	Deepa Muralidharan	Metals Digestate Storage	04/18/08 16:18	Return to Storage
J87954-6.1.5	Metals Digestate Storage		06/24/08 09:00	Disposed
J87954-6.3	Secured Storage	Frank Zhu	04/10/08 15:38	Retrieve from Storage

4.3

4

**Accutest Internal Chain of Custody**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ  
 Received: 04/10/08

Sample/Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
J87954-6.3	Frank Zhu	Secured Storage	04/10/08 15:55	Return to Storage
J87954-6.3	Secured Storage	Ying Li	04/11/08 12:47	Retrieve from Storage
J87954-6.3	Ying Li	Secured Storage	04/11/08 13:12	Return to Storage
J87954-6.3	Dave Hunkele		05/19/08 05:58	Disposed
J87954-7.1	Secured Storage	Tyler Strauss	04/11/08 13:44	Retrieve from Storage
J87954-7.1	Tyler Strauss	Taher K. Fatakdawala	04/11/08 15:27	Custody Transfer
J87954-7.1	Taher K. Fatakdawala	Tyler Strauss	04/11/08 16:01	Custody Transfer
J87954-7.1	Tyler Strauss	Secured Storage	04/11/08 17:31	Return to Storage
J87954-7.1	Secured Storage	William Shew	04/11/08 17:42	Retrieve from Storage
J87954-7.1	William Shew	Secured Storage	04/11/08 22:16	Return to Storage
J87954-7.1	Secured Storage	Todd Shoemaker	04/16/08 08:32	Retrieve from Storage
J87954-7.1	Todd Shoemaker	Natalie Romanoff	04/16/08 08:34	Custody Transfer
J87954-7.1	Natalie Romanoff	Secured Storage	04/16/08 14:40	Return to Storage
J87954-7.1	Secured Storage	Todd Shoemaker	04/17/08 08:11	Retrieve from Storage
J87954-7.1	Todd Shoemaker	Teresa Guziak	04/17/08 08:14	Custody Transfer
J87954-7.1	Teresa Guziak	Secured Storage	04/17/08 12:05	Return to Storage
J87954-7.1	Secured Storage	Dave Hunkele	04/19/08 08:10	Retrieve from Storage
J87954-7.1	Dave Hunkele	Natalie Romanoff	04/19/08 08:11	Custody Transfer
J87954-7.1	Natalie Romanoff	Secured Storage	04/19/08 15:04	Return to Storage
J87954-7.1	Secured Storage	Erik Moody	04/21/08 08:50	Retrieve from Storage
J87954-7.1	Erik Moody	Brenda Rodriguez	04/21/08 08:51	Custody Transfer
J87954-7.1	Brenda Rodriguez	Secured Storage	04/21/08 11:15	Return to Storage
J87954-7.1	Secured Storage	Dave Hunkele	04/22/08 08:08	Retrieve from Storage
J87954-7.1	Dave Hunkele	Jleyu Wang	04/22/08 08:09	Custody Transfer
J87954-7.1	Jleyu Wang	Secured Storage	04/22/08 12:26	Return to Storage
J87954-7.1	Dave Hunkele		05/19/08 05:58	Disposed
J87954-7.1.1	Taher K. Fatakdawala	Organics Prep	04/11/08 15:31	Extract from J87954-7.1
J87954-7.1.1	Organics Prep	Taher K. Fatakdawala	04/12/08 00:47	Extract from J87954-7.1
J87954-7.1.1	Taher K. Fatakdawala	Extract Storage	04/12/08 00:50	Return to Storage
J87954-7.1.1	Extract Storage	Larisa Pejdah	04/17/08 19:46	Retrieve from Storage
J87954-7.1.1	Larisa Pejdah	GCMS3M	04/17/08 19:46	Load on Instrument
J87954-7.1.1	GCMS3M	Kristi Schollenberger	04/18/08 09:24	Unload from Instrument
J87954-7.1.1	Kristi Schollenberger	Extract Freezer	04/18/08 09:24	Return to Storage
J87954-7.1.1	Extract Freezer		05/22/08 09:00	Disposed
J87954-7.1.2	Taher K. Fatakdawala	Organics Prep	04/11/08 15:58	Extract from J87954-7.1
J87954-7.1.2	Organics Prep	Taher K. Fatakdawala	04/12/08 00:46	Extract from J87954-7.1
J87954-7.1.2	Taher K. Fatakdawala	Extract Storage	04/12/08 00:46	Return to Storage
J87954-7.1.2	Extract Storage	Vincent Drago	04/15/08 18:12	Retrieve from Storage
J87954-7.1.2	Vincent Drago	GC2Z	04/15/08 18:12	Load on Instrument
J87954-7.1.2	GC2Z	Vincent Drago	04/17/08 18:31	Unload from Instrument
J87954-7.1.2	Vincent Drago	Extract Freezer	04/17/08 18:31	Return to Storage

4.3

4

Accutest Internal Chain of Custody

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ  
 Received: 04/10/08

4.3  
4

Sample/Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
J87954-7.1.2	Extract Freezer		05/22/08 09:00	Disposed
J87954-7.1.3	William Shew	Organics Prep	04/11/08 17:42	Extract from J87954-7.1
J87954-7.1.3	Organics Prep	William Shew	04/12/08 15:04	Extract from J87954-7.1
J87954-7.1.3	William Shew	Extract Storage	04/12/08 15:04	Return to Storage
J87954-7.1.3	Extract Storage	Vincent Drago	04/12/08 15:54	Retrieve from Storage
J87954-7.1.3	Vincent Drago	GCAB	04/12/08 15:54	Load on Instrument
J87954-7.1.3	GCAB	Jennifer Elliott	04/15/08 10:59	Unload from Instrument
J87954-7.1.3	Jennifer Elliott	Extract Freezer	04/15/08 10:59	Return to Storage
J87954-7.1.3	Extract Freezer		05/22/08 09:00	Disposed
J87954-7.1.4	William Shew	Organics Prep	04/11/08 18:01	Extract from J87954-7.1
J87954-7.1.4	Organics Prep	William Shew	04/12/08 15:04	Extract from J87954-7.1
J87954-7.1.4	William Shew	Extract Storage	04/12/08 15:04	Return to Storage
J87954-7.1.4	Extract Storage	Owen McKenna	04/21/08 17:24	Retrieve from Storage
J87954-7.1.4	Owen McKenna	GC1G	04/21/08 17:24	Load on Instrument
J87954-7.1.4	GC1G	Owen McKenna	04/23/08 11:52	Unload from Instrument
J87954-7.1.4	Owen McKenna	Extract Freezer	04/23/08 11:52	Return to Storage
J87954-7.1.4	Extract Freezer		05/22/08 09:00	Disposed
J87954-7.1.5	Teresa Guziak	Metals Digestion	04/17/08 11:52	Digestate from J87954-7.1
J87954-7.1.5	Metals Digestion	Deepa Muralidharan	04/17/08 15:00	Digestate from J87954-7.1
J87954-7.1.5	Deepa Muralidharan	Metals Digestate Storage	04/17/08 16:58	Return to Storage
J87954-7.1.5	Metals Digestate Storage	Deepa Muralidharan	04/18/08 12:04	Retrieve from Storage
J87954-7.1.5	Deepa Muralidharan	Metals Digestate Storage	04/18/08 16:18	Return to Storage
J87954-7.1.5	Metals Digestate Storage		06/24/08 09:00	Disposed
J87954-7.3	Secured Storage	Frank Zhu	04/10/08 15:38	Retrieve from Storage
J87954-7.3	Frank Zhu	Secured Storage	04/10/08 15:55	Return to Storage
J87954-7.3	Secured Storage	Ying Li	04/11/08 12:47	Retrieve from Storage
J87954-7.3	Ying Li	Secured Storage	04/11/08 13:12	Return to Storage
J87954-7.3	Dave Hunkele		05/19/08 05:58	Disposed
J87954-8.1	Secured Storage	Tyler Strauss	04/11/08 13:44	Retrieve from Storage
J87954-8.1	Tyler Strauss	Taher K. Fatakdawala	04/11/08 15:27	Custody Transfer
J87954-8.1	Taher K. Fatakdawala	Tyler Strauss	04/11/08 16:01	Custody Transfer
J87954-8.1	Tyler Strauss	Secured Storage	04/11/08 17:31	Return to Storage
J87954-8.1	Secured Storage	William Shew	04/11/08 17:42	Retrieve from Storage
J87954-8.1	William Shew	Secured Storage	04/11/08 22:16	Return to Storage
J87954-8.1	Secured Storage	Todd Shoemaker	04/16/08 08:32	Retrieve from Storage
J87954-8.1	Todd Shoemaker	Natalie Romanoff	04/16/08 08:34	Custody Transfer
J87954-8.1	Natalie Romanoff	Secured Storage	04/16/08 14:40	Return to Storage
J87954-8.1	Secured Storage	Todd Shoemaker	04/17/08 08:11	Retrieve from Storage
J87954-8.1	Todd Shoemaker	Teresa Guziak	04/17/08 08:14	Custody Transfer

Accutest Internal Chain of Custody

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ  
 Received: 04/10/08

4.3  
4

Sample/Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
J87954-8.1	Teresa Guziak	Secured Storage	04/17/08 12:05	Return to Storage
J87954-8.1	Secured Storage	Dave Hunkele	04/19/08 08:10	Retrieve from Storage
J87954-8.1	Dave Hunkele	Natalie Romanoff	04/19/08 08:11	Custody Transfer
J87954-8.1	Secured Storage	Erik Moody	04/19/08 15:04	Return to Storage
J87954-8.1	Secured Storage	Erik Moody	04/21/08 08:50	Retrieve from Storage
J87954-8.1	Erik Moody	Brenda Rodriguez	04/21/08 08:51	Custody Transfer
J87954-8.1	Brenda Rodriguez	Secured Storage	04/21/08 11:15	Return to Storage
J87954-8.1	Secured Storage	Dave Hunkele	04/22/08 08:08	Retrieve from Storage
J87954-8.1	Dave Hunkele	Jieyu Wang	04/22/08 08:09	Custody Transfer
J87954-8.1	Jieyu Wang	Secured Storage	04/22/08 12:26	Return to Storage
J87954-8.1	Dave Hunkele		05/19/08 05:58	Disposed
J87954-8.1.1	Taher K. Fatakdawala	Organics Prep	04/11/08 15:31	Extract from J87954-8.1
J87954-8.1.1	Organics Prep	Taher K. Fatakdawala	04/12/08 00:47	Extract from J87954-8.1
J87954-8.1.1	Taher K. Fatakdawala	Extract Storage	04/12/08 00:50	Return to Storage
J87954-8.1.1	Extract Storage	Larisa Pejdah	04/17/08 19:46	Retrieve from Storage
J87954-8.1.1	Larisa Pejdah	GCMS3M	04/17/08 19:46	Load on Instrument
J87954-8.1.1	GCMS3M	Kristi Schollenberger	04/18/08 09:24	Unload from Instrument
J87954-8.1.1	Kristi Schollenberger	Extract Freezer	04/18/08 09:24	Return to Storage
J87954-8.1.1	Extract Freezer		05/22/08 09:00	Disposed
J87954-8.1.2	Taher K. Fatakdawala	Organics Prep	04/11/08 15:58	Extract from J87954-8.1
J87954-8.1.2	Organics Prep	Taher K. Fatakdawala	04/12/08 00:46	Extract from J87954-8.1
J87954-8.1.2	Taher K. Fatakdawala	Extract Storage	04/12/08 00:46	Return to Storage
J87954-8.1.2	Extract Storage	Vincent Drago	04/15/08 18:12	Retrieve from Storage
J87954-8.1.2	Vincent Drago	GC2Z	04/15/08 18:12	Load on Instrument
J87954-8.1.2	GC2Z	Vincent Drago	04/17/08 18:31	Unload from Instrument
J87954-8.1.2	Vincent Drago	Extract Freezer	04/17/08 18:31	Return to Storage
J87954-8.1.2	Extract Freezer		05/22/08 09:00	Disposed
J87954-8.1.3	William Shew	Organics Prep	04/11/08 17:42	Extract from J87954-8.1
J87954-8.1.3	Organics Prep	William Shew	04/12/08 15:04	Extract from J87954-8.1
J87954-8.1.3	William Shew	Extract Storage	04/12/08 15:04	Return to Storage
J87954-8.1.3	Extract Storage	Vincent Drago	04/12/08 15:54	Retrieve from Storage
J87954-8.1.3	Vincent Drago	GCAB	04/12/08 15:54	Load on Instrument
J87954-8.1.3	GCAB	Jennifer Elliott	04/15/08 10:59	Unload from Instrument
J87954-8.1.3	Jennifer Elliott	Extract Freezer	04/15/08 10:59	Return to Storage
J87954-8.1.3	Extract Freezer		05/22/08 09:00	Disposed
J87954-8.1.4	William Shew	Organics Prep	04/11/08 18:01	Extract from J87954-8.1
J87954-8.1.4	Organics Prep	William Shew	04/12/08 15:04	Extract from J87954-8.1
J87954-8.1.4	William Shew	Extract Storage	04/12/08 15:04	Return to Storage
J87954-8.1.4	Extract Storage	Owen McKenna	04/21/08 17:24	Retrieve from Storage
J87954-8.1.4	Owen McKenna	GC1G	04/21/08 17:24	Load on Instrument

Accutest Internal Chain of Custody

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ  
 Received: 04/10/08

Sample/Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
J87954-8.1.4	GC1G	Owen McKenna	04/23/08 11:52	Unload from Instrument
J87954-8.1.4	Owen McKenna	Extract Freezer	04/23/08 11:52	Return to Storage
J87954-8.1.4	Extract Freezer		05/22/08 09:00	Disposed
J87954-8.1.5	Teresa Guzlak	Metals Digestion	04/17/08 11:52	Digestate from J87954-8.1
J87954-8.1.5	Metals Digestion	Deepa Muralidharan	04/17/08 15:00	Digestate from J87954-8.1
J87954-8.1.5	Deepa Muralidharan	Metals Digestate Storage	04/17/08 16:58	Return to Storage
J87954-8.1.5	Metals Digestate Storage	Deepa Muralidharan	04/18/08 12:04	Retrieve from Storage
J87954-8.1.5	Deepa Muralidharan	Metals Digestate Storage	04/18/08 16:18	Return to Storage
J87954-8.1.5	Metals Digestate Storage		06/24/08 09:00	Disposed
J87954-8.3	Secured Storage	Frank Zhu	04/10/08 15:38	Retrieve from Storage
J87954-8.3	Frank Zhu	Secured Storage	04/10/08 15:55	Return to Storage
J87954-8.3	Secured Storage	Ying Li	04/11/08 12:47	Retrieve from Storage
J87954-8.3	Ying Li	Secured Storage	04/11/08 13:12	Return to Storage
J87954-8.3	Dave Hunkele		05/19/08 05:58	Disposed
J87954-9.1	Secured Storage	Tyler Strauss	04/11/08 13:44	Retrieve from Storage
J87954-9.1	Tyler Strauss	Taher K. Fatakdawala	04/11/08 15:27	Custody Transfer
J87954-9.1	Taher K. Fatakdawala	Tyler Strauss	04/11/08 16:01	Custody Transfer
J87954-9.1	Tyler Strauss	Secured Storage	04/11/08 17:31	Return to Storage
J87954-9.1	Secured Storage	William Shew	04/11/08 17:42	Retrieve from Storage
J87954-9.1	William Shew	Secured Storage	04/11/08 22:16	Return to Storage
J87954-9.1	Secured Storage	Todd Shoemaker	04/16/08 08:32	Retrieve from Storage
J87954-9.1	Todd Shoemaker	Natalie Romanoff	04/16/08 08:34	Custody Transfer
J87954-9.1	Natalie Romanoff	Secured Storage	04/16/08 14:40	Return to Storage
J87954-9.1	Secured Storage	Todd Shoemaker	04/17/08 08:11	Retrieve from Storage
J87954-9.1	Todd Shoemaker	Teresa Guzlak	04/17/08 08:14	Custody Transfer
J87954-9.1	Teresa Guzlak	Secured Storage	04/17/08 12:05	Return to Storage
J87954-9.1	Secured Storage	Dave Hunkele	04/19/08 08:10	Retrieve from Storage
J87954-9.1	Dave Hunkele	Natalie Romanoff	04/19/08 08:11	Custody Transfer
J87954-9.1	Natalie Romanoff	Secured Storage	04/19/08 15:04	Return to Storage
J87954-9.1	Secured Storage	Erik Moody	04/21/08 08:50	Retrieve from Storage
J87954-9.1	Erik Moody	Brenda Rodriguez	04/21/08 08:51	Custody Transfer
J87954-9.1	Brenda Rodriguez	Secured Storage	04/21/08 11:15	Return to Storage
J87954-9.1	Secured Storage	Dave Hunkele	04/22/08 08:08	Retrieve from Storage
J87954-9.1	Dave Hunkele	Jieyu Wang	04/22/08 08:09	Custody Transfer
J87954-9.1	Jieyu Wang	Secured Storage	04/22/08 12:26	Return to Storage
J87954-9.1	Secured Storage	Erik Moody	04/26/08 08:24	Retrieve from Storage
J87954-9.1	Erik Moody	Komal Patel	04/26/08 08:25	Custody Transfer
J87954-9.1	Komal Patel	Secured Storage	04/26/08 15:28	Return to Storage
J87954-9.1	Dave Hunkele		05/19/08 05:58	Disposed
J87954-9.1.1	Taher K. Fatakdawala	Organics Prep	04/11/08 15:31	Extract from J87954-9.1

4.3  
4

Accutest Internal Chain of Custody

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ  
 Received: 04/10/08

Sample/Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
J87954-9.1.1	Organics Prep	Taher K. Fatakdawala	04/12/08 00:47	Extract from J87954-9.1
J87954-9.1.1	Taher K. Fatakdawala	Extract Storage	04/12/08 00:50	Return to Storage
J87954-9.1.1	Extract Storage	Kristi Schollenberger	04/18/08 09:26	Retrieve from Storage
J87954-9.1.1	Kristi Schollenberger	GCMS3M	04/18/08 09:26	Load on Instrument
J87954-9.1.1	GCMS3M	Larisa Pejdah	04/21/08 19:29	Unload from Instrument
J87954-9.1.1	Larisa Pejdah	Extract Freezer	04/21/08 19:29	Return to Storage
J87954-9.1.1	Extract Freezer		05/22/08 09:00	Disposed
J87954-9.1.2	Taher K. Fatakdawala	Organics Prep	04/11/08 15:58	Extract from J87954-9.1
J87954-9.1.2	Organics Prep	Taher K. Fatakdawala	04/12/08 00:46	Extract from J87954-9.1
J87954-9.1.2	Taher K. Fatakdawala	Extract Storage	04/12/08 00:46	Return to Storage
J87954-9.1.2	Extract Storage	Vincent Drago	04/15/08 18:12	Retrieve from Storage
J87954-9.1.2	Vincent Drago	GC2Z	04/15/08 18:12	Load on Instrument
J87954-9.1.2	GC2Z	Vincent Drago	04/17/08 18:31	Unload from Instrument
J87954-9.1.2	Vincent Drago	Extract Freezer	04/17/08 18:31	Return to Storage
J87954-9.1.2	Extract Freezer		05/22/08 09:00	Disposed
J87954-9.1.3	William Shew	Organics Prep	04/11/08 17:42	Extract from J87954-9.1
J87954-9.1.3	Organics Prep	William Shew	04/12/08 15:04	Extract from J87954-9.1
J87954-9.1.3	William Shew	Extract Storage	04/12/08 15:04	Return to Storage
J87954-9.1.3	Extract Storage	Vincent Drago	04/12/08 15:54	Retrieve from Storage
J87954-9.1.3	Vincent Drago	GCAB	04/12/08 15:54	Load on Instrument
J87954-9.1.3	GCAB	Jennifer Elliott	04/15/08 10:59	Unload from Instrument
J87954-9.1.3	Jennifer Elliott	Extract Freezer	04/15/08 10:59	Return to Storage
J87954-9.1.3	Extract Freezer		05/22/08 09:00	Disposed
J87954-9.1.4	William Shew	Organics Prep	04/11/08 18:01	Extract from J87954-9.1
J87954-9.1.4	Organics Prep	William Shew	04/12/08 15:04	Extract from J87954-9.1
J87954-9.1.4	William Shew	Extract Storage	04/12/08 15:04	Return to Storage
J87954-9.1.4	Extract Storage	Owen McKenna	04/21/08 17:24	Retrieve from Storage
J87954-9.1.4	Owen McKenna	GC1G	04/21/08 17:24	Load on Instrument
J87954-9.1.4	GC1G	Owen McKenna	04/23/08 11:52	Unload from Instrument
J87954-9.1.4	Owen McKenna	Extract Freezer	04/23/08 11:52	Return to Storage
J87954-9.1.4	Extract Freezer		05/22/08 09:00	Disposed
J87954-9.1.5	Teresa Guzlak	Metals Digestion	04/17/08 11:52	Digestate from J87954-9.1
J87954-9.1.5	Metals Digestion	Deepa Muralidharan	04/17/08 15:00	Digestate from J87954-9.1
J87954-9.1.5	Deepa Muralidharan	Metals Digestate Storage	04/17/08 16:58	Return to Storage
J87954-9.1.5	Metals Digestate Storage	Deepa Muralidharan	04/18/08 12:04	Retrieve from Storage
J87954-9.1.5	Deepa Muralidharan	Metals Digestate Storage	04/18/08 16:18	Return to Storage
J87954-9.1.5	Metals Digestate Storage		06/24/08 09:00	Disposed
J87954-9.3	Secured Storage	Frank Zhu	04/10/08 15:38	Retrieve from Storage
J87954-9.3	Frank Zhu	Secured Storage	04/10/08 15:55	Return to Storage

4.3  
4

**Accutest Internal Chain of Custody**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ  
 Received: 04/10/08



4.3  
4

Sample Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
J87954-9.3	Secured Storage	Ylog Li	04/11/08 12:47	Retrieve from Storage
J87854-8.3	Ying Li	Secured Storage	04/11/08 13:12	Return to Storage
J87954-9.3	Dave Hunkele		05/19/08 05:58	Disposed
J87954-10.1	Secured Storage	Li Yuan	04/11/08 14:58	Retrieve from Storage
J87954-10.1	Li Yuan	VOA Prep Storage	04/11/08 14:58	Return to Storage
J87954-10.1	VOA Prep Storage	Reginald Saint-Juste	04/12/08 12:58	Retrieve from Storage
J87954-10.1	Reginald Saint-Juste	GCMS3A	04/12/08 12:58	Load on Instrument
J87954-10.1	GCMS3A	Sophie Zhou	04/15/08 12:09	Uoload from Instrument
J87954-10.1	Sophie Zhou	Secured Storage	04/15/08 12:09	Return to Storage
J87954-10.1	Dave Hunkele		05/19/08 05:58	Disposed

**GC/MS Volatiles**

---

**QC Data Summaries**

---

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

**Accutest Internal Chain of Custody**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ  
 Received: 04/10/08



4.3  
 4

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
J87954-9.3	Secured Storage	Ying Li	04/11/08 12:47	Retrieve from Storage
J87954-9.3	Ying Li	Secured Storage	04/11/08 13:12	Return to Storage
J87954-9.3	Dave Hunkele		05/19/08 05:58	Disposed
J87954-10.1	Secured Storage	Li Yuan	04/11/08 14:58	Retrieve from Storage
J87954-10.1	Li Yuan	VOA Prep Storage	04/11/08 14:58	Return to Storage
J87954-10.1	VOA Prep Storage	Reginald Saint-Juste	04/12/08 12:58	Retrieve from Storage
J87954-10.1	Reginald Saint-Juste	GCMS3A	04/12/08 12:58	Load on Instrument
J87954-10.1	GCMS3A	Sophie Zhou	04/15/08 12:09	Unload from Instrument
J87954-10.1	Sophie Zhou	Secured Storage	04/15/08 12:09	Return to Storage
J87954-10.1	Dave Hunkele		05/19/08 05:58	Disposed

**GC/MS Volatiles**

**QC Data Summaries**

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VD5601-MB1	D140133.D	1	04/12/08	YL	n/a	n/a	VD5601

The QC reported here applies to the following samples:

Method: SW846 8260B

J87954-6, J87954-7, J87954-8, J87954-9

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	2500	1100	ug/kg	
107-13-1	Acrylonitrile	ND	2500	210	ug/kg	
71-43-2	Benzene	ND	50	18	ug/kg	
75-27-4	Bromodichloromethane	ND	250	13	ug/kg	
75-25-2	Bromoform	ND	250	17	ug/kg	
74-83-9	Bromomethane	ND	250	44	ug/kg	
56-23-5	Carbon tetrachloride	ND	250	47	ug/kg	
108-90-7	Chlorobenzene	ND	250	15	ug/kg	
75-00-3	Chloroethane	ND	250	34	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	1300	69	ug/kg	
67-66-3	Chloroform	ND	250	23	ug/kg	
74-87-3	Chloromethane	ND	250	35	ug/kg	
124-48-1	Dibromochloromethane	ND	250	13	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	250	18	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	250	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	250	16	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	250	80	ug/kg	
75-34-3	1,1-Dichloroethane	ND	250	20	ug/kg	
107-06-2	1,2-Dichloroethane	ND	50	21	ug/kg	
75-35-4	1,1-Dichloroethene	ND	250	26	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	250	18	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	250	16	ug/kg	
78-87-5	1,2-Dichloropropane	ND	250	20	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	250	12	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	250	12	ug/kg	
100-41-4	Ethylbenzene	ND	50	20	ug/kg	
75-09-2	Methylene chloride	ND	250	15	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	13	ug/kg	
127-18-4	Tetrachloroethene	ND	250	23	ug/kg	
108-88-3	Toluene	ND	50	16	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	250	26	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	250	13	ug/kg	
79-01-6	Trichloroethene	ND	250	15	ug/kg	
75-69-4	Trichlorofluoromethane	ND	250	140	ug/kg	
75-01-4	Vinyl chloride	ND	250	32	ug/kg	
1330-20-7	Xylene (total)	ND	100	15	ug/kg	

**Method Blank Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VD5601-MB1	D140133.D	1	04/12/08	YL	n/a	n/a	VD5601

The QC reported here applies to the following samples:

Method: SW846 8260B

J87954-6, J87954-7, J87954-8, J87954-9

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	88% 68-123%
17060-07-0	1,2-Dichloroethane-D4	87% 59-136%
2037-26-5	Toluene-D8	97% 75-123%
460-00-4	4-Bromofluorobenzene	90% 65-140%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	



**Method Blank Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A2092-MB	3A49648.D	1	04/12/08	LY	n/a	n/a	V3A2092

The QC reported here applies to the following samples:

Method: SW846 8260B

J87954-10

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	50	4.3	ug/l	
107-13-1	Acrylonitrile	ND	50	1.3	ug/l	
71-43-2	Benzene	ND	1.0	0.26	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.14	ug/l	
75-25-2	Bromoform	ND	4.0	0.18	ug/l	
74-83-9	Bromomethane	ND	2.0	0.32	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.18	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.14	ug/l	
75-00-3	Chloroethane	ND	1.0	0.22	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	10	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	0.16	ug/l	
74-87-3	Chloromethane	ND	1.0	0.29	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.12	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.18	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.26	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.32	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.88	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.16	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.29	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.16	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.18	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.11	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.16	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.29	ug/l	
108-88-3	Toluene	ND	1.0	0.15	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.17	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.18	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.39	ug/l	

51  
5

**Method Blank Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A2092-MB	3A49648.D	1	04/12/08	LY	n/a	n/a	V3A2092

The QC reported here applies to the following samples:

Method: SW846 8260B

J87954-10

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	101% 76-123%
17060-07-0	1,2-Dichloroethane-D4	102% 63-140%
2037-26-5	Toluene-D8	96% 78-117%
460-00-4	4-Bromofluorobenzene	101% 73-125%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

51  
5

**Blank Spike Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VD5601-BS	D140134.D	1	04/12/08	YL	n/a	n/a	VD5601

The QC reported here applies to the following samples:

Method: SW846 8260B

J87954-6, J87954-7, J87954-8, J87954-9

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
107-02-8	Acrolein	25000	41300	165* a	32-164
107-13-1	Acrylonitrile	12500	10400	83	58-147
71-43-2	Benzene	2500	2630	105	80-116
75-27-4	Bromodichloromethane	2500	2750	110	81-123
75-25-2	Bromoform	2500	3150	126	74-129
74-83-9	Bromomethane	2500	3340	134* a	62-132
56-23-5	Carbon tetrachloride	2500	3000	120	69-134
108-90-7	Chlorobenzene	2500	2760	110	84-116
75-00-3	Chloroethane	2500	3030	121	62-137
110-75-8	2-Chloroethyl vinyl ether	12500	18300	146* a	62-140
67-66-3	Chloroform	2500	2570	103	78-121
74-87-3	Chloromethane	2500	2670	107	51-149
124-48-1	Dibromochloromethane	2500	2930	117	82-127
95-50-1	1,2-Dichlorobenzene	2500	2590	104	82-116
541-73-1	1,3-Dichlorobenzene	2500	2710	108	79-117
106-46-7	1,4-Dichlorobenzene	2500	2670	107	77-114
75-71-8	Dichlorodifluoromethane	2500	2120	85	45-162
75-34-3	1,1-Dichloroethane	2500	2500	100	77-123
107-06-2	1,2-Dichloroethane	2500	2600	104	74-131
75-35-4	1,1-Dichloroethene	2500	2800	112	70-125
156-59-2	cis-1,2-Dichloroethene	2500	2800	112	77-122
156-60-5	trans-1,2-Dichloroethene	2500	2700	108	74-123
78-87-5	1,2-Dichloropropane	2500	2520	101	81-119
10061-01-5	cis-1,3-Dichloropropene	2500	2430	97	82-120
10061-02-6	trans-1,3-Dichloropropene	2500	2460	98	80-123
100-41-4	Ethylbenzene	2500	2710	108	81-118
75-09-2	Methylene chloride	2500	2680	107	77-123
79-34-5	1,1,2,2-Tetrachloroethane	2500	2250	90	75-125
127-18-4	Tetrachloroethene	2500	3050	122	67-129
108-88-3	Toluene	2500	2710	108	82-118
71-55-6	1,1,1-Trichloroethane	2500	2660	106	74-129
79-00-5	1,1,2-Trichloroethane	2500	2560	102	82-120
79-01-6	Trichloroethene	2500	2550	102	80-119
75-69-4	Trichlorofluoromethane	2500	2600	104	60-148
75-01-4	Vinyl chloride	2500	2770	111	62-139
1330-20-7	Xylene (total)	7500	8900	119	77-124

5.2  
5

**Blank Spike Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VD5601-BS	D140134.D	1	04/12/08	YL	n/a	n/a	VD5601

The QC reported here applies to the following samples:

Method: SW846 8260B

J87954-6, J87954-7, J87954-8, J87954-9

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	89%	68-123%
17060-07-0	1,2-Dichloroethane-D4	87%	59-136%
2037-26-5	Toluene-D8	99%	75-123%
460-00-4	4-Bromofluorobenzene	90%	65-140%

(a) High percent recoveries and no associated positive found in the QC batch.

5.2  
5

**Blank Spike Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A2092-BS	3A49649.D	1	04/12/08	LY	n/a	n/a	V3A2092

The QC reported here applies to the following samples:

Method: SW846 8260B

J87954-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
107-02-8	Acrolein	500	682	136	37-179
107-13-1	Acrylonitrile	250	265	106	63-138
71-43-2	Benzene	50	49.9	100	77-122
75-27-4	Bromodichloromethane	50	52.2	104	76-128
75-25-2	Bromoform	50	50.0	100	60-135
74-83-9	Bromomethane	50	49.5	99	57-149
56-23-5	Carbon tetrachloride	50	50.7	101	72-140
108-90-7	Chlorobenzene	50	49.9	100	80-120
75-00-3	Chloroethane	50	50.9	102	64-139
110-75-8	2-Chloroethyl vinyl ether	250	261	104	67-137
67-66-3	Chloroform	50	50.1	100	79-125
74-87-3	Chloromethane	50	42.3	85	50-152
124-48-1	Dibromochloromethane	50	54.4	109	76-125
95-50-1	1,2-Dichlorobenzene	50	50.3	101	79-116
541-73-1	1,3-Dichlorobenzene	50	49.5	99	75-117
106-46-7	1,4-Dichlorobenzene	50	48.4	97	75-118
75-71-8	Dichlorodifluoromethane	50	34.9	70	51-166
75-34-3	1,1-Dichloroethane	50	49.8	100	74-127
107-06-2	1,2-Dichloroethane	50	55.2	110	66-137
75-35-4	1,1-Dichloroethene	50	47.9	96	69-135
156-59-2	cis-1,2-Dichloroethene	50	48.5	97	75-130
156-60-5	trans-1,2-Dichloroethene	50	50.2	100	70-124
78-87-5	1,2-Dichloropropane	50	52.0	104	80-119
10061-01-5	cis-1,3-Dichloropropene	50	52.8	106	79-120
10061-02-6	trans-1,3-Dichloropropene	50	53.9	108	78-125
100-41-4	Ethylbenzene	50	52.4	105	80-123
75-09-2	Methylene chloride	50	49.9	100	75-135
79-34-5	1,1,2,2-Tetrachloroethane	50	48.6	97	72-118
127-18-4	Tetrachloroethene	50	49.8	100	71-128
108-88-3	Toluene	50	51.5	103	79-122
71-55-6	1,1,1-Trichloroethane	50	48.9	98	77-135
79-00-5	1,1,2-Trichloroethane	50	49.6	99	83-120
79-01-6	Trichloroethene	50	51.4	103	77-123
75-69-4	Trichlorofluoromethane	50	45.1	90	70-159
75-01-4	Vinyl chloride	50	44.7	89	55-145
1330-20-7	Xylene (total)	150	158	105	77-125

52  
5

**Blank Spike Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A2092-BS	3A49649.D	1	04/12/08	LY	n/a	n/a	V3A2092

The QC reported here applies to the following samples:

Method: SW846 8260B

J87954-10

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	95%	76-123%
17060-07-0	1,2-Dichloroethane-D4	96%	63-140%
2037-26-5	Toluene-D8	100%	78-117%
460-00-4	4-Bromofluorobenzene	99%	73-125%

52  
5

**Matrix Spike/Matrix Spike Duplicate Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
J87833-1MS	D140153.D	1	04/12/08	YL	n/a	n/a	VD5601
J87833-1MSD	D140154.D	1	04/12/08	YL	n/a	n/a	VD5601
J87833-1	D140147.D	1	04/12/08	YL	n/a	n/a	VD5601

The QC reported here applies to the following samples:

Method: SW846 8260B

J87954-6, J87954-7, J87954-8, J87954-9

CAS No.	Compound	J87833-1 ug/kg	Spike Q	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
107-02-8	Acrolein	ND	33800	12800	38	12300	36	4	9-164/40
107-13-1	Acrylonitrile	ND	16900	12100	72	11500	68	5	43-147/27
71-43-2	Benzene	ND	3380	3120	92	3110	92	0	50-133/26
75-27-4	Bromodichloromethane	ND	3380	3230	96	3260	97	1	49-148/27
75-25-2	Bromoform	ND	3380	3870	115	3870	115	0	40-149/26
74-83-9	Bromomethane	ND	3380	235	7* a	225	7* a	4	12-138/32
56-23-5	Carbon tetrachloride	ND	3380	3740	111	3690	109	1	25-169/26
108-90-7	Chlorobenzene	ND	3380	3350	99	3360	99	0	39-141/28
75-00-3	Chloroethane	ND	3380	384	11	355	11	8	6-141/31
110-75-8	2-Chloroethyl vinyl ether	ND	16900	22400	133	22200	131	1	44-142/28
67-66-3	Chloroform	ND	3380	3010	89	2980	88	1	53-133/26
74-87-3	Chloromethane	ND	3380	3620	107	3460	102	5	29-134/29
124-48-1	Dibromochloromethane	ND	3380	3520	104	3550	105	1	38-163/27
95-50-1	1,2-Dichlorobenzene	ND	3380	3100	92	3100	92	0	22-152/26
541-73-1	1,3-Dichlorobenzene	ND	3380	3240	96	3260	97	1	21-150/28
106-46-7	1,4-Dichlorobenzene	ND	3380	3230	96	3250	96	1	21-148/28
75-71-8	Dichlorodifluoromethane	ND	3380	3420	101	3120	92	9	10-164/28
75-34-3	1,1-Dichloroethane	ND	3380	2890	86	2850	84	1	54-130/26
107-06-2	1,2-Dichloroethane	ND	3380	3140	93	3130	93	0	50-143/25
75-35-4	1,1-Dichloroethene	ND	3380	3360	99	3300	98	2	40-140/26
156-59-2	cis-1,2-Dichloroethene	ND	3380	3270	97	3260	97	0	51-134/26
156-60-5	trans-1,2-Dichloroethene	ND	3380	3200	95	3150	93	2	45-136/26
78-87-5	1,2-Dichloropropane	ND	3380	2940	87	2920	86	1	57-130/25
10061-01-5	cis-1,3-Dichloropropene	ND	3380	2750	81	2760	82	0	46-137/27
10061-02-6	trans-1,3-Dichloropropene	ND	3380	2810	83	2780	82	1	41-143/27
100-41-4	Ethylbenzene	ND	3380	3240	96	3240	96	0	36-146/27
75-09-2	Methylene chloride	ND	3380	3180	94	3140	93	1	49-133/25
79-34-5	1,1,2,2-Tetrachloroethane	ND	3380	2560	76	2550	75	0	45-135/28
127-18-4	Tetrachloroethene	ND	3380	3860	114	3830	113	1	32-168/29
108-88-3	Toluene	ND	3380	3230	96	3220	95	0	43-142/26
71-55-6	1,1,1-Trichloroethane	ND	3380	3170	94	3130	93	1	40-146/26
79-00-5	1,1,2-Trichloroethane	ND	3380	3000	89	2980	88	1	53-137/27
79-01-6	Trichloroethene	ND	3380	3030	90	3020	89	0	42-148/26
75-69-4	Trichlorofluoromethane	ND	3380	3030	90	2990	89	1	22-159/28
75-01-4	Vinyl chloride	ND	3380	3780	112	3570	106	6	33-135/27
1330-20-7	Xylene (total)	ND	10100	10700	106	10600	105	1	31-149/28

53  
5

**Matrix Spike/Matrix Spike Duplicate Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
J87833-1MS	D140153.D	1	04/12/08	YL	n/a	n/a	VD5601
J87833-1MSD	D140154.D	1	04/12/08	YL	n/a	n/a	VD5601
J87833-1	D140147.D	1	04/12/08	YL	n/a	n/a	VD5601

The QC reported here applies to the following samples:

Method: SW846 8260B

J87954-6, J87954-7, J87954-8, J87954-9

CAS No.	Surrogate Recoveries	MS	MSD	J87833-1	Limits
1868-53-7	Dibromofluoromethane	87%	85%	90%	67-125%
17060-07-0	1,2-Dichloroethane-D4	84%	82%	88%	64-131%
2037-26-5	Toluene-D8	97%	97%	97%	73-124%
460-00-4	4-Bromofluorobenzene	86%	85%	89%	61-136%

(a) Outside control limits due to matrix interference.

53  
5

**Matrix Spike Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
J87904-1MS	3A49650.D	1	04/12/08	LY	n/a	n/a	V3A2092
J87904-1	3A49652.D	1	04/12/08	LY	n/a	n/a	V3A2092

The QC reported here applies to the following samples:

Method: SW846 8260B

J87954-10

CAS No.	Compound	J87904-1 ug/l	Spike Q	MS ug/l	MS %	MS Limits
107-02-8	Acrolein	ND	500	600	120	50-170
107-13-1	Acrylonitrile	ND	250	259	104	56-144
71-43-2	Benzene	ND	50	50.1	100	48-137
75-27-4	Bromodichloromethane	ND	50	52.5	105	74-133
75-25-2	Bromoform	ND	50	49.4	99	56-137
74-83-9	Bromomethane	ND	50	53.3	107	51-147
56-23-5	Carbon tetrachloride	ND	50	54.7	109	54-156
108-90-7	Chlorobenzene	ND	50	50.1	100	70-124
75-00-3	Chloroethane	ND	50	55.0	110	51-149
110-75-8	2-Chloroethyl vinyl ether	ND	250	ND	0* a	1-150
67-66-3	Chloroform	ND	50	50.4	101	71-133
74-87-3	Chloromethane	ND	50	51.1	102	44-146
124-48-1	Dibromochloromethane	ND	50	53.6	107	69-132
95-50-1	1,2-Dichlorobenzene	ND	50	50.7	101	72-123
541-73-1	1,3-Dichlorobenzene	ND	50	50.1	100	69-123
106-46-7	1,4-Dichlorobenzene	ND	50	48.6	97	70-121
75-71-8	Dichlorodifluoromethane	ND	50	58.4	117	32-171
75-34-3	1,1-Dichloroethane	ND	50	51.7	103	65-133
107-06-2	1,2-Dichloroethane	ND	50	52.6	105	66-145
75-35-4	1,1-Dichloroethene	ND	50	53.3	107	47-141
156-59-2	cis-1,2-Dichloroethene	ND	50	51.4	103	62-131
156-60-5	trans-1,2-Dichloroethene	ND	50	50.9	102	57-131
78-87-5	1,2-Dichloropropane	ND	50	51.2	102	72-127
10061-01-5	cis-1,3-Dichloropropene	ND	50	54.4	109	69-127
10061-02-6	trans-1,3-Dichloropropene	ND	50	53.2	106	69-132
100-41-4	Ethylbenzene	ND	50	53.0	106	48-140
75-09-2	Methylene chloride	ND	50	49.9	100	64-126
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	47.5	95	67-125
127-18-4	Tetrachloroethene	ND	50	52.5	105	54-141
108-88-3	Toluene	ND	50	52.3	105	48-141
71-55-6	1,1,1-Trichloroethane	ND	50	52.2	104	58-149
79-00-5	1,1,2-Trichloroethane	ND	50	49.2	98	74-131
79-01-6	Trichloroethene	ND	50	52.3	105	60-138
75-69-4	Trichlorofluoromethane	ND	50	56.0	112	42-169
75-01-4	Vinyl chloride	ND	50	52.6	105	44-151
1330-20-7	Xylene (total)	ND	150	161	107	46-141

54  
5

**Matrix Spike Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
J87904-1MS	3A49650.D	1	04/12/08	LY	n/a	n/a	V3A2092
J87904-1	3A49652.D	1	04/12/08	LY	n/a	n/a	V3A2092

The QC reported here applies to the following samples:

Method: SW846 8260B

J87954-10

CAS No.	Surrogate Recoveries	MS	J87904-1	Limits
1868-53-7	Dibromofluoromethane	93%	98%	76-123%
17060-07-0	1,2-Dichloroethane-D4	93%	98%	63-140%
2037-26-5	Toluene-D8	99%	95%	78-117%
460-00-4	4-Bromofluorobenzene	99%	102%	73-125%

(a) Outside control limits due to acid preservation.

54  
5

**Duplicate Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
J87904-3DUP	3A49654.D	1	04/12/08	LY	n/a	n/a	V3A2092
J87904-3	3A49653.D	1	04/12/08	LY	n/a	n/a	V3A2092

The QC reported here applies to the following samples:

Method: SW846 8260B

J87954-10

CAS No.	Compound	J87904-3 ug/l	DUP Q	ug/l	Q	RPD	Limits
107-02-8	Acrolein	ND	ND	nc	nc	10	
107-13-1	Acrylonitrile	ND	ND	nc	nc	10	
71-43-2	Benzene	ND	ND	nc	nc	10	
75-27-4	Bromodichloromethane	ND	ND	nc	nc	10	
75-25-2	Bromoform	ND	ND	nc	nc	10	
74-83-9	Bromomethane	ND	ND	nc	nc	10	
56-23-5	Carbon tetrachloride	ND	ND	nc	nc	10	
108-90-7	Chlorobenzene	ND	ND	nc	nc	10	
75-00-3	Chloroethane	ND	ND	nc	nc	10	
110-75-8	2-Chloroethyl vinyl ether	ND	ND	nc	nc	10	
67-66-3	Chloroform	ND	ND	nc	nc	10	
74-87-3	Chloromethane	ND	ND	nc	nc	10	
124-48-1	Dibromochloromethane	ND	ND	nc	nc	10	
95-50-1	1,2-Dichlorobenzene	ND	ND	nc	nc	10	
541-73-1	1,3-Dichlorobenzene	ND	ND	nc	nc	10	
106-46-7	1,4-Dichlorobenzene	ND	ND	nc	nc	10	
75-71-8	Dichlorodifluoromethane	ND	ND	nc	nc	10	
75-34-3	1,1-Dichloroethane	ND	ND	nc	nc	11	
107-06-2	1,2-Dichloroethane	ND	ND	nc	nc	10	
75-35-4	1,1-Dichloroethene	ND	ND	nc	nc	10	
156-59-2	cis-1,2-Dichloroethene	ND	ND	nc	nc	17	
156-60-5	trans-1,2-Dichloroethene	ND	ND	nc	nc	10	
78-87-5	1,2-Dichloropropane	ND	ND	nc	nc	10	
10061-01-5	cis-1,3-Dichloropropene	ND	ND	nc	nc	10	
10061-02-6	trans-1,3-Dichloropropene	ND	ND	nc	nc	10	
100-41-4	Ethylbenzene	ND	ND	nc	nc	10	
75-09-2	Methylene chloride	ND	ND	nc	nc	10	
79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	nc	nc	10	
127-18-4	Tetrachloroethene	ND	ND	nc	nc	10	
108-88-3	Toluene	ND	ND	nc	nc	12	
71-55-6	1,1,1-Trichloroethane	ND	ND	nc	nc	10	
79-00-5	1,1,2-Trichloroethane	ND	ND	nc	nc	10	
79-01-6	Trichloroethene	ND	ND	nc	nc	13	
75-69-4	Trichlorofluoromethane	ND	ND	nc	nc	10	
75-01-4	Vinyl chloride	ND	ND	nc	nc	15	
1330-20-7	Xylene (total)	ND	ND	nc	nc	14	

5.5  
5

**Duplicate Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
J87904-3DUP	3A49654.D	1	04/12/08	LY	n/a	n/a	V3A2092
J87904-3	3A49653.D	1	04/12/08	LY	n/a	n/a	V3A2092

The QC reported here applies to the following samples:

Method: SW846 8260B

J87954-10

CAS No.	Surrogate Recoveries	DUP	J87904-3	Limits
1868-53-7	Dibromofluoromethane	99%	100%	76-123%
17060-07-0	1,2-Dichloroethane-D4	101%	101%	63-140%
2037-26-5	Toluene-D8	96%	95%	78-117%
460-00-4	4-Bromofluorobenzene	103%	110%	73-125%

5.5  
5

**Instrument Performance Check (BFB)**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: V3A2065-BFB Injection Date: 03/27/08  
 Lab File ID: 3A49012.D Injection Time: 10:49  
 Instrument ID: GCMS3A

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	2664	18.2	Pass
75	30.0 - 60.0% of mass 95	7376	50.5	Pass
95	Base peak, 100% relative abundance	14610	100.0	Pass
96	5.0 - 9.0% of mass 95	951	6.5	Pass
173	Less than 2.0% of mass 174	0	0.0 (0.0) <sup>a</sup>	Pass
174	50.0 - 120.0% of mass 95	12250	83.8	Pass
175	5.0 - 9.0% of mass 174	971	6.6 (7.9) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	12073	82.6 (98.6) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	929	6.4 (7.7) <sup>b</sup>	Pass

(a) Value is % of mass 174  
 (b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3A2065-IC2065	3A49013.D	03/27/08	11:28	00:39	Initial cal 1
V3A2065-IC2065	3A49014.D	03/27/08	11:58	01:09	Initial cal 2
V3A2065-IC2065	3A49015.D	03/27/08	12:27	01:38	Initial cal 5
V3A2065-IC2065	3A49016.D	03/27/08	12:56	02:07	Initial cal 20
V3A2065-ICC2065	3A49017.D	03/27/08	13:25	02:36	Initial cal 50
V3A2065-IC2065	3A49018.D	03/27/08	13:53	03:04	Initial cal 100
V3A2065-IC2065	3A49019.D	03/27/08	14:22	03:33	Initial cal 200
V3A2065-ICV2065	3A49021.D	03/27/08	15:20	04:31	Initial cal verification 50

56  
5

**Instrument Performance Check (BFB)**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: V3A2092-BFB Injection Date: 04/12/08  
 Lab File ID: 3A49645.D Injection Time: 13:13  
 Instrument ID: GCMS3A

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	16305	19.0	Pass
75	30.0 - 60.0% of mass 95	40738	47.5	Pass
95	Base peak, 100% relative abundance	85789	100.0	Pass
96	5.0 - 9.0% of mass 95	5658	6.6	Pass
173	Less than 2.0% of mass 174	518	0.6 (0.72) <sup>a</sup>	Pass
174	50.0 - 120.0% of mass 95	71744	83.6	Pass
175	5.0 - 9.0% of mass 174	5233	6.1 (7.3) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	68658	80.0 (95.7) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	4623	5.4 (6.7) <sup>b</sup>	Pass

(a) Value is % of mass 174  
 (b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3A2092-CC2065	3A49646.D	04/12/08	13:45	00:32	Continuing cal 20
V3A2092-MB	3A49648.D	04/12/08	14:57	01:44	Method Blank
V3A2092-BS	3A49649.D	04/12/08	15:26	02:13	Blank Spike
J87904-1MS	3A49650.D	04/12/08	15:56	02:43	Matrix Spike
J87904-1	3A49652.D	04/12/08	16:55	03:42	(used for QC only; not part of job J87954)
J87904-3	3A49653.D	04/12/08	17:24	04:11	(used for QC only; not part of job J87954)
J87904-3DUP	3A49654.D	04/12/08	17:54	04:41	Duplicate
ZZZZZZ	3A49655.D	04/12/08	18:23	05:10	(unrelated sample)
ZZZZZZ	3A49656.D	04/12/08	18:52	05:39	(unrelated sample)
ZZZZZZ	3A49657.D	04/12/08	19:22	06:09	(unrelated sample)
J87954-10	3A49658.D	04/12/08	19:51	06:38	TRIP BLANK
ZZZZZZ	3A49659.D	04/12/08	20:21	07:08	(unrelated sample)
ZZZZZZ	3A49660.D	04/12/08	20:50	07:37	(unrelated sample)
ZZZZZZ	3A49661.D	04/12/08	21:20	08:07	(unrelated sample)
ZZZZZZ	3A49662.D	04/12/08	21:49	08:36	(unrelated sample)
ZZZZZZ	3A49663.D	04/12/08	22:18	09:05	(unrelated sample)
ZZZZZZ	3A49664.D	04/12/08	22:48	09:35	(unrelated sample)
ZZZZZZ	3A49665.D	04/12/08	23:17	10:04	(unrelated sample)
ZZZZZZ	3A49666.D	04/12/08	23:46	10:33	(unrelated sample)

56  
5

**Instrument Performance Check (BFB)**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: VD5477-BFB Injection Date: 01/25/08  
 Lab File ID: D137101.D Injection Time: 14:28  
 Instrument ID: GCMSD

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	21749	15.0	Pass
75	30.0 - 60.0% of mass 95	62832	43.4	Pass
95	Base peak, 100% relative abundance	144832	100.0	Pass
96	5.0 - 9.0% of mass 95	9605	6.6	Pass
173	Less than 2.0% of mass 174	742	0.51 (0.52) <sup>a</sup>	Pass
174	50.0 - 120.0% of mass 95	143381	99.0	Pass
175	5.0 - 9.0% of mass 174	9952	6.9 (6.9) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	140381	96.9 (97.9) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	9096	6.3 (6.5) <sup>b</sup>	Pass

(a) Value is % of mass 174  
 (b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VD5477-IC5477	D137102.D	01/25/08	14:48	00:20	Initial cal 1
VD5477-IC5477	D137104.D	01/25/08	15:53	01:25	Initial cal 5
VD5477-IC5477	D137105.D	01/25/08	16:23	01:55	Initial cal 20
VD5477-IC5477	D137106.D	01/25/08	16:53	02:25	Initial cal 50
VD5477-IC5477	D137107.D	01/25/08	17:41	03:13	Initial cal 100
VD5477-IC5477	D137108.D	01/25/08	18:16	03:48	Initial cal 200
VD5477-ICV5477	D137110.D	01/25/08	19:08	04:40	Initial cal verification 50
VD5477-IC5477	D137111.D	01/25/08	19:40	05:12	Initial cal 2
VD5478-MB1	D137114.D	01/25/08	21:00	06:32	Method Blank
VD5478-BS	D137115.D	01/25/08	21:29	07:01	Blank Spike
ZZZZZZ	D137116.D	01/25/08	21:59	07:31	(unrelated sample)
ZZZZZZ	D137117.D	01/25/08	22:28	08:00	(unrelated sample)
J81655-18	D137118.D	01/25/08	22:58	08:30	(used for QC only; not part of job J87954)
J81655-18MS	D137119.D	01/25/08	23:27	08:59	Matrix Spike
J81655-18MSD	D137120.D	01/25/08	23:57	09:29	Matrix Spike Duplicate
ZZZZZZ	D137121.D	01/26/08	00:27	09:59	(unrelated sample)

56  
57

**Instrument Performance Check (BFB)**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: VD5601-BFB Injection Date: 04/12/08  
 Lab File ID: D140130.D Injection Time: 00:25  
 Instrument ID: GCMSD

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	15656	15.5	Pass
75	30.0 - 60.0% of mass 95	44853	44.5	Pass
95	Base peak, 100% relative abundance	100728	100.0	Pass
96	5.0 - 9.0% of mass 95	6623	6.6	Pass
173	Less than 2.0% of mass 174	653	0.65 (0.6) <sup>a</sup>	Pass
174	50.0 - 120.0% of mass 95	109155	108.4	Pass
175	5.0 - 9.0% of mass 174	7929	7.9 (7.3) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	108171	107.4 (99.1) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	7136	7.1 (6.6) <sup>b</sup>	Pass

(a) Value is % of mass 174  
 (b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VD5601-CC5477	D140131.D	04/12/08	00:53	00:28	Continuing cal 50
VD5601-MB1	D140133.D	04/12/08	01:53	01:28	Method Blank
VD5601-BS	D140134.D	04/12/08	02:23	01:58	Blank Spike
ZZZZZZ	D140140.D	04/12/08	05:22	04:57	(unrelated sample)
ZZZZZZ	D140141.D	04/12/08	05:52	05:27	(unrelated sample)
ZZZZZZ	D140142.D	04/12/08	06:22	05:57	(unrelated sample)
J87954-6	D140143.D	04/12/08	06:52	06:27	SB-6
J87954-7	D140144.D	04/12/08	07:22	06:57	SB-7
J87954-8	D140145.D	04/12/08	07:52	07:27	SB-8
J87954-9	D140146.D	04/12/08	08:22	07:57	SB-9
J87833-1	D140147.D	04/12/08	08:52	08:27	(used for QC only; not part of job J87954)
ZZZZZZ	D140148.D	04/12/08	09:22	08:57	(unrelated sample)
ZZZZZZ	D140149.D	04/12/08	09:52	09:27	(unrelated sample)
ZZZZZZ	D140151.D	04/12/08	10:52	10:27	(unrelated sample)
ZZZZZZ	D140152.D	04/12/08	11:22	10:57	(unrelated sample)
J87833-1MS	D140153.D	04/12/08	11:52	11:27	Matrix Spike
J87833-1MSD	D140154.D	04/12/08	12:22	11:57	Matrix Spike Duplicate

56  
57



**Volatile Internal Standard Area Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Check Std:	V3A2092-CC2065	Injection Date:	04/12/08
Lab File ID:	3A49646.D	Injection Time:	13:45
Instrument ID:	GCMS3A	Method:	SW846 8260B

	IS 1	IS 2	IS 3	IS 4	IS 5					
	AREA	RT	AREA	RT	AREA	RT	AREA	RT		
Check Std	72513	8.34	185084	10.77	260295	11.70	188969	14.68	102951	16.83
Upper Limit <sup>a</sup>	145026	8.84	370168	11.27	520590	12.20	377938	15.18	205902	17.33
Lower Limit <sup>b</sup>	36257	7.84	92542	10.27	130148	11.20	94485	14.18	51476	16.33

Lab Sample ID	IS 1	IS 2	IS 3	IS 4	IS 5					
	AREA	RT	AREA	RT	AREA	RT	AREA	RT		
V3A2092-MB	60283	8.34	165832	10.77	241517	11.70	171668	14.68	86256	16.84
V3A2092-BS	70472	8.34	180347	10.77	253924	11.70	191086	14.68	102134	16.83
J87904-1MS	75839	8.34	189550	10.78	267094	11.70	198680	14.68	106011	16.84
J87904-1	64024	8.33	174138	10.77	250570	11.70	178063	14.68	89571	16.84
J87904-3	64312	8.33	171397	10.78	249180	11.70	177567	14.68	88957	16.84
J87904-3DUP	61106	8.34	168823	10.78	242941	11.70	171519	14.68	86034	16.84
ZZZZZZ	62962	8.34	161395	10.77	237152	11.70	166354	14.68	84544	16.84
ZZZZZZ	57976	8.34	156436	10.77	229320	11.70	182795	14.68	82076	16.84
ZZZZZZ	55683	8.34	154892	10.78	226903	11.70	160651	14.68	80672	16.84
J87954-10	57637	8.34	153046	10.77	224106	11.70	158448	14.68	80628	16.84
ZZZZZZ	58148	8.34	150592	10.77	219779	11.70	154749	14.68	79089	16.84
ZZZZZZ	63427	8.33	161494	10.77	229298	11.70	187168	14.68	83419	16.84
ZZZZZZ	68878	8.34	156838	10.78	228069	11.70	162467	14.68	83931	16.84
ZZZZZZ	54606	8.33	149689	10.77	219221	11.70	155078	14.68	79017	16.84
ZZZZZZ	62658	8.34	149259	10.77	221836	11.70	155231	14.68	79148	16.84
ZZZZZZ	53235	8.34	147566	10.78	218287	11.70	155628	14.68	78801	16.84
ZZZZZZ	52910	8.34	142676	10.77	210404	11.70	150188	14.68	76797	16.84
ZZZZZZ	52671	8.34	139462	10.77	210249	11.70	147253	14.68	74465	16.84

- IS 1 = Tert Butyl Alcohol-D9
- IS 2 = Pentafluorobenzene
- IS 3 = 1,4-Difluorobenzene
- IS 4 = Chlorobenzene-D5
- IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

5.7  
5

**Volatile Internal Standard Area Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Check Std:	VD5601-CC5477	Injection Date:	04/12/08
Lab File ID:	D140131.D	Injection Time:	00:53
Instrument ID:	GCMSD	Method:	SW846 8260B

	IS 1	IS 2	IS 3	IS 4	IS 5					
	AREA	RT	AREA	RT	AREA	RT	AREA	RT		
Check Std	81846	7.66	277968	9.91	368294	10.81	339428	14.14	212885	16.73
Upper Limit <sup>a</sup>	163692	8.16	555936	10.41	736588	11.31	678856	14.64	425770	17.23
Lower Limit <sup>b</sup>	40923	7.16	138984	9.41	184147	10.31	169714	13.64	106443	16.23

Lab Sample ID	IS 1	IS 2	IS 3	IS 4	IS 5					
	AREA	RT	AREA	RT	AREA	RT	AREA	RT		
VD5601-MB1	80375	7.66	279992	9.90	367906	10.81	342906	14.15	199822	16.73
VD5601-BS	78757	7.66	270778	9.90	360247	10.81	338289	14.15	200398	16.73
ZZZZZZ	74501	7.67	258545	9.90	337440	10.81	310432	14.14	179233	16.73
ZZZZZZ	73504	7.67	249000	9.90	326967	10.81	303735	14.14	177281	16.73
ZZZZZZ	69139	7.67	246586	9.90	325396	10.81	299274	14.14	174409	16.73
J87954-6	69922	7.67	238333	9.90	313420	10.81	289050	14.14	167159	16.73
J87954-7	68302	7.67	231148	9.90	305038	10.81	281580	14.14	164287	16.73
J87954-8	66927	7.67	235873	9.90	311193	10.81	285527	14.14	167251	16.73
J87954-9	62293	7.67	221340	9.90	293654	10.81	271878	14.14	158307	16.73
J87833-1	64449	7.67	225034	9.90	298789	10.81	277371	14.15	162481	16.73
ZZZZZZ	63634	7.67	218407	9.90	289661	10.81	269416	14.15	156271	16.73
ZZZZZZ	66010	7.67	222400	9.90	292445	10.81	276988	14.15	163980	16.73
ZZZZZZ	83070	7.67	263517	9.90	337818	10.81	337424	14.14	205129	16.73
ZZZZZZ	87026	7.68	299607	9.90	385984	10.81	374906	14.15	231023	16.73
J87833-1MS	91549	7.67	299392	9.90	386480	10.81	362424	14.15	227524	16.73
J87833-1MSD	90391	7.67	300798	9.90	385390	10.81	359887	14.14	224386	16.73

- IS 1 = Tert Butyl Alcohol-D9
- IS 2 = Pentafluorobenzene
- IS 3 = 1,4-Difluorobenzene
- IS 4 = Chlorobenzene-D5
- IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

5.7  
5

**Volatile Surrogate Recovery Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
J87954-10	3A49658.D	105.0	107.0	95.0	102.0
J87904-1MS	3A49650.D	93.0	93.0	99.0	99.0
J87904-3DUP	3A49654.D	99.0	101.0	96.0	103.0
V3A2092-BS	3A49649.D	95.0	96.0	100.0	99.0
V3A2092-MB	3A49648.D	101.0	102.0	96.0	101.0

**Surrogate Compounds Recovery Limits**

S1 = Dibromofluoromethane	76-123%
S2 = 1,2-Dichloroethane-D4	63-140%
S3 = Toluene-D8	78-117%
S4 = 4-Bromofluorobenzene	73-125%

**Volatile Surrogate Recovery Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Method: SW846 8260B Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
J87954-6	D140143.D	88.0	89.0	97.0	90.0
J87954-7	D140144.D	89.0	90.0	96.0	89.0
J87954-8	D140145.D	89.0	88.0	96.0	89.0
J87954-9	D140146.D	90.0	89.0	97.0	88.0
J87833-1MS	D140153.D	87.0	84.0	97.0	86.0
J87833-1MSD	D140154.D	85.0	82.0	97.0	85.0
VD5601-BS	D140134.D	89.0	87.0	99.0	90.0
VD5601-MB1	D140133.D	88.0	87.0	97.0	90.0

**Surrogate Compounds Recovery Limits**

S1 = Dibromofluoromethane	68-123%
S2 = 1,2-Dichloroethane-D4	59-136%
S3 = Toluene-D8	75-123%
S4 = 4-Bromofluorobenzene	65-140%

**Initial Calibration Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: V3A2065-ICC2065  
 Lab FileID: 3A49017.D

Page 1 of 3

Response Factor Report MS3A

Method : C:\MSDCHEM\1\METHODS\M3A2065.M (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Fri Mar 28 09:27:29 2008  
 Response via : Initial Calibration

Calibration Files  
 1 =3A49013.D 2 =3A49014.D 100 =3A49018.D 50 =3A49017.D  
 20 =3A49016.D 200 =3A49019.D 5 =3A49015.D

Compound	1	2	100	50	20	200	5	Avg	%RSD
1) I Tert Butyl Alcohol-d9	-----ISTD-----								
2)M tertiary butyl al		1.320	1.310	1.293	1.342	1.344	1.322	1.65	
3)M 1,4-dioxane	0.117	0.116	0.109	0.123	0.109	0.115	5.02		
4) ethanol	0.000# -1.00								
5) I pentafluorobenzene	-----ISTD-----								
6)M chlorodifluoromet	0.652	0.522	0.680	0.660	0.639	0.672	0.668	0.642	8.49
7)M dichlorodifluorom	0.639	0.836	0.800	0.795	0.812	0.781	0.777	9.03	
8)M chloromethane	0.740	0.740	0.811	0.795	0.806	0.789	0.820	0.786	4.19
9)M vinyl chloride	0.628	0.657	0.739	0.722	0.728	0.729	0.746	0.707	6.43
10)M acetaldehyde	0.000# -1.00								
11)M bromomethane	0.584	0.546	0.552	0.574	0.617	0.440	0.629	0.563	11.07
12)M chloroethane	0.379	0.396	0.439	0.455	0.478	0.373	0.501	0.432	11.57
13)M trichlorofluorome	0.951	0.955	1.114	1.079	1.111	1.088	1.126	1.060	7.09
14)M pentane	0.000# -1.00								
15)M ethyl ether		0.367	0.357	0.338	0.375	0.287	0.345	10.16	
16)M acrolein	0.048	0.054	0.076	0.075	0.073	0.078	0.065	0.067	17.84
----- Linear regression ----- Coefficient = 0.9999									
Response Ratio = -0.01663 + 0.07778 *A									
17)M 1,1-dichloroethan	0.519	0.536	0.595	0.588	0.577	0.599	0.554	0.567	5.45
18)M acetone		0.204	0.217	0.210	0.211	0.142	0.197	15.84	
----- Linear regression ----- Coefficient = 0.9995									
Response Ratio = -0.00292 + 0.21106 *A									
19)M allyl chloride	0.303	0.399	0.390	0.374	0.402	0.327	0.366	11.28	
20)M acetonitrile		0.057	0.058	0.060	0.057	0.052	0.057	5.05	
21)M iodomethane	1.100	0.960	1.142	1.129	1.086	1.150	1.053	1.089	6.07
22)M iso-butyl alcohol	0.017	0.020	0.020	0.020	0.019	0.020	0.020	5.90	
23)M carbon disulfide	1.998	1.794	1.975	1.947	1.902	1.998	1.885	1.928	3.84
24)M methylene chlorid	0.694	0.651	0.678	0.673	0.675	0.684	0.675	0.676	1.95
25)M methyl acetate		0.479	0.474	0.469	0.483	0.457	0.472	2.18	
26)M methyl tert butyl	1.669	1.522	1.951	1.943	1.858	1.937	1.683	1.795	9.47
27)M trans-1,2-dichlor	0.643	0.588	0.627	0.625	0.628	0.633	0.598	0.620	3.19
28)M di-isopropyl ethe	1.738	1.624	2.074	2.027	1.992	1.972	1.967	1.913	8.68
29)M 2-butanone	0.653	0.902	0.895	0.850	0.896	0.804	0.833	11.55	
30)M 1,1-dichloroethan	1.150	1.115	1.135	1.156	1.166	1.103	1.132	1.137	2.00
31)M chloroprene	0.636	0.895	0.849	0.820	0.884	0.779	0.810	11.78	
32)M acrylonitrile	0.183	0.231	0.234	0.228	0.233	0.204	0.219	9.45	
33)M vinyl acetate		0.116	0.108	0.096	0.114	0.055	0.098	25.86	
----- Linear regression ----- Coefficient = 0.9996									
Response Ratio = -0.00620 + 0.11639 *A									
34)M ethyl tert-butyl	1.566	1.464	2.051	1.963	1.898	2.032	1.857	1.833	12.53
35)M ethyl acetate		0.084	0.089	0.074	0.082	0.060	0.078	14.52	
36)M 2,2-dichloropropa	0.995	0.891	1.024	1.036	1.009	0.996	0.975	0.989	4.82

5

**Initial Calibration Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: V3A2065-ICC2065  
 Lab FileID: 3A49017.D

Page 2 of 3

37)M cis-1,2-dichloroe	0.655	0.650	0.723	0.729	0.715	0.718	0.671	0.695	4.96
38) methylacrylate		0.070	0.700	0.683	0.637	0.718	0.510	0.650	12.85
39)M propionitrile		0.070	0.093	0.092	0.089	0.094	0.082	0.087	10.51
40)M bromochloromethan	0.319	0.341	0.375	0.371	0.366	0.375	0.347	0.356	5.94
41)M tetrahydrofuran		0.185	0.183	0.177	0.189	0.150	0.177	8.77	
42)M chloroform	1.244	1.129	1.173	1.171	1.158	1.164	1.156	1.171	3.04
43)S dibromofluorometh	0.690	0.592	0.644	0.609	0.623	0.641	0.606	0.629	5.17
44)S 1,2-dichloroethan	0.835	0.732	0.719	0.702	0.717	0.703	0.732	0.734	6.29
45)M freon 113		0.411	0.545	0.520	0.516	0.534	0.522	0.508	9.62
46)M methacrylonitrile		0.404	0.388	0.364	0.417	0.322	0.379	9.95	
47)M 1,1,1-trichloroet	1.006	0.935	1.054	1.043	1.034	1.044	0.997	1.016	4.07
48)M Cyclohexane	0.817	0.801	0.929	0.915	0.911	0.921	0.858	0.879	6.05
49) I 1,4-difluorobenzene	-----ISTD-----								
50)M Di-isobutylene	0.000# -1.00								
51)M epichlorohydrin		0.036	0.036	0.034	0.036	0.033	0.035	4.40	
52)M n-butyl alcohol		0.010	0.010	0.009	0.010	0.009	0.009	6.83	
53)M carbon tetrachlor	0.665	0.603	0.673	0.685	0.684	0.664	0.655	0.661	4.24
54)M 1,1-dichloroprope	0.541	0.515	0.585	0.595	0.582	0.580	0.551	0.564	5.15
55)M hexane	0.436	0.416	0.576	0.553	0.538	0.568	0.521	0.516	12.40
56) tert amyl alcohol	0.000# -1.00								
57)M benzene	1.706	1.683	1.589	1.635	1.654	1.531	1.596	1.628	3.70
58)M tert-amyl methyl	1.128	1.296	1.314	1.298	1.202	1.334	1.262	6.34	
59)M heptane	0.211	0.297	0.286	0.288	0.292	0.282	0.276	11.72	
60)M isopropyl acetate	0.639	0.751	0.743	0.701	0.741	0.693	0.711	5.99	
61)M 1,2-dichloroethan	0.604	0.591	0.586	0.615	0.620	0.551	0.595	0.594	3.79
62)M ethyl acrylate	0.000# -1.00								
63)M trichloroethene	0.380	0.405	0.429	0.432	0.421	0.430	0.408	0.415	4.55
64) tert-amyl ethyl e	0.000# -1.00								
65)M methyl methacryla		0.924	0.933	0.618	0.893	0.558	0.785	23.16	
----- Linear regression ----- Coefficient = 0.9981									
Response Ratio = -0.03507 + 0.91076 *A									
66)M 2-nitropropane		0.264	0.275	0.265	0.272	0.267	0.269	1.78	
67)M 2-chloroethyl vin	0.174	0.242	0.252	0.247	0.225	0.243	0.231	12.60	
68)M 1,2-dichloropropa	0.401	0.360	0.393	0.402	0.402	0.381	0.377	3.88	4.15
69)M dibromomethane	0.252	0.246	0.278	0.283	0.277	0.279	0.264	0.268	5.47
70)M methylcyclohexane	0.560	0.495	0.707	0.676	0.670	0.690	0.640	0.634	12.28
71)M bromodichlorometh	0.502	0.493	0.588	0.589	0.567	0.594	0.533	0.552	7.78
72)M cis-1,3-dichlorop	0.526	0.492	0.654	0.658	0.624	0.658	0.550	0.595	11.80
73)S toluene-d8 (s)	1.352	1.095	1.307	1.271	1.270	1.288	1.226	1.258	6.51
74)M 4-methyl-2-pentan	0.333	0.506	0.507	0.475	0.518	0.455	0.466	14.83	
75)M toluene	0.799	0.739	0.893	0.897	0.872	0.892	0.826	0.846	7.09
76)M 3-methyl-1-butano		0.014	0.014	0.013	0.014	0.013	0.013	5.56	
77)M trans-1,3-dichlor	0.452	0.438	0.600	0.600	0.574	0.593	0.525	0.540	12.98
78)M ethyl methacrylat		0.446	0.431	0.385	0.454	0.306	0.404	15.12	
----- Linear regression ----- Coefficient = 0.9999									
Response Ratio = -0.02434 + 0.45925 *A									
79)M 1,1,2-trichloroet	0.275	0.264	0.285	0.284	0.276	0.288	0.277	0.278	2.89
80)M 2-hexanone		0.211	0.207	0.184	0.219	0.156	0.195	13.05	
81) I chlorobenzene-d5	-----ISTD-----								
82)M tetrachloroethene	0.458	0.427	0.423	0.441	0.441	0.397	0.429	0.431	4.42
83)M 1,3-dichloropropa	0.692	0.650	0.686	0.719	0.717	0.651	0.704	0.688	4.16
84)M butyl acetate		0.268	0.274	0.258	0.262	0.249	0.262	3.65	
85)M dibromochlorometh	0.463	0.463	0.582	0.581	0.546	0.581	0.504	0.531	10.21
86)M 1,2-dibromoethane	0.390	0.384	0.473	0.472	0.455	0.469	0.424	0.438	8.89
87)M chlorobenzene	1.339	1.202	1.262	1.278	1.259	1.225	1.267	1.262	3.41
88)M 1,1,1,2-tetrachlo	0.498	0.471	0.515	0.530	0.530	0.486	0.512	0.506	4.38

5

**Initial Calibration Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: V3A2065-ICC2065  
 Lab FileID: 3A49017.D

89)M ethylbenzene	1.844	1.780	2.018	2.074	2.063	1.923	1.917	1.946	5.73
90)M m,p-xylene	0.690	0.662	0.772	0.789	0.802	0.731	0.750	0.742	6.95
91)M o-xylene	0.594	0.588	0.766	0.785	0.763	0.740	0.677	0.702	11.85
92)M styrene			1.206	1.216	1.145	1.162	0.972	1.140	8.64
93)M bromoform	0.291	0.386	0.375	0.405	0.394	0.311	0.360	13.15	
-----ISTD-----									
94) I 1,4-dichlorobenzene-d	2.363	3.358	3.327	3.452	3.361	2.755	3.103	14.21	
95)M isopropylbenzene	0.990	1.111	1.070	1.127	1.096	1.082	1.080	4.46	
96)S 4-bromofluorobenz	0.032	0.043	0.044	0.045	0.045	0.037	0.041	13.05	
97) cyclohexanone	1.071	0.954	1.005	1.033	1.060	0.959	1.033	1.016	4.52
98)M bromobenzene	1.120	0.893	0.948	0.942	0.946	0.970	0.953	0.967	7.38
99)M 1,1,2,2-tetrachlo			0.261	0.249	0.241	0.268	0.190	0.242	12.72
100)M trans-1,4-dichlor	0.276	0.285	0.285	0.289	0.282	0.304	0.287	3.22	
101)M 1,2,3-trichloropr	3.313	3.239	4.126	4.188	4.213	3.947	3.790	3.831	10.63
102)M n-propylbenzene	2.604	2.581	2.965	3.007	3.043	2.843	2.897	2.849	6.57
103)M 2-chlorotoluene	2.405	2.204	2.693	2.679	2.701	2.682	2.461	2.547	7.61
104)M 4-chlorotoluene	2.257	3.140	3.137	3.132	3.065	2.708	2.906	12.35	
105)M 1,3,5-trimethylbe	1.290	1.887	1.884	1.842	1.877	1.617	1.733	13.86	
106)M tert-butylbenzene	0.632	0.611	0.718	0.724	0.694	0.722	0.679	0.683	6.62
107)M pentachloroethane	2.304	2.301	3.226	3.186	3.176	3.191	2.832	2.888	14.60
108)M 1,2,4-trimethylbe	2.831	2.834	3.959	3.966	3.865	3.927	3.367	3.536	14.80
109)M sec-butylbenzene	1.955	1.844	1.919	1.965	1.935	1.934	1.909	1.923	2.08
110)M 1,3-dichlorobenze	2.421	3.485	3.473	3.377	3.436	2.953	3.191	13.37	
111)M p-isopropyltoluen							0.000#	-1.00	
112)M vinyltoluene	2.353	1.993	1.988	1.982	1.982	1.971	2.010	2.040	6.80
113)M 1,4-dichlorobenze	1.934	1.770	1.912	1.918	1.917	1.868	1.855	1.882	3.03
114)M 1,2-dichlorobenze			2.138	2.141	1.962	2.097	1.996	2.067	4.02
115)M benzyl chloride	2.218	3.202	3.171	3.072	3.136	2.677	2.913	13.42	
116)M n-butylbenzene			0.170	0.170	0.162	0.180	0.146	0.166	7.64
117)M 1,2-dibromo-3-chl	1.078	0.895	1.291	1.298	1.243	1.270	1.071	1.164	13.12
118)M 1,2,4-trichlorobe	0.706	0.668	0.679	0.685	0.709	0.660	0.704	0.687	2.85
119)M hexachlorobutadie			2.327	2.351	2.228	2.427	1.771	2.221	11.77
120)M naphthalene	0.862	0.844	0.987	1.029	1.042	0.978	0.952	0.956	8.07
121)M 1,2,3-trichlorobe	0.506	0.654	0.640	0.606	0.649	0.546	0.600	10.19	
122)M hexachloroethane									

(#) = Out of Range

M3A2065.M Fri Mar 28 09:29:14 2008 NJVOA08

**Initial Calibration Verification**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: V3A2065-ICV2065  
 Lab FileID: 3A49021.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\V3A2062-2066\3A49021.D Vial: 11  
 Acq On : 27 Mar 2008 3:20 pm Operator: NIPAP  
 Sample : ICV2065-50 Inst : MS3A  
 Misc : MS62339,V3A2065,W,,,,,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M3A2065.M (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Fri Mar 28 09:27:29 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I Tert Butyl Alcohol-d9	1.000	1.000	0.0	117	0.01	8.34
2 M tertiary butyl alcohol	1.322	1.261	4.6	113	0.00	8.47
3 M 1,4-dioxane	0.115	0.117	-1.7	118	0.00	12.39
4 ethanol	0.000	0.092	0.0	0#	0.00	7.08
5 I pentafluorobenzene	1.000	1.000	0.0	109	0.00	10.77
6 M chlorodifluoromethane	0.642	0.701	-9.2	116	0.00	4.43
7 M dichlorodifluoromethane	0.777	0.744	4.2	102	0.00	4.39
8 M chloromethane	0.786	0.792	-0.8	109	0.00	4.82
9 M vinyl chloride	0.707	0.788	-11.5	119	0.00	5.12
10 M acetaldehyde	0.000	0.000#	0.0	158	0.01	5.36
11 M bromomethane	0.563	0.612	-8.7	117	0.00	5.87
12 M chloroethane	0.432	0.491	-13.7	118	0.00	6.07
13 M trichlorofluoromethane	1.060	1.091	-2.9	111	0.00	6.61
14 M pentane			NA			
15 M ethyl ether	0.345	0.368	-6.7	113	0.00	7.08
----- True Calc. % Drift -----						
16 M acrolein	500.000	704.812	-41.0#	157	0.00	7.37
----- AvgRF CCRF % Dev -----						
17 M 1,1-dichloroethene	0.567	0.601	-6.0	112	0.00	7.57
----- True Calc. % Drift -----						
18 M acetone	50.000	45.881	8.2	96	0.00	7.64
----- AvgRF CCRF % Dev -----						
19 M allyl chloride	0.366	0.389	-6.3	109	0.00	8.17
20 M acetonitrile	0.057	0.059	-3.5	111	0.01	8.13
21 M iodomethane	1.089	1.221	-12.1	118	0.00	7.90
22 M iso-butyl alcohol	0.020	0.020	0.0	105	0.00	11.34
23 M carbon disulfide	1.928	2.164	-12.2	122	0.00	8.04
24 M methylene chloride	0.676	0.704	-4.1	114	0.00	8.39
25 M methyl acetate	0.472	0.488	-3.4	113	0.00	8.16
26 M methyl tert butyl ether	1.795	1.924	-7.2	108	0.00	8.76
27 M trans-1,2-dichloroethene	0.620	0.671	-8.2	117	0.00	8.81
28 M di-isopropyl ether	1.913	2.129	-11.3	115	0.00	9.41
29 M 2-butanone	0.833	0.887	-6.5	108	0.00	10.21
30 M 1,1-dichloroethane	1.137	1.152	-1.3	109	0.00	9.43
31 M chloroprene	0.810	0.907	-12.0	117	0.00	9.55
32 M acrylonitrile	0.219	0.199	9.1	93	0.00	8.75

**Initial Calibration Verification**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: V3A2065-ICV2065  
 Lab FileID: 3A49021.D

	True	Calc.	% Drift			
33 M vinyl acetate	50.000	54.702	-9.4	122	0.00	9.42
	AvgRF	CCRF	% Dev			
34 M ethyl tert-butyl ether	1.833	2.080	-13.5	116	0.00	9.91
35 M ethyl acetate	0.078	0.094	-20.5#	115	0.00	10.21
36 M 2,2-dichloropropane	0.989	0.984	0.5	104	0.00	10.23
37 M cis-1,2-dichloroethene	0.695	0.716	-3.0	107	0.00	10.23
38 methylacrylate	0.650	0.648	0.3	104	0.00	10.30
39 M propionitrile	0.087	0.075	13.8	89	0.00	10.29
40 M bromochloromethane	0.356	0.378	-6.2	111	0.00	10.56
41 M tetrahydrofuran	0.177	0.183	-3.4	109	0.00	10.60
42 M chloroform	1.171	1.166	0.4	109	0.00	10.62
43 S dibromofluoromethane (s)	0.629	0.628	0.2	113	0.00	10.83
44 S 1,2-dichloroethane-d4 (s)	0.734	0.693	5.6	108	0.00	11.26
45 M freon 113	0.508	0.562	-10.6	118	-0.01	7.54
46 M methacrylonitrile	0.379	0.379	0.0	107	0.00	10.49
47 M 1,1,1-trichloroethane	1.016	1.041	-2.5	109	0.00	10.88
48 M Cyclohexane	0.879	0.735	16.4	88	0.00	10.96
49 I 1,4-difluorobenzene	1.000	1.000	0.0	112	0.00	11.70
50 M Di-isobutylene	0.000	0.000#	0.0	111	0.00	11.82
51 M epichlorohydrin	0.035	0.035	0.0	110	0.00	12.90
52 M n-butyl alcohol	0.009	0.010#	-11.1	112	0.00	11.82
53 M carbon tetrachloride	0.661	0.676	-2.3	111	0.00	11.10
54 M 1,1-dichloropropene	0.564	0.605	-7.3	114	0.00	11.07
55 M hexane	0.516	0.585	-13.4	119	0.00	9.14
56 tert amyl alcohol			NA			
57 M benzene	1.628	1.689	-3.7	116	0.00	11.34
58 M tert-amyl methyl ether	1.262	1.322	-4.8	113	0.00	11.36
59 M heptane	0.276	0.301	-9.1	118	0.00	11.50
60 M isopropyl acetate	0.711	0.741	-4.2	112	0.00	11.25
61 M 1,2-dichloroethane	0.594	0.586	1.3	107	0.00	11.35
62 M ethyl acrylate	0.000	0.000#	0.0	111	0.00	11.82
63 M trichloroethene	0.415	0.433	-4.3	113	0.00	12.03
64 tert-amyl ethyl ether			NA			
	True	Calc.	% Drift			
65 M methyl methacrylate	50.000	34.640	30.7#	72	0.00	12.28
	AvgRF	CCRF	% Dev			
66 M 2-nitropropane	0.269	0.260	3.3	106	0.00	13.09
67 M 2-chloroethyl vinyl ether	0.231	0.254	-10.0	113	0.00	12.78
68 M 1,2-dichloropropane	0.388	0.402	-3.6	112	0.00	12.28
69 M dibromomethane	0.268	0.271	-1.1	107	0.00	12.44
70 M methylcyclohexane	0.634	0.730	-15.1	121	0.00	12.25
71 M bromodichloromethane	0.552	0.555	-0.5	106	0.00	12.56
72 M cis-1,3-dichloropropene	0.595	0.650	-9.2	111	0.00	12.99
73 S toluene-d8 (s)	1.258	1.310	-4.1	116	0.00	13.27
74 M 4-methyl-2-pentanone	0.466	0.490	-5.2	108	0.00	13.08
75 M toluene	0.846	0.915	-8.2	115	0.00	13.33
76 M 3-methyl-1-butanol	0.013	0.014	-7.7	111	0.00	13.09
77 M trans-1,3-dichloropropene	0.540	0.589	-9.1	110	0.00	13.52
	True	Calc.	% Drift			
78 M ethyl methacrylate	50.000	48.579	2.8	110	0.00	13.50
	AvgRF	CCRF	% Dev			
79 M 1,1,2-trichloroethane	0.278	0.282	-1.4	112	0.00	13.72
80 M 2-hexanone	0.195	0.197	-1.0	107	0.00	13.87

5

**Initial Calibration Verification**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: V3A2065-ICV2065  
 Lab FileID: 3A49021.D

81 I chlorobenzene-d5	1.000	1.000	0.0	112	0.00	14.68
82 M tetrachloroethene	0.431	0.448	-3.9	114	0.00	13.89
83 M 1,3-dichloropropane	0.688	0.714	-3.8	111	0.00	13.89
84 M butyl acetate	0.262	0.270	-3.1	110	0.00	13.93
85 M dibromochloromethane	0.531	0.566	-6.6	109	0.00	14.14
86 M 1,2-dibromoethane	0.438	0.473	-8.0	112	0.00	14.28
87 M chlorobenzene	1.262	1.299	-2.9	114	0.00	14.71
88 M 1,1,1,2-tetrachloroethane	0.506	0.523	-3.4	110	0.00	14.76
89 M ethylbenzene	1.946	2.115	-8.7	114	0.00	14.75
90 M m,p-xylene	0.742	0.809	-9.0	115	0.00	14.85
91 M o-xylene	0.702	0.786	-12.0	112	0.00	15.24
92 M styrene	1.140	1.284	-12.6	118	0.00	15.25
93 M bromoform	0.360	0.365	-1.4	109	0.00	15.50
94 I 1,4-dichlorobenzene-d4	1.000	1.000	0.0	109	0.00	16.84
95 M isopropylbenzene	3.103	3.359	-8.3	110	0.00	15.55
96 S 4-bromofluorobenzene (s)	1.080	1.110	-2.8	113	0.00	15.75
97 cyclohexanone	0.041	0.030	26.8#	75	0.00	15.71
98 M bromobenzene	1.016	1.048	-3.1	111	0.00	15.93
99 M 1,1,2,2-tetrachloroethane	0.967	0.978	-1.1	113	0.00	15.83
100 M trans-1,4-dichloro-2-bute	0.242	0.237	2.1	104	0.00	15.87
101 M 1,2,3-trichloropropane	0.287	0.261	9.1	100	0.00	15.91
102 M n-propylbenzene	3.831	4.384	-14.4	114	0.00	15.93
103 M 2-chlorotoluene	2.849	3.043	-6.8	111	0.00	16.08
104 M 4-chlorotoluene	2.547	2.741	-7.6	112	0.00	16.16
105 M 1,3,5-trimethylbenzene	2.906	3.253	-11.9	113	0.00	16.07
106 M tert-butylbenzene	1.733	1.879	-8.4	109	0.00	16.40
107 M pentachloroethane	0.683	0.688	-0.7	104	0.00	16.48
108 M 1,2,4-trimethylbenzene	2.888	3.292	-14.0	113	0.00	16.44
109 M sec-butylbenzene	3.536	4.087	-15.6	113	0.00	16.59
110 M 1,3-dichlorobenzene	1.923	1.953	-1.6	109	0.00	16.78
111 M p-isopropyltoluene	3.191	3.494	-9.5	110	0.00	16.70
112 M vinyltoluene	0.000	0.000#	0.0	103	0.00	16.83
113 M 1,4-dichlorobenzene	2.040	2.028	0.6	112	0.00	16.86
114 M 1,2-dichlorobenzene	1.882	1.949	-3.6	111	0.00	17.23
115 M benzyl chloride	2.067	2.034	1.6	104	0.00	16.96
116 M n-butylbenzene	2.913	3.176	-9.0	109	0.00	17.09
117 M 1,2-dibromo-3-chloropropa	0.166	0.163	1.8	105	0.00	17.99
118 M 1,2,4-trichlorobenzene	1.164	1.328	-14.1	112	0.00	18.83
119 M hexachlorobutadiene	0.687	0.743	-8.2	118	0.00	18.94
120 M naphthalene	2.221	2.468	-11.1	115	0.00	19.12
121 M 1,2,3-trichlorobenzene	0.956	1.051	-9.9	111	0.00	19.37
122 M hexachloroethane	0.600	0.596	0.7	102	0.00	17.49

(#) = Out of Range  
 3A49017.D M3A2065.M  
 SPCC's out = 0 CCC's out = 0  
 Fri Mar 28 09:28:48 2008 NJVOA08

5

**Continuing Calibration Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: V3A2092-CC2065  
 Lab FileID: 3A49646.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\V3A2090-2093\3A49646.D Vial: 2  
 Acq On : 12 Apr 2008 1:45 pm Operator: liy  
 Sample : CC2065-20 Inst : MS3A  
 Misc : MS63192,V3A2092,W,,,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M3A2065.M (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Fri Mar 28 09:27:29 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I Tert Butyl Alcohol-d9	1.000	1.000	0.0	95	0.00	8.34
2 M tertiary butyl alcohol	1.322	1.096	17.1	80	0.00	8.47
3 M 1,4-dioxane	0.115	0.094	18.3	82	0.00	12.39
4 ethanol	0.000	0.091	0.0	0#	0.01	7.09
5 I pentafluorobenzene	1.000	1.000	0.0	94	0.00	10.77
6 M chlorodifluoromethane	0.642	0.652	-1.6	96	0.00	4.43
7 M dichlorodifluoromethane	0.777	0.818	-5.3	97	0.00	4.39
8 M chloromethane	0.786	0.767	2.4	90	-0.01	4.80
9 M vinyl chloride	0.707	0.650	8.1	84	-0.02	5.11
10 M acetaldehyde	0.000	0.000#	0.0	77	0.03	5.38
11 M bromomethane	0.563	0.595	-5.7	91	0.00	5.87
12 M chloroethane	0.432	0.452	-4.6	89	0.00	6.08
13 M trichlorofluoromethane	1.060	1.017	4.1	86	0.00	6.61
14 M pentane			NA			
15 M ethyl ether	0.345	0.314	9.0	88	0.00	7.09
16 M acrolein	200.000	197.970	1.0	95	0.01	7.38
17 M 1,1-dichloroethene	0.567	0.539	4.9	88	0.00	7.58
18 M acetone	20.000	16.164	19.2	73	0.02	7.66
19 M allyl chloride	0.366	0.353	3.6	89	-0.01	8.17
20 M acetonitrile	0.057	0.058	-1.8	91	0.02	8.14
21 M iodomethane	1.089	1.035	5.0	90	0.00	7.89
22 M iso-butyl alcohol	0.020	0.019	5.0	90	0.00	11.34
23 M carbon disulfide	1.928	1.801	6.6	89	0.00	8.04
24 M methylene chloride	0.676	0.687	-1.6	96	0.00	8.39
25 M methyl acetate	0.472	0.511	-8.3	103	0.00	8.16
26 M methyl tert butyl ether	1.795	1.767	1.6	90	0.00	8.75
27 M trans-1,2-dichloroethene	0.620	0.609	1.8	91	0.00	8.81
28 M di-isopropyl ether	1.913	1.857	2.9	88	0.00	9.41
29 M 2-butanone	0.833	0.805	3.4	89	0.00	10.21
30 M 1,1-dichloroethane	1.137	1.163	-2.3	94	0.00	9.43
31 M chloroprene	0.810	0.781	3.6	90	0.00	9.55
32 M acrylonitrile	0.219	0.225	-2.7	93	0.00	8.75

59  
5

**Continuing Calibration Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: V3A2092-CC2065  
 Lab FileID: 3A49646.D

33 M vinyl acetate	True 20.000	Calc. 17.708	% Drift 11.5	86	0.01	9.43
34 M ethyl tert-butyl ether	1.833	1.735	5.3	86	0.00	9.91
35 M ethyl acetate	0.078	0.071	9.0	90	0.00	10.21
36 M 2,2-dichloropropane	0.989	0.915	7.5	85	0.00	10.22
37 M cis-1,2-dichloroethene	0.695	0.692	0.4	91	0.00	10.23
38 methylacrylate	0.650	0.622	4.3	92	0.00	10.30
39 M propionitrile	0.087	0.086	1.1	91	0.00	10.29
40 M bromochloromethane	0.356	0.346	2.8	89	0.00	10.56
41 M tetrahydrofuran	0.177	0.164	7.3	87	0.00	10.60
42 M chloroform	1.171	1.180	-0.8	96	0.00	10.62
43 S dibromofluoromethane (s)	0.629	0.608	3.3	92	0.00	10.83
44 S 1,2-dichloroethane-d4 (s)	0.734	0.718	2.2	94	0.00	11.25
45 M freon 113	0.508	0.451	11.2	82	0.00	7.55
46 M methacrylonitrile	0.379	0.350	7.7	91	0.00	10.49
47 M 1,1,1-trichloroethane	1.016	0.975	4.0	89	0.00	10.88
48 M cyclohexane	0.879	0.778	11.5	80	0.00	10.96
49 I 1,4-difluorobenzene	1.000	1.000	0.0	94	0.00	11.70
50 M Di-isobutylene	0.000	0.000#	0.0	86	0.00	11.82
51 M epichlorohydrin	0.035	0.031	11.4	85	0.00	12.90
52 M n-butyl alcohol	0.009	0.008#	11.1	84	0.00	11.82
53 M carbon tetrachloride	0.661	0.648	2.0	89	0.00	11.09
54 M 1,1-dichloropropene	0.564	0.547	3.0	88	0.00	11.07
55 M hexane	0.516	0.439	14.9	76	0.00	9.14
56 tert amyl alcohol	0.000	0.012	0.0	0#	0.00	11.25
57 M benzene	1.628	1.587	2.5	90	0.00	11.33
58 M tert-amyl methyl ether	1.262	1.226	2.9	88	0.00	11.36
59 M heptane	0.276	0.229	17.0	74	0.00	11.50
60 M isopropyl acetate	0.711	0.660	7.2	88	0.00	11.25
61 M 1,2-dichloroethane	0.594	0.625	-5.2	94	0.00	11.35
62 M ethyl acrylate	0.000	0.000#	0.0	82	0.00	11.82
63 M trichloroethene	0.415	0.405	2.4	90	0.00	12.03
64 tert-amyl ethyl ether	0.000	0.052	0.0	0#	0.00	12.28
65 M methyl methacrylate	20.000	16.175	19.1	98	0.00	12.28
66 M 2-nitropropane	0.269	0.255	5.2	90	0.00	13.09
67 M 2-chloroethyl vinyl ether	0.231	0.231	0.0	87	0.00	12.78
68 M 1,2-dichloropropane	0.388	0.394	-1.5	92	0.00	12.28
69 M dibromomethane	0.268	0.276	-3.0	93	0.00	12.44
70 M methylcyclohexane	0.634	0.555	12.5	77	0.00	12.25
71 M bromodichloromethane	0.552	0.567	-2.7	93	0.00	12.56
72 M cis-1,3-dichloropropene	0.595	0.588	1.2	88	0.00	12.99
73 S toluene-d8 (s)	1.258	1.246	1.0	92	0.00	13.27
74 M 4-methyl-2-pentanone	0.466	0.447	4.1	88	0.00	13.08
75 M toluene	0.846	0.826	2.4	88	0.00	13.33
76 M 3-methyl-1-butanol	0.013	0.012	7.7	88	0.00	13.09
77 M trans-1,3-dichloropropene	0.540	0.555	-2.8	90	0.00	13.52
78 M ethyl methacrylate	20.000	18.371	8.1	88	0.00	13.50
79 M 1,1,2-trichloroethane	0.278	0.264	5.0	90	0.00	13.72
80 M 2-hexanone	0.195	0.170	12.8	86	0.00	13.87

59  
5

**Continuing Calibration Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: V3A2092-CC2065  
 Lab FileID: 3A49646.D

Job No	Compound	1.000	1.000	0.0	91	0.00	14.68
81 I	chlorobenzene-d5	1.000	1.000	0.0	91	0.00	14.68
82 M	tetrachloroethene	0.431	0.427	0.9	88	0.00	13.88
83 M	1,3-dichloropropane	0.688	0.704	-2.3	89	0.00	13.89
84 M	butyl acetate	0.262	0.239	8.8	84	0.00	13.94
85 M	dibromochloromethane	0.531	0.547	-3.0	91	0.00	14.14
86 M	1,2-dibromoethane	0.438	0.438	0.0	87	0.00	14.28
87 M	chlorobenzene	1.262	1.227	2.8	88	0.00	14.71
88 M	1,1,1,2-tetrachloroethane	0.506	0.526	-4.0	90	0.00	14.76
89 M	ethylbenzene	1.946	1.967	-1.1	86	0.00	14.75
90 M	m,p-xylene	0.742	0.767	-3.4	87	0.00	14.85
91 M	o-xylene	0.702	0.733	-4.4	87	0.00	15.24
92 M	styrene	1.140	1.100	3.5	87	0.00	15.25
93 M	bromofom	0.360	0.337	6.4	75	0.00	15.50
94 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	16.83
95 M	isopropylbenzene	3.103	2.990	3.6	80	0.00	15.55
96 S	4-bromofluorobenzene (s)	1.080	1.065	1.4	87	0.00	15.75
97	cyclohexanone	0.041	0.023	43.9#	48#	0.00	15.71
98 M	bromobenzene	1.016	0.985	3.1	86	0.00	15.93
99 M	1,1,2,2-tetrachloroethane	0.967	0.866	10.4	85	0.00	15.83
100 M	trans-1,4-dichloro-2-bute	0.242	0.199	17.8	76	0.00	15.87
101 M	1,2,3-trichloropropane	0.287	0.281	2.1	90	0.00	15.91
102 M	n-propylbenzene	3.831	3.901	-1.8	86	0.00	15.93
103 M	2-chlorotoluene	2.849	2.946	-3.4	89	0.00	16.08
104 M	4-chlorotoluene	2.547	2.529	0.7	87	0.00	16.16
105 M	1,3,5-trimethylbenzene	2.906	2.968	-2.1	88	0.00	16.06
106 M	tert-butylbenzene	1.733	1.759	-1.5	88	0.00	16.39
107 M	pentachloroethane	0.683	0.683	0.0	91	0.00	16.48
108 M	1,2,4-trimethylbenzene	2.888	3.033	-5.0	88	0.00	16.43
109 M	sec-butylbenzene	3.536	3.572	-1.0	85	0.00	16.59
110 M	1,3-dichlorobenzene	1.923	1.851	3.7	88	0.00	16.78
111 M	p-isopropyltoluene	3.191	3.174	0.5	87	0.00	16.70
112 M	vinyltoluene	0.000	0.000#	0.0	88	0.00	16.84
113 M	1,4-dichlorobenzene	2.040	1.883	7.7	88	0.00	16.86
114 M	1,2-dichlorobenzene	1.882	1.776	5.6	86	0.00	17.23
115 M	benzyl chloride	2.067	1.625	21.4#	77	0.00	16.96
116 M	n-butylbenzene	2.913	2.890	0.8	87	0.00	17.09
117 M	1,2-dibromo-3-chloropropa	0.166	0.158	4.8	90	0.00	17.99
118 M	1,2,4-trichlorobenzene	1.164	1.178	-1.2	88	0.00	18.83
119 M	hexachlorobutadiene	0.687	0.689	-0.3	90	0.00	18.94
120 M	naphthalene	2.221	2.135	3.9	89	0.00	19.12
121 M	1,2,3-trichlorobenzene	0.956	1.018	-6.5	90	0.00	19.36
122 M	hexachloroethane	0.600	0.594	1.0	91	0.00	17.50

(#) = Out of Range  
 3A49016.D M3A2065.M SPCC's out = 0 CCC's out = 0  
 Mon Apr 14 12:02:33 2008 NJVOR08

**Initial Calibration Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: VD5477-ICC5477  
 Lab FileID: D137106.D

Response Factor Report MSD

Method : C:\HPCHEM\1\METHODS\MD5477.M (RTE Integrator)  
 Title : SW-846 Method 8260B  
 Last Update : Wed Jan 30 13:18:39 2008  
 Response via : Initial Calibration

Calibration Files

5 =D137104.D 2 =D137111.D 50 =D137106.D 100 =D137107.D  
 1 =D137102.D 200 =D137108.D 20 =D137105.D =

Compound	5	2	50	100	1	200	20	Avg	%RSD	
1) I	Tert Butyl Alcohol-d9 -----ISTD-----									
2)	1,4-dioxane	0.144	0.124	0.143	0.149	0.144	0.139	0.140	6.26	
3)	tertiary but	1.186	1.029	1.277	1.318	1.258	1.219	1.214	8.39	
4) I	pentafluorobenzene -----ISTD-----									
5)	1,2-dichloro							0.000#	-1.00	
6)	chlorodifluo	0.561	0.397	0.517	0.530	0.532	0.461	0.537	0.505	11.25
7)	dichlorodifl	0.546	0.439	0.566	0.568	0.477	0.494	0.586	0.525	10.52
8)	chloromethan	0.502	0.527	0.500	0.493	0.592	0.499	0.506	0.517	6.73
9)	vinyl chlori	0.495	0.555	0.496	0.501	0.590	0.457	0.503	0.514	8.61
10)	bromomethane	0.354	0.378	0.340	0.314	0.383	0.243	0.347	0.337	14.17
11)	chloroethane	0.279	0.302	0.270	0.256	0.278	0.200	0.281	0.267	12.10
12)	trichloroflu	0.661	0.667	0.700	0.701	0.654	0.633	0.697	0.673	3.94
13)	ethyl ether	0.372	0.303	0.326	0.354	0.353	0.314	0.294	0.331	8.88
14)	acrolein	0.121	0.094	0.098	0.102	0.116	0.081	0.090	0.100	14.25
15)	chlorotriflu							0.000#	-1.00	
16)	1,1-dichloro	0.566	0.481	0.464	0.504	0.561	0.454	0.422	0.493	10.98
17)	acetone	0.051		0.046	0.051		0.045	0.040	0.047	9.54
18)	allyl chlori	1.210	0.945	0.931	0.983	1.099	0.864	0.909	0.991	12.23
19)	acetonitrile	0.034	0.051	0.030	0.030		0.027	0.043	0.036	26.39
	----- Linear regression ----- Coefficient = 0.9948									
	Response Ratio = 0.03312 + 0.02666 *A									
20)	acetaldehyde									
21)	iodomethane	1.085	0.919	0.904	0.984	1.020	0.886	0.808	0.944	9.81
22)	iso-butyl al	0.060		0.064	0.068		0.059	0.052	0.061	9.98
23)	carbon disul	1.773	1.396	1.370	1.463	1.716	1.266	1.277	1.466	13.82
24)	methylene ch	0.673	0.555	0.542	0.586	0.652	0.524	0.493	0.575	11.51
25)	methyl aceta	0.402	0.339	0.378	0.380		0.344	0.386	0.372	6.65
26)	methyl tert	1.825	1.480	1.508	1.623	1.818	1.436	1.369	1.580	11.54
27)	trans-1,2-di	0.656	0.553	0.531	0.578	0.660	0.514	0.480	0.567	12.15
28)	di-isopropyl	1.712	1.372	1.617	1.618	1.579	1.455	1.637	1.570	7.44
29)	ethyl tert-b	1.641	1.384	1.592	1.625	1.605	1.480	1.602	1.561	6.01
30)	2-butanone	0.065		0.064	0.069		0.062	0.054	0.063	8.42
31)	1,1-dichloro	1.106	0.884	0.889	0.923	1.119	0.804	0.803	0.933	14.01
32)	chloroprene	0.693	0.549	0.675	0.691	0.628	0.628	0.678	0.649	7.96
33)	acrylonitril	0.220	0.169	0.187	0.197	0.199	0.173	0.169	0.188	10.20
34)	vinyl acetat	0.091		0.115	0.119		0.116	0.108	0.110	10.36
35)	ethyl acetat	0.049		0.060	0.058		0.052	0.060	0.056	9.32
36)	2,2-dichloro	0.865	0.677	0.693	0.739	0.838	0.683	0.633	0.733	11.92
37)	cis-1,2-dich	0.727	0.586	0.585	0.632	0.708	0.559	0.531	0.618	12.05
38)	propionitril	0.087	0.065	0.072	0.075	0.075	0.065	0.066	0.072	10.95
39)	bromochlorom	0.365	0.310	0.306	0.332	0.349	0.300	0.274	0.320	9.77
40)	tetrahydrofu	0.199	0.176	0.153	0.159		0.137	0.142	0.161	14.39
41)	chloroform	1.073	0.896	0.863	0.929	1.094	0.823	0.793	0.925	12.69
42)	dibromofluor	0.453	0.540	0.475	0.513	0.462	0.503	0.556	0.500	7.80

Initial Calibration Summary

Job Number: J87954
Account: DEPALMA CMX
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: VD5477-ICC5477
Lab FileID: D137106.D

Table with 12 columns: ID, Name, and 10 numerical values. Includes entries for 43) 1,2-dichloro, 48) I 1,4-difluorobenzene, 62) 2-chloroethy, 77) I chlorobenzene-d5, 78) tetrachloroe, 79) 1,3-dichloro, 80) butyl acetat, 90) I 1,4-dichlorobenzene-d, 91) isopropylben, 92) 4-bromo fluor, 93) bromobenzene.

59
5

Initial Calibration Summary

Job Number: J87954
Account: DEPALMA CMX
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: VD5477-ICC5477
Lab FileID: D137106.D

Table with 12 columns: ID, Name, and 10 numerical values. Includes entries for 94) cyclohexanone, 95) 1,1,2,2-tetr, 96) trans-1,4-di, 97) 1,2,3-trichl, 98) n-propylbenz, 99) 2-chlorotolu, 100) 4-chlorotolu, 101) 1,3,5-trimet, 102) tert-butylbe, 103) pentachloroe, 104) 1,2,4-trimet, 105) sec-butylben, 106) 1,3-dichloro, 107) p-isopropylt, 108) 1,4-dichloro, 109) 1,2-dichloro, 110) n-butylbenze, 111) 1,2-dibromo, 112) 1,2,4-trichl, 113) hexachlorobu, 114) naphthalene, 115) 1,2,3-trichl, 116) hexachloroet, 117) Cyclohexane.

59
5

MD5477.M Thu Jan 31 10:14:55 2008 GCSC



**Initial Calibration Verification**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: VD5477-ICV5477  
 Lab FileID: D137110.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\D137110.D  
 Acq On : 25 Jan 2008 7:08 pm  
 Sample : ICV5477-50  
 Misc : MS59794,VD5477,5,,,1  
 MS Integration Params: RTEINT.P

Vial: 56  
 Operator: YING  
 Inst : MSD  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\MD5477.M (RTE Integrator)  
 Title : SW-846 Method 8260B  
 Last Update : Fri Jan 25 20:12:44 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I Text Butyl Alcohol-d9	1.000	1.000	0.0	103	0.00	7.68
2 M 1,4-dioxane	0.140	0.147	-5.0	107	0.00	11.53
3 M tertiary butyl alcohol	1.214	1.297	-6.8	105	0.00	7.79
4 I pentafluorobenzene	1.000	1.000	0.0	107	0.00	9.91
5 M 1,2-dichloro-1,2,2-trifluoro			NA			
6 M chlorodifluoromethane	0.505	0.506	-0.2	105	0.00	4.36
7 M dichlorodifluoromethane	0.525	0.492	6.3	93	0.00	4.35
8 M chloromethane	0.517	0.426	17.6	91	0.00	4.70
9 M vinyl chloride	0.514	0.435	15.4	94	0.00	4.98
10 M bromomethane	0.337	0.299	11.3	94	0.00	5.61
11 M chloroethane	0.267	0.236	11.6	94	0.00	5.78
12 M trichlorofluoromethane	0.673	0.595	11.6	91	-0.01	6.30
13 M ethyl ether	0.331	0.334	-0.9	110	0.00	6.67
14 M acrolein	0.100	0.095	5.0	104	0.00	6.83
15 M chlorotrifluoroethene			NA			
16 M 1,1-dichloroethene	0.493	0.478	3.0	110	0.00	7.10
17 M acetone	0.047	0.046	2.1	106	0.00	7.05
18 M allyl chloride	0.991	0.750	24.3#	86	0.00	7.57
19 M acetonitrile	500.000	471.275	5.7	102	0.00	7.43
20 M acetaldehyde			NA			
21 M iodomethane	0.944	0.932	1.3	111	0.00	7.34
22 M iso-butyl alcohol	0.061	0.061	0.0	101	0.00	10.12
23 M carbon disulfide	1.466	1.375	6.2	108	0.00	7.50
24 M methylene chloride	0.575	0.548	4.7	109	0.00	7.74
25 M methyl acetate	0.372	0.362	2.7	103	0.00	7.54
26 M methyl tert butyl ether	1.580	1.501	5.0	107	0.00	8.13
27 M trans-1,2-dichloroethene	0.567	0.541	4.6	109	0.00	8.14
28 M di-isopropyl ether	1.570	1.563	0.4	104	0.00	8.72
29 M ethyl tert-butyl ether	1.561	1.560	0.1	105	0.00	9.18
30 M 2-butanone	0.063	0.064	-1.6	108	0.00	9.32
31 M 1,1-dichloroethane	0.933	0.865	7.3	104	0.00	8.67
32 M chloroprene	0.649	0.662	-2.0	105	0.00	8.80
33 M acrylonitrile	0.188	0.183	2.7	105	0.00	7.99
34 M vinyl acetate	0.110	0.118	-7.3	110	0.00	8.66
35 M ethyl acetate	0.056	0.057	-1.8	102	0.00	9.38
36 M 2,2-dichloropropane	0.733	0.696	5.0	108	0.00	9.42
37 M cis-1,2-dichloroethene	0.618	0.601	2.8	110	0.00	9.38

59  
5

**Initial Calibration Verification**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: VD5477-ICV5477  
 Lab FileID: D137110.D

38 M propionitrile	0.072	0.071	1.4	106	0.00	9.36
39 M bromochloromethane	0.320	0.313	2.2	110	0.00	9.67
40 M tetrahydrofuran	0.161	0.149	7.5	105	0.00	9.75
41 M chloroform	0.925	0.860	7.0	107	0.00	9.73
42 S dibromofluoromethane (s)	0.500	0.545	-9.0	123	0.00	9.92
43 S 1,2-dichloroethane-d4 (s)	0.491	0.538	-9.6	118	0.00	10.34
44 M freon 113	0.377	0.397	-5.3	110	0.00	7.10
45 M methacrylonitrile	0.292	0.286	2.1	102	0.00	9.58
46 M 1,1,1-trichloroethane	0.773	0.745	3.6	106	0.00	10.04
47 M tert-amyl methyl ether	1.587	1.593	-0.4	107	0.00	10.54
48 I 1,4-difluorobenzene	1.000	1.000	0.0	107	0.00	10.82
49 M Di-isobutylene			NA			
50 M 2,2,4-trimethylpentane			NA			
51 M epichlorohydrin	0.036	0.038	-5.6	106	0.00	12.04
52 M n-butyl alcohol	0.011	0.011	0.0	104	0.00	10.89
53 M carbon tetrachloride	0.474	0.484	-2.1	110	0.00	10.27
54 M 1,1-dichloropropene	0.518	0.506	2.3	108	0.00	10.22
55 M hexane	0.479	0.496	-3.5	107	0.00	8.51
56 M benzene	1.611	1.560	3.2	109	0.00	10.46
57 M heptane	0.238	0.241	-1.3	108	0.00	10.72
58 M isopropyl acetate	0.621	0.636	-2.4	103	0.00	10.38
59 M 1,2-dichloroethane	0.486	0.463	4.7	104	0.00	10.43
60 M trichloroethene	0.440	0.416	5.5	108	0.00	11.18
61 M 2-nitropropane	50.000	40.057	19.9	100	0.00	11.88
62 M 2-chloroethyl vinyl ether	0.176	0.194	-10.2	109	0.00	11.94
63 M methyl methacrylate	0.395	0.411	-4.1	107	0.00	11.43
64 M 1,2-dichloropropane	0.408	0.396	2.9	107	0.00	11.42
65 M methylcyclohexane	0.626	0.646	-3.2	108	0.00	11.47
66 M dibromomethane	0.248	0.241	2.8	108	0.00	11.55
67 M bromodichloromethane	0.511	0.504	1.4	107	0.00	11.69
68 M cis-1,3-dichloropropene	0.664	0.665	-0.2	108	0.00	12.18
69 S toluene-d8 (s)	1.342	1.547	-15.3	123	0.00	12.53
70 M 4-methyl-2-pentanone	0.499	0.495	0.8	102	0.00	12.28
71 M toluene	1.048	1.032	1.5	110	0.00	12.60
72 M 3-methyl-1-butanol	0.010	0.010	0.0	106	0.00	12.28
73 M trans-1,3-dichloropropene	0.592	0.596	-0.7	108	0.00	12.76
74 M ethyl methacrylate	0.510	0.533	-4.5	108	0.00	12.79
75 M 1,1,2-trichloroethane	0.311	0.305	1.9	107	0.00	12.98
76 M 2-hexanone	0.213	0.224	-5.2	102	0.00	13.19
77 I chlorobenzene-d5	1.000	1.000	0.0	105	0.00	14.15
78 M tetrachloroethene	50.000	52.855	-5.7	108	0.00	13.25
79 M 1,3-dichloropropane	0.677	0.660	2.5	106	0.00	13.18
80 M butyl acetate	0.259	0.277	-6.9	105	0.00	13.29
81 M dibromochloromethane	0.447	0.470	-5.1	109	0.00	13.47
82 M 1,2-dibromoethane	0.418	0.419	-0.2	108	0.00	13.64
83 M chlorobenzene	1.298	1.277	1.6	110	0.00	14.18
84 M 1,1,1,2-tetrachloroethane	0.453	0.458	-1.1	108	0.00	14.24
85 M ethylbenzene	2.072	2.067	0.2	108	0.00	14.27
86 M m,p-xylene	0.849	0.853	-0.5	109	0.00	14.38
87 M o-xylene	0.841	0.838	0.4	108	0.00	14.84

59  
5

**Initial Calibration Verification**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: VD5477-ICV5477  
 Lab FileID: D137110.D

Sample	Retention	Area	Height	Concn	Area%	Height%	Concn%
88 M	styrene	1.326	1.373	-3.5	109	0.00	14.84
89 M	bromoform	0.313	0.345	-10.2	110	0.00	15.09
90 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	16.73
91 M	isopropylbenzene	3.088	3.046	1.4	108	0.00	15.23
92 S	4-bromofluorobenzene (s)	0.914	1.027	-12.4	121	0.00	15.42
93 M	bromobenzene	1.045	1.036	0.9	109	0.00	15.65
----- True Calc. % Drift -----							
94 M	cyclohexanone	500.000	562.646	-12.5	117	0.00	15.34
----- AvgRF CCRF % Dev -----							
95 M	1,1,2,2-tetrachloroethane	0.856	0.834	2.6	106	0.00	15.49
----- True Calc. % Drift -----							
96 M	trans-1,4-dichloro-2-butene	50.000	48.223	3.6	110	0.00	15.54
----- AvgRF CCRF % Dev -----							
97 M	1,2,3-trichloropropane	0.267	0.266	0.4	106	0.00	15.58
98 M	n-propylbenzene	3.916	3.877	1.0	108	0.00	15.69
99 M	2-chlorotoluene	2.758	2.657	3.7	106	0.00	15.84
100 M	4-chlorotoluene	2.536	2.458	3.1	106	0.00	15.94
101 M	1,3,5-trimethylbenzene	2.904	2.889	0.5	107	0.00	15.86
102 M	tert-butylbenzene	1.637	1.520	7.1	106	0.00	16.25
103 M	pentachloroethane	0.539	0.600	-11.3	111	0.00	16.31
104 M	1,2,4-trimethylbenzene	3.020	2.982	1.3	107	0.00	16.30
105 M	sec-butylbenzene	3.587	3.547	1.1	107	0.00	16.50
106 M	1,3-dichlorobenzene	1.902	1.852	2.6	107	0.00	16.67
107 M	p-isopropyltoluene	3.100	3.110	-0.3	109	0.00	16.63
108 M	1,4-dichlorobenzene	1.986	1.922	3.2	109	0.00	16.76
109 M	1,2-dichlorobenzene	1.793	1.752	2.3	109	0.00	17.19
110 M	n-butylbenzene	2.546	2.569	-0.9	108	0.00	17.08
111 M	1,2-dibromo-3-chloropropane	0.123	0.126	-2.4	107	0.00	18.00
112 M	1,2,4-trichlorobenzene	1.080	1.099	-1.8	108	0.00	18.97
113 M	hexachlorobutadiene	0.539	0.548	-1.7	109	0.00	19.15
114 M	naphthalene	1.882	1.957	-4.0	109	0.00	19.29
----- True Calc. % Drift -----							
115 M	1,2,3-trichlorobenzene	50.000	42.437	15.1	111	0.00	19.56
116 M	hexachloroethane	50.000	48.442	3.1	115	0.00	17.51
----- AvgRF CCRF % Dev -----							
117 M	Cyclohexane	1.035	1.018	1.6	108	0.00	10.17

(#) = Out of Range  
 D137110.D MD5477.M SPCC's out = 0 CCC's out = 0  
 Fri Jan 25 20:16:28 2008 GCSC

5 6 9

**Continuing Calibration Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: VD5601-CC5477  
 Lab FileID: D140131.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\D140131.D Vial: 100  
 Acq On : 12 Apr 2008 12:53 am Operator: YING  
 Sample : CC5477-50 Inst : MSD  
 Misc : MS63053,VD5601,5,,100,5,1 Multiplr: 1.00  
 MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\MD5477.M (RTE Integrator)  
 Title : SW-846 Method 8260B  
 Last Update : Tue Mar 18 08:45:13 2008  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert Butyl Alcohol-d9	1.000	1.000	0.0	87	-0.02 7.66
2 M	1,4-dioxane	0.140	0.138	1.4	86	0.00 11.52
3 M	tertiary butyl alcohol	1.214	1.257	-3.5	90	-0.02 7.78
4 I	pentafluorobenzene	1.000	1.000	0.0	123	0.00 9.91
5 M	1,2-dichloro-1,2,2-trifluoroethane	-----NA-----				
6 M	chlorodifluoromethane	0.505	0.562	-11.3	129	-0.02 4.35
7 M	dichlorodifluoromethane	0.525	0.474	9.7	100	-0.01 4.33
8 M	chloromethane	0.517	0.572	-10.6	139	-0.03 4.67
9 M	vinyl chloride	0.514	0.596	-16.0	146	-0.04 4.95
10 M	bromomethane	0.337	0.500	-48.4#	178	-0.02 5.60
11 M	chloroethane	0.267	0.341	-27.7#	150	0.00 5.77
12 M	trichlorofluoromethane	0.673	0.722	-7.3	128	-0.07 6.25
13 M	ethyl ether	0.331	0.322	2.7	135	0.00 6.65
14 M	acrolein	0.100	0.277	-177.0#	378#	0.00 6.83
15 M	chlorotrifluoroethene	-----NA-----				
16 M	1,1-dichloroethene	0.493	0.514	-4.3	150	-0.02 7.08
17 M	acetone	0.047	0.045	4.3	137	0.00 7.05
18 M	allyl chloride	0.991	0.622	37.2#	84	0.00 7.56
----- True Calc. % Drift -----						
19 M	acetonitrile	200.000	87.760	56.1#	57	0.00 7.42
----- AvgRF CCRF % Dev -----						
20 M	acetaldehyde	-----NA-----				
21 M	iodomethane	0.944	1.059	-12.2	161	-0.02 7.32
22 M	iso-butyl alcohol	0.061	0.055	9.8	130	0.00 10.12
23 M	carbon disulfide	1.466	1.597	-8.9	154	-0.02 7.48
24 M	methylene chloride	0.575	0.590	-2.6	147	0.00 7.73
25 M	methyl acetate	0.372	0.260	30.1#	83	0.00 7.54
26 M	methyl tert butyl ether	1.580	1.426	9.7	128	-0.02 8.12
27 M	trans-1,2-dichloroethene	0.567	0.567	0.0	146	0.00 8.13
28 M	di-isopropyl ether	1.570	1.286	18.1	97	0.00 8.72
29 M	ethyl tert-butyl ether	1.561	1.332	14.7	102	0.00 9.17
30 M	2-butanone	0.063	0.053	15.9	121	0.00 9.33
31 M	1,1-dichloroethane	0.933	0.856	8.3	131	0.00 8.66
32 M	chloroprene	0.649	0.585	9.9	106	0.00 8.80
33 M	acrylonitrile	0.188	0.142	24.5#	104	0.00 7.98
34 M	vinyl acetate	0.110	0.097	11.8	110	0.00 8.65
35 M	ethyl acetate	0.056	0.047	16.1	96	0.00 9.38
36 M	2,2-dichloropropane	0.733	0.512	30.2#	100	0.00 9.42
37 M	cis-1,2-dichloroethene	0.618	0.636	-2.9	147	0.00 9.37

5 6 9

Continuing Calibration Summary

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: VD5601-CC5477  
 Lab FileID: D140131.D

38 M	propionitrile	0.072	0.057	20.8#	105	0.00	9.36		
39 M	bromochloromethane	0.320	0.336	-5.0	151	0.00	9.67		
40 M	tetrahydrofuran	0.161	0.101	37.3#	88	0.00	9.75		
41 M	chloroform	0.925	0.889	3.9	138	0.00	9.72		
42 S	dibromofluoromethane (s)	0.500	0.446	10.8	99	0.00	9.91		
43 S	1,2-dichloroethane-d4 (s)	0.491	0.421	14.3	90	0.00	10.34		
44 M	freon 113	0.377	0.421	-11.7	130	-0.02	7.09		
45 M	methacrylonitrile	0.292	0.213	27.1#	98	0.00	9.58		
46 M	1,1,1-trichloroethane	0.773	0.776	-0.4	142	0.00	10.04		
47 M	tert-amyl methyl ether	1.587	1.544	2.7	117	0.00	10.53		
48 I	1,4-difluorobenzene	1.000	1.000	0.0	117	0.00	10.81		
49 M	Di-isobutylene			NA					
50 M	2,2,4-trimethylpentane			NA					
51 M	epichlorohydrin	0.036	0.027	25.0#	85	0.00	12.03		
52 M	n-butyl alcohol	0.011	0.007#	36.4#	76	0.00	10.88		
53 M	carbon tetrachloride	0.474	0.530	-11.8	154	0.00	10.26		
54 M	1,1-dichloropropene	0.518	0.504	2.7	133	0.00	10.21		
55 M	hexane	0.479	0.325	32.2#	77	0.00	8.50		
56 M	benzene	1.611	1.560	3.2	134	0.00	10.47		
57 M	heptane	0.238	0.159	33.2#	77	0.00	10.71		
58 M	isopropyl acetate	0.621	0.464	25.3#	85	0.00	10.37		
59 M	1,2-dichloroethane	0.486	0.467	3.9	128	0.00	10.42		
60 M	trichloroethene	0.440	0.402	8.6	127	0.00	11.18		
----- True Calc. % Drift -----									
61 M	2-nitropropane	20.000	22.623	-13.1	193	0.00	11.87		
----- AvgRF CCRF % Dev -----									
62 M	2-chloroethyl vinyl ether	0.176	0.221	-25.6#	142	0.00	11.94		
63 M	methyl methacrylate	0.395	0.334	15.4	106	0.00	11.43		
64 M	1,2-dichloropropane	0.408	0.369	9.6	122	0.00	11.41		
65 M	methylcyclohexane	0.626	0.538	14.1	98	0.00	11.46		
66 M	dibromomethane	0.248	0.247	0.4	137	0.00	11.55		
67 M	bromodichloromethane	0.511	0.512	-0.2	138	0.00	11.68		
68 M	cis-1,3-dichloropropene	0.664	0.580	12.7	118	0.00	12.18		
69 S	toluene-d8 (s)	1.342	1.303	2.9	101	0.00	12.52		
70 M	4-methyl-2-pentanone	0.499	0.367	26.5#	93	0.00	12.28		
71 M	toluene	1.048	1.015	3.1	134	0.00	12.60		
72 M	3-methyl-1-butanol	0.010	0.008#	20.0	100	0.00	12.28		
73 M	trans-1,3-dichloropropene	0.592	0.518	12.5	118	0.00	12.75		
74 M	ethyl methacrylate	0.510	0.426	16.5	110	0.00	12.79		
75 M	1,1,2-trichloroethane	0.311	0.286	8.0	126	0.00	12.98		
76 M	2-hexanone	0.213	0.161	24.4#	95	0.00	13.19		
77 I	chlorobenzene-d5	1.000	1.000	0.0	114	0.00	14.14		
----- True Calc. % Drift -----									
78 M	tetrachloroethene	20.000	20.682	-3.4	131	0.00	13.25		
----- AvgRF CCRF % Dev -----									
79 M	1,3-dichloropropane	0.677	0.622	8.1	123	0.00	13.18		
80 M	butyl acetate	0.259	0.207	20.1#	89	0.00	13.30		
81 M	dibromochloromethane	0.447	0.475	-6.3	143	0.00	13.47		
82 M	1,2-dibromoethane	0.418	0.391	6.5	126	0.00	13.64		
83 M	chlorobenzene	1.298	1.332	-2.6	141	0.00	14.18		
84 M	1,1,1,2-tetrachloroethane	0.453	0.493	-8.8	147	0.00	14.24		
85 M	ethylbenzene	2.072	2.034	1.8	133	0.00	14.26		
86 M	m,p-xylene	0.849	0.884	-4.1	141	0.00	14.38		
87 M	o-xylene	0.841	0.885	-5.2	140	0.00	14.84		

5

Continuing Calibration Summary

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: VD5601-CC5477  
 Lab FileID: D140131.D

88 M	styrene	1.326	1.326	0.0	130	0.00	14.84		
89 M	bromoform	0.313	0.352	-12.5	152	0.00	15.08		
90 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	118	0.00	16.73		
91 M	isopropylbenzene	3.088	2.855	7.5	131	0.00	15.23		
92 S	4-bromofluorobenzene (s)	0.914	0.796	12.9	95	0.00	15.42		
93 M	bromobenzene	1.045	1.046	-0.1	143	0.00	15.64		
----- True Calc. % Drift -----									
94 M	cyclohexanone	200.000	120.951	39.5#	85	0.00	15.35		
----- AvgRF CCRF % Dev -----									
95 M	1,1,2,2-tetrachloroethane	0.856	0.722	15.7	118	0.00	15.49		
----- True Calc. % Drift -----									
96 M	trans-1,4-dichloro-2-bute	20.000	19.769	1.2	149	0.00	15.54		
----- AvgRF CCRF % Dev -----									
97 M	1,2,3-trichloropropane	0.267	0.235	12.0	122	0.00	15.58		
98 M	n-propylbenzene	3.916	3.629	7.3	131	0.00	15.69		
99 M	2-chlorotoluene	2.758	2.533	8.2	130	0.00	15.83		
100 M	4-chlorotoluene	2.536	2.275	10.3	126	0.00	15.94		
101 M	1,3,5-trimethylbenzene	2.904	2.762	4.9	133	0.00	15.85		
102 M	tert-butylbenzene	1.637	1.399	14.5	125	0.00	16.25		
103 M	pentachloroethane	0.539	0.641	-18.9	168	0.00	16.30		
104 M	1,2,4-trimethylbenzene	3.020	2.833	6.2	132	0.00	16.29		
105 M	sec-butylbenzene	3.587	3.280	8.6	128	0.00	16.49		
106 M	1,3-dichlorobenzene	1.902	1.862	2.1	140	0.00	16.67		
107 M	p-isopropyltoluene	3.100	2.860	7.7	127	0.00	16.62		
108 M	1,4-dichlorobenzene	1.986	1.927	3.0	140	0.00	16.76		
109 M	1,2-dichlorobenzene	1.793	1.694	5.5	134	0.00	17.19		
110 M	n-butylbenzene	2.546	2.242	11.9	120	0.00	17.08		
111 M	1,2-dibromo-3-chloropropane	0.123	0.086	30.1#	94	0.00	18.00		
112 M	1,2,4-trichlorobenzene	1.080	0.848	21.5#	111	0.00	18.98		
113 M	hexachlorobutadiene	0.539	0.471	12.6	122	0.00	19.14		
114 M	naphthalene	1.882	1.360	27.7#	105	0.00	19.28		
----- True Calc. % Drift -----									
115 M	1,2,3-trichlorobenzene	20.000	12.711	36.4#	99	0.00	19.56		
116 M	hexachloroethane	20.000	25.587	-27.9#	218	0.00	17.52		
----- AvgRF CCRF % Dev -----									
117 M	Cyclohexane	1.035	0.984	4.9	130	0.00	10.16		

(#) = Out of Range  
 D137105.D MD5477.M  
 SPCC's out = 0  
 Mon Apr 14 08:59:42 2008  
 CCC's out = 0  
 MSD

5



**Method Blank Summary**

Job Number: J87954  
Account: DEPALMA CMX  
Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32143-MB1	3M4359.D	1	04/11/08	LP	04/11/08	OP32143	E3M168

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

The QC reported here applies to the following samples:

Method: SW846 8270C

J87954-6, J87954-7, J87954-8, J87954-9

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	170	21	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	45	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	35	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	41	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	670	37	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	670	61	ug/kg	
88-75-5	2-Nitrophenol	ND	170	39	ug/kg	
100-02-7	4-Nitrophenol	ND	670	59	ug/kg	
87-86-5	Pentachlorophenol	ND	330	35	ug/kg	
108-95-2	Phenol	ND	67	31	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	67	ug/kg	
83-32-9	Acenaphthene	ND	67	11	ug/kg	
208-96-8	Acenaphthylene	ND	67	6.8	ug/kg	
120-12-7	Anthracene	ND	67	31	ug/kg	
92-87-5	Benzidine	ND	670	5.3	ug/kg	
56-55-3	Benzo(a)anthracene	ND	67	6.9	ug/kg	
50-32-8	Benzo(a)pyrene	ND	67	16	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	67	11	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	67	13	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	67	14	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	67	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	67	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	67	10	ug/kg	
106-47-8	4-Chloroaniline	ND	170	12	ug/kg	
218-01-9	Chrysene	ND	67	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	67	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	67	15	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	67	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	67	9.5	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	67	11	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	67	11	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	67	10	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	67	8.9	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	67	11	ug/kg	
608-20-2	2,6-Dinitrotoluene	ND	67	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	170	24	ug/kg	

**Method Blank Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32143-MB1	3M4359.D	1	04/11/08	LP	04/11/08	OP32143	E3M168

The QC reported here applies to the following samples:

Method: SW846 8270C

J87954-6, J87954-7, J87954-8, J87954-9

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	67	8.6	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	67	9.3	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	67	14	ug/kg	
84-66-2	Diethyl phthalate	ND	67	12	ug/kg	
131-11-3	Dimethyl phthalate	ND	67	9.0	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	67	20	ug/kg	
206-44-0	Fluoranthene	ND	67	6.2	ug/kg	
86-73-7	Fluorene	ND	67	6.7	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	67	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	670	15	ug/kg	
67-72-1	Hexachloroethane	ND	170	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	67	31	ug/kg	
78-59-1	Isophorone	ND	67	11	ug/kg	
91-20-3	Naphthalene	ND	67	7.5	ug/kg	
98-95-3	Nitrobenzene	ND	67	11	ug/kg	
62-75-9	n-Nitrosodimethylamine	ND	67	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	67	11	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	7.3	ug/kg	
85-01-8	Phenanthrene	ND	67	8.3	ug/kg	
129-00-0	Pyrene	ND	67	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	67	10	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
367-12-4	2-Fluorophenol	72%	26-105%
4165-62-2	Phenol-d5	77%	34-108%
118-79-6	2,4,6-Tribromophenol	95%	30-126%
4165-60-0	Nitrobenzene-d5	67%	36-115%
321-60-8	2-Fluorobiphenyl	66%	44-112%
1718-51-0	Terphenyl-d14	70%	42-133%

**Method Blank Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32143-MB1	3M4359.D	1	04/11/08	LP	04/11/08	OP32143	E3M168

The QC reported here applies to the following samples:

Method:

J87954-6, J87954-7, J87954-8, J87954-9

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact/aldol-condensation	3.06	10000	ug/kg	J
	Total TIC, Semi-Volatile		0	ug/kg	

**Blank Spike Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32143-BS1	3M4360.D	1	04/11/08	LP	04/11/08	OP32143	E3M168

The QC reported here applies to the following samples:

Method: SW846 8270C

J87954-6, J87954-7, J87954-8, J87954-9

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	1670	1390	83	62-100
59-50-7	4-Chloro-3-methyl phenol	1670	1580	95	62-113
120-83-2	2,4-Dichlorophenol	1670	1570	94	62-104
105-67-9	2,4-Dimethylphenol	1670	1670	100	58-109
51-28-5	2,4-Dinitrophenol	3330	3480	104	30-140
534-52-1	4,6-Dinitro-o-cresol	1670	1650	99	46-122
88-75-5	2-Nitrophenol	1670	1660	100	59-107
100-02-7	4-Nitrophenol	1670	1270	76	35-134
87-86-5	Pentachlorophenol	1670	1470	88	40-119
108-95-2	Phenol	1670	1340	80	58-104
88-06-2	2,4,6-Trichlorophenol	1670	1660	100	62-108
83-32-9	Acenaphthene	1670	1540	92	60-104
208-96-8	Acenaphthylene	1670	1390	83	54-97
120-12-7	Anthracene	1670	1580	95	63-116
92-87-5	Benzidine	1670	328	20	1-51
56-55-3	Benzo(a)anthracene	1670	1470	88	62-110
50-32-8	Benzo(a)pyrene	1670	1600	96	60-110
205-99-2	Benzo(b)fluoranthene	1670	1590	95	55-116
191-24-2	Benzo(g,h,i)perylene	1670	1570	94	51-120
207-08-9	Benzo(k)fluoranthene	1670	1540	92	57-120
101-55-3	4-Bromophenyl phenyl ether	1670	1690	101	63-119
85-68-7	Butyl benzyl phthalate	1670	1610	97	60-127
91-58-7	2-Chloronaphthalene	1670	1550	93	63-106
106-47-8	4-Chloroaniline	1670	1040	62	30-80
218-01-9	Chrysene	1670	1510	91	63-110
111-91-1	bis(2-Chloroethoxy)methane	1670	1580	95	60-115
111-44-4	bis(2-Chloroethyl)ether	1670	1480	89	54-110
108-60-1	bis(2-Chloroisopropyl)ether	1670	1380	83	58-108
7005-72-3	4-Chlorophenyl phenyl ether	1670	1640	98	62-113
95-50-1	1,2-Dichlorobenzene	1670	1380	83	59-100
122-66-7	1,2-Diphenylhydrazine	1670	1640	98	59-139
541-73-1	1,3-Dichlorobenzene	1670	1340	80	58-98
106-46-7	1,4-Dichlorobenzene	1670	1360	82	58-98
121-14-2	2,4-Dinitrotoluene	1670	1650	99	63-121
606-20-2	2,6-Dinitrotoluene	1670	1750	105	66-119
91-94-1	3,3'-Dichlorobenzidine	1670	1450	87	38-103

**Blank Spike Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32143-BS1	3M4360.D	1	04/11/08	LP	04/11/08	OP32143	E3M168

The QC reported here applies to the following samples:

Method: SW846 8270C

J87954-6, J87954-7, J87954-8, J87954-9

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	1670	1630	98	55-117
84-74-2	Di-n-butyl phthalate	1670	1510	91	62-127
117-84-0	Di-n-octyl phthalate	1670	1870	112	55-145
84-66-2	Diethyl phthalate	1670	1480	89	57-129
131-11-3	Dimethyl phthalate	1670	1570	94	63-114
117-81-7	bis(2-Ethylhexyl)phthalate	1670	1540	92	57-133
206-44-0	Fluoranthene	1670	1500	90	60-113
86-73-7	Fluorene	1670	1610	97	62-109
118-74-1	Hexachlorobenzene	1670	1730	104	63-119
87-68-3	Hexachlorobutadiene	1670	1520	91	54-108
77-47-4	Hexachlorocyclopentadiene	3330	3570	107	31-111
67-72-1	Hexachloroethane	1670	1450	87	56-101
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1590	95	56-125
78-59-1	Isophorone	1670	1570	94	57-108
91-20-3	Naphthalene	1670	1450	87	55-99
98-95-3	Nitrobenzene	1670	1460	88	57-106
62-75-9	n-Nitrosodimethylamine	1670	1280	77	32-140
621-64-7	N-Nitroso-di-n-propylamine	1670	1580	95	54-119
86-30-6	N-Nitrosodiphenylamine	1670	1750	105	62-117
85-01-8	Phenanthrene	1670	1540	92	63-111
129-00-0	Pyrene	1670	1540	92	58-114
120-82-1	1,2,4-Trichlorobenzene	1670	1520	91	57-99

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	77%	26-105%
4165-62-2	Phenol-d5	85%	34-106%
118-79-6	2,4,6-Tribromophenol	106%	30-126%
4165-60-0	Nitrobenzene-d5	72%	36-115%
321-60-8	2-Fluorobiphenyl	75%	44-112%
1718-51-0	Terphenyl-d14	72%	42-133%

**Matrix Spike/Matrix Spike Duplicate Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32143-MS	3M4377.D	1	04/12/08	LP	04/11/08	OP32143	E3M168
OP32143-MSD	3M4400.D	1	04/14/08	LP	04/11/08	OP32143	E3M169
J87968-8	3M4376.D	1	04/12/08	LP	04/11/08	OP32143	E3M168

The QC reported here applies to the following samples:

Method: SW846 8270C

J87954-6, J87954-7, J87954-8, J87954-9

CAS No.	Compound	J87968-8 ug/kg	Spike Q	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND		1960	1270	65	1370	8	41-104/22
59-50-7	4-Chloro-3-methyl phenol	ND		1960	1330	68	1480	11	46-118/22
120-83-2	2,4-Dichlorophenol	ND		1960	1350	69	1470	9	42-112/22
105-67-9	2,4-Dimethylphenol	ND		1960	1460	74	1580	8	43-122/21
51-28-5	2,4-Dinitrophenol	ND		3920	574	15	1020	26	56* a 1-132/38
534-52-1	4,6-Dinitro-o-cresol	ND		1960	298	15	583	30	65* a 1-130/40
88-75-5	2-Nitrophenol	ND		1960	1230	63	1450	16	30-111/27
100-02-7	4-Nitrophenol	ND		1960	781	40	938	18	16-145/37
87-86-5	Pentachlorophenol	ND		1960	1060	54	1200	12	20-124/25
108-95-2	Phenol	ND		1960	1260	64	1330	68	5 39-106/23
88-06-2	2,4,6-Trichlorophenol	ND		1960	1420	72	1510	77	6 43-117/23
83-32-9	Acenaphthene	ND		1960	1340	68	1420	73	6 41-113/27
208-96-8	Acenaphthylene	ND		1960	1210	62	1260	64	4 42-102/23
120-12-7	Anthracene	ND		1960	1310	67	1430	73	9 41-125/29
92-87-5	Benzidine	ND		1960	ND	0* a	ND	0* a	nc 1-44/56
56-55-3	Benzo(a)anthracene	ND		1960	1280	65	1390	71	8 35-125/30
50-32-8	Benzo(a)pyrene	ND		1960	1540	79	2030	104	27 35-125/31
205-99-2	Benzo(b)fluoranthene	ND		1960	1540	79	2110	108	31 34-131/35
191-24-2	Benzo(g,h,i)perylene	ND		1960	1580	81	2030	104	25 23-132/30
207-08-9	Benzo(k)fluoranthene	ND		1960	1540	79	2230	114	37* a 28-131/33
101-55-3	4-Bromophenyl phenyl ether	ND		1960	1410	72	1520	78	8 52-115/22
85-68-7	Butyl benzyl phthalate	ND		1960	698	36* a	631	32* a	10 39-136/27
91-58-7	2-Chloronaphthalene	ND		1960	1390	71	1450	74	4 47-107/21
106-47-8	4-Chloroaniline	ND		1960	986	50	1080	55	9 21-84/30
218-01-9	Chrysene	ND		1960	1310	67	1420	73	8 33-125/31
111-91-1	bis(2-Chloroethoxy)methane	ND		1960	1410	72	1490	76	6 44-112/21
111-44-4	bis(2-Chloroethyl)ether	ND		1960	1450	74	1530	78	5 30-119/24
108-60-1	bis(2-Chloroisopropyl)ether	ND		1960	1290	66	1360	69	5 41-103/23
7005-72-3	4-Chlorophenyl phenyl ether	ND		1960	1390	71	1490	76	7 50-109/21
95-50-1	1,2-Dichlorobenzene	ND		1960	1330	68	1360	69	2 40-97/23
122-66-7	1,2-Diphenylhydrazine	ND		1960	1420	72	1560	80	9 49-129/22
541-73-1	1,3-Dichlorobenzene	ND		1960	1280	65	1290	66	1 37-95/24
106-46-7	1,4-Dichlorobenzene	ND		1960	1310	67	1320	67	1 38-97/24
121-14-2	2,4-Dinitrotoluene	ND		1960	1160	59	1340	68	14 38-117/27
606-20-2	2,6-Dinitrotoluene	ND		1960	1380	70	1530	78	10 46-118/24
91-94-1	3,3'-Dichlorobenzidine	ND		1960	529	27	412	21	25 10-112/35

**Matrix Spike/Matrix Spike Duplicate Summary**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32143-MS	3M4377.D	1	04/12/08	LP	04/11/08	OP32143	E3M168
OP32143-MSD	3M4400.D	1	04/14/08	LP	04/11/08	OP32143	E3M169
J87968-8	3M4376.D	1	04/12/08	LP	04/11/08	OP32143	E3M168

The QC reported here applies to the following samples:

Method: SW846 8270C

J87954-6, J87954-7, J87954-8, J87954-9

CAS No.	Compound	J87968-8 ug/kg	Spike Q	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
53-70-3	Dibenzo(a,h)anthracene	ND		1960	1580	81	2020	103	24 29-130/27
84-74-2	Di-n-butyl phthalate	ND		1960	1200	61	1220	62	2 49-121/23
117-84-0	Di-n-octyl phthalate	ND		1960	1340	68	1440	74	7 36-142/28
84-66-2	Diethyl phthalate	ND		1960	1230	63	1300	66	6 50-113/21
131-11-3	Dimethyl phthalate	ND		1960	1310	67	1370	70	4 53-109/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		1960	1100	56	916	47	18 37-142/29
206-44-0	Fluoranthene	16.9	J	1960	1240	62	1360	69	9 30-127/35
86-73-7	Fluorene	ND		1960	1370	70	1460	75	6 43-118/28
118-74-1	Hexachlorobenzene	ND		1960	1440	73	1560	80	8 51-112/21
87-68-3	Hexachlorobutadiene	ND		1960	1400	71	1430	73	2 40-110/23
77-47-4	Hexachlorocyclopentadiene	ND		3920	1530	39	2210	56	36 1-104/40
67-72-1	Hexachloroethane	ND		1960	1290	66	1340	68	4 25-100/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND		1960	1570	80	2040	104	26 28-130/29
78-59-1	Isophorone	ND		1960	1410	72	1490	76	6 44-114/22
91-20-3	Naphthalene	ND		1960	1340	68	1420	73	6 34-112/27
98-95-3	Nitrobenzene	ND		1960	1330	68	1420	73	7 42-106/23
62-75-9	n-Nitrosodimethylamine	ND		1960	1320	67	1360	69	3 18-124/32
621-64-7	N-Nitroso-di-n-propylamine	ND		1960	1510	77	1670	85	10 40-116/24
86-30-6	N-Nitrosodiphenylamine	ND		1960	1370	70	1360	69	1 45-137/24
85-01-8	Phenanthrene	ND		1960	1290	66	1410	72	9 34-127/34
129-00-0	Pyrene	18.0	J	1960	1370	69	1510	76	10 29-138/35
120-82-1	1,2,4-Trichlorobenzene	ND		1960	1400	71	1470	75	5 41-101/22

CAS No.	Surrogate Recoveries	MS	MSD	J87968-8	Limits
367-12-4	2-Fluorophenol	59%	65%		29-114%
4165-62-2	Phenol-d5	63%	69%		31-111%
118-79-6	2,4,6-Tribromophenol	73%	81%		27-133%
4165-60-0	Nitrobenzene-d5	57%	62%	63%	36-116%
321-60-8	2-Fluorobiphenyl	57%	61%	64%	44-111%
1718-51-0	Terphenyl-d14	53%	59%	66%	37-131%

(a) Outside control limits due to matrix interference.

**Instrument Performance Check (DFTPP)**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: E3M157-DFTPP	Injection Date: 04/03/08
Lab File ID: 3M4093.D	Injection Time: 13:41
Instrument ID: GCMS3M	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	39236	37.8	Pass
68	Less than 2.0% of mass 69	533	0.51 (1.1) a	Pass
69	Mass 69 relative abundance	46478	44.8	Pass
70	Less than 2.0% of mass 69	467	0.45 (1.0) a	Pass
127	40.0 - 60.0% of mass 198	61869	59.6	Pass
197	Less than 1.0% of mass 198	364	0.35	Pass
198	Base peak, 100% relative abundance	103813	100.0	Pass
199	5.0 - 9.0% of mass 198	7355	7.1	Pass
275	10.0 - 30.0% of mass 198	21933	21.1	Pass
365	1.0 - 100.0% of mass 198	2574	2.5	Pass
441	Present, but less than mass 443	8880	8.6 (76.8) b	Pass
442	40.0 - 100.0% of mass 198	60280	58.1	Pass
443	17.0 - 23.0% of mass 442	11557	11.1 (19.2) c	Pass

(a) Value is % of mass 69  
 (b) Value is % of mass 443  
 (c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3M157-ICC157	3M4094.D	04/03/08	14:53	01:12	Initial cal 50
E3M157-IC157	3M4095.D	04/03/08	15:30	01:49	Initial cal 100
E3M157-IC157	3M4096.D	04/03/08	16:03	02:22	Initial cal 80
E3M157-IC157	3M4097.D	04/03/08	16:39	02:58	Initial cal 25
E3M157-IC157	3M4098.D	04/03/08	17:12	03:31	Initial cal 10
E3M157-IC157	3M4099.D	04/03/08	17:45	04:04	Initial cal 5
E3M157-IC157	3M4100.D	04/03/08	18:18	04:37	Initial cal 2
E3M157-IC157	3M4101.D	04/03/08	18:50	05:09	Initial cal 1
E3M157-IC157	3M4102.D	04/03/08	19:25	05:44	Initial cal 100
E3M157-IC157	3M4103.D	04/03/08	19:57	06:16	Initial cal 80
E3M157-IC157	3M4104.D	04/03/08	20:30	06:49	Initial cal 50
E3M157-IC157	3M4105.D	04/03/08	21:03	07:22	Initial cal 25
E3M157-IC157	3M4106.D	04/03/08	21:35	07:54	Initial cal 10
E3M157-IC157	3M4107.D	04/03/08	22:08	08:27	Initial cal 5
E3M157-IC157	3M4108.D	04/03/08	22:41	09:00	Initial cal 2
E3M157-IC157	3M4109.D	04/03/08	23:13	09:32	Initial cal 1
E3M157-ICV157	3M4110.D	04/03/08	23:46	10:05	Initial cal verification 50

6.4  
6

**Instrument Performance Check (DFTPP)**

Job Number: J87954  
 Account: DEPALMA CMX  
 Project: Camden Laboratories, 1667 Davis Street, Camden, NJ

Sample: E3M168-DFTPP	Injection Date: 04/11/08
Lab File ID: 3M4355.D	Injection Time: 18:43
Instrument ID: GCMS3M	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	85582	30.8	Pass
68	Less than 2.0% of mass 69	1926	0.69 (1.6) a	Pass
69	Mass 69 relative abundance	116944	42.0	Pass
70	Less than 2.0% of mass 69	0	0.0 (0.0) a	Pass
127	40.0 - 60.0% of mass 198	152838	54.9	Pass
197	Less than 1.0% of mass 198	929	0.33	Pass
198	Base peak, 100% relative abundance	278250	100.0	Pass
199	5.0 - 9.0% of mass 198	18537	6.7	Pass
275	10.0 - 30.0% of mass 198	64189	23.1	Pass
365	1.0 - 100.0% of mass 198	7937	2.9	Pass
441	Present, but less than mass 443	38834	14.0 (77.8) b	Pass
442	40.0 - 100.0% of mass 198	260864	93.8	Pass
443	17.0 - 23.0% of mass 442	49917	17.9 (19.1) c	Pass

(a) Value is % of mass 69  
 (b) Value is % of mass 443  
 (c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3M168-CC157	3M4356.D	04/11/08	18:58	00:15	Continuing cal 25
E3M168-CC157	3M4357.D	04/11/08	19:31	00:48	Continuing cal 50
ZZZZZZ	3M4358.D	04/11/08	20:04	01:21	(unrelated sample)
OP32143-MB1	3M4359.D	04/11/08	20:37	01:54	Method Blank
OP32143-BS1	3M4360.D	04/11/08	21:10	02:27	Blank Spike
ZZZZZZ	3M4361.D	04/11/08	21:43	03:00	(unrelated sample)
ZZZZZZ	3M4362.D	04/11/08	22:16	03:33	(unrelated sample)
ZZZZZZ	3M4363.D	04/11/08	22:49	04:06	(unrelated sample)
ZZZZZZ	3M4364.D	04/11/08	23:22	04:39	(unrelated sample)
ZZZZZZ	3M4365.D	04/11/08	23:55	05:12	(unrelated sample)
ZZZZZZ	3M4366.D	04/12/08	00:28	05:45	(unrelated sample)
ZZZZZZ	3M4367.D	04/12/08	01:01	06:18	(unrelated sample)
ZZZZZZ	3M4368.D	04/12/08	01:34	06:51	(unrelated sample)
ZZZZZZ	3M4369.D	04/12/08	02:07	07:24	(unrelated sample)
ZZZZZZ	3M4370.D	04/12/08	02:40	07:57	(unrelated sample)
ZZZZZZ	3M4371.D	04/12/08	03:13	08:30	(unrelated sample)
ZZZZZZ	3M4372.D	04/12/08	03:46	09:03	(unrelated sample)
ZZZZZZ	3M4373.D	04/12/08	04:19	09:36	(unrelated sample)
OP31970-MS	3M4374.D	04/12/08	04:52	10:09	Matrix Spike

6.4  
6





Received  
NOV 19, 2008

VIA HAND DELIVERY

November 19, 2008

Raymond S. Souweha  
Case Manager  
New Jersey Department of Environmental Protection  
Brownfields Remediation & Reuse Element)  
Bureau of Southern Field Operation  
Route 130 South  
300 Horizon Center  
Robbinsville, NJ 08691

RE: Remedial Action Report  
Camden Laboratories Property  
1667 Davis Street  
City of Camden  
Camden County, New Jersey  
Case Number 08-07-01-1547-19  
Our Project Number 070235805

Dear Mr. Souweha:

Enclosed please find one (1) original copy of our Remedial Action Report (RAR) for the above referenced site. This RAR documents and summarizes activities associated with remediation of copper and lead impacted soil associated with the conductive area identified during Site Investigation (SI) activities completed at the site. Based on the findings of the RA, CMX respectfully requests a determination of no further action for the conductive area (AOC-15).

We look forward to continuing to work with you on this project. Should you have any questions or require additional information please contact me at (856) 783-1900.

Very truly yours,

CMX

A handwritten signature in black ink, appearing to read 'Mark Pietrucha'.

Mark Pietrucha, P.E.  
Associate

MEP  
Enclosure

c: Martin Manco, Camden Laboratories, L.P. (w/enclosure)

N:\project\2007\0702358\05\03\_Agency\_Correspondence\NJDEP\Camden Laboratories RAR Transmittal Souweha 111908.doc

WORKING TOGETHER FOR A BETTER TOMORROW

1101 LAUREL OAK ROAD | PO Box 1346 | Voorhees, NJ 08043-7346  
TEL 856.783.1900 | FAX 856.783.2100 | WWW.CMXENGINEERING.COM

ARIZONA FLORIDA MARYLAND NEVADA NEW JERSEY NEW YORK PENNSYLVANIA MEXICO

New Jersey Department of Environmental Protection  
 Site Remediation Checklist - Remedial Action Requirements  
 Camden Laboratories Property  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235805

SRP CHECKLIST:		REMEDIAL ACTION REPORT		
	N.J.A.C. 7:26E-	Use this checklist to assure that the remedial action conducted is complete and meets all technical requirements.	Included: Yes/No/NA (see note below)	Page #
<b>Remedial Action Objectives</b>				
	6.1(a)	Were the Department & local agencies properly notified pursuant to N.J.A.C. 7:26E- 1.4, when required?	Yes	NA
	6.1(b)1	Was the remedial action pre-approved by the Department prior to implementation when required?	No	NA
	6.1(b)2	Does each remedial action achieve all applicable remediation standards?	Yes	Section 4.3
	6.1(b)3	Does each remedial action comply with all applicable Federal, State and local laws & requirements?	Yes	Section 4.0
	6.1(b)4	Are all remedial actions sound in that they do not cause an uncontrolled or unpermitted discharge or transfer of contaminants among media?	Yes	Section 4.0
	6.1(d)	Has all free and/or residual product determined to be present been addressed through treatment, removal or containment as appropriate?	NA	NA
	6.1(e)	For restricted use remedy or limited restricted use remedy, have institutional controls been established?	NA	NA
	6.1(f)	Have historic fill areas and other fill material been remediated as required?	NA	NA
<b>Remedial action report</b>				
	6.7(b)1***	Is a summary of the RI included, including the results of the Baseline Ecological Evaluation?	Yes	Section 3.2
	6.7(b)2	Is a summary of all remedial actions completed for each area of concern included and adequate?	Yes	Section 4.0
	6.7(b)3	Is a list of remediation standards achieved by each remedial action included and adequate?	Yes	Section 4.0
	6.7(b)4	Are as-built diagrams included and adequate?	NA	NA
	6.7(b)5	Is a detailed description of site restoration activities included and adequate?	Yes	Section 4.5
	6.7(b)6	Is information regarding the cost of the remedial action and an estimate of costs related to maintenance and monitoring of each engineering and institutional control included and adequate?	Yes	Section 4.6
	6.7(c)1	Are tables and figures documenting completion of the remediation and volume of soil or sediment remediated included and adequate?	Yes	Table 8, Figure 5, Section 4.0
	6.7(c)2	Are executed manifests included and adequate?	Yes	Appendix C
	6.7(c)3	Is the final draft deed notice included and adequate?	NA	NA
	6.7(d)	Are graphs depicting changes in GW contaminant concentration over time for all monitoring wells included and adequate?	NA	NA
	6.7(e)1	For natural remediation GW remedial actions, is a summary table of monitoring results included and adequate?	NA	NA
	6.7(e)2	For natural remediation GW remedial actions, is a discussion of Mann-Whitney U-Test included and adequate?	NA	NA
	6.7(e)3	Is an appropriate conclusion included regarding the status of GW remediation and the continuing need for the CEA?	NA	NA

NOTE: Yes = required and addressed; No = required and not addressed (indicate page # for justification); NA = not required

New Jersey Department of Environmental Protection  
 Site Remediation Checklist - Remedial Action Requirements  
 Camden Laboratories Property  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235805

SRP CHECKLIST:		REMEDIAL ACTION REPORT		
	N.J.A.C. 7:26E-	Use this checklist to assure that the remedial action conducted is complete and meets all technical requirements.	Included: Yes/No/NA (see note below)	Page #
	6.7(e)4	For natural remediation GW remedial actions, is a plan for monitoring maintenance and certification of the protectiveness of each CEA included and adequate?	NA	NA
	7.1(b)	Were all applicable Federal, State and local permits obtained prior to implementation of the remedial action?	NA	NA
<i>Post Remedial Action Requirements</i>				
	6.4(a)* & ****	Was post-remediation sampling adequate, is a summary of sampling results and remediation standards included and adequate, and has both a hard copy and an electronic copy (EDSA disc) been submitted??	Yes	Appendix D
	6.4(b)	Have all remediated areas been restored?	Yes	Section 4.5
	6.4(c)	Have all wells been properly decommissioned?	NA	NA
	6.4(d)	Was an adequate soil reuse proposal approved by the Department prior to implementation?	NA	NA
	6.4(e)	Has property not owned by the party conducting remediation been remediated to the applicable unrestricted use standard if the property owner did not provide written consent to institutional/engineering controls and a deed notice?	NA	NA
<i>Certification</i>				
	Varies (see certification checklist)	Has the required certification been submitted?	Yes	Page i
*The NJDEP Field Sampling Procedures Manual (FSPM) at <a href="http://www.nj.gov/dep/srp/guidance/fspm">www.nj.gov/dep/srp/guidance/fspm</a> should be consulted for applicable requirements. Additionally, the SRP NJPDES Technical Manual should be consulted regarding permit-by-rule provisions [N.J.A.C. 7:14A-7.5(a)4] for disposal of waters generated during well installation and development, purge and decontamination water, and drill cuttings. The FSPM addresses the on-site disposal of these discharges in sections 2.4.5.6 and 2.4.5.7.				
***BEE not req'd for AOC that is heating oil UST for on-site consumption in 1-4 family residence.				
****EDSA not req'd for soils-only remediation of AOC that is heating oil UST for on-site consumption in 1-4 family residence.				

NOTE: Yes = required and addressed; No = required and not addressed (indicate page # for justification); NA = not required



070235804

**REMEDIAL ACTION REPORT**  
**FOR**

**Camden Laboratories**  
1667 Davis Street  
City of Camden  
Camden County, New Jersey  
NJDEP Case No. 08-07-01-1547-19

Prepared for:

**Camden Laboratories LP**  
PO Box 2614  
West Chester, PA 19380

Prepared by:

**CMX**  
1101 Laurel Oak Road  
Suite 160  
Voorhees, New Jersey 08043-7346

October 2008

**WORKING TOGETHER FOR A BETTER TOMORROW**

---

1101 LAUREL OAK ROAD, SUITE 160 | VOORHEES, NJ 08043  
TEL 856.783.1900 | FAX 856.783.2100 | [WWW.CMXENGINEERING.COM](http://WWW.CMXENGINEERING.COM)

ARIZONA FLORIDA MARYLAND NEVADA NEW JERSEY NEW YORK PENNSYLVANIA MEXICO

CERTIFICATION

N.J.A.C. 7:26-1.2 et. seq.

Any person making a submission to the Department required by this chapter and pursuant to N.J.A.C. 7:26E, will include the following signature and notarized certification, for each technical submittal. Additionally, the certification will indicate the case name and address, case number, type of documents submitted, e.g. Remedial Action Report, for each technical submittal.

TYPE OF DOCUMENT: REMEDIAL ACTION REPORT

CASE NAME: CAMDEN LABORATORIES

CASE ADDRESS: 1667 Davis Street, Block 1392, Lot 33, City of Camden, Camden County, New Jersey

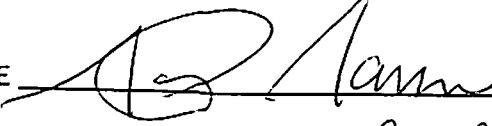
CASE NUMBER: 08-07-01-1547-19

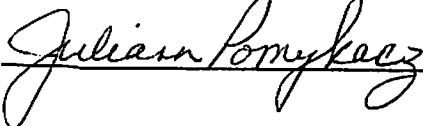
The following certification will be signed by:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For a partnership or sole proprietorship, by a general partner of the proprietor, respectively, or;
3. For a municipality, State, Federal or other public agency, by either a principal executive officer or ranking elected official.
4. For persons other than 1 through 3 above, by the person with legal responsibility for the Site.

"I certify, under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate, or incomplete information, and that I am committing a crime of the fourth degree if I make a written false statement that I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

PRINTED NAME: MARTIN P. MANCO TITLE GENERAL PARTNER

SIGNATURE  DATE 11/19/2008

NOTARY SIGNATURE  DATE 11/19/08

**JULIANN POMYKACZ**  
NOTARY PUBLIC, STATE OF NEW JERSEY  
My Commission Expires 03/24/2011

## Table of Contents

1.0	Introduction .....	1
2.0	Background Information .....	2
2.1	Site Description .....	2
2.2	Physical Characteristics .....	2
2.3	Site History .....	2
3.0	Previous Investigations .....	3
3.1	August 2008 Preliminary Assessment Summary .....	3
3.2	Site Investigation Summary .....	7
3.2.1	Septic Systems, Leachfields or Seepage Pits (AOC-5) .....	7
3.2.2	Building B Drywell (AOC-6) .....	7
3.2.3	Hydraulic Lift System (AOC-11) .....	8
3.2.4	NJ SPILLS Database Listing (NJDEP Case No. 97-2-21-1440-39) (AOC-12) .....	9
3.2.5	Regional Ground Water Contamination (AOC-14) .....	9
3.2.6	Conductive Area (AOC-15) .....	10
4.0	Remedial Action .....	13
4.1	Pre-Mobilization Activities .....	13
4.2	Mobilization .....	13
4.3	Excavation and Off-Site Disposal .....	13
4.3	Post-Excavation Sampling .....	14
4.4	Reliability of Data .....	14
4.5	Site Restoration .....	15
4.6	Remediation Costs .....	15
5.0	Conclusions/Recommendations .....	16

## LIST OF FIGURES

- Figure 1 - Site Location Map - USGS 7.5 Minute Topographic Map - Camden Quadrangle
- Figure 2 - Site Location Map - City of Camden Tax Map
- Figure 3 - Area of Concern Location Map
- Figure 4 - Site Investigation Sample Location Map
- Figure 5 - Post-Excavation Soil Sample Location Map

## LIST OF TABLES

- Table 1 - Summary of Analytical Methods and Quality Assurance Indicators
- Table 2 - Soil Boring Investigation Analytical Results (AOC-5) - April 9, 2008
- Table 3 - Soil Boring Investigation Analytical Results (AOC-11) - April 9, 2008
- Table 4 - Soil Boring Investigation Analytical Results (AOC-12) - April 9, 2008
- Table 5 - Soil Boring Investigation Analytical Results (AOC-15) - April 9, 2008
- Table 6 - Ground Water Investigation Analytical Results (AOC-11) - April 11, 2008
- Table 7 - Soil Boring Investigation Analytical Results (AOC-15) - April 11, 2008
- Table 8 - Post-Excavation Sampling Analytical Results (AOC-15) - September 8 and 9, 2008

## APPENDICES

- Appendix A - Photographs
- Appendix B - Health and Safety Plan
- Appendix C - Waste Transportation and Disposal Manifest
- Appendix D - Laboratory Analytical Results and Electronic Data Deliverables
- Appendix E - Clean Fill Certificate

\\s09svr01\n\project\2007\0702358\05\05\_Reports\camden labs rar.doc

## 1.0 Introduction

CMX has performed Remedial Action (RA) activities at the Camden Laboratories property, designated as Block 1392, Lot 33 in the City of Camden, Camden County, New Jersey (herein referred to as the "site") on behalf of Camden Laboratories, L.P. This Remedial Action Report (RAR) documents and summarizes activities associated with remediation of copper and lead impacted soil identified during previous Site Investigation (SI) activities.

This report is divided into five (5) sections including this Introduction (Section 1), Background Information (Section 2), Previous Investigation Summary (Section 3), Remedial Action (Section 4) and Conclusions and Recommendations (Section 5). The background information section details information relating to site use, history of ownership and physical characteristics for the site. The previous investigation section summarizes SI activities completed at the site to date. The remedial action section documents remedial actions completed at the site. This report has been prepared in accordance with the guidelines and recommendations presented in the New Jersey Department of Environmental Protection (NJDEP) Technical Requirements for Site Remediation (N.J.A.C. 7:26E) or "Tech Rules".



## **2.0 Background Information**

### **2.1 Site Description**

The site is located at 1667 Davis Street in the City of Camden, Camden County, New Jersey. The property is designated Lot 33 of Block 1392 by the City of Camden for tax purposes. The subject site is bound to the north by residential and commercial uses, to the south by Whitman Park, to the east by commercial uses, and the west by residential development. Commercial uses to the east and north of the site include RF Products and the Dr. Charles E. Brimm Medical Arts building. Figure 1 displays the approximate location of the property on a portion of the USGS 7.5 Minute Camden Quadrangle. Figure 2 displays the boundaries of the property on the City of Camden Tax Map.

### **2.2 Physical Characteristics**

Figure 1 shows the topography of the subject area, along with local drainage patterns. Based on a review of this map, the site slopes from east to west. Elevation of the site ranges from approximately twenty-two (22) to twenty-six (26) feet above mean sea level (ft msl).

According to the Bedrock Geological Survey Map of Central & Southern New Jersey prepared by the U.S. Geologic Survey, the site lies within the Magothy Formation (Kmg) of the Coastal Plain Physiographic Province. The Magothy Formation consists of fine to coarse-grained white sand and quartz that weathers yellow-brown to orange-brown. This Formation is interbedded with grey clay or dark grey clay-silt near the top. Muscovite and feldspar are minor constituents. Large wood fragments occur in many clay layers.

According to the NJDEP i-MapNJ application (<http://www.state.nj.us/dep/gis/depsplash.htm#>), the subject site is underlain by urban land soils. Urban land soils are classified as anthrotransported, or consisting of parent material from miscellaneous sources. Urban land soils are not typically represented in a soil survey as a specific soil series.

### **2.3 Site History**

The site consists of one (1) contiguous parcel that is 3.9 acres in size. Based on a review of available historical sources, the site was developed for use as a hospital for municipal diseases, which was located in the northern portion of the site. Construction for the hospital occurred as early as 1923. The site was redeveloped for use for biological, genetic and cancer research. Construction of the current site building compound (Buildings A through F) took place in phases from the 1950's to the 1980's.

### 3.0 Previous Investigations

CMX completed a Preliminary Assessment (PA) and SI of the site on behalf of Camden Laboratories. L.P. PA and SI findings were summarized in CMX's PA and SI reports dated August 2008 which were previously submitted to NJDEP for review. The following paragraphs present a summary of CMX's PA findings and SI activities performed to date.

#### 3.1 August 2008 Preliminary Assessment Summary

CMX completed a PA of the site on behalf of Camden Laboratories. L.P. CMX's findings were summarized in a PA Report dated August 2008. CMX identified the following areas of concern (AOCs) in connection with the subject site following completion of the PA.

- Above Ground Storage Tanks (AOC-1) - One (1) 275-gallon AST which formerly contained diesel fuel and one (1) emergency generator were located at the southwest exterior of Building B. The AST appeared to be in fair condition with no visible staining noted. The AST and generator are located on a concrete slab surrounded by asphalt. CMX recommended no investigation of this AOC.
- Underground Storage Tanks (AOC-2A/AOC-2B/AOC-2C) - EDR identified Camden Laboratories, Copewood Street, Camden, New Jersey in the UST database (Facility ID 016718). Two (2) 6,000-gallon heating oil USTs (AOC-2A and AOC-2B) and one (1) 2,000-gallon No. 2 heating oil UST were reportedly removed from the Camden Laboratories site in August 1989. Mr. Martin Manco, a representative of the current property owner, confirmed the closure and removal of three (3) UST's in 1989. These UST's were formerly utilized as fuel for the generators and boilers within the Camden Laboratories building. Mr. Manco stated that the buildings were converted from mixed usage between oil and gas to entirely gas in 1989 when the UST's were removed.

According to an undated report titled "Removal of Three Underground Storage Tanks" prepared by Edward Kurth and Sons, Inc., two (2) 6,000 gallon UST's (AOC-2A/AOC-2B) and one (1) 2,000 gallon UST (AOC-2C) containing No. 2 heating oil were closed and removed at the site in August 1989. The tanks were found to be in good condition when removed. Five (5) post-excitation soil samples were collected from each excavation as follows: four (4) soil samples were collected from the east, north, south and west ends of the UST excavation area; and, one (1) post-excitation soil sample was collected from the bottom of the excavation area. Post-excitation soil samples were laboratory analyzed for TPH. TPH was reported as non-detectable or at concentrations below the current NJDEP Health Based Criterion for Total Organic Contaminants (10,000 mg/kg) and the current 1,000 mg/kg threshold for contingency VO+10 analysis.

Based on our review of the post-excitation soil sample analytical results, no exceedances of current NJDEP soil cleanup were identified. CMX recommended no investigation of this AOC.

- Storage Containers (AOC-3) - Four (4) 55-gallon drums of muriatic acid and five (5) 55-gallon drums of caustic soda were observed within the former freezer room of Building B. Several empty 55-gallon drums, five (5) gallon containers and one (1) gallon paint container were also located within the room. No staining was noted on the concrete beneath the drums. The floors were in good condition, no apparent cracks or migration pathways were noted. Mr. Manco informed CMX that all of the containers were going to

be removed from the property in the near future. CMX recommended no investigation of this AOC; however the containers should be removed and disposed of in accordance with applicable waste regulations.

- Building C Floor Drains (AOC-4) – Building C is the southern most structure of the existing six (6) buildings and is comprised of one (1) ground floor. This building contained equipment for the former cleaning and sterilization of animal cages. All equipment appeared in good condition. The equipment drains to a floor drain system which discharges to the Camden County Municipal Utilities Authority sewer. No staining of the concrete floor was noted. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on a review of information provided by Mr. Manco, with the exception of the Building B boiler room floor drain, all site sanitary, process, Heating Ventilation Air Conditioning and boiler waste streams discharge to a central pit located in Building F and then to the Camden County Municipal Utilities Authority sewer. CMX recommended no investigation of this AOC.
- Septic Systems, Leachfields or Seepage Pits (AOC-5) – According to an Environmental Resolutions Inc. PA report for the site dated September 2007, “available information indicates that a cesspool was once in use at the Site. There is a concern that contaminants may have been discharged to the cesspool. It is recommended that this AOC be investigated in accordance with N.J.A.C. 7:26E-3.9(e)3iii.” Mr. Manco acknowledged that a cesspool associated with the former site structures was located north of the site entrance along Davis Street; however, he could provide no additional details regarding the possible cesspool. CMX recommended investigation of this AOC.
- Building B Drywell (AOC-6) – Building B is located in the central section of the existing structures and was the largest of the six (6) buildings. This building was comprised of two (2) floors. This building contained former offices and animal quarters on the first floor and former laboratories on the second floor. Building B contained two (2) boiler rooms on the first floor. The pipes and equipment located within the boiler rooms appeared in fair condition. Minor staining of the concrete surface was noted throughout the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. According to BCM Eastern, Inc. environmental assessment correspondence dated September 8, 1988, Building B boiler blowdown was formerly directed to a floor drain system which discharged to a dry well. ERI indicated that the drywell utilized for collection of Building B boiler blowdown was removed in their PA report. CMX recommended investigation of this AOC.
- Incinerator (AOC-7) – According to the BCM environmental assessment correspondence, an incinerator was used for the disposal of dead laboratory animals that were used for the study of disease or virus reaction. Incinerator ash was collected in an on-site dumpster and transported off-site for disposal at a sanitary landfill. During the interview, Mr. Manco indicated that the incinerator was removed from the site. CMX did not observe an incinerator during the site reconnaissance. CMX recommended no investigation of this AOC.
- Transformers (AOC-8) – Two (2) electric transformers were observed at the west exterior of the power house (Building D). According to the BCM environmental assessment report, these transformers are of the dry construction type and do not contain oil. In addition, one (1) pole mounted electrical transformer was located along Davis Street. The transformers were in fair condition and no staining or stressed vegetation was

observed at the ground surface beneath any of these transformers. CMX recommended no investigation of this AOC.

- Building A Staining (AOC-9A) - Building A is located within the northern most section of the existing building compound and is comprised of a first floor and basement. This building contained former laboratories and offices on both floors. Building A also contained a boiler room and water filtration tanks in the basement. The pipes and equipment located within the boiler room appeared in fair to good condition. Minor staining of the concrete surface was noted on the floor. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. Based on a review of information provided by Mr. Manco, with the exception of the Building B boiler room floor drain, all site sanitary, process, Heating Ventilation Air Conditioning and boiler waste streams discharge to a central pit located in Building F and then to the Camden County Municipal Utilities Authority sewer. CMX recommended no investigation of this AOC.
- Building D Staining (AOC-9B) - Building D is the western most structure and is comprised of one (1) ground floor. Two (2) emergency gas powered generators were observed within Building D. Heavy staining of the concrete surface was noted beneath the generators. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. No floor drains were noted in this building. CMX recommended no investigation of this AOC.
- Building F Staining (AOC-9C) - Building F is the eastern most structure and consists of ground floor and basement. This building contained laboratories, a library, mechanical room, and Quality Assurance room in the basement. The first floor contained administrative offices and an auditorium. Minor staining observed on the concrete floor in the mechanical room. The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. CMX recommended no investigation of this AOC.
- Compressor Blowdown (AOC-10) - According to the BCM environmental assessment correspondence, refrigeration compressors at the northeast exterior of Building B "are on open ground and show some slight staining of surrounding soils." In addition, ERI indicated that stained soils identified at the exterior of Building B were removed in their PA report. CMX did not observe stained soils in this area during the site reconnaissance. CMX recommended no investigation of this AOC.
- Hydraulic Lift System (AOC-11) - A concrete pad that formerly contained an above ground hydraulic lift was observed in the loading dock area at the southern side of Building B. No evidence of a discharge from the hydraulic lift system was noted. Mr. Manco indicated that the hydraulic lift system tank was removed on November 9, 2007. He also stated that the entire lift was encased within concrete. Mr. Manco provided a Casie Protank Environmental Services non-hazardous manifest and a daily labor/equipment time report which documented the hydraulic lift system pump out and tank removal activities. According to the BCM environmental assessment correspondence, at the time of the BCM site reconnaissance the hydraulic lift system tank at the loading dock was "leaking, covered with oil dry." In addition, based on their PA, ERI concluded that "a hydraulic lift was observed at the loading docks at the Site. The 1988 assessment indicated that the tank was leaking. There is a concern that contaminants may have discharged to soils at the Site." CMX recommended investigation of this AOC.

- NJ SPILLS Database Listing (NJDEP Case No. 97-2-21-1440-39) (AOC-12) - EDR identified Quality Bio-Tech Inc., 1667 Davis Street, Camden, New Jersey in the New Jersey Spills Database (Facility ID 2230; NJDEP Case No. 97-2-21-1440-39). EDR reports that five (5) gallons of diesel fuel were spilled and contained within the building on February 21, 1997. The status of the spill is reported as "spill from generator from leaking fitting. Cleanup being done." No other pertinent information regarding this spill was recorded in the NJ SPILLS database.

A file completion memo dated October 25, 2007 regarding Case No. 97-0221-1440-39 was provided by the Camden County Department of Health (CCDOH). According to the memo, an oil spill was identified in the generator area at Quality Bio-Tech, 1667 Davis Street, Camden, on February 21, 1997. The initial report provided as an attachment to the file completion memo indicated that "asphalt was impacted and some soils must be excavated and post-excavation samples taken. All waste generated must be disposed of at an approved facility. All remedial activities must be conducted in accordance with N.J.A.C. 7:26D&E." According to the file completion memo, a reinspection was conducted. At the time of the reinspection, "no spillage was evident" and "the area around the generator is surrounded by asphalt and concrete. No impact to soil could be noted. Therefore, the Camden County Health Department considers the matter closed." CMX recommended investigation of this AOC.

- NJ SPILLS Database Listing (NJDEP Case No. 98-11-20-1919-54) (AOC-13) - EDR identified Quality Bio-Tech Inc., 1667 Davis Street, Camden, New Jersey in the New Jersey Spills Database (Facility ID 35063; NJDEP Case No. 98-11-20-1919-54). EDR reports that liquid nitrogen was spilled in the building and that the building was evacuated on November 28, 1998. At least two (2) people were treated for inhalation. No other pertinent information regarding this spill was recorded in the NJ SPILLS database.

The CCDOH provided a file completion memo dated September 15, 1999 regarding Case No. 98-11-20-1919-54. According to the memo, a nitrogen gas release was reported within the freezer room of Viro Med Biosafety, 1667 Davis Street, Camden, on November 20, 1998. Four (4) employees and a security guard were overcome by the nitrogen gas release and rescued by firefighters. The document also reported that the conditions cited were mitigated to acceptable limits when compared to the NJDEP technical regulations. CMX recommended no investigation of this AOC.

- Regional Ground Water Contamination (AOC-14) - EDR reported that the north adjacent RF Products property disposed degreasing solvents through drains. In order to determine the potential for impact to the site from the PF Products property, CMX reviewed available NJDEP records for RF Products on July 2, 2008. Based on a review of available records, RF Products has been identified as a source of a ground water contamination within the region. Ground water contamination has been identified on the Camden Laboratories property and has been attributed to migration of contaminants originating from RF Products. CMX recommended no additional investigation of this AOC; however, future site improvements will need to consider vapor intrusion mitigation measures.

The locations of AOC's identified following completion of the PA are presented on Figure 3.

### 3.2 Site Investigation Summary

CMX completed SI activities at the site between April and June 2008. SI activities included a geophysical survey, soil boring investigation and ground water investigation. SI soil boring/sampling and temporary well point locations are presented on Figure 4. A tabulated summary of analytical methods and quality assurance indicators is provided in Table 1. The following paragraphs document and summarize CMX's SI activities performed to date.

#### 3.2.1 Septic Systems, Leachfields or Seepage Pits (AOC-5)

CMX completed a geophysical survey of the subject site on April 8, 2008 in an effort to identify the location of the potential septic system (AOC-5). An anomaly indicative of an approximate 10,000-gallon subsurface septic tank was located in the eastern portion of the site adjacent to Building F. An associated discharge pipe was identified at a location directly north of the anomaly. Upon verification of the septic system location during the geophysical survey, CMX advanced one (1) soil boring (SB-6) at the suspected downgradient side of the septic tank and one (1) soil boring (SB-7) at the terminus of the associated pipe. Soil boring locations are presented on Figure 4. Since no evidence of contamination (i.e. odors, staining, elevated PID readings) was observed, the soil samples were collected from the six-inch (6") interval at the suspected invert of the septic tank or at the base of the soil boring. Therefore, sample SB-6 was collected from a depth of 5.5 to 6.0' below grade and sample SB-7 was collected from a depth of 13.5 to 14.0' below grade. Soil samples were forwarded to Accutest Laboratories of Dayton, Jersey (Accutest) for priority pollutant (PP+40) analysis and total petroleum hydrocarbons analysis by NJDEP Method OQA-QAM-025, Rev.6 (TPH-QAM). All PP+40 and TPH-QAM compounds were reported as non-detect or at concentrations below their respective most stringent NJDEP Soil Cleanup Criteria (SCC) for soil samples collected from the soil borings. A summary of analytical results for soil samples collected to investigate this AOC is included in Table 2. Based on the analytical results, CMX recommended no additional investigation of this AOC; however, if the septic system will not be used as part of future site redevelopment, CMX recommended closure of the septic system in accordance with applicable state and local requirements.

#### 3.2.2 Building B Drywell (AOC-6)

CMX completed a geophysical survey of the subject site on April 8, 2008 in an effort to identify the location of any potential subsurface floor drain systems associated with the Building B dry well (AOC-6). The geophysical investigation was conducted within the interior of Building B boiler rooms. The geophysical survey revealed piping associated with a large sump, floor drain and

sanitary sewer line within the south boiler room. The floor drain appeared to be clogged, as water and debris was observed within the drain. Due to the thickness of the building's concrete floor, GPR penetration was limited to approximately one (1) foot below grade. Therefore, piping associated with the floor drain could not be traced and the discharge location of the sump and floor drain system was not identified. As discussed in our PA report, ERI prepared a PA for the site on behalf of Education Advance Corporation. ERI's PA findings were summarized in their PA report dated September 2007. According to the ERI PA report, the drywell utilized for collection of Building B boiler blowdown was removed. Based on all of the above, CMX recommended no additional investigation of this AOC.

#### 3.2.3 Hydraulic Lift System (AOC-11)

CMX completed a geophysical survey of the subject site on April 8, 2008 in an effort to identify the location of any and subsurface anomalies associated with the former hydraulic lift system (AOC-11). A round anomaly of unidentified origin was identified approximately twenty (20) feet southeast of the hydraulic lift system. The anomaly was located within a small depression in the asphalt and appeared to be connected to the lift system by subsurface piping. CMX advanced two (2) soil borings (SB-3 and SB-4) along the southern perimeter of the concrete pad associated with the hydraulic lift system and one (1) soil boring (SB-5) adjacent to the associated anomaly identified during the geophysical survey. Soil boring locations are presented on Figure 4. Since no evidence of contamination (i.e. odors, staining, elevated PID readings) was observed, the soil samples were collected from the six-inch (6") interval at the base of the soil boring. Samples SB-3 and SB-5 were collected from a depth of 13.5 to 14.0' below grade. Sample SB-4 was collected from a depth of 14.5-15.0' below grade. Soil samples were forwarded to Accutest for TPH-QAM analysis. Contingent polynuclear aromatic hydrocarbon (PAH) analysis was to be performed in the event that TPH was reported at a concentration exceeding 100 mg/kg. Analytical results reported TPH-QAM as non-detect or at concentrations below the NJDEP threshold of 1,000 mg/kg for soil samples collected from the soil borings; therefore, contingent PAH analysis was not performed. A summary of analytical results for soil samples collected to investigate this AOC is included in Table 3.

CMX installed one (1) temporary well point to investigate the potential for impact to ground water from the hydraulic lift system (AOC-11). The temporary well point was installed in the SB-5 borehole. CMX collected one (1) groundwater sample (TWP-1) from this temporary well point. The ground water sample was forwarded to Accutest for volatile organic compound with a forward library search (VO+10) and base neutral compound with a forward library search

(BN+15) analyses. All VO+10 and BN+15 compounds were reported as non-detect or at concentrations below their respective most stringent NJDEP Ground Water Quality Standard (GWQS) for sample TWP-1. A summary of analytical results for the ground water sample collected to investigate this AOC is included in Table 6. Based on the analytical results, CMX recommended no additional investigation of this AOC.

#### **3.2.4 NJ SPILLS Database Listing (NJDEP Case No. 97-2-21-1440-39) (AOC-12)**

CMX advanced two (2) soil borings (SB-1 and SB-2) in the vicinity of the generator located at the exterior of Building B. Soil boring locations are presented on Figure 4. Since no evidence of contamination (i.e. odors, staining, elevated PID readings) was observed, the soil samples were collected from the six-inch (6") interval at the base of the soil boring (14.5-15.0' below grade). Soil samples were forwarded to Accutest for total petroleum hydrocarbon-diesel range organics (TPH-DRO) analysis. Contingency VO+10 analysis was to be performed in the event that TPH-DRO was reported at a concentration exceeding 1,000 mg/kg. Analytical results reported TPH-DRO as non-detect or at concentrations below the NJDEP threshold of 1,000 mg/kg for soil samples collected from the soil borings; therefore, contingent VO+10 analysis was not performed. A summary of analytical results for soil samples collected to investigate this AOC is included in Table 4. Based on the analytical results, CMX recommended no additional investigation of this AOC.

#### **3.2.5 Regional Ground Water Contamination (AOC-14)**

CMX installed five (5) temporary well points (TWP-1 through TWP-5) to investigate the potential for impact to ground water at the site. Temporary well points were installed at the following locations: one (1) temporary well point (TWP-1) was installed at soil boring SB-5 advanced adjacent to the hydraulic lift system (AOC-11); one (1) temporary well point (TWP-2) was installed at soil boring SB-6 installed in the vicinity of the septic system (AOC-5); one (1) temporary well point (TWP-3) was installed at soil boring SB-1 advanced within the vicinity of the generator to investigate potential impacts from the reported spill (AOC-12); and, two (2) temporary well points (TWP-4 and TWP-5) were installed at soil borings SB-10 and SB-11 advanced at the east property line to evaluate the potential for migration of contaminants to the site from the east adjacent RF Products property via ground water (AOC-14). Temporary well point locations are presented on Figure 4. Since four (4) of the five (5) temporary well points did not yield enough ground water for collection of samples and clay was identified within the soil column of several of the soil borings, CMX suspects that the ground water conditions observed during the soil boring investigation are representative of a perched ground water condition. Analytical results for



sample (TWP-1) collected from the temporary well point installed adjacent to the hydraulic lift system (AOC-11) reported all VO+10 and BN+15 compounds as non-detect or at concentrations below their respective most stringent NJDEP GWQS. A summary of analytical results for this ground water sample is included in Table 6. Based on these results, CMX concludes that shallow/perched ground water at the site has not been impacted.

As discussed in our July 2008 PA report, the NJDEP Site Remediation and Waste Management Program, Division of Remediation Support, Bureau of Environmental Measurement and Site Assessment conducted ground water investigations to evaluate the north adjacent RF Products/Fast Doors, Inc. site as a potential source of contamination identified in the Camden Parkside Wellfield. The NJDEP findings were summarized in an Expanded Site Investigation Report dated September 2007. According to the report, TCE was indentified at concentrations exceeding the NJDEP GWQS in ground water beneath the RF Products/Fast Doors, Inc. site and the Camden Laboratories property. The NJDEP concluded that the RF Products/Fast Doors, Inc. site was the source of the TCE ground water contamination and that the TCE ground water contamination has migrated to the Camden Laboratories property from the RF Products/Fast Doors, Inc. site. Since depth to ground water during NJDEP's ground water investigation was identified between thirty-two (32) to forty-one (41) feet below grade, TCE impact to the deep aquifer has been confirmed.

CMX recommended no additional investigation of this AOC; however, future site improvements will need to consider vapor intrusion mitigation measures.

#### 3.2.6 Conductive Area (AOC-15)

CMX completed a geophysical survey of the subject site on April 8, 2008. During the geophysical survey, a large conductive area (AOC-15) measuring approximately fifty (50) feet by seventy-five (75) feet was encountered within the western grassed portion of the site. CMX initially investigated this AOC on April 9, 2008. CMX advanced two (2) soil borings (SB-8 and SB-9) at the east and west flank of the conductive area identified during the geophysical survey. Soil boring locations are presented on Figure 4. Ash-like material was encountered in each of the borings within the upper fourteen (14) inches of the soil column. Soil samples were collected from each soil boring to characterize the ash-like material identified within the soil column. Soil samples were forwarded to Accutest for PP+40 and TPH-QAM analyses. Copper was reported at a concentration exceeding the NJDEP Residential Direct Contact Soil Cleanup Criteria/Non-Residential Direct Soil Cleanup Criteria (RDCSCC/NRDCSCC) of 600 mg/kg for sample SB-8

(1,380 mg/kg). Lead was reported at a concentration exceeding the NJDEP RDCSCC of 400 mg/kg and NRDCSCC of 600 mg/kg for sample SB-8 (667 mg/kg). All other PP+40 and TPH-QAM compounds were reported as non-detect or at concentrations below their respective most stringent NJDEP SCC for both soil samples. A summary of analytical results for soil samples collected to investigate this AOC is included in Table 5.

Based on the above, CMX performed follow-up investigations of this AOC on June 23, 2008 to characterize the conductive ash-like material and determine the horizontal boundary and vertical limits of this material. CMX advanced two (2) soil borings (AM-1 and AM-2) through the conductive area. One (1) soil sample was collected from each boring to characterize the ash-like material identified within the soil column. One (1) additional sample was collected from each boring in order to establish the vertical limit of the ash-like material. In addition, fourteen (14) soil borings (AM-3 through AM-16) were advanced in an effort to determine the horizontal extent of the ash-like material. One (1) soil sample was collected from each boring where no indications of impact (i.e. the presence of ash-like material) were identified in order to establish the horizontal limit of material. Soil boring and sampling locations are presented on Figure 4. Soil samples were forwarded to Accutest for copper and lead analyses. With the exception of one (1) sample (AM-2), copper and lead were reported at concentrations below the NJDEP most stringent SCC for all samples collected. Copper was reported at a concentration exceeding the NJDEP RDCSCC/NRDCSCC of 600 mg/kg for sample AM-2 (1,150 mg/kg). Lead was reported at a concentration exceeding the NJDEP RDCSCC of 400 mg/kg for sample AM-2 (450 mg/kg). A summary of analytical results for supplemental soil samples collected to investigate this AOC is included in Table 7.

The estimated extent of the ash-like material identified based on the findings of the SI is presented on Figure 4. The extent of ash-like material was horizontally delineated to the north by soil borings AM-4 and AM-5; to the east by soil borings AM-3 and AM-12; and to the south by soil borings AM-14 and AM-15. While ash-like material was identified on a portion of the Camden Laboratories property, a substantial area of ash-like material was observed across the south adjacent Whitman Park. The ash-like material was thicker on Whitman Park when compared to the Camden Laboratories property, and extended to a greater depth. Based on these observations, the ash-like material originates on Whitman Park and extends onto the Camden Laboratories property.

Based on the analytical results for soil samples collected to investigate the conductive area, copper and lead impacted subsurface soil has been horizontally and vertically delineated by samples collected during the April 9 and June 23, 2008 soil boring investigations. Impacted subsurface soil has been horizontally delineated to the north by on-site subsurface soil samples AM-4 and AM-5; to the east by on-site subsurface soil sample AM-3; to the south by off-site subsurface soil samples AM-7 and AM-8; and to the west by on-site subsurface soil samples AM-6. Furthermore, impacted subsurface soil has been vertically delineated by on-site subsurface soil sample AM-1A and AM-2A.

Analytical results indicated that the area of copper and lead impacted ash is limited to the on-site conductive area initially identified during the geophysical survey. Therefore, the extent of impact is limited to an approximate 3,750 square foot area. The ash-like material was 1.1 feet thick. The copper and lead impacted area was estimated to be 4,125 cubic feet (152.8 cubic yards), or approximately 230 tons in volume.

CMX recommended that Camden Laboratories L.P. address the limited area of copper and lead impacted soils on the Camden Laboratories property through excavation and off-site disposal, as this remedy is permanent and will not require a deed notice or long term monitoring if executed appropriately.

#### 4.0 Remedial Action

This section presents a summary of the remedial actions completed at the subject site pursuant to N.J.A.C. 7:26E-6.7(b)2. Remedial actions included excavation with off-site disposal to address the copper and lead impacted soils identified during the SI (AOC-15). Soil remediation activities were photo-documented. Copies of pertinent photographs are provided in Appendix A. The following paragraphs provide a summary of remedial actions completed to date.

#### 4.1 Pre-Mobilization Activities

CMX developed and implemented a site-specific Health and Safety Plan (HASP) covering Remedial Action construction activities. The HASP is provided in Appendix B.

#### 4.2 Mobilization

On August 13, 2008, CMX mobilized to the site to install field stakes at the boundary of the conductive area. The conductive area measured 75 feet in length by 50 feet in width. Field stakes were used to define the horizontal limits of the proposed excavation.

Construction equipment, including a rubber-tired backhoe and dump truck, was mobilized to the site and staged in a designated equipment staging area during the project. A temporary equipment decontamination/staging area was established adjacent to the excavation area to facilitate collection of soil and mud from equipment. Furthermore, trucks and equipment were restricted to designated travel routes and staging locations.

#### 4.3 Excavation and Off-Site Disposal

On September 8 and 9, 2008, CMX and its subcontractor, McIntire Excavating (McIntire) of Mount Laurel, New Jersey, mobilized to the site for excavation of the copper and lead impacted ash-like material from the conductive area. Surficial overburden soil which was determined not to contain impacted ash-like material was excavated from the conductive area utilizing a rubber-tired backhoe and stockpiled adjacent to the excavation. Overburden soil was excavated until the black ash-like material was encountered. The depth to ash ranged between twelve inches (12") and twenty inches (20") below ground surface.

Once overburden soil was removed, the ash-like material was excavated and staged adjacent to the excavation. The material was placed on and covered with plastic. The ash-like material was excavated vertically until native soil was encountered, and was excavated horizontally to the conductive anomaly boundary. Ash-like material encountered ranged between sixteen (16) and

twenty-four (24) inches thick. The final excavation measured thirty-six inches (36") deep.

Approximately 167 tons of material were excavated for off-site reuse at Stags Leap of Mullica Hill, New Jersey, an approved beneficial re-use facility. A copy of the waste transportation and disposal manifest is provided in Appendix C.

#### 4.3 Post-Excavation Sampling

Post-excavation soil samples were collected in accordance with the frequency outlined in N.J.A.C. 7:26E-6.4(a)2.ii.(2) which states "one sample from the bottom of each sidewall for every 30 linear feet of sidewall and one sample from the excavation bottom for every 900 square feet of bottom area." Since the final excavation area was 3,750 square feet in size, CMX collected ten (10) sidewall samples (PE-1 through PE-10) and five (5) bottom samples (PE-11 through PE-15) from the excavation area. Post-excavation sidewall samples were collected at a depth of eighteen inches (18") below grade, which is consistent with the depth of the remaining ash-like material observed at the perimeter of the excavation area. Post-excavation bottom samples were collected at a depth of thirty-six inches (36") below grade. Soil samples were forwarded to Veritech Laboratories (Veritech) of Fairfield, New Jersey for copper and lead analysis. Post-excavation soil sampling locations are presented on Figure 5.

Copper and lead were reported as non-detect or at a concentration below their respective most stringent NJDEP SCC for post-excavation soil samples PE-1 through PE-15. A tabulated summary of analytical results is provided in Table 8. Laboratory analytical results and electronic data deliverables are provided in Appendix D.

Analytical results from post-excavation soil samples (PE-1 through PE-15) confirmed that the extent of impacted ash-like material was removed from the site. Following removal of impacted material, the excavation area was backfilled with certified clean fill material and the ground surface was graded. A copy of the clean fill certification is provided in Appendix E.

#### 4.4 Reliability of Data

RA activities included collection of post-excavation soil samples in order to investigate contaminants identified in the SI at concentrations above applicable NJDEP remediation standards. Soil samples were biased towards locations and depths exhibiting contamination in samples collected as part of the SI. Each sample was laboratory analyzed for parameters exhibited in the SI samples. All soil samples were collected in accordance with N.J.A.C. 7:26E and the 2005 NJDEP Field Sampling Procedures Manual.

Samples collected during RA were analyzed at Veritech. Reliability of laboratory analytical data is indicated by compliance with USEPA and NJDEP sample holding times, the laboratory's ability to achieve method detection limits (MDLs), precision and accuracy with respect to the analytical method used, and/or any other indicators of data quality. Information pertaining to the reliability of laboratory analytical data was obtained from the Reduced Tier II Laboratory Data Deliverable report for each sampling event. Chain of Custody documentation, laboratory Quality Assurance/Quality Control (QA/QC) data, and laboratory non-conformance summaries (which contain details with respect to laboratory contamination) are included in the laboratory analytical data package compiled for each sampling event and have been provided in Appendix D.

#### 4.5 Site Restoration

Surficial overburden soil removed from the excavation was reused as backfill and augmented with certified clean soil from an off-site source. The excavation area was then rough graded. The excavation area is presented on Figure 5.

#### 4.6 Remediation Costs

Remedial activities associated with this phase of the project included mobilization and site preparations, site restoration, demobilization and preparation of a RAR. The cost for implementation of these activities is on the order of \$36,050.00.

**5.0 Conclusions/Recommendations**

CMX has performed a RA at the Camden Laboratories property, designated as Block 1392, Lot 33 in the City of Camden, Camden County, New Jersey on behalf of Camden Laboratories, L.P. RA activities were conducted between August and September 2008 and included excavation with off-site disposal to address copper and lead impacted soils at the site. The findings of the post-excavation sampling completed at the site to date have confirmed the extent of copper and lead impacted soil has been successfully remediated through excavation with off-site disposal. Based on the above, CMX recommends no additional investigation of the conductive anomaly. Therefore, CMX respectfully requests a determination of no further action for this AOC (AOC-15).

# Figures





**FIGURE 1 - SITE LOCATION**  
 1667 DAVIS STREET  
 BLOCK 1392, LOT 33  
 CITY OF CAMDEN CAMDEN COUNTY NEW JERSEY

**U.S.G.S. TOPOGRAPHIC MAP**  
 CAMDEN QUADRANGLE

—NOTICE—  
 THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED.

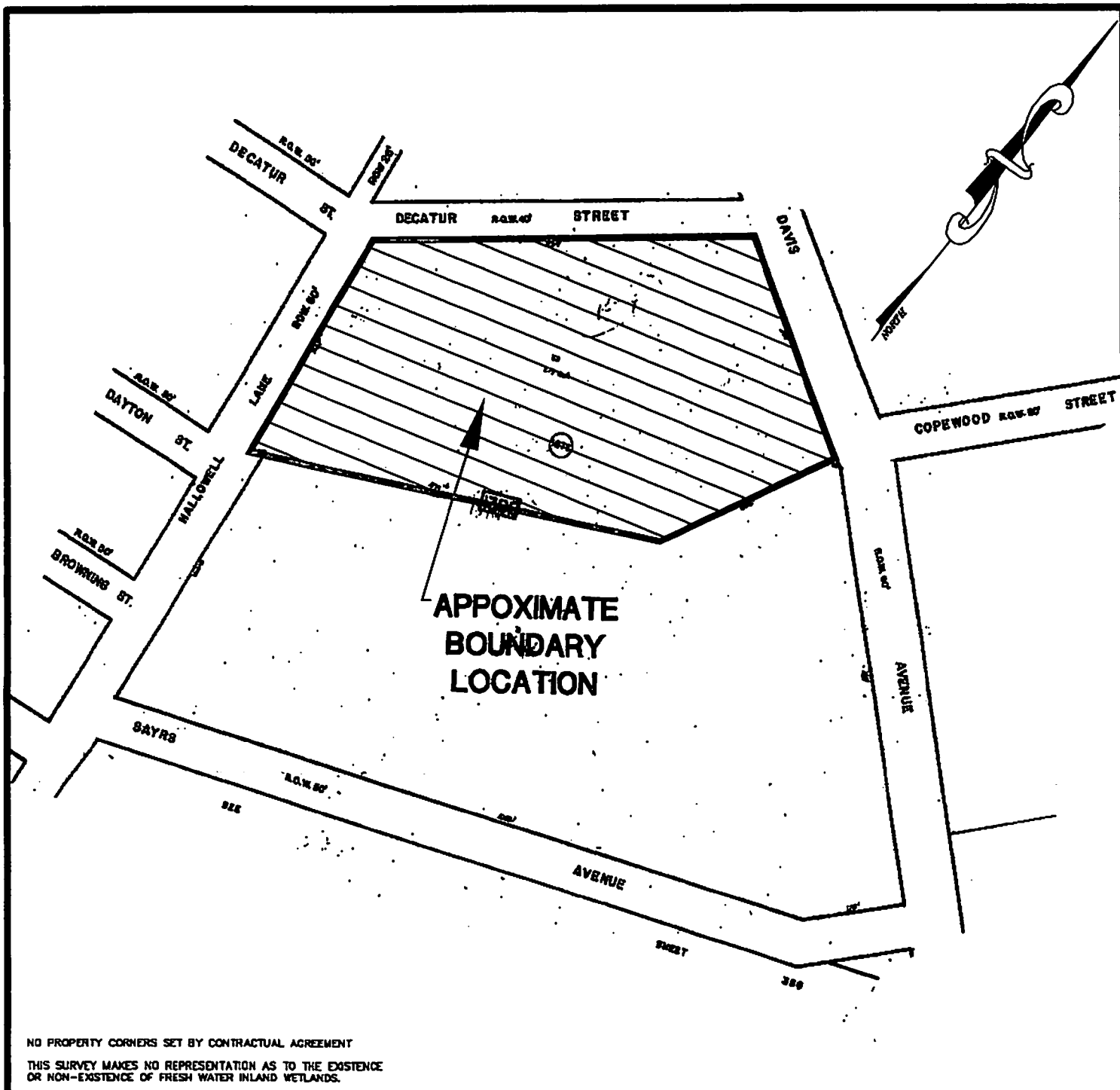
THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF CMX.

COPYRIGHT 2007 CMX. ALL RIGHTS RESERVED



Cert. Of Authorization 24GA27926200  
 1101 LAUREL OAK ROAD, SUITE 160  
 P.O. BOX 1346 VOORHEES, NJ 08043  
 TEL (856)783-1900 FAX (856)783-2100

DATE	REVISIONS	ORDER NO.	SCALE	DATE	DRAWN BY	DES. BY	FILE NO.	CHECKED BY
			1"=1,000'	12/3/2007	RQ	MP	070235802	MP



NO PROPERTY CORNERS SET BY CONTRACTUAL AGREEMENT  
 THIS SURVEY MAKES NO REPRESENTATION AS TO THE EXISTENCE  
 OR NON-EXISTENCE OF FRESH WATER INLAND WETLANDS.

**FIGURE 2 - SITE LOCATION**  
**1667 DAVIS STREET**  
 BLOCK 1392 LOT 33  
 CITY OF CAMDEN CAMDEN COUNTY NEW JERSEY

**CITY OF CAMDEN TAX MAP**

—NOTICE—  
 THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS  
 AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK  
 WAS CONTRACTED OR TO WHOM IT IS CERTIFIED.

THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED,  
 DISTRIBUTED OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT  
 THE WRITTEN CONSENT OF CMX.

COPYRIGHT 2007 CMX. ALL RIGHTS RESERVED



Cert. Of Authorization 24GA27926200  
 1101 LAUREL OAK ROAD, SUITE 160  
 P.O. BOX 1346 VOORHEES, NJ 08043  
 TEL (856)783-1900 FAX (856)783-2100

DATE	REVISIONS	ORDER NO.	SCALE	DATE	DRAWN BY	DES. BY	FILE NO.	CHECKED BY
			N.T.S.	12/03/2007	RQ	MP	070235802	MP

# Tables

Table 1: Summary of Analytical Methods and Quality Assurance Indicators  
 Camden Laboratories  
 1867 Oavis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

AOC	Sample ID	Phase	Sample Date	Sample Depth	Matrix	Sampling Method	Parameter	Analytical Method	Preservative	Container	Volume	Holding Time
AOC-5	SB-6	SI	4/8/2008	5.5-6.0'	Soil	Direct Push Geoprobe	PP+40, TPH-QAM	8260B, 8270C, 8081A, 6010B, C10-C28	Ice, Encore	Glass	8 oz., Encore	14 Days, 7 days, 28 Days
AOC-5	SB-7	SI	4/8/2008	13.5-14.0'	Soil	Direct Push Geoprobe	PP+40, TPH-QAM	8260B, 8270C, 8081A, 6010B, C10-C28	Ice, Encore	Glass	8 oz., Encore	14 Days, 7 days, 28 Days
AOC-11	SB-3	SI	4/8/2008	13.5-14.0'	Soil	Direct Push Geoprobe	TPH-QAM	C10-C28	Ice	Glass	8 oz.	28 Days
AOC-11	SB-4	SI	4/8/2008	14.5-15.0'	Soil	Direct Push Geoprobe	TPH-QAM	C10-C28	Ice	Glass	8 oz.	28 Days
AOC-11	SB-5	SI	4/8/2008	13.5-14.0'	Soil	Direct Push Geoprobe	TPH-QAM	C10-C28	Ice	Glass	8 oz.	28 Days
AOC-12	SB-1	SI	4/8/2008	14.5-15.0'	Soil	Direct Push Geoprobe	TPH-DRO, VO+10	C10-C28, 8260B	Ice, Encore	Glass	8 oz., 5 g.	28 Days, 14 Days
AOC-12	SB-2	SI	4/8/2008	14.5-15.0'	Soil	Direct Push Geoprobe	TPH-DRO, VO+10	C10-C28, 8260B	Ice, Encore	Glass	8 oz., 5 g.	28 Days, 14 Days
AOC-15	SB-8	SI	4/8/2008	0.5-1.0'	Soil	Direct Push Geoprobe	PP+40, TPH-QAM	8260B, 8270C, 8081A, 6010B, C10-C28	Ice, Encore	Glass	8 oz., Encore	14 Days, 7 days, 28 Days
AOC-15	SB-9	SI	4/8/2008	0.75-1.25'	Soil	Direct Push Geoprobe	PP+40, TPH-QAM	8260B, 8270C, 8081A, 6010B, C10-C28	Ice, Encore	Glass	8 oz., Encore	14 Days, 7 days, 28 Days
AOC-11	TWP-1	SI	4/9/2008	14.5-15.0'	Aqueous	Direct Push Geoprobe	VO+10, BN+15	8260B, 8270C	Ice, HCL	Glass	120 mL., 1 L.	14 Days, 7 Days
AOC-11	Fluid Blank	SI	4/9/2008	NA	Aqueous	Direct Push Geoprobe	VO+10, BN+15	8260B, 8270C	Ice, HCL	Glass	120 mL., 1 L.	14 Days, 7 Days
AOC-11	Trip Blank	SI	4/9/2008	NA	Aqueous	Direct Push Geoprobe	VO+10	8260B	Ice, HCL	Glass	120 mL.	14 Days
AOC-15	AM-1	SI	6/23/2008	0.85-1.35'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	AM-1A	SI	6/23/2008	1.75-2.25'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	AM-2	SI	6/23/2008	1.0-1.5'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	8 mos.
AOC-15	AM-2A	SI	6/23/2008	1.75-2.25'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	AM-3	SI	6/23/2008	0.85-1.35'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	AM-4	SI	6/23/2008	0.85-1.35'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	AM-5	SI	6/23/2008	1.0-1.5'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	AM-6	SI	6/23/2008	5.0-5.5'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	AM-7	SI	6/23/2008	1.75-2.25'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	AM-7A	SI	6/23/2008	2.75-3.25'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	AM-8	SI	6/23/2008	2.25-2.75'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	AM-8A	SI	6/23/2008	2.75-3.25'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	AM-12	SI	6/23/2008	0.85-1.35'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	AM-14	SI	6/23/2008	0.85-1.35'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	AM-15	SI	6/23/2008	1.75-2.25'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	AM-16	SI	6/23/2008	2.5-3.0'	Soil	Direct Push Geoprobe	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	PE-1	RA	9/8/2008	1.0-1.5'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	PE-2	RA	9/8/2008	1.0-1.5'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	PE-3	RA	9/8/2008	1.0-1.5'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	PE-4	RA	9/8/2008	1.0-1.5'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	PE-5	RA	9/8/2008	1.0-1.5'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	PE-6	RA	9/8/2008	1.0-1.5'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	PE-7	RA	9/8/2008	1.0-1.5'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	PE-8	RA	9/8/2008	1.0-1.5'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	PE-9	RA	9/8/2008	1.0-1.5'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	PE-10	RA	9/8/2008	1.0-1.5'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	PE-11	RA	9/9/2008	2.5-3.0'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	PE-12	RA	9/9/2008	2.5-3.0'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	PE-13	RA	9/9/2008	2.5-3.0'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	8 mos.
AOC-15	PE-14	RA	9/9/2008	2.5-3.0'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.
AOC-15	PE-15	RA	9/9/2008	2.5-3.0'	Soil	Stainless Steel Spoon	Cu, Pb	6010B	Ice	Glass	4 oz.	6 mos.

Table 2: Tabulated Summary of Soil Sample Analytical Results  
Septic Systems, Leachfields or Seepage Pits (AOC-5)

Camden Laboratories

1667 Davis Street

City of Camden, Camden County, New Jersey

Project Number: 070235804

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-6		SB-7			
Lab ID	Residential	Non-Residential	Impact to	J87954-6		J87954-7			
Sampling Date	Direct Contact	Direct Contact	Groundwater	4/9/2008		4/9/2008			
Sample Depth				5.5-6.0'		13.5-14.0'			
Result				Result	Qual	RDL	Result	Qual	RDL
<b>GC/MS Volatiles (ppm)</b>									
Acrolein	NS	NS	NS	ND		3200	ND		2900
Acrylonitrile	1	5	1	ND		3200	ND		2900
Benzene	3	13	1	ND		64	ND		58
Bromodichloromethane	11	46	1	ND		320	ND		290
Bromofom	86	370	1	ND		320	ND		290
Bromomethane	79	1000	1	ND		320	ND		290
Carbon tetrachloride	2	4	1	ND		320	ND		290
Chlorobenzene	37	680	1	ND		320	ND		290
Chloroethane	NS	NS	NS	ND		320	ND		290
2-Chloroethyl vinyl ether	NS	NS	NS	ND		1600	ND		1400
Chloroform	19	28	1	ND		320	ND		290
Chloromethane	520	1000	10	ND		320	ND		290
Dibromochloromethane	110	1000	1	ND		320	ND		290
1,2-Dichlorobenzene	5100	10000	50	ND		320	ND		290
1,3-Dichlorobenzene	5100	10000	100	ND		320	ND		290
1,4-Dichlorobenzene	570	10000	100	ND		320	ND		290
Dichlorodifluoromethane	NS	NS	NS	ND		320	ND		290
1,1-Dichloroethane	570	1000	10	ND		320	ND		290
1,2-Dichloroethane	6	24	1	ND		64	ND		58
1,1-Dichloroethene	8	150	10	ND		320	ND		290
cis-1,2-Dichloroethene	79	1000	1	ND		320	ND		290
trans-1,2-Dichloroethene	1000	1000	50	ND		320	ND		290
1,2-Dichloropropane	10	43	NS	ND		320	ND		290
cis-1,3-Dichloropropene	NS	NS	NS	ND		320	ND		290
trans-1,3-Dichloropropene	NS	NS	NS	ND		320	ND		290
Ethylbenzene	1000	1000	100	ND		64	ND		58
Methylene chloride	49	210	1	ND		320	ND		290
1,1,2,2-Tetrachloroethane	34	70	1	ND		320	ND		290
Tetrachloroethene	4	6	1	ND		320	ND		290
Toluene	1000	1000	500	ND		64	ND		58
1,1,1-Trichloroethane	210	1000	50	ND		320	ND		290
1,1,2-Trichloroethane	22	420	1	ND		320	ND		290
Trichloroethene	23	54	1	ND		320	ND		290
Trichlorofluoromethane	NS	NS	NS	ND		320	ND		290
Vinyl chloride	2	7	10	ND		320	ND		290
Xylene (total)	410	1000	67	ND		130	ND		120
Total TIC, Volatile	NS	NS	NS	0			0		
<b>GC/MS Semi-volatiles (ppm)</b>									
2-Chlorophenol	280	5200	10	ND		200	ND		190
4-Chloro-3-methyl phenol	10000	10000	100	ND		200	ND		190
2,4-Dichlorophenol	170	3100	10	ND		200	ND		190
2,4-Dimethylphenol	1100	10000	10	ND		200	ND		190
2,4-Dinitrophenol	110	2100	10	ND		780	ND		770
4,6-Dinitro-o-cresol	NS	NS	NS	ND		780	ND		770
2-Nitrophenol	NS	NS	NS	ND		200	ND		190
4-Nitrophenol	NS	NS	NS	ND		780	ND		770
Pentachlorophenol	6	24	100	ND		390	ND		390
Phenol	10000	10000	50	ND		78	ND		77
2,4,6-Trichlorophenol	62	270	10	ND		200	ND		190
Acenaphthene	3400	10000	100	ND		78	ND		77
Acenaphthylene	NS	NS	NS	ND		78	ND		77

Table 2: Tabulated Summary of Soil Sample Analytical Results  
 Septic Systems, Leachfields or Seepage Pits (AOC-5)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-6			SB-7		
	Residential	Non-Residential	Impact to	J87954-6			J87954-7		
Sampling Date	Direct Contact	Direct Contact	Groundwater	4/9/2008			4/9/2008		
Sample Depth				5.5-6.0'			13.5-14.0'		
Result				Result	Qual	RDL	Result	Qual	RDL
Anthracene	10000	10000	100	ND		78	ND		77
Benzidine	NS	NS	NS	ND		780	ND		770
Benzo(a)anthracene	0.9	4	500	ND		78	ND		77
Benzo(a)pyrene	0.66	0.66	100	ND		78	ND		77
Benzo(b)fluoranthene	0.9	4	50	ND		78	ND		77
Benzo(g,h,i)perylene	NS	NS	NS	ND		78	ND		77
Benzo(k)fluoranthene	0.9	4	500	ND		78	ND		77
4-Bromophenyl phenyl ether	NS	NS	NS	ND		78	ND		77
Butyl benzyl phthalate	1100	10000	100	ND		78	ND		77
2-Chloronaphthalene	NS	NS	NS	ND		78	ND		77
4-Chloroaniline	230	4200	NS	ND		200	ND		190
Chrysene	9	40	500	ND		78	ND		77
bis(2-Chloroethoxy)methane	NS	NS	NS	ND		78	ND		77
bis(2-Chloroethyl)ether	0.66	3	10	ND		78	ND		77
bis(2-Chloroisopropyl)ether	2300	10000	10	ND		78	ND		77
4-Chlorophenyl phenyl ether	NS	NS	NS	ND		78	ND		77
1,2-Dichlorobenzene	5100	10000	50	ND		78	ND		77
1,2-Diphenylhydrazine	NS	NS	NS	ND		78	ND		77
1,3-Dichlorobenzene	5100	10000	100	ND		78	ND		77
1,4-Dichlorobenzene	570	10000	100	ND		78	ND		77
2,4-Dinitrotoluene	NS	NS	NS	ND		78	ND		77
2,6-Dinitrotoluene	NS	NS	NS	ND		78	ND		77
3,3'-Dichlorobenzidine	2	6	100	ND		200	ND		190
Dibenzo(a,h)anthracene	0.66	0.66	100	ND		78	ND		77
Di-n-butyl phthalate	5700	10000	100	ND		78	ND		77
Di-n-octyl phthalate	1100	10000	100	ND		78	ND		77
Diethyl phthalate	10000	10000	50	ND		78	ND		77
Dimethyl phthalate	10000	10000	50	ND		78	ND		77
bis(2-Ethylhexyl)phthalate	49	210	100	ND		78	ND		77
Fluoranthene	2300	10000	100	ND		78	ND		77
Fluorene	2300	10000	100	ND		78	ND		77
Hexachlorobenzene	0.66	2	100	ND		78	ND		77
Hexachlorobutadiene	1	21	100	ND		78	ND		77
Hexachlorocyclopentadiene	400	7300	100	ND		780	ND		770
Hexachloroethane	6	100	100	ND		200	ND		190
Indeno(1,2,3-cd)pyrene	0.9	4	500	ND		78	ND		77
Isophorone	1100	10000	50	ND		78	ND		77
Naphthalene	230	4200	100	ND		78	ND		77
Nitrobenzene	28	520	10	ND		78	ND		77
n-Nitrosodimethylamine	NS	NS	NS	ND		78	ND		77
N-Nitroso-di-n-propylamine	0.66	0.66	10	ND		78	ND		77
N-Nitrosodiphenylamine	140	600	100	ND		200	ND		190
Phenanthrene	NS	NS	NS	ND		78	ND		77
Pyrene	1700	10000	100	ND		78	ND		77
1,2,4-Trichlorobenzene	68	1200	100	ND		78	ND		77
Total TIC, Semi-Volatile	NS	NS	NS	0			0		
<b>Pesticides/PCBs (ppm)</b>									
Aldrin	0.04	0.17	50	ND		1.6	ND		1.5
alpha-BHC	NS	NS	NS	ND		1.6	ND		1.5
beta-BHC	NS	NS	NS	ND		1.6	ND		1.5
delta-BHC	NS	NS	NS	ND		1.6	ND		1.5
gamma-BHC (Lindane)	0.52	2.2	50	ND		1.6	ND		1.5

Table 2: Tabulated Summary of Soil Sample Analytical Results  
 Septic Systems, Leachfields or Seepage Pits (AOC-5)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-6			SB-7		
	Residential	Non-Residential	Impact to	J87954-6			J87954-7		
Sampling Date	Direct Contact	Direct Contact	Groundwater	4/9/2008			4/9/2008		
Sample Depth				5.5-6.0'			13.5-14.0'		
Result				Result	Qual	RDL	Result	Qual	RDL
Chlordane	0.25	2.1	NS	ND		39	ND		39
Dieldrin	0.042	0.18	50	ND		1.6	ND		1.5
4,4'-DDD	3	12	50	ND		1.6	ND		1.5
4,4'-DDE	2	9	50	ND		1.6	ND		1.5
4,4'-DDT	2	9	500	ND		1.6	ND		1.5
Endrin	17	310	50	ND		1.6	ND		1.5
Endosulfan sulfate	NS	NS	NS	ND		1.6	ND		1.5
Endrin aldehyde	NS	NS	NS	ND		1.6	ND		1.5
Endosulfan-I	34	620	NS	ND		1.6	ND		1.5
Endosulfan-II	34	620	NS	ND		1.6	ND		1.5
Heptachlor	0.15	0.65	50	ND		1.6	ND		1.5
Heptachlor epoxide	NS	NS	NS	ND		1.6	ND		1.5
Methoxychlor	280	5200	50	ND		1.6	ND		1.5
Toxaphene	0.1	0.2	50	ND		20	ND		19
Aroclor 1016	0.49	2	50	ND		39	ND		39
Aroclor 1221	0.49	2	50	ND		39	ND		39
Aroclor 1232	0.49	2	50	ND		39	ND		39
Aroclor 1242	0.49	2	50	ND		39	ND		39
Aroclor 1248	0.49	2	50	ND		39	ND		39
Aroclor 1254	0.49	2	50	ND		39	ND		39
Aroclor 1260	0.49	2	50	ND		39	ND		39
Total PHC (mg/kg)	NS	NS	NS	ND		1.6	ND		1.6
<b>Metals Analysis (ppm)</b>									
Antimony	14	340	NS	<2.3		2.3	<2.5		2.5
Arsenic	20	20	NS	9.7		2.3	5.4		2.5
Beryllium	2	2	NS	<0.58		0.58	<0.62		0.62
Cadmium	39	100	NS	<0.58		0.58	<0.62		0.62
Chromium	NS	NS	NS	26.8		1.2	12.2		1.2
Copper	600	600	NS	6.9		2.9	10.6		3.1
Lead	400	600	NS	7.1		2.3	10.4		2.5
Mercury	14	270	NS	<0.039		0.039	<0.036		0.036
Nickel	250	2400	NS	5.7		4.6	<5.0		5
Selenium	63	3100	NS	<2.3		2.3	<2.5		2.5
Silver	110	4100	NS	<1.2		1.2	<1.2		1.2
Thallium	2	2	NS	<1.2		1.2	<1.2		1.2
Zinc	1500	1500	NS	20.9		2.3	8.4		2.5
<b>General Chemistry (ppm)</b>									
Cyanide	1100	21000	NS	<0.31		0.31	<0.31		0.31
Phenols	NS	NS	NS	<2.7		2.7	<2.7		2.7
Solids, Percent (%)	NS	NS	NS	84.0			85.0		
TPH-DRO (C10-C28) (mg/kg)	NS	NS	NS	ND		1.6	ND		1.6

ND=Not detected at the indicated concentration  
 NS=No standard

**Table 3: Tabulated Summary of Soil Sample Analytical Results**  
**Hydraulic Lift System (AOC-11)**  
**Camden Laboratories**  
**1667 Davis Street**  
**City of Camden, Camden County, New Jersey**  
**Project Number: 070235804**

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-3			SB-4			SB-5		
	Residential	Non-Residential	Impact to	J87954-3			J87954-4			J87954-5		
Lab ID												
Sampling Date	Direct Contact	Direct Contact	Groundwater	4/9/2008			4/9/2008			4/9/2008		
Sample Depth				13.5-14.0'			14.5-15.0'			13.5-14.0'		
Result				Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
Total PHC (mg/kg)	NS	NS	NS	ND		1.4	ND		1.5	22.8		1.4
<b>General Chemistry (ppm)</b>												
Solids, Percent (%)	NS	NS	NS	93.4			86.1			93.5		

ND=Not detected at the indicated concentration  
 NS=No standard



**Table 4: Tabulated Summary of Soil Sample Analytical Results**  
**NJ Spills Database Listing (AOC-12)**  
**Camden Laboratories**  
**1667 Davis Street**  
**City of Camden, Camden County, New Jersey**  
**Project Number: 070235804**

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-1		SB-2		
	Residential	Non-Residential	Impact to	J87954-1		J87954-2		
Lab ID	Direct Contact	Direct Contact	Groundwater	4/9/2008		4/9/2008		
Sampling Date				14.5-15.0'		14.5-15.0'		
Sample Depth				Result	Qual	RDL	Result	Qual
Result				ND		7.4	8.40	7.6
TPH-DRO (C10-C28) (mg/kg)	NS	NS	NS					
General Chemistry (ppm)								
Solids, Percent (%)	NS	NS	NS	88.7			86.8	

ND=Not detected at the indicated concentration

NS=No standard

Table 5: Tabulated Summary of Soil Sample Analytical Results  
 Conductive Area (AOC-15)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-8			SB-9		
	Residential	Non-Residential	Impact to	J87954-8			J87954-9		
Lab ID	Direct Contact	Direct Contact	Groundwater	4/9/2008			4/9/2008		
Sampling Date				0.5-1.0'			0.75-1.25'		
Sample Depth				Result	Qual	RDL	Result	Qual	RDL
<b>GC/MS Volatiles (ppm)</b>									
Acrolein	NS	NS	NS	ND		6500	ND		7100
Acrylonitrile	1	5	1	ND		6500	ND		7100
Benzene	3	13	1	ND		130	ND		140
Bromodichloromethane	11	46	1	ND		650	ND		710
Bromoform	86	370	1	ND		650	ND		710
Bromomethane	79	1000	1	ND		650	ND		710
Carbon tetrachloride	2	4	1	ND		650	ND		710
Chlorobenzene	37	680	1	ND		650	ND		710
Chloroethane	NS	NS	NS	ND		650	ND		710
2-Chloroethyl vinyl ether	NS	NS	NS	ND		3300	ND		3600
Chloroform	19	28	1	ND		650	ND		710
Chloromethane	520	1000	10	ND		650	ND		710
Dibromochloromethane	110	1000	1	ND		650	ND		710
1,2-Dichlorobenzene	5100	10000	50	ND		650	ND		710
1,3-Dichlorobenzene	5100	10000	100	ND		650	ND		710
1,4-Dichlorobenzene	570	10000	100	ND		650	ND		710
Dichlorodifluoromethane	NS	NS	NS	ND		650	ND		710
1,1-Dichloroethane	570	1000	10	ND		650	ND		710
1,2-Dichloroethane	6	24	1	ND		130	ND		140
1,1-Dichloroethene	8	150	10	ND		650	ND		710
cis-1,2-Dichloroethene	79	1000	1	ND		650	ND		710
trans-1,2-Dichloroethene	1000	1000	50	ND		650	ND		710
1,2-Dichloropropane	10	43	NS	ND		650	ND		710
cis-1,3-Dichloropropene	NS	NS	NS	ND		650	ND		710
trans-1,3-Dichloropropene	NS	NS	NS	ND		650	ND		710
Ethylbenzene	1000	1000	100	ND		130	ND		140
Methylene chloride	49	210	1	ND		650	ND		710
1,1,2,2-Tetrachloroethane	34	70	1	ND		650	ND		710
Tetrachloroethene	4	6	1	ND		650	ND		710
Toluene	1000	1000	500	ND		130	ND		140
1,1,1-Trichloroethane	210	1000	50	ND		650	ND		710
1,1,2-Trichloroethane	22	420	1	ND		650	ND		710
Trichloroethene	23	54	1	ND		650	ND		710
Trichlorofluoromethane	NS	NS	NS	ND		650	ND		710
Vinyl chloride	2	7	10	ND		650	ND		710
Xylene (total)	410	1000	67	ND		260	ND		290
Total TIC, Volatile	NS	NS	NS	0			0		
<b>GC/MS Semi-volatiles (ppm)</b>									
2-Chlorophenol	280	5200	10	ND		1200	ND		1300
4-Chloro-3-methyl phenol	10000	10000	100	ND		1200	ND		1300
2,4-Dichlorophenol	170	3100	10	ND		1200	ND		1300
2,4-Dimethylphenol	1100	10000	10	ND		1200	ND		1300
2,4-Dinitrophenol	110	2100	10	ND		5000	ND		5100
4,6-Dinitro-o-cresol	NS	NS	NS	ND		5000	ND		5100
2-Nitrophenol	NS	NS	NS	ND		1200	ND		1300
4-Nitrophenol	NS	NS	NS	ND		5000	ND		5100
Pentachlorophenol	6	24	100	ND		2500	ND		2600
Phenol	10000	10000	50	ND		500	ND		510
2,4,6-Trichlorophenol	62	270	10	ND		1200	ND		1300
Acenaphthene	3400	10000	100	ND		500	ND		510
Acenaphthylene	NS	NS	NS	ND		500	ND		510

Table 5: Tabulated Summary of Soil Sample Analytical Results  
 Conductive Area (AOC-15)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-8			SB-9		
	Residential	Non-Residential	Impact to	J87954-8			J87954-9		
Lab ID	Direct Contact	Direct Contact	Groundwater	4/9/2008			4/9/2008		
Sampling Date	Direct Contact	Direct Contact	Groundwater	0.5-1.0'			0.75-1.25'		
Sample Depth				Result	Qual	RDL	Result	Qual	RDL
Anthracene	10000	10000	100	ND		500	ND		510
Benzidine	NS	NS	NS	ND		5000	ND		5100
Benzo(a)anthracene	0.9	4	500	ND		500	108	J	510
Benzo(a)pyrene	0.66	0.66	100	ND		500	ND		510
Benzo(b)fluoranthene	0.9	4	50	109	J	500	ND		510
Benzo(g,h,i)perylene	NS	NS	NS	ND		500	ND		510
Benzo(k)fluoranthene	0.9	4	500	ND		500	ND		510
4-Bromophenyl phenyl ether	NS	NS	NS	ND		500	ND		510
Butyl benzyl phthalate	1100	10000	100	ND		500	ND		510
2-Chloronaphthalene	NS	NS	NS	ND		500	ND		510
4-Chloroaniline	230	4200	NS	ND		1200	ND		1300
Chrysene	9	40	500	ND		500	105	J	510
bis(2-Chloroethoxy)methane	NS	NS	NS	ND		500	ND		510
bis(2-Chloroethyl)ether	0.66	3	10	ND		500	ND		510
bis(2-Chloroisopropyl)ether	2300	10000	10	ND		500	ND		510
4-Chlorophenyl phenyl ether	NS	NS	NS	ND		500	ND		510
1,2-Dichlorobenzene	5100	10000	50	ND		500	ND		510
1,2-Diphenylhydrazine	NS	NS	NS	ND		500	ND		510
1,3-Dichlorobenzene	5100	10000	100	ND		500	ND		510
1,4-Dichlorobenzene	570	10000	100	ND		500	ND		510
2,4-Dinitrotoluene	NS	NS	NS	ND		500	ND		510
2,6-Dinitrotoluene	NS	NS	NS	ND		500	ND		510
3,3'-Dichlorobenzidine	2	6	100	ND		1200	ND		1300
Dibenzo(a,h)anthracene	0.66	0.66	100	ND		500	ND		510
Di-n-butyl phthalate	5700	10000	100	ND		500	ND		510
Di-n-octyl phthalate	1100	10000	100	ND		500	ND		510
Diethyl phthalate	10000	10000	50	ND		500	ND		510
Dimethyl phthalate	10000	10000	50	ND		500	ND		510
bis(2-Ethylhexyl)phthalate	49	210	100	ND		500	ND		510
Fluoranthene	2300	10000	100	120	J	500	201	J	510
Fluorene	2300	10000	100	ND		500	ND		510
Hexachlorobenzene	0.66	2	100	ND		500	ND		510
Hexachlorobutadiene	1	21	100	ND		500	ND		510
Hexachlorocyclopentadiene	400	7300	100	ND		5000	ND		5100
Hexachloroethane	6	100	100	ND		1200	ND		1300
Indeno(1,2,3-cd)pyrene	0.9	4	500	ND		500	ND		510
Isophorone	1100	10000	50	ND		500	ND		510
Naphthalene	230	4200	100	ND		500	ND		510
Nitrobenzene	28	520	10	ND		500	ND		510
n-Nitrosodimethylamine	NS	NS	NS	ND		500	ND		510
N-Nitroso-di-n-propylamine	0.66	0.66	10	ND		500	ND		510
N-Nitrosodiphenylamine	140	600	100	ND		1200	ND		1300
Phenanthrene	NS	NS	NS	ND		500	182	J	510
Pyrene	1700	10000	100	111	J	500	177	J	510
1,2,4-Trichlorobenzene	68	1200	100	ND		500	ND		510
Total TIC, Semi-Volatile	NS	NS	NS	1300	J		0		
<b>Pesticides/PCBs (ppm)</b>									
Aldrin	0.04	0.17	50	ND		1.7	ND		1.7
alpha-BHC	NS	NS	NS	ND		1.7	ND		1.7
beta-BHC	NS	NS	NS	ND		1.7	ND		1.7
delta-BHC	NS	NS	NS	ND		1.7	ND		1.7
gamma-BHC (Lindane)	0.52	2.2	50	ND		1.7	ND		1.7

Table 5: Tabulated Summary of Soil Sample Analytical Results  
 Conductive Area (AOC-15)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

Sample ID	New Jersey Class Soil Cleanup Criteria			SB-8			SB-9		
	Residential	Non-Residential	Impact to	J87954-8			J87954-9		
Lab ID	Direct Contact	Direct Contact	Groundwater	4/9/2008			4/9/2008		
Sampling Date									
Sample Depth				0.5-1.0'			0.75-1.25'		
				Result	Qual	RDL	Result	Qual	RDL
Chlordane	0.25	2.1	NS	ND		42	ND		43
Dieldrin	0.042	0.18	50	ND		1.7	ND		1.7
4,4'-DDD	3	12	50	1.9		1.7	3.3		1.7
4,4'-DDE	2	9	50	18.5		1.7	14.8		1.7
4,4'-DDT	2	9	500	9.1		1.7	3.6		1.7
Endrin	17	310	50	ND		1.7	ND		1.7
Endosulfan sulfate	NS	NS	NS	ND		1.7	ND		1.7
Endrin aldehyde	NS	NS	NS	ND		1.7	ND		1.7
Endosulfan-I	34	620	NS	ND		1.7	ND		1.7
Endosulfan-II	34	620	NS	ND		1.7	ND		1.7
Heptachlor	0.15	0.65	50	ND		1.7	ND		1.7
Heptachlor epoxide	NS	NS	NS	ND		1.7	ND		1.7
Methoxychlor	280	5200	50	ND		1.7	ND		1.7
Toxaphene	0.1	0.2	50	ND		21	ND		21
Aroclor 1016	0.49	2	50	ND		42	ND		43
Aroclor 1221	0.49	2	50	ND		42	ND		43
Aroclor 1232	0.49	2	50	ND		42	ND		43
Aroclor 1242	0.49	2	50	ND		42	ND		43
Aroclor 1248	0.49	2	50	ND		42	ND		43
Aroclor 1254	0.49	2	50	ND		42	ND		43
Aroclor 1260	0.49	2	50	ND		42	ND		43
Total PHC (mg/kg)	NS	NS	NS	64.4		4.7	53.8		4.8
<b>Metals Analysis (ppm)</b>									
Antimony	14	340	NS	2.6		2.6	<2.7		2.7
Arsenic	20	20	NS	14.5		2.6	11.0		2.7
Beryllium	2	2	NS	1.0		0.66	0.89		0.68
Cadmium	39	100	NS	7.2		0.66	3.4		0.68
Chromium	NS	NS	NS	26.5		1.3	9.9		1.4
Copper	600	600	NS	1380		3.3	271		3.4
Lead	400	600	NS	667		2.6	146		2.7
Mercury	14	270	NS	0.13		0.038	0.27		0.041
Nickel	250	2400	NS	57.4		5.3	14.8		5.4
Selenium	63	3100	NS	<2.6		2.6	<2.7		2.7
Silver	110	4100	NS	2.5		1.3	3.9		1.4
Thallium	2	2	NS	<1.3		1.3	<1.4		1.4
Zinc	1500	1500	NS	626		2.6	231		2.7
<b>General Chemistry (ppm)</b>									
Cyanide	1100	21000	NS	<0.32		0.32	<0.34		0.34
Phenols	NS	NS	NS	<3.4		3.4	<3.2		3.2
Solids, Percent (%)	NS	NS	NS	79.2			77.9		
Total PHC (mg/kg)	NS	NS	NS	64.4		4.7	53.8		4.8

ND=Not detected at the indicated concentration

NS=No standard

Table 6: Tabulated Summary of Ground Water Sample Analytical Results  
 Hydraulic Lift System (AOC-11)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

Sample ID	New Jersey Class	TWP-1			FB-1			TRIP BLANK		
Lab ID	IIA Groundwater	J88150-1			J88150-2			J88150-3		
Sampling Date	Quality Criteria	4/11/2008			4/11/2008			4/11/2008		
Sample Depth		14.5-15.0'			NA			NA		
		Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
<b>GC/MS Volatiles (ppb)</b>										
Acrolein	5	ND		50	ND		50	ND		50
Acrylonitrile	2	ND		50	ND		50	ND		50
Benzene	1	ND		1	ND		1	ND		1
Bromodichloromethane	1	ND		1	ND		1	ND		1
Bromoform	4	ND		4	ND		4	ND		4
Bromomethane	10	ND		2	ND		2	ND		2
Carbon tetrachloride	1	ND		1	ND		1	ND		1
Chlorobenzene	50	ND		1	ND		1	ND		1
Chloroethane	NS	ND		1	ND		1	ND		1
2-Chloroethyl vinyl ether	NS	ND		10	ND		10	ND		10
Chloroform	70	0.56	J	1	ND		1	ND		1
Chloromethane	NS	ND		1	ND		1	ND		1
Dibromochloromethane	1	ND		1	ND		1	ND		1
1,2-Dichlorobenzene	600	ND		1	ND		1	ND		1
1,3-Dichlorobenzene	600	ND		1	ND		1	ND		1
1,4-Dichlorobenzene	75	ND		1	ND		1	ND		1
Dichlorodifluoromethane	1000	ND		5	ND		5	ND		5
1,1-Dichloroethane	50	ND		1	ND		1	ND		1
1,2-Dichloroethane	2	ND		1	ND		1	ND		1
1,1-Dichloroethene	1	ND		1	ND		1	ND		1
cis-1,2-Dichloroethene	70	ND		1	ND		1	ND		1
trans-1,2-Dichloroethene	100	ND		1	ND		1	ND		1
1,2-Dichloropropane	1	ND		1	ND		1	ND		1
cis-1,3-Dichloropropene	NS	ND		1	ND		1	ND		1
trans-1,3-Dichloropropene	NS	ND		1	ND		1	ND		1
Ethylbenzene	700	ND		1	ND		1	ND		1
Methylene chloride	3	ND		2	ND		2	ND		2
1,1,2,2-Tetrachloroethane	1	ND		1	ND		1	ND		1
Tetrachloroethene	1	ND		1	ND		1	ND		1
Toluene	600	0.24	J	1	ND		1	ND		1
1,1,1-Trichloroethane	30	ND		1	ND		1	ND		1
1,1,2-Trichloroethane	3	ND		1	ND		1	ND		1
Trichloroethene	1	ND		1	ND		1	ND		1
Trichlorofluoromethane	2000	ND		5	ND		5	ND		5
Vinyl chloride	1	ND		1	ND		1	ND		1
Xylene (total)	1000	ND		1	ND		1	ND		1
Total TIC, Volatile	NS	6.7	J		0			0		
<b>GC/MS Semi-volatiles (ppb)</b>										
Acenaphthene	400	ND		0.22	ND		0.2	NA		
Acenaphthylene	NS	ND		0.22	ND		0.2	NA		
Anthracene	2000	ND		0.22	ND		0.2	NA		
Benzidine	20	ND		22	ND		20	NA		
Benzo(a)anthracene	0.1	ND		0.11	ND		0.1	NA		
Benzo(a)pyrene	0.1	ND		0.11	ND		0.1	NA		
Benzo(b)fluoranthene	0.2	ND		0.22	ND		0.2	NA		
Benzo(g,h,i)perylene	NS	ND		0.22	ND		0.2	NA		
Benzo(k)fluoranthene	0.5	ND		0.22	ND		0.2	NA		
4-Bromophenyl phenyl ether	NS	ND		2.2	ND		2	NA		
Butyl benzyl phthalate	100	ND		2.2	ND		2	NA		
2-Chloronaphthalene	600	ND		5.4	ND		5	NA		
4-Chloroaniline	30	ND		5.4	ND		5	NA		

Table 6: Tabulated Summary of Ground Water Sample Analytical Results  
 Hydraulic Lift System (AOC-11)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235804

Sample ID	New Jersey Class	TWP-1			FB-1			TRIP BLANK		
Lab ID	IIA Groundwater	J88150-1			J88150-2			J88150-3		
Sampling Date	Quality Criteria	4/11/2008			4/11/2008			4/11/2008		
Sample Depth		14.5-15.0'			NA			NA		
		Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
Chrysene	5	ND		0.22	ND		0.2	NA		
bis(2-Chloroethoxy)methane	NS	ND		2.2	ND		2	NA		
bis(2-Chloroethyl)ether	7	ND		2.2	ND		2	NA		
bis(2-Chloroisopropyl)ether	300	ND		2.2	ND		2	NA		
4-Chlorophenyl phenyl ether	NS	ND		2.2	ND		2	NA		
1,2-Dichlorobenzene	600	ND		2.2	ND		2	NA		
1,2-Diphenylhydrazine	20	ND		2.2	ND		2	NA		
1,3-Dichlorobenzene	600	ND		2.2	ND		2	NA		
1,4-Dichlorobenzene	75	ND		2.2	ND		2	NA		
2,4-Dinitrotoluene	NS	ND		2.2	ND		2	NA		
2,6-Dinitrotoluene	NS	ND		2.2	ND		2	NA		
3,3'-Dichlorobenzidine	30	ND		5.4	ND		5	NA		
Dibenzo(a,h)anthracene	0.3	ND		0.22	ND		0.2	NA		
Di-n-butyl phthalate	700	ND		2.2	ND		2	NA		
Di-n-octyl phthalate	100	ND		2.2	ND		2	NA		
Diethyl phthalate	6000	2.2		2.2	ND		2	NA		
Dimethyl phthalate	NS	ND		2.2	ND		2	NA		
bis(2-Ethylhexyl)phthalate	3	1.3	J	2.2	ND		2	NA		
Fluoranthene	300	ND		0.22	ND		0.2	NA		
Fluorene	300	ND		0.22	ND		0.2	NA		
Hexachlorobenzene	0.02	ND		0.022	ND		0.02	NA		
Hexachlorobutadiene	1	ND		2.2	ND		2	NA		
Hexachlorocyclopentadiene	40	ND		22	ND		20	NA		
Hexachloroethane	7	ND		5.4	ND		5	NA		
Indeno(1,2,3-cd)pyrene	0.2	ND		0.22	ND		0.2	NA		
Isophorone	40	ND		2.2	ND		2	NA		
Naphthalene	300	ND		0.22	ND		0.2	NA		
Nitrobenzene	6	ND		2.2	ND		2	NA		
n-Nitrosodimethylamine	0.8	ND		2.2	ND		2	NA		
N-Nitroso-di-n-propylamine	10	ND		2.2	ND		2	NA		
N-Nitrosodiphenylamine	10	ND		5.4	ND		5	NA		
Phenanthrene	NS	ND		0.22	ND		0.2	NA		
Pyrene	200	ND		0.22	ND		0.2	NA		
1,2,4-Trichlorobenzene	9	ND		2.2	ND		2	NA		
Total TIC, Semi-Volatile	NS	10.1	J		0			NA		

ND=Not detected at the indicated concentration  
 NS=No standard

**Table 7: Tabulated Summary of Soil Sample Analytical Results**  
**Conductive Area (AOC-15)**  
**Camden Laboratories**  
**1667 Davis Street**  
**City of Camden, Camden County, New Jersey**  
**Project Number: 070235804**

Sample ID	New Jersey Class Soil Cleanup Criteria			AM-1			AM-1A			AM-2		
	Residential	Non-Residential	Impact to	J93728-1			J93728-2			J93728-3		
Sampling Date	Direct Contact	Direct Contact	Groundwater	6/20/2008			6/20/2008			6/20/2008		
Sample Depth				Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
<b>Metals Analysis (ppm)</b>												
Copper	600	600	NS	321		3.2	8.8		2.9	1150		2.9
Lead	400	600	NS	73.9		2.6	8.5		2.3	450		2.3
<b>General Chemistry (ppm)</b>												
Solids, Percent (%)	NS	NS	NS	79.8			87.6			88.5		

NS=No standard

**Table 7: Tabulated Summary of Soil Sample Analytical Results**  
**Conductive Area (AOC-15)**  
**Camden Laboratories**  
**1667 Davis Street**  
**City of Camden, Camden County, New Jersey**  
**Project Number: 070235804**

Sample ID	New Jersey Class Soil Cleanup Criteria			AM-2A			AM-3			AM-4		
Lab ID	Residential	Non-Residential	Impact to	J93728-4			J93728-5			J93728-6		
Sampling Date	Direct Contact	Direct Contact	Groundwater	6/20/2008			6/20/2008			6/20/2008		
Sample Depth				Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
<b>Metals Analysis (ppm)</b>												
Copper	600	600	NS	10		3.1	5.3		3	7.0		2.9
Lead	400	600	NS	7.2		2.5	7.2		2.4	8.6		2.3
<b>General Chemistry (ppm)</b>												
Solids, Percent (%)	NS	NS	NS	84.3			81.6			85.9		

NS=No standard



**Table 7: Tabulated Summary of Soil Sample Analytical Results**  
**Conductive Area (AOC-15)**  
**Camden Laboratories**  
**1667 Davis Street**  
**City of Camden, Camden County, New Jersey**  
**Project Number: 070235804**

Sample ID	New Jersey Class Soil Cleanup Criteria			AM-5			AM-6			AM-7		
	Residential	Non-Residential	Impact to	J93728-7			J93728-8			J93728-9		
Sampling Date	Direct Contact	Direct Contact	Groundwater	6/20/2008			6/20/2008			6/20/2008		
Sample Depth				Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
<b>Metals Analysis (ppm)</b>												
Copper	600	600	NS	8.6		3	105		2.8	132		2.9
Lead	400	600	NS	8.8		2.4	92.1		2.3	18.5		2.3
<b>General Chemistry (ppm)</b>												
Solids, Percent (%)	NS	NS	NS	87.2			88.4			89.2		

NS=No standard

**Table 7: Tabulated Summary of Soil Sample Analytical Results**  
**Conductive Area (AOC-15)**  
**Camden Laboratories**  
**1667 Davis Street**  
**City of Camden, Camden County, New Jersey**  
**Project Number: 070235804**

Sample ID	New Jersey Class Soil Cleanup Criteria			AM-7A			AM-8			AM-8A		
	Residential	Non-Residential	Impact to	J93728-10			J93728-11			J93728-12		
Lab ID												
Sampling Date	Direct Contact	Direct Contact	Groundwater	6/20/2008			6/20/2008			6/20/2008		
Sample Depth				Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
<b>Metals Analysis (ppm)</b>												
Copper	600	600	NS	8.1		3	50.1		3.2	5.6		3
Lead	400	600	NS	6.8		2.4	58.8		2.6	7.0		2.4
<b>General Chemistry (ppm)</b>												
Solids, Percent (%)	NS	NS	NS	86.6			80.7			87.3		

NS=No standard

**Table 7: Tabulated Summary of Soil Sample Analytical Results**  
**Conductive Area (AOC-15)**  
**Camden Laboratories**  
**1667 Davis Street**  
**City of Camden, Camden County, New Jersey**  
**Project Number: 070235804**

Sample ID	New Jersey Class Soil Cleanup Criteria			AM-12			AM-14			AM-15		
	Residential	Non-Residential	Impact to	J93728-13			J93728-14			J93728-15		
Sampling Date	Direct Contact	Direct Contact	Groundwater	6/20/2008			6/20/2008			6/20/2008		
Sample Depth				Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
<b>Metals Analysis (ppm)</b>												
Copper	600	600	NS	12.8		2.7	5.1		2.8	5.8		2.7
Lead	400	600	NS	41.8		2.2	9.3		2.2	9.8		2.1
<b>General Chemistry (ppm)</b>												
Solids, Percent (%)	NS	NS	NS	89.6			93.2			92.2		

NS=No standard

**Table 7: Tabulated Summary of Soil Sample Analytical Results**  
**Conductive Area (AOC-15)**  
**Camden Laboratories**  
**1667 Davis Street**  
**City of Camden, Camden County, New Jersey**  
**Project Number: 070235804**

Sample ID	New Jersey Class Soil Cleanup Criteria			AM-16		
	Residential	Non-Residential	Impact to	J93728-16		
Lab ID			Groundwater	6/20/2008		
Sampling Date	Direct Contact	Direct Contact		Result	Qual	RDL
Sample Depth						
<b>Metals Analysis (ppm)</b>						
Copper	600	600	NS	67.2		3.2
Lead	400	600	NS	53.9		2.5
<b>General Chemistry (ppm)</b>						
Solids, Percent (%)	NS	NS	NS	81.8		

NS=No standard

**Table 8: Tabulated Summary of Post-Excavation Soil Sample Analytical Results**  
**Conductive Area (AOC-15)**  
**Camden Laboratories**  
**1667 Davis Street**  
**City of Camden, Camden County, New Jersey**  
**Project Number: 070235804**

Sample ID	New Jersey Class Soil Cleanup Criteria			PE-1		PE-2		PE-3		PE-4		PE-5		PE-6	
	Residential	Non-Residential	Impact to	AC39795-001	AC39795-002	AC39795-003	AC39795-004	AC39795-005	AC39795-006						
Lab ID	Direct-Contact	Direct-Contact	Ground Water	9/8/2008	9/8/2008	9/8/2008	9/8/2008	9/8/2008	9/8/2008						
Sampling Date				12-18"	12-18"	12-18"	12-18"	12-18"	12-18"						
Sample Depth				Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
<b>Metals (mg/kg)</b>															
Copper	600	800	NA	9.9	5.4	72	5.7	28	5.7	42	5.2	41	5.8	240	5.7
Lead	400	800	NA	28	5.4	89	5.7	73	5.7	78	5.2	98	5.8	140	5.7
% Solids	NA	NA	NA	92		88		87		98		89		88	

RL=Reporting Limit

NA=Not Applicable

ND=Not Detected at the Indicated Concentration

**Table 8: Tabulated Summary of Post-Excavation Soil Sample Analytical Results**  
**Conductive Area (AOC-15)**  
**Camden Laboratories**  
**1667 Davis Street**  
**City of Camden, Camden County, New Jersey**  
**Project Number: 070235804**

Sample ID	New Jersey Class Soil Cleanup Criteria			PE-7		PE-8		PE-9		PE-10		PE-11		PE-12	
Lab ID	Residential	Non-Residential	Impact to	AC39795-007		AC39795-008		AC39795-009		AC39795-010		AC39828-001		AC39828-002	
Sampling Date	Direct-Contact	Direct-Contact	Ground Water	9/8/2008		9/8/2008		9/8/2008		9/8/2008		9/9/2008		9/9/2008	
Sample Depth				12-18"		12-18"		12-18"		12-18"		30-36"		30-36"	
				Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
<b>Metals (mg/kg)</b>															
Copper	800	800	NA	33	5.9	28	5.7	58	5.5	18	5.7	16	5.5	ND	5.8
Lead	400	600	NA	150	5.9	98	5.7	98	5.5	69	5.7	7.3	5.5	6.6	5.8
% Solids	NA	NA	NA	65		67		91		87		91		89	

RL=Reporting Limit

NA=Not Applicable

ND=Not Detected at the Indicated Concentration

**Table 8: Tabulated Summary of Post-Excavation Soil Sample Analytical Results**  
**Conductive Area (AOC-15)**  
**Camden Laboratories**  
**1667 Davis Street**  
**City of Camden, Camden County, New Jersey**  
**Project Number: 070235804**

Sample ID	New Jersey Class Soil Cleanup Criteria			PE-13		PE-14		PE-15	
Lab ID	Residential	Non-Residential	Impact to	AC39826-003		AC39826-004		AC39826-005	
Sampling Date	Direct-Contact	Direct-Contact	Ground Water	9/9/2008		9/9/2008		9/9/2008	
Sample Depth				30-36"		30-36"		30-36"	
				Result	RL	Result	RL	Result	RL
<b>Metals (mg/kg)</b>									
Copper	800	600	NA	8.3	5.9	9.8	5.6	6.3	5.8
Lead	400	600	NA	ND	5.9	13	5.6	14	5.8
% Solids	NA	NA	NA	85		89		89	

RL=Reporting Limit

NA=Not Applicable

ND=Not Detected at the Indicated Concentration

# Appendix A Photographs





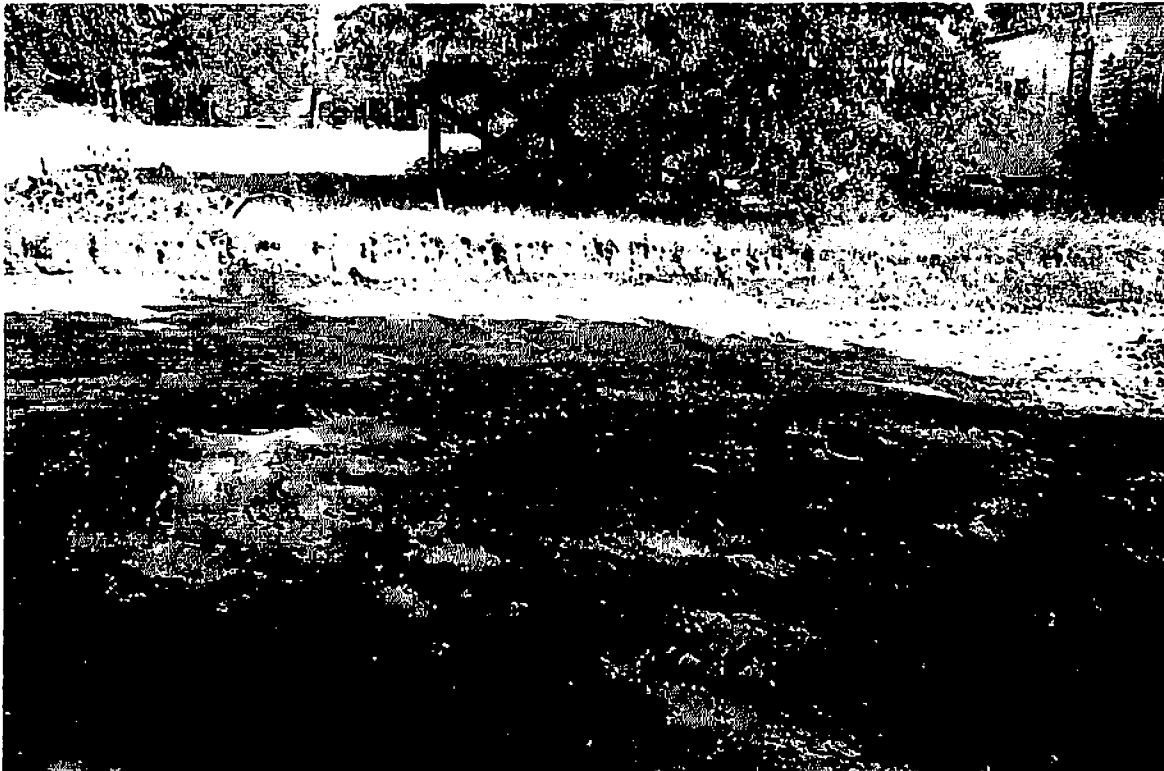
Ash-like material staged on and covered with plastic.



Clean fill material placed within the excavation area.



Vertical limit of excavation following removal of ash-like material.



Horizontal limit of excavation within the conductive area.

# Appendix B

## Health and Safety Plan

**Project # 070235804**  
**HEALTH AND SAFETY PLAN**

**FOR**

**Camden Laboratories**  
**1667 Davis Street**  
**City of Camden, Camden County**  
**Camden, New Jersey**

**CMX**  
**1101 Laurel Oak Road, Suite 160**  
**Voorhees, New Jersey 08043-7346**

**August 5, 2008**

# SITE HEALTH AND SAFETY PLAN

## TABLE OF CONTENTS

Section	Title
Section 1.0	Scope of Work and HASP Approval
Section 2.0	CMX Site Personnel and Certification Status
Section 3.0	Subcontractor Site Personnel and Certification Status
Section 4.0	Training and Briefing Topics
Section 5.0	Hazard Assessment
Section 6.0	Personal Protective Equipment
Section 7.0	Air Monitoring
Section 8.0	Site Control Measures
Section 9.0	Decontamination Plan
Section 10.0	Emergency Response/Contingency Plan
Section 11.0	Spill Containment Program
Section 12.0	Hazard Communication Program
Section 13.0	Health and Safety Plan Signoff

### Appendices (check all that apply)

<input checked="" type="checkbox"/> Appendix A: Biological Hazards	<input checked="" type="checkbox"/> Appendix B: Bloodborne Pathogens	<input checked="" type="checkbox"/> Appendix C: Heat and Cold Stress	<input checked="" type="checkbox"/> Appendix D: Heavy Equipment/Site Safety
<input checked="" type="checkbox"/> Appendix E: Noise	<input checked="" type="checkbox"/> Appendix F: PPE	<input checked="" type="checkbox"/> Appendix G: Respiratory Protection	<input checked="" type="checkbox"/> Appendix H: NIOSH Pocket Guide excerpts
<input checked="" type="checkbox"/> Appendix I: Excavation Areas	<input checked="" type="checkbox"/> Appendix J: Equipment Manuals	<input type="checkbox"/> Appendix	<input type="checkbox"/> Appendix
<input type="checkbox"/> Appendix	<input type="checkbox"/> Appendix	<input type="checkbox"/> Appendix	<input type="checkbox"/> Appendix
<input type="checkbox"/> Appendix	<input type="checkbox"/> Appendix	<input type="checkbox"/> Appendix	<input type="checkbox"/> Appendix
<input type="checkbox"/> Appendix	<input type="checkbox"/> Appendix	<input type="checkbox"/> Appendix	<input type="checkbox"/> Appendix

# SITE HEALTH AND SAFETY PLAN

## 1.0 SCOPE OF WORK AND HASP APPROVAL

Prepared By: Mary Ann Gilmore

Job Number: 070235804

Site Name: Camden Laboratories

Owner/Client: City of Camden

Work Location Address: 1667 Davis Street

Site History: The site was a former medical research facility. During a geophysical survey of the site, a conductive anomaly was identified. During soil boring investigation of the anomaly, copper and lead were identified in a subsurface ash layer in excess of NJDEP Soil Cleanup Criteria.

### Scope of Work:

- Excavation and off-site disposal of copper and lead impacted ash from the conductive anomaly;
- Collection of post-excavation soil samples from the area of excavated material; and
- Restoration of excavation area through backfilling.

### Review and Approval Documentation:

Project Manager Approval



Name (Print)

Signature

Date:

8/12/08

Corporate Health & Safety Manager Approval



Name (Print)

Signature

Date:

8/8/08

The Corporate Health and Safety Manager (CHSM) and Project Manager are responsible for developing this HASP and will be responsible for providing consultation on health and safety related issues that may be identified in the field. Any alterations and/or modifications to this HASP must be approved by the PM and CHSM.

The purpose of this HASP is to define the procedures, practices, and equipment to be used by CMX employees during this project to protect the health and safety of the project personnel. This HASP establishes minimum standards and levels of protection that must be used by project personnel while performing the various project-related tasks.

This HASP is based on safety standards as defined by the United States Environmental Protection Agency (USEPA), Occupational Safety and Health Administration (OSHA), National Institute for Occupational Safety and Health (NIOSH), health effects and standards for known contaminants, and procedures designed to account for the potential for exposure to unknown substances. Specifically, the following references have been consulted:

- 29 CFR Part 1910.120 (OSHA) and 40 CFR Part 311 (USEPA)
- NIOSH/OSHA/USCG/EPA Occupational Health and Safety Guidance Manual for Hazardous Waste Site Activities
- USEPA, Office of Emergency and Remedial Response, Standard Operating Safety Guides
- NIOSH/OSHA Pocket Guide to Chemical Hazards
- American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values

All contractors and subcontractors are required to develop their own health and safety related procedures and programs required for work. Health and safety requirements for authorized visitors concerning CMX activities are included in this HASP.

## 2.0 CMX SITE PERSONNEL AND CERTIFICATION STATUS

### CMX REPRESENTATIVES

Name/Title	Telephone # Cell #	Certification Status		
Mark Pietrucha/Project Manager	(856) 783-1900 ext. 3106 (732) 616-0556	<input checked="" type="checkbox"/> Medical Current <sup>1</sup>	<input checked="" type="checkbox"/> Fit Test Current <sup>2</sup>	<input checked="" type="checkbox"/> Training Current <sup>3</sup>
Mary Ann Gilmore / Environmental Scientist /SHSO	(856) 783-1900 ext. 3027 (732) 740-1223	<input checked="" type="checkbox"/> Medical Current <sup>1</sup>	<input checked="" type="checkbox"/> Fit Test Current <sup>2</sup>	<input checked="" type="checkbox"/> Training Current <sup>3</sup>
Anthony Damato/CHSM	(732) 577-9000 (732) 740-3993	<input checked="" type="checkbox"/> Medical Current <sup>1</sup>	<input checked="" type="checkbox"/> Fit Test Current <sup>2</sup>	<input checked="" type="checkbox"/> Training Current <sup>3</sup>
		<input type="checkbox"/> Medical Current <sup>1</sup>	<input type="checkbox"/> Fit Test Current <sup>2</sup>	<input type="checkbox"/> Training Current <sup>3</sup>
		<input type="checkbox"/> Medical Current <sup>1</sup>	<input type="checkbox"/> Fit Test Current <sup>2</sup>	<input type="checkbox"/> Training Current <sup>3</sup>
		<input type="checkbox"/> Medical Current <sup>1</sup>	<input type="checkbox"/> Fit Test Current <sup>2</sup>	<input type="checkbox"/> Training Current <sup>3</sup>
		<input type="checkbox"/> Medical Current <sup>1</sup>	<input type="checkbox"/> Fit Test Current <sup>2</sup>	<input type="checkbox"/> Training Current <sup>3</sup>
		<input type="checkbox"/> Medical Current <sup>1</sup>	<input type="checkbox"/> Fit Test Current <sup>2</sup>	<input type="checkbox"/> Training Current <sup>3</sup>

### Roles and Responsibilities:

Mary Ann Gilmore	Daily project management
Mary Ann Gilmore	Daily construction oversight/soil sampling/project log.
Mary Ann Gilmore	SHSO
Mark Pietrucha	Client management
Anthony Damato:	CMX Corporate Health and Safety

<sup>1</sup> In accordance with 29 CFR 1910.120, all personnel entering the exclusion or contamination reduction zones must be medically fit to work and approved to wear a respirator, if necessary. Proof of employee participation in a medical surveillance program is maintained by CMX.

<sup>2</sup> All project personnel who may be required to use respiratory protection will be required to participate in a respiratory protection program that covers respirator selection, fit testing, cleaning, maintenance, and storage of respirators. All project personnel entering any area requiring the use or potential use of a respirator must have a qualitative or quantitative fit test administered in accordance with 29 CFR 1910.34 within the last 12 months. Current employee fit test documentation is maintained by CMX.

<sup>3</sup> All project personnel required to perform work as defined by 29 CFR Part 1910.120 must have completed the initial 40-hour OSHA HAZWOPER training. If the 40-hour training was completed more than 12 months prior to project start-up, then documentation of OSHA HAZWOPER 8-hour refresher training is required. Per 29 CFR 1910.120(e)(4), individuals designated as site supervisors will have completed an additional 8 hours of specialized training. Proof of employee training is maintained by CMX.

### SITE SPECIFIC HEALTH AND SAFETY PERSONNEL

The Site Health and Safety Officer (SHSO) for activities to be conducted at the site is: **Mary Ann Gilmore**

The SHSO is responsible for the implementation of the HASP at the site. The SHSO's responsibilities include the following:

- Document that project personnel are aware of the provisions of this HASP including safe work practices and emergency procedures;
- Be present at the site when the project work is proceeding, unless the project task does not require his/her presence;
- Communicate to the Project Manager and/or CHSM on any changes or modifications required to this HASP;
- Document unsafe operations and immediately notify responsible individuals to stop work and/or take corrective action.

### 3.0 SUBCONTRACTOR SITE PERSONNEL AND CERTIFICATION STATUS

Name of Subcontractor: To be determined  
 Address of Subcontractor:

Activities to be conducted by subcontractor: Excavation and off-site disposal of copper and lead impacted material; Restoration of site through backfilling.

#### Subcontractor Personnel

Name/Title	Telephone # Cell #	Certification Status		
		<input type="checkbox"/> Medical Current <sup>2</sup>	<input type="checkbox"/> Fit Test Current <sup>3</sup>	<input type="checkbox"/> Training Current <sup>4</sup>
		<input type="checkbox"/> Medical Current <sup>2</sup>	<input type="checkbox"/> Fit Test Current <sup>3</sup>	<input type="checkbox"/> Training Current <sup>4</sup>
		<input type="checkbox"/> Medical Current <sup>2</sup>	<input type="checkbox"/> Fit Test Current <sup>3</sup>	<input type="checkbox"/> Training Current <sup>4</sup>
		<input type="checkbox"/> Medical Current <sup>2</sup>	<input type="checkbox"/> Fit Test Current <sup>3</sup>	<input type="checkbox"/> Training Current <sup>4</sup>
		<input type="checkbox"/> Medical Current <sup>2</sup>	<input type="checkbox"/> Fit Test Current <sup>3</sup>	<input type="checkbox"/> Training Current <sup>4</sup>

Name of Subcontractor:  
 Address of Subcontractor:

Activities to be conducted by subcontractor:

#### Subcontractor Personnel

Name/Title	Telephone # Cell #	Certification Status		
		<input type="checkbox"/> Medical Current <sup>2</sup>	<input type="checkbox"/> Fit Test Current <sup>3</sup>	<input type="checkbox"/> Training Current <sup>4</sup>
		<input type="checkbox"/> Medical Current <sup>2</sup>	<input type="checkbox"/> Fit Test Current <sup>3</sup>	<input type="checkbox"/> Training Current <sup>4</sup>
		<input type="checkbox"/> Medical Current <sup>2</sup>	<input type="checkbox"/> Fit Test Current <sup>3</sup>	<input type="checkbox"/> Training Current <sup>4</sup>
		<input type="checkbox"/> Medical Current <sup>2</sup>	<input type="checkbox"/> Fit Test Current <sup>3</sup>	<input type="checkbox"/> Training Current <sup>4</sup>
		<input type="checkbox"/> Medical Current <sup>2</sup>	<input type="checkbox"/> Fit Test Current <sup>3</sup>	<input type="checkbox"/> Training Current <sup>4</sup>
		<input type="checkbox"/> Medical Current <sup>2</sup>	<input type="checkbox"/> Fit Test Current <sup>3</sup>	<input type="checkbox"/> Training Current <sup>4</sup>
		<input type="checkbox"/> Medical Current <sup>2</sup>	<input type="checkbox"/> Fit Test Current <sup>3</sup>	<input type="checkbox"/> Training Current <sup>4</sup>

<sup>1</sup> All contractors and subcontractors are required to develop their own health and safety related procedures and programs required for work.

<sup>2</sup> In accordance with 29 CFR 1910.120, all personnel entering the exclusion or contamination reduction zones must be medically fit to work and approved to wear a respirator, if necessary. Proof of employee participation in a medical surveillance program and approval to wear respiratory protection must be provided upon request of CMX.

<sup>3</sup> Current fit test documentation for contractor and subcontractor personnel must be provided upon request of CMX.

<sup>4</sup> All contractor and subcontractor personnel, and visitors, entering the exclusion or contamination reduction zone must have certifications of completion of training in accordance with OSHA 29 CFR 1910 and 1926. Certifications must include, as applicable, OSHA 40-hour HAZWOPER initial training, refresher training and supervisor training per 29 CFR 1910.120(e)(4). Proof of training must be provided upon request of CMX.



## 4.0 TRAINING AND BRIEFING TOPICS

All project personnel, including subcontractors and visitors, will be informed of the foreseeable project-specific health and safety hazards. This will be accomplished by reviewing this HASP and participating in a start-up meeting and any scheduled safety meetings. Items to be covered will include:

- Review of potential health and safety hazards associated with the various tasks that will be performed during this project.
- The correct use of the PPE required for this project.
- Decontamination procedures and personal hygiene.
- Emergency Procedures.

Health and safety meetings conducted prior to the start of each day's activities will include the following (check all that apply):

<input checked="" type="checkbox"/> Training Requirements (Section 4.0)	<input checked="" type="checkbox"/> MSDS's
<input checked="" type="checkbox"/> Physical/Chemical/Environmental Hazards (Section 5.0)	<input checked="" type="checkbox"/> Site Characterization
<input checked="" type="checkbox"/> Personnel Protective Equipment (Section 6.0)	<input checked="" type="checkbox"/> Overhead and Underground Utilities
<input checked="" type="checkbox"/> Air Monitoring (Section 7.0)	<input checked="" type="checkbox"/> Heavy Machinery
<input checked="" type="checkbox"/> Site Control (Section 8.0)	<input type="checkbox"/> Working at Elevations (ladders, scaffolds, roofs, etc.)
<input checked="" type="checkbox"/> Decontamination (Section 9.0)	<input checked="" type="checkbox"/> Traffic Control
<input checked="" type="checkbox"/> Emergency Response (Section 10.0)	<input type="checkbox"/> Handling Drums and Containers
<input checked="" type="checkbox"/> Spill Containment (Section 11.0)	<input type="checkbox"/> Confined Space
<input checked="" type="checkbox"/> Heat and Cold Stress	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> HASP Appendices	

## 5.0 HAZARD ASSESSMENT

Has the site been evaluated to identify site specific hazards and to determine appropriate safety and health control procedures:

Yes       No

If no, why?

### Activities Covered Under This HASP:

Task No.	Task	Description	Schedule
1.0	Excavation of copper and lead impacted material	Location of copper and lead impacted ash material	August 18 through 20, 2008
2.0	Post-excavation soil sampling	Collection of 15 post-excavation soil samples	August 18 through 20, 2008
3.0	Site restoration	Backfilling in excavation area	August 21 and 22, 2008

### Types of Hazards (see Hazard Evaluation Form for additional information)

Physio-chemical	Carcinogen	Radiation	Biological	Physical	Environmental
<input type="checkbox"/> Organic Vapors	<input type="checkbox"/> Mutagen	<input checked="" type="checkbox"/> Sunlight	<input checked="" type="checkbox"/> Poison Ivy	<input checked="" type="checkbox"/> Equipment	<input checked="" type="checkbox"/> Weather
<input type="checkbox"/> Flammable	<input type="checkbox"/> Teratogen	<input type="checkbox"/> Non-Ionizing	<input checked="" type="checkbox"/> Ticks	<input type="checkbox"/> Electricity	<input checked="" type="checkbox"/> Heat Stress
<input type="checkbox"/> Explosive	<input type="checkbox"/> Other:	<input type="checkbox"/> Ultraviolet	<input checked="" type="checkbox"/> Mosquitoes	<input checked="" type="checkbox"/> Noise	<input type="checkbox"/> Cold Stress
<input type="checkbox"/> Corrosive		<input type="checkbox"/> Infrared	<input checked="" type="checkbox"/> Rodents	<input checked="" type="checkbox"/> Slips, Trips	<input type="checkbox"/> Altitude
<input type="checkbox"/> Reactive		<input type="checkbox"/> Microwave	<input type="checkbox"/> Other:	<input type="checkbox"/> Elevated Surfaces (Falls)	<input type="checkbox"/> Other:
<input type="checkbox"/> Oxygen Rich		<input type="checkbox"/> Radio		<input type="checkbox"/> Confined Space	
<input type="checkbox"/> Oxygen Deficient		<input type="checkbox"/> Laser		<input type="checkbox"/> Water	
<input checked="" type="checkbox"/> Other: lead and copper		<input type="checkbox"/> Ionizing <sup>1</sup>		<input type="checkbox"/> Other:	
		<input type="checkbox"/> Alpha			
		<input type="checkbox"/> Beta			
		<input type="checkbox"/> Gamma			
		<input type="checkbox"/> Other:			

### Potential Route(s) of Exposure:

Inhalation       Ingestion       Contact (dermal)       Other:

<sup>1</sup> Ionizing radiation presents a potentially serious health and environmental hazard that requires immediate consultation with Supervisor, PM and/or CHSM.

The site SHSO will conduct periodic inspections during the project to identify other types of hazards. The SHSO, in consultation with the PM and CHSM, will:

- Notify project personnel of findings;
- Ensure that measures are implemented to minimize or remove the hazard(s);
- Amend safety equipment and procedures, as necessary.

## HAZARD EVALUATION FORM - CHEMICAL HAZARDS

Material Safety Data Sheets (MSDS) are included with this HASP for products with hazardous ingredients that are brought on site such as decontamination chemicals, calibration gases, welding/cutting gases, fuels and oils, etc.

The following information for known site contaminants is taken from sources such as the NIOSH Pocket Guide.

Task	Chemical Name	Concentration/Effects
1.0/2.0/3.0	Copper, Lead	See NIOSH Pocket Guide excerpt

**OVERALL HAZARD:**       Serious       Moderate       Low       Unknown

**Comment:**

*Serious* - workers at source of chemicals; overexposure a concern via inhalation/contact/absorption; concentration(s) exceed regulatory standards.  
*Moderate* - workers may or may not be at source of chemicals; overexposure a concern via inhalation or contact/absorption; concentration(s) may or may not exceed regulatory standards.  
*Low* - workers may or may not be at source of chemicals; overexposure not expected to be a concern via inhalation or contact/absorption; concentration(s) do not exceed regulatory standards.  
*Unknown* - requires hazard to be considered as *Serious* unless new information allows for reduction in overall hazard rating.

**HAZARD EVALUATION FORM - RADIATION (NON-IONIZING ONLY)**

Task	Type of Non-ionizing Radiation	Source Onsite	TLV/PEL	Wavelength Range	Control Measures	Monitoring Instrument
All	Ultraviolet	Sunlight	None	Not applicable	Sunscreen/Protective Clothing	None

**OVERALL HAZARD:**     Serious     Moderate     Low     Unknown

**Comment:** Hazard is low provided Control Measures are implemented.

Ultraviolet (solar, arcs, fluorescent and incandescent sources)  
*Serious* - workers in latitudes within 40 degrees of equator; exacerbation of effects due to photosensitizing chemicals present on site; medical prescriptions may increase sensitivity.  
*Moderate* - workers in latitudes beyond 40 degrees of equator; extended period outdoors (typically greater than 4 hours).  
*Low* - work in cooler weather (long sleeves); personal protection via head cover; use of sunscreen; etc.  
*Unknown* - requires hazard to be considered as *Serious* unless new information allows for reduction in overall hazard rating.

Infrared (visible and near infrared; 385 - 3000 nm wavelength)  
*Serious* - sources present that include mercury lamps, welding and cutting tools, and heat sources (furnaces, open flames, etc.)  
*Moderate* - sources that include highly reflected sunlight from water, snow, metallic surfaces, etc.  
*Low* - sources generally include only sunlight with protection via sunglasses.  
*Unknown* - requires hazard to be considered as *Serious* unless new information allows for reduction in overall hazard rating.

Radiofrequency and Microwave (30 kHz - 300 GHz)  
*Serious* - sources present that include radio and television transmitters; industrial/medical radiofrequency and microwave sources; workers with pacemakers.  
*Moderate* - work occurs at a distance from antennas, transmitters, and other sources that would otherwise be off-limits and without direct exposure to emissions.  
*Low* - work at safe distance from sources.  
*Unknown* - requires hazard to be considered as *Serious* unless new information allows for reduction in overall hazard rating.

Laser (30 kHz - 300 GHz)  
*Serious* - sources include Class III and IV lasers that can cause eye and skin damage and potential fire hazard.  
*Moderate* - sources include Class II lasers that rely on "human aversion" to bright light.  
*Low* - sources include Class I lasers and "supermarket" scanners.  
*Unknown* - requires hazard to be considered as *Serious* unless new information allows for reduction in overall hazard rating.

## HAZARD EVALUATION FORM - BIOLOGICAL HAZARDS

**POISONOUS PLANTS**

Location/Task: Field Tasks 1.0/2.0/3.0

Type(s) of plant (if known): Poison Ivy

Route(s) of exposure:

- Inhalation
- Ingestion
- Contact
- Direct Penetration

Overall Hazard:

- Serious
- Moderate
- Low
- Unknown

Comment: Wear proper clothing, wash hands after contact with suspect vegetation.

**INSECTS**

Location/Task: Field Tasks 1.0/2.0/3.0

Type(s) of insect (if known): Ticks

Route(s) of exposure:

- Inhalation
- Ingestion
- Contact
- Direct Penetration

Overall Hazard:

- Serious
- Moderate
- Low
- Unknown

Comment: Wear proper clothing, apply repellent as needed. See Appendices.

**ANIMALS**

Location/Task: Field Tasks 1.0/2.0/3.0

Type(s) of animal (if known): Rodents, snakes

Route(s) of exposure:

- Inhalation
- Ingestion
- Contact
- Direct Penetration

Overall Hazard:

- Serious
- Moderate
- Low
- Unknown

Comment: Avoid animal feces and animals that don't shy away from humans.

*Serious* - work environment: overgrown vegetation, abandoned/dilapidated structure(s), unpopulated area, remote location, or similar.  
*Moderate* - work environment: overgrown vegetation, abandoned structure(s), unpopulated area, or similar.  
*Low* - work environment: low growing vegetation, occupied structure(s), minimal seasonal concerns, or similar.  
*Unknown* - requires hazard to be considered as *Serious* unless new information allows for reduction in overall hazard rating.

# HAZARD EVALUATION FORM – PHYSICAL AND ENVIRONMENTAL HAZARDS.

Task	Physical or Environmental Hazard	Hazard Prevention
1.0/2.0/3.0	Exposure to airborne contaminants released during intrusive activities.	Monitor per Section 7.0; wear required PPE.
1.0/2.0/3.0	Moving equipment and hand tools.	Wear required PPE; follow safe work practices.
1.0/2.0/3.0	Heat stress.	Monitor co-worker, drink fluids (heat stress), and wear appropriate clothing.
1.0/2.0/3.0	Noise.	Wear proper hearing protection.
1.0/2.0/3.0	Slip/trip/fall hazards.	Awareness of surroundings and work areas; fall protection as needed.
1.0/2.0/3.0	Contact with contaminated media.	Wear required PPE, follow proper decontamination steps.

## 6.0 PERSONNEL PROTECTIVE EQUIPMENT

### Engineering and Administrative Controls

#### Engineering Controls:

Excavation area will be backfilled. All excavated material deemed to be impacted will be containerized for off-site disposal.

#### Administrative Controls:

CMX personnel must evacuate area upon determination of possible overexposure to hazardous chemicals.

### Levels of Protection

Engineering and/or administrative controls are preferred to control potential employee exposure to health and/or safety risks. When employee protection requires the use of PPE, the level of protection selected will be based on the following:

- Type and measured or expected concentration of the chemical substance in the ambient atmosphere and its toxicity.
- Potential for exposure to substances in air, splashing of liquids, or other direct contact with hazardous materials due to the work being performed.
- Knowledge of chemicals onsite along with the properties such as toxicity, route of exposure, and contaminant matrix.
- Monitoring results, as described in Section 7.0 (Air Monitoring and Personal Air Sampling) of this HASP.

In situations where the type of chemical, concentration, and potential for contact are not known, the level of protection must be selected based on professional judgment until the hazards can be better defined. The specific levels of protection and necessary components for each have been divided into four categories according to the degrees of protection afforded:

**Level A:** Should be worn when the highest level of respiratory, skin, and eye protection is required.

**Level B:** Should be worn when the highest level of respiratory protection is needed, but a lesser level of skin protection is needed.

**Level C:** Should be worn when the criteria for using air-purifying respirators are met, and a lesser level of skin protection is needed.

**Level D:** Should be worn when minimal protection against chemical hazards is needed in areas with no respiratory hazards.

Task	Level of Protection			
1.0/2.0/3.0	<input type="checkbox"/> Level A	<input type="checkbox"/> Level B	<input checked="" type="checkbox"/> Level C**	<input checked="" type="checkbox"/> Level D
	<input type="checkbox"/> Level A	<input type="checkbox"/> Level B	<input type="checkbox"/> Level C	<input type="checkbox"/> Level D
	<input type="checkbox"/> Level A	<input type="checkbox"/> Level B	<input type="checkbox"/> Level C	<input type="checkbox"/> Level D

Level A	Level B	Level C	Level D
<input type="checkbox"/> NIOSH and/or Mine Safety Health Association (MSHA) approved pressure demand full face self contained breathing apparatus (SCBA), or positive pressure demand supplied air respirator (SAR) with escape SCBA.  <input type="checkbox"/> Fully encapsulating chemical resistant suit.  <input type="checkbox"/> Chemical resistant inner gloves.  <input type="checkbox"/> Chemical resistant boots with steel toe and shank (worn over or under suit boot).  <input type="checkbox"/> Disposable gloves and boot covers (worn over fully encapsulating suit).  <input type="checkbox"/> Hard Hat (under suit).  <input type="checkbox"/> Two-way radio (optional).  <input type="checkbox"/> Long cotton underwear (optional).  <input type="checkbox"/> Other (Describe):	<input type="checkbox"/> NIOSH and/or MSHA approved pressure demand full face self-contained breathing apparatus (SCBA), or positive pressure demand SAR with escape SCBA.  <input type="checkbox"/> Hooded chemical resistant clothing.  <input type="checkbox"/> Chemical resistant outer and inner gloves.  <input type="checkbox"/> Chemical resistant outer boots.  <input type="checkbox"/> Outer boots with steel toe and shank.  <input type="checkbox"/> Boot covers (outer), chemical-resistant (disposable).  <input type="checkbox"/> Hard Hat.  <input type="checkbox"/> Two-way radio (optional).  <input type="checkbox"/> Long cotton underwear (optional).  <input type="checkbox"/> Other (Describe):	<input checked="" type="checkbox"/> NIOSH and/or MSHA approved full face or half face air purifying respirator equipped with:  <input checked="" type="checkbox"/> Minimum P100/OV/CL/HC/SD/AM/MA/CD/HS/FM/HF cartridges.  <input type="checkbox"/> Chemical resistant clothing (such as coveralls, two piece chemical splash suit, disposable chemical resistant coveralls).  <input type="checkbox"/> Chemical resistant outer and inner gloves.  <input type="checkbox"/> Chemical resistant outer boots.  <input type="checkbox"/> Outer boots with steel toe and shank.  <input type="checkbox"/> Boot covers (outer), chemical-resistant (disposable).  <input type="checkbox"/> Hard Hat.  <input type="checkbox"/> Two-way radio (optional).  <input type="checkbox"/> Long cotton underwear (optional).  <input type="checkbox"/> Other (Describe):	<input checked="" type="checkbox"/> Hard Hat.  <input checked="" type="checkbox"/> Disposable coverall  <input type="checkbox"/> Non-disposable coverall.  <input checked="" type="checkbox"/> Safety glasses.  <input type="checkbox"/> Safety goggles.  <input checked="" type="checkbox"/> Work boots.  <input type="checkbox"/> Work boots - chemical resistant.  <input type="checkbox"/> Safety boots/shoes with steel toe and shank, and chemical resistant.  <input checked="" type="checkbox"/> Hearing protection.  <input checked="" type="checkbox"/> Inner gloves (latex or nitrile).  <input checked="" type="checkbox"/> Outer Gloves - work gloves.  <input type="checkbox"/> Boot Covers.  <input checked="" type="checkbox"/> Reflective vest.  <input type="checkbox"/> Fall Protection.  <input type="checkbox"/> Other (Describe):

If Level A or Level B conditions are encountered, all personnel will be **evacuated** from the area and the situation will be reviewed with the PM/CHSM.

Level D protective components that may not be listed under Level C, such as reflective vest and hearing protection, must be worn as necessary when upgrading to Level C.

\*\* Level C respiratory protection worn by trained personnel when responding within contamination zone as needed to secure area for evacuation or other emergency response actions. Situation will be reviewed with the CHSM/PM.

## 6.0 PERSONNEL PROTECTIVE EQUIPMENT

### Engineering and Administrative Controls

#### Engineering Controls:

Excavation area will be backfilled. All excavated material deemed to be impacted will be containerized for off-site disposal.

#### Administrative Controls:

CMX personnel must evacuate area upon determination of possible overexposure to hazardous chemicals.

### Levels of Protection

Engineering and/or administrative controls are preferred to control potential employee exposure to health and/or safety risks. When employee protection requires the use of PPE, the level of protection selected will be based on the following:

- Type and measured or expected concentration of the chemical substance in the ambient atmosphere and its toxicity.
- Potential for exposure to substances in air, splashing of liquids, or other direct contact with hazardous materials due to the work being performed.
- Knowledge of chemicals onsite along with the properties such as toxicity, route of exposure, and contaminant matrix.
- Monitoring results, as described in Section 7.0 (Air Monitoring and Personal Air Sampling) of this HASP.

In situations where the type of chemical, concentration, and potential for contact are not known, the level of protection must be selected based on professional judgment until the hazards can be better defined. The specific levels of protection and necessary components for each have been divided into four categories according to the degrees of protection afforded:

**Level A:** Should be worn when the highest level of respiratory, skin, and eye protection is required.

**Level B:** Should be worn when the highest level of respiratory protection is needed, but a lesser level of skin protection is needed.

**Level C:** Should be worn when the criteria for using air-purifying respirators are met, and a lesser level of skin protection is needed.

**Level D:** Should be worn when minimal protection against chemical hazards is needed in areas with no respiratory hazards.

Task	Level of Protection			
1.0/2.0/3.0	<input type="checkbox"/> Level A	<input type="checkbox"/> Level B	<input checked="" type="checkbox"/> Level C**	<input checked="" type="checkbox"/> Level D
	<input type="checkbox"/> Level A	<input type="checkbox"/> Level B	<input type="checkbox"/> Level C	<input type="checkbox"/> Level D
	<input type="checkbox"/> Level A	<input type="checkbox"/> Level B	<input type="checkbox"/> Level C	<input type="checkbox"/> Level D

Level A	Level B	Level C	Level D
<input type="checkbox"/> NIOSH and/or Mine Safety Health Association (MSHA) approved pressure demand full face self contained breathing apparatus (SCBA), or positive pressure demand supplied air respirator (SAR) with escape SCBA.  <input type="checkbox"/> Fully encapsulating chemical resistant suit.  <input type="checkbox"/> Chemical resistant inner gloves.  <input type="checkbox"/> Chemical resistant boots with steel toe and shank (worn over or under suit boot).  <input type="checkbox"/> Disposable gloves and boot covers (worn over fully encapsulating suit).  <input type="checkbox"/> Hard Hat (under suit).  <input type="checkbox"/> Two-way radio (optional).  <input type="checkbox"/> Long cotton underwear (optional).  <input type="checkbox"/> Other (Describe):	<input type="checkbox"/> NIOSH and/or MSHA approved pressure demand full face self-contained breathing apparatus (SCBA), or positive pressure demand SAR with escape SCBA.  <input type="checkbox"/> Hooded chemical resistant clothing.  <input type="checkbox"/> Chemical resistant outer and inner gloves.  <input type="checkbox"/> Chemical resistant outer boots.  <input type="checkbox"/> Outer boots with steel toe and shank.  <input type="checkbox"/> Boot covers (outer), chemical-resistant (disposable).  <input type="checkbox"/> Hard Hat.  <input type="checkbox"/> Two-way radio (optional).  <input type="checkbox"/> Long cotton underwear (optional).  <input type="checkbox"/> Other (Describe):	<input checked="" type="checkbox"/> NIOSH and/or MSHA approved full face or half face air purifying respirator equipped with:  <input checked="" type="checkbox"/> Minimum P100/OV/CL/HC/SD/AM/MA/CD/HS/FM/HF cartridges.  <input type="checkbox"/> Chemical resistant clothing (such as coveralls, two piece chemical splash suit, disposable chemical resistant coveralls).  <input type="checkbox"/> Chemical resistant outer and inner gloves.  <input type="checkbox"/> Chemical resistant outer boots.  <input type="checkbox"/> Outer boots with steel toe and shank.  <input type="checkbox"/> Boot covers (outer), chemical-resistant (disposable).  <input type="checkbox"/> Hard Hat.  <input type="checkbox"/> Two-way radio (optional).  <input type="checkbox"/> Long cotton underwear (optional).  <input type="checkbox"/> Other (Describe):	<input checked="" type="checkbox"/> Hard Hat.  <input checked="" type="checkbox"/> Disposable coverall  <input type="checkbox"/> Non-disposable coverall.  <input checked="" type="checkbox"/> Safety glasses.  <input type="checkbox"/> Safety goggles.  <input checked="" type="checkbox"/> Work boots.  <input type="checkbox"/> Work boots - chemical resistant.  <input type="checkbox"/> Safety boots/shoes with steel toe and shank, and chemical resistant.  <input checked="" type="checkbox"/> Hearing protection.  <input checked="" type="checkbox"/> Inner gloves (latex or nitrile).  <input checked="" type="checkbox"/> Outer Gloves - work gloves.  <input type="checkbox"/> Boot Covers.  <input checked="" type="checkbox"/> Reflective vest.  <input type="checkbox"/> Fall Protection.  <input type="checkbox"/> Other (Describe):

If Level A or Level B conditions are encountered, all personnel will be **evacuated** from the area and the situation will be reviewed with the PM/CHSM.

Level D protective components that may not be listed under Level C, such as reflective vest and hearing protection, must be worn as necessary when upgrading to Level C.

\*\* Level C respiratory protection worn by trained personnel when responding within contamination zone as needed to secure area for evacuation or other emergency response actions. Situation will be reviewed with the CHSM/PM.



## 6.0 PERSONNEL PROTECTIVE EQUIPMENT (CONTINUED)

### Reassessment of Protection Program

The level of protection provided by the PPE selected may be upgraded or downgraded by the SHSO based on changes in site conditions and/or findings of the monitoring program and investigation. If a significant change in the scope-of-work occurs, the hazards will be reassessed. Some changes that result in the need for reassessment include:

- Commencement of a new phase of work.
- Change in tasks during a work phase.
- Changes in season/weather.
- When temperature extremes, medical considerations, or other compromise the use of the PPE.
- When contaminants other than those previously identified are encountered.
- Changes in ambient levels of contaminants, as determined by onsite monitoring.
- Changes in scope-of-work that affects the degree of, or potential for, contact with contaminated materials.

### Work Duration

Before workers begin activities in their PPE ensembles, the anticipated duration of work should be established. Several factors limiting the duration of work include:

- Air supply consumption (SCBA use).
- Permeation and penetration rates of chemicals through PPE.
- Ambient temperature and weather conditions (such as heat stress and cold stress).
- Ability of personnel to safely work in PPE.

## 7.0 AIR MONITORING

The location, frequency and type of monitoring for the identified project tasks are described in this section. Monitoring will be conducted for the following purposes:

- Identification of work areas and activities that require the use of engineering/work practice controls, or the use of PPE.
- Provide data to confirm that levels of PPE selected are adequate for the protection of workers.
- Provide data to document the effectiveness of site controls.
- Provide data to determine the need to implement emergency control procedures and contingency plans.

The site SHSO will be responsible for implementing the air-monitoring program and making sure sufficient air monitoring equipment is available at all times. An individual trained in the operation, calibration, care and limitations of the instrument will use air monitoring and air sampling equipment. Instrument serial numbers, calibration, readings, and sample locations, times and dates will be documented for the project.

### Direct Reading Air Monitoring Program

Instrument	Task No.(s)	Number Required	Check Upon Receipt	Comment	Initials
<input type="checkbox"/> Photoionization Detector (PID) <input type="checkbox"/> MiniRAE 2000 (10.6 eV lamp) <input type="checkbox"/> MiniRAE 2000 (11.7 eV lamp) <input type="checkbox"/> Photovac 2020 <input type="checkbox"/> Other			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
<input checked="" type="checkbox"/> Aerosol Monitor			<input type="checkbox"/>		
<input checked="" type="checkbox"/> MIE pDR - 1000 <input type="checkbox"/> MIE DataRAM - 4 <input type="checkbox"/> Other		1 + backup	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
<input type="checkbox"/> FID			<input type="checkbox"/>		
<input type="checkbox"/> Foxboro TVA 1000			<input type="checkbox"/>		
<input type="checkbox"/> 4 - Gas Meter (O <sub>2</sub> /LEL/and two Toxic* sensors)			<input type="checkbox"/>		
<input type="checkbox"/> MultiRAE PLUS PGM-50			<input type="checkbox"/>		
<input type="checkbox"/> QRAE PLUS PGM-2000 <input type="checkbox"/> Detector Tubes, specify below <input type="checkbox"/> Benzene <input type="checkbox"/> Chlorine <input type="checkbox"/> Ethyl benzene <input type="checkbox"/> Sulfur dioxide <input type="checkbox"/> Toluene <input type="checkbox"/> Xylene <input type="checkbox"/> Other			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		

\* Toxic sensors are typically hydrogen sulfide (H<sub>2</sub>S) and carbon monoxide (CO).

Other available sensors include ammonia (NH<sub>3</sub>), chlorine (Cl<sub>2</sub>), chlorine dioxide (ClO<sub>2</sub>), hydrogen cyanide (HCN), nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>), phosphine (PH<sub>3</sub>), and sulfur dioxide (SO<sub>2</sub>).

## 7.0 AIR MONITORING (CONTINUED)

### Direct Reading Air Monitoring Program

**Air Monitoring Instrument**      Photoionization Detector (PID)

**Air Monitoring Frequency:**  
 Periodically                       Continuously                       Other:

**Air Monitoring Locations:**  
 Upwind of site activities                       Downwind of site activities                       Other:

**Key site locations:**  
 Decontamination area                       Staging area                       Boring  
 Excavation area                       Exclusion zone or Hot zone                       Drums  
 Storage tanks                       Drums                       Other (specify):

**Air Monitoring Instrument**      4-Gas Meter

**Air Monitoring Frequency:**  
 Periodically                       Continuously                       Other:

**Air Monitoring Locations:**  
 Upwind of site activities                       Downwind of site activities                       Other:

**Key site locations:**  
 Decontamination area                       Staging area                       Boring  
 Excavation area                       Exclusion zone or Hot zone                       Drums  
 Storage tanks                       Drums                       Other (specify):

**Air Monitoring Instrument:**      MIE pDR - 1000

**Air Monitoring Frequency:**  
 Periodically                       Continuously                       Other:

**Air Monitoring Locations:**  
 Upwind of site activities                       Downwind of site activities                       Other: At work zone

**Key site locations:**  
 Decontamination area                       Staging area                       Boring  
 Excavation area                       Exclusion zone or Hot zone                       Drums  
 Storage tanks                       Drums                       Other (specify):

**Air Monitoring Instrument:**

**Air Monitoring Frequency:**  
 Periodically                       Continuously                       Other:

**Air Monitoring Locations:**  
 Upwind of site activities                       Downwind of site activities                       Other:

**Key site locations:**  
 Decontamination area                       Staging area                       Boring  
 Excavation area                       Exclusion zone or Hot zone                       Drums  
 Storage tanks                       Drums                       Other (specify):

**Air Monitoring Instrument:**

**Air Monitoring Frequency:**  
 Periodically                       Continuously                       Other:

**Air Monitoring Locations:**  
 Upwind of site activities                       Downwind of site activities                       Other:

**Key site locations:**  
 Decontamination area                       Staging area                       Boring  
 Excavation area                       Exclusion zone or Hot zone                       Drums  
 Storage tanks                       Drums                       Other (specify):

## 7.0 AIR MONITORING (CONTINUED)

### Site Air Monitoring and Sampling Program

	Tasks	Action Level		Action
		Ambient Air Concentration	Confined Space Concentration	
<input type="checkbox"/> Explosive Atmosphere	Not applicable	< 10% LEL		Continue on-site monitoring.
		10%-25% LEL		Continuous on-site monitoring required. Work with extreme caution. Evaluate/remove any ignition sources.
		>25% LEL		Explosion hazard. Stop work. Evacuate area immediately. Ventilate area if possible.
<input type="checkbox"/> Oxygen Deficiency or Enrichment	Not applicable	Ambient Air Concentration	Confined Space Concentration	
		<19.5% O <sub>2</sub>		Stop work. Evacuate area immediately. Ventilate area if possible. Entry with SCBA only.
		19.5% to 23.5% O <sub>2</sub>		Continue on-site monitoring.
		>23.5% O <sub>2</sub>		Stop work. Evacuate area if necessary. Explosion hazard. Evaluate/remove any ignition sources. Ventilate area if possible.
<input type="checkbox"/> Organic Vapors and Gases	Not applicable	Ambient Air Concentration	Confined Space Concentration	
Action based on benzene		1 - 5 ppm above background in breathing zone and sustained for greater than 1 minute.		Stop work and implement measures to control OV emissions. As needed, wear minimum ½ face negative pressure respirator with P100/OV cartridges.
Action based on benzene		5 ppm - 25 ppm above background in breathing zone and sustained for greater than 1 minute.		Stop work and evacuate non-essential personnel. Wear minimum ½ face negative pressure respirator with P100/OV cartridges. (If not abated, evacuate remaining personnel after 10 minutes). Contact PM and CHSM.
Action based on benzene		>25 ppm above background in breathing zone and sustained for greater than 1 minute.		Stop work and evacuate area immediately. Contact Project Manager and CHSM.
<input checked="" type="checkbox"/> Particulate	1.0/2.0/3.0	Ambient Air Concentration	Confined Space Concentration	
		>0.05 mg/m <sup>3</sup> sustained above background.		Stop work. Implement measures to reduce dispersion of dust particles. Wear minimum half face, negative pressure respirator with PF 10 es needed.

- Consult NIOSH Pocket Guide for air concentration/toxicity data. General action level, if not defined by standard or regulation, is ½ of current and most stringent PEL/REL/TLV.
- PID readings may be adjusted for instrument response factors (see Manufacturer's Instructions).

## 8.0 SITE CONTROL MEASURES

### Buddy System

Most activities in contaminated areas should be conducted with a co-worker who is able to provide his/her partner with assistance; observe his/her partner for signs of chemical or heat exposure; periodically check the integrity of his/her partners PPE; provide notification if emergency help is needed.

### Site Communication Plan

Emergency alert communications will consist of verbal and telephone communications. If a telephone is not available on-site and in close proximity to the work area, CMX will have a mobile cellular phone on site for use in the event of a medical, fire, or other environmental emergency. Any necessary pass codes for phone use will be provided to site personnel for emergency use.

The site SHSO or his/her designee shall implement emergency communications. A list of emergency contacts is included in this HASP.

The following additional communications systems will be available during activities at the site:

Hand Signals/Verbal     Two-way radios     Cell Phone     Whistle     Air horn     Other:

The following hand signals will be used on site:

<u>Signal</u>	<u>Definition</u>
Hands clutching throat	Out of air / cannot breath
Hands on top of head	Need assistance
Thumbs up	OK / I am all right / I understand
Thumbs down	No / negative
Arms waving upright	Send backup support
Grip partners wrist	Exit area immediately

### Work Zone Definition

The three general work zones that may be established at a site are the Exclusion Zone, Contamination Reduction Zone, and Support Zone.

The three zones are defined below:

1. The Exclusion Zone, or EZ, is defined as the area that is considered to be contaminated, potentially contaminated, or that could become contaminated. For example, exclusion zones are established around test pit excavations, ground water monitoring wells, test borings and other locations. All project personnel who work in the EZ are required to use the appropriate level of PPE for the task, as determined by the HASP and SHSO. Exclusion zones are typically separated from the project area with fencing, caution tape, and/or traffic cones. For drilling operations, a default radius of 30 feet will be used for the exclusion zone. For other operations, a radius equivalent to the reach of the equipment or 10 feet, whichever is greater, will be used.
2. The Contamination Reduction Zone, or CRZ, serves as the buffer zone between the exclusion zone and the support zone. Materials and supplies are staged in this zone for the servicing of equipment and project personnel in the exclusion zone. All vehicles, equipment, and project personnel coming out of the exclusion zone pass through the CRZ for decontamination. All protective clothing removed by employees coming out of the exclusion zone will be staged in this area for disposal.
3. The Support Zone, or SZ, is considered to be uncontaminated. The support zone will be clearly delineated so as to prevent active or passive contamination from the work site. This area serves as the entry point to the CRZ for site personnel, equipment, materials, and visitors and contains trailers, offices, break areas, sanitary facilities, clean staging, etc.

Defining Work Zones: Work zone will be defined by one or more of the following:

- Chain link fence     Snow fence (orange)     Traffic cones (orange)     Yellow warning tape on stakes/poles
- Other:

## 9.0 DECONTAMINATION PLAN

### Personnel Decontamination

Sections 5.0 and 6.0 of this HASP list the tasks and specific levels of protection required for the project. Consistent with the level of protection required, the following is the decontamination process.

The levels of protection required for personnel assisting with decontamination will be:

Level B

Level C

Level D

Modifications include: Disposable Tyvek suit and safety goggles when hazards exist from splashing or similar.

### Sampling Equipment Decontamination

Provide a description of sampling equipment decontamination, as applicable.

Sampling equipment will either include dedicated (1-time use) equipment or will be decontaminated in accordance with applicable procedures. (Liquinox, water, DI water rinse).

Sampling equipment will be decontaminated in accordance with procedures outlined in the New Jersey Department of Environmental Protection (NJDEP) Field Sampling Procedures Manual, 2005.

A summary of decontamination procedures is included in Section 9.0.

### Equipment Decontamination

Provide a procedure for decontamination of non-sampling equipment and heavy machinery.

All project equipment will be properly decontaminated prior to being moved to another location or offsite. The equipment decontamination will be done in the contamination reduction zone or a similar designated area. Small equipment will be decontaminated by wiping/spraying the equipment with a mixture of water and laboratory-grade detergent solution followed by a water rinse. Larger equipment will be cleaned as necessary with hand tools such as shovels, brushes and/or pressurized water sprayer. Debris from cleaning will be containerized for proper disposal.

### Disposition of Decontamination Wastes

Provide a description of waste disposition including identification of storage area, hauler, and final disposal site, as applicable.

All contaminated clothing and water will be disposed at an authorized facility along with other project derived wastes. All investigation derived wastes will be handled in accordance with the procedures outlined in the NJDEP Field Sampling Procedures Manual.

## 9.0 DECONTAMINATION PLAN

Function	Description of Process, Solution and Container
<b>Exclusion Zone Decontamination Activities</b>	
<input checked="" type="checkbox"/> Segregated equipment drop	For re-usable sampling equipment.
<input type="checkbox"/> Boot cover and glove wash	
<input type="checkbox"/> Boot cover and glove rinse	
<input type="checkbox"/> Tape removal – outer glove and boot	
<input type="checkbox"/> Suit rinse	
<input checked="" type="checkbox"/> Boot cover removal	Direct disposal.
<input checked="" type="checkbox"/> Outer glove removal	Direct disposal.
<b>Contamination Reduction Zone Decontamination Activities</b>	
<input type="checkbox"/> Suit/safety boot wash	
<input type="checkbox"/> Suit/boot/glove rinse	
<input checked="" type="checkbox"/> Safety boot wash	Use wipe, spray or step-in pan with disposal of wipes and pan water.
<input checked="" type="checkbox"/> Suit removal	Direct disposal.
<input type="checkbox"/> Inner glove wash	
<input type="checkbox"/> Inner glove rinse	
<input checked="" type="checkbox"/> Inner glove removal	Direct disposal.
<input type="checkbox"/> Inner clothing removal	
<input checked="" type="checkbox"/> Disposable Sampling Equipment	Direct disposal.
<input type="checkbox"/> Re-usable Sampling Equipment	
<b>Support Zone Decontamination Activities</b>	
<input checked="" type="checkbox"/> Field Wash	Personal hygiene hand washing.
<input type="checkbox"/> Re-dress	

**Disposal Plan for Decontamination Wastes and Cuttings:**

- All disposable PPE, equipment and wash/rinse materials and liquid will be bagged for off-site disposal.

## 10.0 EMERGENCY RESPONSE/CONTINGENCY PLAN

### Emergency Contacts and Phone Numbers

Organization	Contact	Telephone/Cell Number
Ambulance	Emergency Squad	911
Police Department	Camden Police	911
Fire Department	[name of Town] Fire Company	911
Poison Control Center	Operator	800-222-1222
NJDEP Hotline	Operator	800 WARN DEP (926-6337)
National Response Center	Operator	800-424-8802
Centers for Disease Control	Operator	800-232-4636
Chemtrec (Chemical Information Resources)	Operator	800-262-8200
CMX	Marl Pietrucha	(856) 783-1900
CMX Certified Industrial Hygienist	Anthony Damato	(732) 577-9000 / (732) 740-3993
CMX Medical Emergency Contact	Human Resources	(732) 577-9000
Site Telephone	Mary Ann Gilmore	(732) 740-1223

### Local Emergency Medical Facility(s):

Name of Hospital: Our Lady of Lourdes Medical Center

Address: 1600 Haddon Avenue, Camden, NJ, 08103

Phone #: (856) 757-3500

### Written Directions to Hospital:

1. Start out going SOUTHEAST on DAVIS ST toward DECATUR AVE. - go 0.1 mi
2. Turn LEFT onto COPEWOOD ST. - go 0.2 mi
3. Turn LEFT onto HADDON AVE/CR-561. - go 0.1 mi

Hospital is about 0.4 miles from job site.

Emergency responders must be contacted before the on-site work begins to ensure that they understand the nature of the work and site contamination, and that they will be able to respond to both minor medical emergencies and life threatening emergencies in the SZ, CRZ and EZ.

Call Date: \_\_\_\_\_

By: \_\_\_\_\_  
(name)

Designated Emergency Meeting Area: Site entrance at Davis Street



**Appendix C**  
**Waste Transportation and Disposal**  
**Manifest**

# STRO Company Millics Hill, N.J.

Transaction Report

Customer: MARTIN MARCO

CARD NO

TERMINAL

TIME	PROGRAM	TIME(Delta)	STAGE	TIME	TIME	STAGE	TIME	STAGE	TIME	STAGE	TIME	STAGE	
36	9/30/2008 10:31	9/30/2008 10:43	72960	27040	43320	PA11	2961	NONHAZ	43320	PA11	2961	NONHAZ	MARCO
47	9/30/2008 11:07	9/30/2008 11:27	50280	26620	39660	PA11	2961	NONHAZ	50280	PA11	2961	NONHAZ	MARCO
74	9/30/2008 12:33	9/30/2008 12:43	76050	26980	43100	PA11	2961	NONHAZ	76050	PA11	2961	NONHAZ	MARCO
81	9/30/2008 13:20	9/30/2008 13:33	53120	26740	47380	PA11	2962	NONHAZ	53120	PA11	2962	NONHAZ	MARCO
87	9/30/2008 14:21	9/30/2008 14:40	73140	27040	46100	PA11	2967	NONHAZ	73140	PA11	2967	NONHAZ	MARCO
112	9/30/2008 16:39	9/30/2008 16:37	64160	26460	36700	PA11	2966	NONHAZ	64160	PA11	2966	NONHAZ	MARCO
126	9/30/2008 18:50	9/30/2008 18:38	80060	26940	55200	PA11	2968	NONHAZ	80060	PA11	2968	NONHAZ	MARCO

DAILY TOTALS  
 436600 194720 2614 2614 194720 319000 194720

7 TIME



Manifest # 112950

GLOBAL JOB NUMBER: \_\_\_\_\_ FACILITY APPROVAL NUMBER: \_\_\_\_\_

**Please Check One:**

- Clean Earth of Carteret  
24 Middlesex Avenue  
Carteret, NJ 07008  
Ph: 732-541-8909
- Clean Earth of Maryland  
1469 Oak Ridge Place  
Hagerstown, MD 21740  
Ph: 301-791-6220
- Clean Earth of New Castle  
94 Pyles Lane  
New Castle, DE 19720  
Ph: 302-427-6633
- Clean Earth of Philadelphia  
3201 S. 61st Street  
Philadelphia, PA 19153  
Ph: 215-724-5520
- Clean Earth of West Virginia  
3815 South State Route 2  
Friendly, WV 26146  
Ph: 304-652-8580
- Clean Earth of Southeast Pennsylvania  
7 Steel Road East  
Morrisville, PA 19067  
Ph: 215-428-1700

Other  
STAGS LEAP  
ROUTE 77  
MULLIKEN HILL, NJ

**Non-Hazardous Material Manifest**

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: <u>WEST DAVIS COMPANY</u> <u>CAMDEN, NJ</u>	GROSS WEIGHT: <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards <u>80060</u>
GENERATOR'S PHONE: _____	TARE WEIGHT: <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards
DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION <u>Non DOT/RCRA Regulated Non Hazardous</u> <u>Petroleum Contaminated Material</u>	NET WEIGHT: <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards

**GENERATOR'S CERTIFICATION** – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Comments on BEHALF of CAMDEN LAB LP Title: \_\_\_\_\_  
 Signature: [Signature] Date and Time: 9/30/08 15:30

**TRANSPORTER**

Company: Rich-Mark Contracting, Inc Phone Number: 732-349-3771  
 Address: P.O. Box 124, Toms River, NJ Truck # and License Plate: 39-AH805X  
 Driver: Neil Marzano SW Haulers Permit #: MT07764  
(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [Signature] Date and Time: 9/30/08

**DESTINATION**

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: \_\_\_\_\_ Date and Time: 9/30/08

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [Signature] Date and Time: 9-30-08

**GENERATOR**

SLRD

Mullica Hill, NJ 08062

Date : 09-30-08  
INBOUND TIME : 16:50  
OUTBOUND TIME : 16:58:34  
TRANSACTION : 126

TRUCK ID : AH805X      Customer : MARCO  
Product : NONHAZ      Origin : CAMDEN  
Manifest : 2958  
Area : P1A1

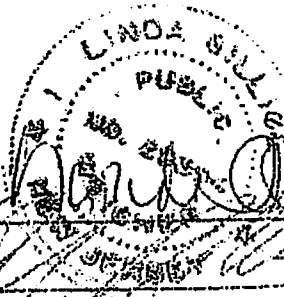
GROSS 80060  
TARE 26840

NET 53220

Tons 26.61

Weighmaster Signature

Driver Signature





Manifest # 112966

GLOBAL JOB NUMBER: 106283 FACILITY APPROVAL NUMBER: 083050043

**Please Check One:**

- Clean Earth of Carteret  
24 Middlesex Avenue  
Carteret, NJ 07008  
Ph: 732-541-8909
- Clean Earth of Maryland  
1469 Oak Ridge Place  
Hagerstown, MD 21740  
Ph: 301-791-6220
- Clean Earth of New Castle  
94 Pyles Lane  
New Castle, DE 19720  
Ph: 302-427-6633
- Clean Earth of Philadelphia  
3201 S. 61st Street  
Philadelphia, PA 19153  
Ph: 215-724-5520
- Clean Earth of West Virginia  
3815 South State Route 2  
Friendly, WV 26146  
Ph: 304-652-8580
- Clean Earth of Southeast Pennsylvania  
7 Steel Road East  
Morrisville, PA 19067  
Ph: 215-428-1700

Other  
STAGSLEAP  
ROUTE 77  
MULLICA HILL, NJ

**Non-Hazardous Material Manifest**

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: <u>MARTIN MARCO</u>	GROSS WEIGHT: <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards	<u>64160</u>
<u>1667 DAVIS STREET</u>	TARE WEIGHT: <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards	
<u>CAMDEN, NJ</u>	NET WEIGHT: <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards	
GENERATOR'S PHONE: _____		

**DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION**

Non DOT/RCRA Regulated Non Hazardous  
Petroleum Contaminated Material

**GENERATOR'S CERTIFICATION** - Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: D Cummings on BEHALF OF CAMDEN LAB LP Title: \_\_\_\_\_  
Signature: [Signature] Date and Time: 9-30-08 14:25

**TRANSPORTER**

Company: Pich-Mark Contracting, Inc Phone Number: 732-349-3771  
Address: P.O. Box 124, Toms River, NJ Truck # and License Plate: 38 AJ961R  
Driver: Tom Fisher SW Haulers Permit #: NJ07764  
(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [Signature] Date and Time: 9-30-08

**DESTINATION**

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [Signature] Date and Time: 9-30-08

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [Signature] Date and Time: 9-30-08

**GENERATOR**

SLRD

Mullica Hill, NJ 08062

Date : 09-30-08  
INBOUND TIME : 15:29  
OUTBOUND TIME : 15:37:33  
TRANSACTION : 116

TRUCK ID : AJ961R  
Product : NONHAZ  
Manifest : 2966  
Area : P1A1

Customer : MARCO  
Origin : CAMDEN

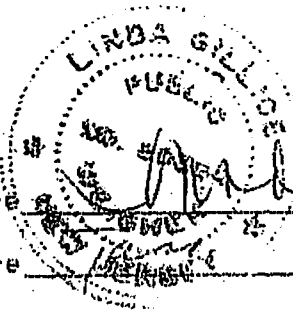
GROSS 64160  
TARE 25460

NET 38700

Tons 19.35

Weighmaster Signature

Driver Signature



*Linda Gillette*



Manifest # 112967

GLOBAL JOB NUMBER: 106283

FACILITY APPROVAL NUMBER: 083050043

Please Check One:

- Clean Earth of Carteret  
24 Middlesex Avenue  
Carteret, NJ 07008  
Ph: 732-541-8909
- Clean Earth of Maryland  
1469 Oak Ridge Place  
Hagerstown, MD 21740  
Ph: 301-791-6220
- Clean Earth of New Castle  
94 Pyles Lane  
New Castle, DE 19720  
Ph: 302-427-8633
- Clean Earth of Philadelphia  
3201 S. 61st Street  
Philadelphia, PA 19153  
Ph: 215-724-5520
- Clean Earth of West Virginia  
3815 South State Route 2  
Friendly, WV 26146  
Ph: 304-652-8580
- Clean Earth of Southeast Pennsylvania  
7 Steel Road East  
Morrisville, PA 19067  
Ph: 215-428-1700

Other STAGS LEAP  
Route 77  
Mullica Hill, NJ

Non-Hazardous Material Manifest

Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: MARTIN MARCO 1667 DAVIS STREET CAMDEN, NJ	GENERATOR'S PHONE: _____	GROSS WEIGHT: <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards 73140
		TARE WEIGHT: <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards
		NET WEIGHT: <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

Non DOT/RCRA Regulated Non Hazardous  
Petroleum Contaminated Material

GENERATOR'S CERTIFICATION - Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: D. CUMMINGS ON BEHALF OF CAMDEN LAB LP Title: \_\_\_\_\_  
Signature: \_\_\_\_\_ Date and Time: 9/30/08 13:35

TRANSPORTER

Company: Rich-Mark Contracting, Inc Phone Number: 732-349-3771  
Address: P.O. Box 124, Toms River, NJ Truck # and License Plate: 39-AH805X  
Driver: Neil Marzano SW Haulers Permit #: NJ07764  
(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: \_\_\_\_\_ Date and Time: 9/30/08

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: \_\_\_\_\_ Date and Time: 9/30/08

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: \_\_\_\_\_ Date and Time: 9/30/08

GENERATOR

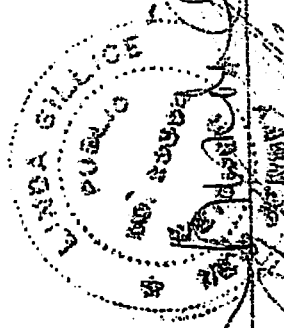
SLRD Mullica Hill, NJ 08062

Date : 09-30-08  
INBOUND TIME : 14:21  
OUTBOUND TIME : 14:40:42  
TRANSACTION : 97

TRUCK ID : AH805X Customer : MARCO  
Product : NONHAZ Origin : CAMDEN  
Manifest : 2967  
Area : P1A1

GROSS 73140  
TARE 27040  
NET 46100

Tons 23.05  
Weighmaster Signature  
Driver Signature



*[Handwritten signature]*





Manifest # 112963

GLOBAL JOB NUMBER: 106283

FACILITY APPROVAL NUMBER: 083050043

**Please Check One:**

- Clean Earth of Carteret  
24 Middlesex Avenue  
Carteret, NJ 07008  
Ph: 732-541-8909
- Clean Earth of Maryland  
1469 Oak Ridge Place  
Hagerstown, MD 21740  
Ph: 301-791-6220
- Clean Earth of New Castle  
94 Pyles Lane  
New Castle, DE 19720  
Ph: 302-427-6633
- Clean Earth of Philadelphia  
3201 S. 61st Street  
Philadelphia, PA 19153  
Ph: 215-724-5520
- Clean Earth of West Virginia  
3815 South State Route 2  
Friendly, WV 26146  
Ph: 304-652-8580
- Clean Earth of Southeast Pennsylvania  
7 Steel Road East  
Morrisville, PA 19067  
Ph: 215-428-1700

Other  
STAGS LEAP  
Route 77  
MULLICA HILL, NJ

**Non-Hazardous Material Manifest**

(Type or Print Clearly)

<b>GENERATOR'S NAME &amp; SITE ADDRESS:</b> MARTIN MARCO 1667 DAVIS STREET CAMDEN, NJ	<b>GROSS WEIGHT:</b> <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards <div style="text-align: right; font-size: 1.5em;">63140</div>
<b>GENERATOR'S PHONE:</b> _____	<b>TARE WEIGHT:</b> <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards
	<b>NET WEIGHT:</b> <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards

**DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION**

Non DOT/PLHA Regulated Non Hazardous  
 Petroleum Contaminated Material

**GENERATOR'S CERTIFICATION** - Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: D. CUMMINS ON BEHALF OF CAMDEN LABS LP Title: \_\_\_\_\_

Signature: [Signature] Date and Time: 9/30/08 12:25

**TRANSPORTER**

Company: Rich-Mark Contracting, Inc Phone Number: 732-349-3771  
 Address: P.O. Box 124, Toms River, NJ Truck # and License Plate: 38 AJ961R  
 Driver: Tom Fisher SW Haulers Permit #: NJ07764  
 (Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [Signature] Date and Time: 9-30-08

**DESTINATION**

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [Signature] Date and Time: 9-30-08

I hereby certify that the above named material has been accepted at the above referenced facility.  
 Authorized Signature: [Signature] Date and Time: 9-30-08

GENERATOR

SLRD

Mullica Hill, NJ 08062

Date : 09-30-08  
INBOUND TIME : 13:20  
OUTBOUND TIME : 13:29:09  
TRANSACTION : 81

TRUCK ID : AJ961R  
Product : NONHAZ  
Manifest : 2963  
Area : PIA1

Customer : MARCO  
Origin : CAMDEN

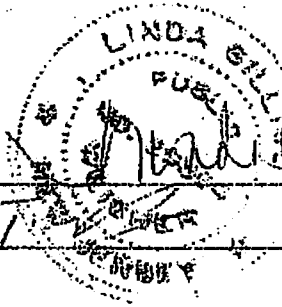
GROSS 63120  
TARE 25740

NET 37380

Tons 18.69

Weighmaster Signature

Driver Signature





Manifest # 112964

GLOBAL JOB NUMBER: 106283 FACILITY APPROVAL NUMBER: 083050043

**Please Check One:**

- Clean Earth of Carteret  
24 Middlesex Avenue  
Carteret, NJ 07008  
Ph: 732-541-8909
- Clean Earth of Maryland  
1469 Oak Ridge Place  
Hagerstown, MD 21740  
Ph: 301-791-6220
- Clean Earth of New Castle  
94 Pyles Lane  
New Castle, DE 19720  
Ph: 302-427-6633
- Clean Earth of Philadelphia  
3201 S. 61st Street  
Philadelphia, PA 19153  
Ph: 215-724-5520
- Clean Earth of West Virginia  
3815 South State Route 2  
Friendly, WV 26146  
Ph: 304-652-8580
- Clean Earth of Southeast Pennsylvania  
7 Steel Road East  
Morrisville, PA 19067  
Ph: 215-428-1700

Other  
STAGS LEAP  
Route 77  
MULLICA HILL, NJ

**Non-Hazardous Material Manifest**

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: <u>MARTIN MARCO</u>	GROSS WEIGHT: <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards	<u>76080</u>
<u>1667 DAVIS STREET</u>	TARE WEIGHT: <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards	
<u>CAMDEN, NJ</u>	NET WEIGHT: <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards	
GENERATOR'S PHONE: _____		

**DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION**

Non DOT/RCRA Regulated Non Hazardous  
Petroleum Contaminated Material

**GENERATOR'S CERTIFICATION** - Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: D. Cummings ON BEHALF OF CAMDEN LABS L.P. Title: \_\_\_\_\_  
Signature: [Signature] Date and Time: 9/30/08

**TRANSPORTER**

Company: Pich-Mark Contracting, Inc Phone Number: 732-349-3771  
Address: P.O. Box 124, Toms River, NJ Truck # and License Plate: 39-AH805X  
Driver: Neil Maviano SW Haulers Permit #: NJ07764  
(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [Signature] Date and Time: 9/30/08

**DESTINATION**

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [Signature] Date and Time: 9/30/08

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [Signature] Date and Time: 9-30-08

**GENERATOR**

SLRD  
Mullica Hill, NJ 08062

Date : 09-30-08  
INBOUND TIME : 12:32  
OUTBOUND TIME : 12:42:38  
TRANSACTION : 71

TRUCK ID : AH005X  
Product : NONHAZ  
Manifest : 2964  
Area : P1A1  
Customer : MARCO  
Origin : CAMDEN

GROSS 76080  
TARE 26980  
NET 49100

Tons 24.55

Weightmaster Signature

Driver Signature





Manifest # 112960

GLOBAL JOB NUMBER: 106223 FACILITY APPROVAL NUMBER: 083050043

**Please Check One:**

- Clean Earth of Carteret  
24 Middlesex Avenue  
Carteret, NJ 07008  
Ph: 732-541-8909
- Clean Earth of Maryland  
1469 Oak Ridge Place  
Hagerstown, MD 21740  
Ph: 301-791-6220
- Clean Earth of New Castle  
94 Pyles Lane  
New Castle, DE 19720  
Ph: 302-427-6633
- Clean Earth of Philadelphia  
3201 S. 61st Street  
Philadelphia, PA 19153  
Ph: 215-724-5520
- Clean Earth of West Virginia  
3815 South State Route 2  
Friendly, WV 26146  
Ph: 304-652-8580
- Clean Earth of Southeast Pennsylvania  
7 Steel Road East  
Morrisville, PA 19067  
Ph: 215-428-1700

Other  
STAGS LEAP  
ROUTE 77  
MULLICA HILL, NJ

**Non-Hazardous Material Manifest**

(Type or Print Clearly)

<b>GENERATOR'S NAME &amp; SITE ADDRESS:</b> MARTIN MARCO 1667 DAVIS STREET CAMDEN, NJ	<b>GROSS WEIGHT:</b> <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards 65280	
<b>GENERATOR'S PHONE:</b>	<b>TARE WEIGHT:</b> <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards	
	<b>NET WEIGHT:</b> <input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards	

**DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION**

Non DOT/RCRA Regulated Non Hazardous  
Petroleum Contaminated Material

**GENERATOR'S CERTIFICATION** - Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: D. Cummings ON BEHALF of CAMDEN LABS L.P. Title: \_\_\_\_\_  
 Signature: [Signature] Date and Time: 9/30/08

**TRANSPORTER**

Company: Nich-Mark Contracting, Inc Phone Number: 732-349-3771  
 Address: P.O. Box 124, Poms River, NJ Truck # and License Plate: RM# 38 AJ961R  
 Driver: TOM FISHER SW Haulers Permit #: NJ07764  
 (Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [Signature] Date and Time: 9-30-08 10:00

**DESTINATION**

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [Signature] Date and Time: 9-30-08

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [Signature] Date and Time: 9-30-08

**GENERATOR**

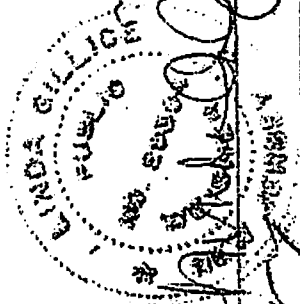
SLRD Mullica Hill, NJ 08062

Date : 09-30-08  
INBOUND TIME : 11:07  
OUTBOUND TIME : 11:27:15  
TRANSACTION : 47

TRUCK ID : AJ961R Customer : MARCO  
Product : NONHAZ Origin : CAMDEN  
Manifest : 2360  
Area : P1A1

GROSS 65280  
TARE 25620  
NET 39660

Tone 19.83 Weighmaster Signature  
Driver Signature





Manifest # 112961

GLOBAL JOB NUMBER: 106233 FACILITY APPROVAL NUMBER: 083050043

**Please Check One:**

- Clean Earth of Carteret  
24 Middlesex Avenue  
Carteret, NJ 07008  
Ph: 732-541-8909
- Clean Earth of Maryland  
1469 Oak Ridge Place  
Hagerstown, MD 21740  
Ph: 301-791-6220
- Clean Earth of New Castle  
94 Pyles Lane  
New Castle, DE 19720  
Ph: 302-427-6633
- Clean Earth of Philadelphia  
3201 S. 61st Street  
Philadelphia, PA 19153  
Ph: 215-724-5520
- Clean Earth of West Virginia  
3815 South State Route 2  
Friendly, WV 26146  
Ph: 304-652-8580
- Clean Earth of Southeast Pennsylvania  
7 Steel Road East  
Morrisville, PA 19067  
Ph: 215-428-1700

Other  
STAGS LEAP  
ROUTE 77  
MULLICA HILL, NJ

**Non-Hazardous Material Manifest**

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: <u>MARTIN MARCO</u>	GROSS WEIGHT:	<u>7260</u>
<u>1667 DAVIS STREET</u>	<input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards	
<u>CAMDEN, NJ</u>	TARE WEIGHT:	
GENERATOR'S PHONE: _____	<input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards	
	NET WEIGHT:	
	<input checked="" type="checkbox"/> Tons <input type="checkbox"/> Yards	

**DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION**

Non DOT/RCRA Regulated Non Hazardous  
Petroleum Contaminated Material

**GENERATOR'S CERTIFICATION** – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: D. Cummings on behalf of Camden Lakes LP Title: \_\_\_\_\_  
Signature: [Signature] Date and Time: 9/30/08

**TRANSPORTER**

Company: Nich-Mark Contracting, Inc Phone Number: 732-349-3771  
Address: P.O. Box 124, Toms River, NJ Truck # and License Plate: 39-AH805X  
Driver: Neil Marzano SW Haulers Permit #: NJ07764  
(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.  
Driver Signature: [Signature] Date and Time: 9/30/08 9:30

**DESTINATION**

I hereby certify that the above named material was delivered without incident to the facility noted above.  
Driver Signature: \_\_\_\_\_ Date and Time: 9/30/08  
I hereby certify that the above named material has been accepted at the above referenced facility.  
Authorized Signature: [Signature] Date and Time: 9-30-08

GENERATOR

SLRD

Mullica Hill, NJ 08062

Date : 05-30-08  
INBOUND TIME : 10:31  
OUTBOUND TIME : 10:43:19  
TRANSACTION : 35

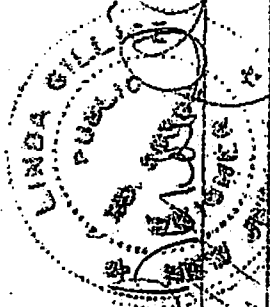
TRUCK ID : AHBM5X Customer : MARCO  
Product : NONHAZ Origin : CAMDEN  
Manifest : 2961  
Area : P1A1

GROSS 72960  
TARE 27040  
NET 45920

Tons 22.96

Weightmaster Signature

Driver Signature





# Appendix D

## Laboratory Analytical Results and Electronic Data Deliverables

**Project: Camden Laboratories**

**Client PO:** Not Available

**Report To:** CMX  
1101 Laurel Oak Road  
PO Box 1346  
Voorhees, NJ 08043

**Attn:** M. Pietrucha

**Received Date:** 9/8/2008

**Report Date:** 9/30/2008

**Deliverables:** NJDEP-R

**Lab ID:** AC39795

**Lab Project No:** 8090809

This report is a true report of results obtained from our tests of this material. All results meet the requirements of the NELAC standards. In lieu of a formal contract document, the total aggregate liability of Veritech to all parties shall not exceed Veritech's total fee for analytical services rendered.

*Jeri Rossi*  
Jeri Rossi - Quality Assurance Director

OR

Stanley Gilewicz - Laboratory Director

NJ (07071 and 07069) NY (ELAP11408 and 11939) CT (PH-0671)  
PA (68-00463 and 68-04409) KY (90124) MA (NJ386)  
WV (353) USACE





## TABLE OF CONTENTS

<u>HC-V LABORATORY RESULTS</u>	<u>PAGE NOS.</u>
Sample Key	1
Chains Of Custody	2
Condition Upon Receipt Forms	3
Internal Chain Of Custody Records	4
Laboratory Chronicles	5-6
Nonconformance Summary	7
Method References	8-9
Reporting Limit Definitions	10
Report of Analysis & Sample Form 1 Data Package	11-22
Metals Form 2 Calibration Summaries	23
Metals Form 3 Blank Summaries	24
Metals Form 4 ICP Interference Check Sample Summary	25
Metals Form 5/7 Spike / LCS Recovery Data	26
Metals Form 6/9 Duplicate / Serial Dilution Sample Data	27
Inorganic Spreadsheet / QC Summary	28

---

**Veritech Sample Key***30-Sep-08*

---

<b>Lab#</b>	<b>SampleID</b>
AC39795-001	PE-1
AC39795-002	PE-2
AC39795-003	PE-3
AC39795-004	PE-4
AC39795-005	PE-5
AC39795-006	PE-6
AC39795-007	PE-7
AC39795-008	PE-8
AC39795-009	PE-9
AC39795-010	PE-10

---

175 US Hwy 48 West, Fairfield, New Jersey 07004 & 1275 Bloomfield Avenue, Building 3, Unit 50A, Fairfield, New Jersey 07004  
 Ph: 800-438-9982 Fax: 973-439-1458

**3) Reporting Requirements (please circle)**

Turnaround Time	24 Hour (100%)
Report type	Data Sum
Electronic Deliv	Hazardous

**Customer Information**

Customer: CMX  
 Address: 110 Laurel Carved  
 Voorhees NJ 08043  
 Email/Cell/Fax/PT: 9367831900 / 9367832100  
 Send Invoice To: Mark Pietrucha  
 Send Report To: Mark Pietrucha

**Project Information**

2a) Project: Camden Laboratories  
 2b) Project Manager: Mark Pietrucha  
 2c) Location (City/State): Camden, NJ  
 2d) Quote#/PO# (if applicable):

**Reporting Requirements (please circle)**

Expedited TAT Not always available (Please check with lab!)	Other:
24 Hour (100%)	Excelsior
48 Hour (75%)	Excelsior
72 Hour (50%)	Excelsior
4 Day (TPH)	Excelsior
1-Week (25%)	Excelsior
10 Days (10%)	Excelsior
Standard	Excelsior

**7) Analysis Request**

FOR LAB USE ONLY

Batch#	Sample#	4) Customer Sample ID			5) Matrix	6) Sample Date	6) Sample Time	Composite (C)	Grab (G)	Sample Type	9) Methanol Bottle Numbers (if applicable)	Comments
		DW-Drinking Water	GW-Ground Water	WW-Waste Water								
AC39795		S-Sol	SL-Sludge	O-Oil								
		A-Air	O-Other									

Matrix Codes:

8) # Of Bottles: HNO3, H2SO4, HCl, NaOH, Encores, MeOH, None

9) Methanol Bottle Numbers (if applicable):

Comments: Copper lead

FOR LAB USE ONLY	Batch#	Sample#	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Composite (C)	Grab (G)	Sample Type	9) Methanol Bottle Numbers (if applicable)	Comments
	-001	PC-1	50 9808		1240		X	X	X		
	-002	PC-2	90 9808		1250		X	X	X		
	-003	PC-3	90 9808		1255		X	X	X		
	-004	PC-4	50 9808		1300		X	X	X		
	-005	PC-5	90 9808		126		X	X	X		
	-006	PC-6	90 9808		1350		X	X	X		
	-007	PC-7	90 9808		1400		X	X	X		
	-008	PC-8	90 9809		1410		X	X	X		
	-009	PC-9	90 9808		1405		X	X	X		
	-010	PC-10	90 9808		1302		X	X	X		

**10) Refurnished By:** [Signature]

**Accepted By:** [Signature]

**Date:** 9/8/08

**Time:** 1340

**11) Sampler:** [Signature]

**Date:** 9/8/08

**Time:** 17:14

**Comments, Notes, Special Requirements, HAZARDS:** \*Push 24 hr TAT

**Electronic Deliv:** [Signature]

**Project (Lab Use Only):** 8090809

**Page 1 of 1**

Please note NUMBERED items. If not completed your analytical work may be delayed. A fee of \$5/sample will be assessed for storage should sample not be analyzed for any analysis.

**CONDITION UPON RECEIPT**

Batch Number AC39795

Entered By: ricardo

Date Entered 9/8/2008 5:23:00 PM

- 
- 1 Yes Is there a corresponding COC included with the samples?
  - 2 Yes Are the samples in a container such as a cooler or ice chest?
  - 3 Yes Are the COC seals intact?
  - 4 Yes Please specify the Temperature inside the container (in degC)  
3.3C
  - 5 Yes Are the samples refrigerated (where required)/have they arrived on ice?
  - 6 Yes Are the samples within the holding times for the parameters listed on the COC? If no, list parameters and samples:
  - 7 Yes Are all of the sample bottles intact? If no, specify sample numbers broken/leaking
  - 8 Yes Are all of the sample labels or numbers legible? If no specify:
  - 9 Yes Do the contents match the COC? If no, specify
  - 10 Yes Is there enough sample sent for the analyses listed on the COC? If no, specify:
  - 11 NA Are samples preserved correctly?
  - 12 NA Are all soils preserved in methanol accompanied by dry soil?
  - 13 NA Other comments ...Specify
  - 14 NA Corrective actions (Specify item number and corrective action taken).

# Appendix E

## Clean Fill Certificates

***Land, Air & Water, LLC***

P.O. Box 603  
Marlton, New Jersey 08053

Phone (856) 810-8048  
Fax (856) 810-8128

October 2, 2008

McIntire Excavating, LLC  
121 Waverly Avenue  
Mt. Laurel, NJ 08054

Re: Fill dirt

Marty:

Per your request, to the best of our knowledge, the fill dirt delivered to Camden, NJ on our trucks was clean, bank run fill.

We have complete soils report and Phase I Environmental Site Assessment report that the fill is clear and free of any contamination. It was excavated from 500 Cooper Landing Road, Cherry Hill, NJ (property owned by Cherry Hill township). If you need the complete report, a copy will be provided to you for \$75.00.

Any questions or concerns, please do not hesitate to contact me.

Sincerely,



John Marques





# State of New Jersey

Department of Environmental Protection

Jon S. Corzine  
Governor

Lisa P. Jackson  
Commissioner

Bureau of Southern Field Operations  
Horizon Center  
P.O. Box 407  
Trenton, NJ 08625-0407  
Phone #: 609-584-4150  
Fax #: 609-584-4170

December 3, 2008

Martin P. Manco  
C/O Camden Laboratories, L.P.  
P.O. Box 2614  
West Chester, PA 19380

## **NOTICE OF DEFICIENCY**

Re: Preliminary Assessment / Site Investigation Report / Remedial Action Workplan dated August 2008 submitted by CMX

Re: Remedial Action Report dated October 2008 submitted by CMX

Camden Laboratories  
1667 Davis St  
Camden, Camden County  
SRP PI# 016718  
Activity Number Reference: BFO080001  
Communication Center #: 08-07-01-1547-19  
BFO File # 04-08-168

Dear Martin P. Manco:

The New Jersey Department of Environmental Protection (Department) acknowledges receipt on September 11, 2008 of the Preliminary Assessment / Site Investigation Report / Remedial Action Workplan submitted pursuant to the Memorandum of Agreement (MOA) effective on September 5, 2008 and the Technical Requirements for Site Remediation at N.J.A.C. 7:26E (Tech Rule).

### **Deficiencies**

The Department has completed its review of your submittal and identified the following deficiencies:

Failure to document the effectiveness of the remedial action [N.J.A.C. 7:26E-6.4(a)].

✓ AOC # 1 – Above Ground Storage Tanks (AST's)

Further investigation is required to identify the source of the odor that was from the spill from a vandalized AST. Complete delineation, remediation and post-remediation samples will be required.

AOC # 2 A, B, C – Underground Storage Tanks (UST's)

Submit soil samples for the two 6,000 gallon heating oil UST's (AOC # 2 A and B) and one 2,000 gallon # 2 heating oil UST (AOC # 2 C) that was removed in August 1989.

AOC # 3 – Storage Containers

Storage containers (e.g., drums) on-site must be removed and disposed off-site. Submit disposal receipts of all storage containers.

✓ AOC # 4 – Floor Drains located at Building C

The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. No further investigation is required.

✓ AOC # 5 – Septic Systems, Leachfields or Seepage Pits

If the septic system will not be used as part of future site redevelopment, then closure of the septic system in accordance with the Technical Requirements for Site Remediation will be required. No further investigation is required at this time.

✓ AOC # 6 – Dry Well located at Building B

No further investigation is required at this time.

✓ AOC # 7 – Incinerator

No further investigation is required.

✓ AOC # 8 – Transformers

The transformers were in good condition and no staining or stressed vegetation was observed at the ground surface beneath any of these transformers. No further investigation is required.

✓ AOC # 9 A – Staining located at Building A

The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. No further investigation is required.

✓ AOC # 9 B – Staining located at Building D

The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. No further investigation is required.

✓ AOC # 9 C – Staining located at Building F

The floors appeared to be in good condition and no apparent cracks or migration pathways were noted. No further investigation is required.

✓ AOC # 10 – Compressor Blowdown

Stained soil in this area was not observed during site reconnaissance. No further investigation is required.

✓ AOC # 11 – Hydraulic Lift System

No further investigation is required at this time.

✓ AOC # 12 – NJ Spills Database Listing NJDEP Case No. 97-02-21-1440-39

CMX advanced two soil borings in the vicinity of the generator located at the exterior of Building B. Soil sample results were below the SCC. No further investigation is required.

✓ AOC # 13 – NJ Spills Database Listing NJDEP Case No. 98-11-20-1919-54

Liquid nitrogen was spilled in the building. The Camden County Department of Health (CCDH) provided a file completion memo dated 9/15/1999. Submit the document from the CCDH for review.

AOC # 14 – Regional Ground Water Contamination

The geologist will review ground water data conducted at RF Products / Fast Doors by the Bureau of Environmental Measurement and Site Assessment (BEMSA) to verify if there is an off-site contamination coming on to the Camden Laboratories site.

Site Map

Submit a site map that includes the following items:

- 1-All the area of concerns (AOCs)
- 2-Sample locations
- 3-Constructions details of Septic System, Dry Well, and Hydraulic Lift

Future Vapor Intrusion Investigation

For future site improvements a vapor intrusion investigation will be required pursuant to N.J.A.C. 4.4(h) 3.viii.

✓ AOC # 15 – Conductive Area

No further remediation is required.

AOC # 16 - Mercury Investigation

The Bureau of Air Monitoring (BAM) presented mercury (Hg) data that was measured during on-site air monitoring for the above site. The Bureau of Environmental Evaluation & Risk Assessment (BEERA) reviewed the mercury data. Technical Coordinator (TC) from BEERA could not identify any potential mercury sources on the KCSL or NJEMS sites and required that a mercury investigation be conducted to identify the mercury source.

The Department discussed on-site that soil should be investigated for mercury at one particular location identified by BAM. Soil core borings must be completed within the

vicinity of the particular location and boring logs must be created to characterize all soil type. Soil samples must be bias to the highest impacted area and be analyzed for mercury.

**Corrective Actions**


To correct these deficiencies please take the following actions or make the required submittals within the timeframes indicated:

Comply with the requirements within 240 days after receipt of this notice by submitting the items as described above.

Note that if deficiencies included herein are not addressed to the Department's satisfaction within the specified time period the Department may terminate the MOA pursuant to N.J.A.C. 7:26C-3.3(c)2-4. Subsequent to MOA termination the Department may initiate enforcement action pursuant to the Spill Compensation and Control Act.

If you require copies of Department Guidance Documents or applications, many of these are available on the internet <http://www.state.nj.us/dep/srp>. If you have any questions regarding this matter contact Raymond Souweha Case Manager, at (609) 584-4176, or at Raymond.Souweha@dep.state.nj.us, prior to the date indicated.

Sincerely,



William H. Dunfee, Section Chief  
Bureau of Southern Field Operations

cc: BFO File Number: 04-08-168  
Raymond Souweha, BSFO  
William H. Dunfee, BSFO  
Rudy Zsolway, BAM  
Kevin Schick, BEERA  
Dave Caulfield, BGWPA  
Local, County, Regional Health Department(s)  
Mayor/Clerk/Town Council, Camden  
CMX



FILE 04-08-168

VIA EMAIL AND US MAIL

February 25, 2009



Raymond S. Souweha  
Case Manager  
New Jersey Department of Environmental Protection  
Brownfields Remediation & Reuse Element)  
Bureau of Southern Field Operation  
Route 130 South  
300 Horizon Center  
Robbinsville, NJ 08691

RE: Supplemental Site Investigation Report  
Camden Laboratories Property  
1667 Davis Street  
City of Camden  
Camden County, New Jersey  
Case Number 08-07-01-1547-19  
Our Project Number 070235805

Dear Mr. Souweha:

As you are aware, CMX attended a November 19, 2008 site meeting with New Jersey Department of Environmental Protection (NJDEP) representatives to discuss the Department's findings related to mercury air readings for the Camden Laboratories property and to discuss the findings and recommendations of CMX's assessment, investigations and remediation completed at the site to date. NJDEP representatives in attendance included Case Manager Raymond Souweha, Section Chief William Dunfee, David Caulfield, Geologist, and Rudy Zsolway of the Air Program. The following paragraphs provide a summary of items discussed at the meeting.

In April 2004, the NJDEP measured elevated levels of mercury in air while installing the on-site weather station tower. Elevated levels of mercury were measured by the NJDEP's air monitoring equipment while excavating soils for the tower foundation. Based on our review of data provided at the site meeting, the highest measured reading was 1,800 nanograms per meter cubed ( $\text{ng}/\text{m}^3$ ) of vapor phase mercury. It is NJDEP's opinion that the mercury air readings identified in soil along the western perimeter of the NJDEP air monitoring station may be the result of a mercury surface spill; therefore, additional investigation of soils in this area was requested by NJDEP. For the purposes of this Site Investigation (SI), CMX designated the mercury surface spill as AOC-16.

In addition, evidence of a surface spill from a 275-gallon diesel fuel aboveground storage tank (AST) (AOC-1) and/or associated generator was identified at the south exterior of the building compound as a result of recent vandalism. Additional investigation of the surface spill was requested by Mr. Dunfee and Mr. Souweha during the site visit.

Lastly, the NJDEP expressed concern regarding potential on-site sources for the chlorinated solvent ground water contamination identified in the subject area during recent investigations conducted by the NJDEP.

WORKING TOGETHER FOR A BETTER TOMORROW

1101 LAUREL OAK ROAD, SUITE 160 | VOORHEES, NJ 08043  
TEL 856.783.1900 | FAX 856.783.2100 | WWW.CMXENGINEERING.COM

ARIZONA FLORIDA MARYLAND NEVADA NEW JERSEY NEW YORK PENNSYLVANIA MEXICO

As discussed in our SI Report, the NJDEP confirmed that the adjacent RF Products property is a source of the regional ground water contamination. To further evaluate potential on-site sources of the regional ground water contamination, Mr. Caulfield requested site mapping that depicts the locations of the sanitary waste piping system and associated sumps and/or pits as well as any potential piping discharge locations.

Subsequent to the November 19, 2008 site meeting, CMX received a Notice of Deficiency from your office dated December 8, 2008. As expected, the correspondence outlined the items to be completed in accordance with the items discussed at the site meeting. In addition to the above outlined items, NJDEP also required that post-remediation soil samples be collected from each of the three (3) former underground storage tank (UST) excavation areas (AOC-2A, AOC-2B and AOC-2C) and submitted for appropriate laboratory analysis, the removal and disposal of the storage containers (i.e. drums) staged on site (AOC-3), closure of the on-site septic system (AOC-5), submittal of documentation regarding the liquid nitrogen spill in the building compound (AOC-13), inclusion of construction details for the on-site septic system, drywell and hydraulic lift, and recommendations for a future vapor intrusion investigation at the site. The following paragraphs provide a summary of the additional scope of work completed in accordance with NJDEP's recommendations and requested items.

#### December 11, 2008 Site Reconnaissance and Site Plan Preparation

According to the December 8, 2008 correspondence, the NJDEP requested construction details for the on-site septic system, drywell and hydraulic lift in order to eliminate these features as potential sources of ground water contamination. In support of preparation of the Preliminary Assessment (PA), CMX previously submitted a records request to the City of Camden Municipals Clerk's Office in order to obtain available building/engineering records pertaining to the site. The City of Camden Municipal Clerk's Office responded via correspondence dated December 13, 2007 indicating that the Building and Engineering Departments had not responded to CMX's information request at the time the letter was issued by the Municipal Clerk. CMX contacted the Clerk's Office via phone on December 13, 2007 to inquire on the status of CMX's records request and was informed that if any records are found, they would be forwarded as appropriate. To date, CMX has not received any additional information from the City of Camden Building and/or Engineering Departments relative to the site. Based on these findings, CMX has determined that site plans pertaining to the building compound, including construction details for the on-site septic system, drywell and hydraulic lift are not available at the City of Camden Building and/or Engineering Departments.

In addition, CMX previously performed a geophysical survey of the site on April 8, 2008 in order to determine the locations and associated subsurface components of the on-site septic system (AOC-5), drywell (AOC-6) and hydraulic lift (AOC-11). Based on the geophysical survey findings, an approximate 10,000-gallon subsurface septic tank and associated discharge pipe were identified at the septic system location east of Building F. In addition, piping associated with a large sump, floor drain and sanitary sewer line were identified within Building B boiler room; however, piping associated with the floor drain could not be traced due to the thickness of the building's concrete floor and the discharge location of the sump and floor drain system was not identified. Furthermore, a round anomaly was identified approximately twenty (20) feet southeast of the hydraulic lift system. The anomaly was located within a small depression in the asphalt and appeared to be connected to the lift system by subsurface piping. Geophysical survey anomalies identified are presented on the attached site plan (Figure 1). Subsequent to the geophysical survey, CMX conducted a soil boring investigation in order to investigate the on-site septic system (AOC-5) and hydraulic lift (AOC-11). Based on the findings for the geophysical survey and soil boring investigation, no further investigation of the septic system (AOC-5), drywell (AOC-6) or hydraulic lift system (AOC-11) was recommended. The NJDEP concurred with these investigation findings in the December 3, 2008 letter of correspondence.



During CMX's December 3, 2007 PA site reconnaissance, CMX identified floor drains/pits within Building A, Building B, Building C and Building F. Auxiliary piping was also identified within Building A boiler room, Building B boiler room, Building C and the mechanical room of Building F. In addition, CMX identified a central pit located in the mechanical room of Building F. Based on the information provided by Martin Manco, Jr., a representative Camden Laboratories, LP, the Building B boiler blowdown is directed to a floor drain system which discharges to a dry well. All other site sanitary, process, Heating Ventilation Air Conditioning and boiler waste streams identified discharge to a central pit located in Building F and then to the Camden County Municipal Utilities Authority sewer. All observed portions of the floor drains and auxiliary piping identified were constructed of cast iron. Based on the age of the building, CMX assumes that all of the inaccessible piping within the building compound is also constructed of cast iron.

Based on these findings, CMX requested copies of any as-built drawings or construction plans which provide the construction details for the on-site septic system, drywell and hydraulic lift from Camden Laboratories, LP. Mr. Manco, Jr. indicated that any plans which provide this type of information were maintained at the site; however, Mr. Manco, Jr. indicated that the plans were either removed or damaged during acts of vandalism and were not available. Since construction details for the on-site septic system, drywell and hydraulic lift are not available, CMX conducted a site reconnaissance on December 11, 2008 in order to confirm the locations of the sanitary waste piping system and associated sumps and/or pits as well as any potential piping discharge locations for the Camden Laboratories building compound. Information regarding the locations of these features was obtained from previous SI activities and information provided by Martin Manco, Sr., a knowledgeable representative of Camden Laboratories, LP, during the site reconnaissance.

During the December 11, 2008 site reconnaissance, CMX identified a series of floor drains and drain cleanout ports within Building A and Building B which were not previously visible at the time of the PA site inspection. These features were also constructed of cast iron, consistent with the findings of CMX's December 7, 2007 PA site reconnaissance. Based on the location and orientation of the floor drains and drain cleanout ports, CMX determined that these floor drains and drain cleanout ports are connected to the piping identified at the south exterior of Building B following completion of the geophysical survey on April 8, 2008. This piping terminates at a round anomaly within the asphalt paved area, also identified after completion of the geophysical survey. Based on these findings, CMX has determined that the round anomaly is the Building B drywell referenced in our PA Report (AOC-6). Previously, CMX assumed that the round anomaly was associated with the nearby hydraulic lift system (AOC-11) based on the location and orientation of the features identified. All other boiler blowdown areas, sumps and/or pits identified within the building compound during the December 11, 2008 site reconnaissance were determined to be connected to the sanitary waste piping system that services the site and discharge to the Camden County Municipal Utilities Authority sanitary sewer.

In accordance with the NJDEP's request, CMX has prepared a site plan which depicts the locations of sanitary system features based on the comprehensive results of the geophysical survey and site reconnaissance activities completed to date. The locations of sanitary system features are presented on Figure 1.

December 12, 2008 Soil Boring Investigation

CMX and its subcontractor, Enviroprobe Service, Inc. (Enviroprobe) of Westmont, New Jersey, conducted a soil boring investigation at the site on December 12, 2008. The soil boring investigation was performed in an effort to investigate the potential for impact resulting from a surface spill of diesel fuel from a 275-gallon AST (AOC-1) and/or associated generator, to characterize soils following closure and removal of the former 6,000-gallon UST (AOC-2A), 6,000-gallon UST (AOC-2B) and 2,000-gallon UST (AOC-2C) and to

characterize soils in the vicinity of the elevated mercury vapor measurements (AOC-16). A tabulated summary of analytical methods and quality assurance indicators is provided in Table 1. All soil boring/sample locations were recorded using Trimble Global Positioning System (GPS) survey equipment and are presented on Figure 1.

#### 275-gallon AST (AOC-1)

CMX advanced three (3) soil borings (S-1 through S-3) to investigate the diesel fuel surface spill area. Since the spill was limited to the asphalt surface, the soil borings were advanced to a maximum of four feet (4') below ground surface (bgs) utilizing direct push equipment. Soil borings were field screened with a calibrated photo-ionization detector (PID) and logged. Soil boring logs are included in Appendix A.

One (1) sample was collected from each boring at the six-inch (6") interval of greatest observed contamination based on PID readings. During the soil boring investigation, a strong petroleum odor was observed within the immediate vicinity of the diesel fuel surface spill. As a result, an ambient PID reading of 4.0 parts per million (ppm) was encountered during the soil boring investigation. PID readings ranging between 4.0 ppm and 5.1 ppm were encountered in the soil borings advanced. Since the diesel fuel spill was limited to the asphalt surface, subsurface soil samples (S-1 through S-3) were collected from the soil borings S-1 through S-3 respectively at the six-inch (6") interval 0.5-1.0' bgs beneath the asphalt surface. Soil samples were forwarded to Hampton Clark-Veritech Laboratories (HC-V) for total petroleum hydrocarbon - diesel range organics (TPH-DRO) analysis. In accordance with Table 2-1 of the Technical Requirements for Site Remediation (N.J.A.C. 7:26E), volatile organic compound with a forward library search analysis (VO+10) was performed for 25% of the samples reporting a TPH concentration greater than 1,000 mg/kg.

TPH-DRO was reported at a concentration below the contingency threshold for VO+10 analysis for soil sample S-1, therefore, VO+10 was not performed for this sample. TPH-DRO was reported at a concentration exceeding the contingency threshold for VO+10 analysis for soil samples S-2 (4,000 mg/kg) and S-3 (1,500 mg/kg); therefore VO+10 analysis was performed for sample S-2 which reported the highest TPH-DRO concentration. All VO+10 compounds were reported as non-detect or at concentrations below their respective most stringent NJDEP Soil Remediation Standards (SRS) for soil sample S-2. It should be noted that all reported VO+10 compounds were also identified at concentrations below their NJDEP Default Impact to Ground Water Soil Screening Level (IGWSSL). A tabulated summary of analytical results is provided in Table 2. Laboratory analytical results and electronic data deliverables are included in Appendix B. Soil boring/sample locations are presented on Figure 2.

#### Former 6,000-gallon UST (AOC-2A)

According to the report titled "Removal of Three Underground Storage Tanks" prepared by Edward Kurth and Sons, Inc., one (1) 6,000-gallon No.2 heating oil UST (Tank-2) was closed and removed at the southwest exterior of Building C in 1989. Five (5) post-excavation soil samples were collected from the excavation and were laboratory analyzed for total petroleum hydrocarbons (TPH). TPH was reported as non-detect or at concentrations below the current NJDEP Health Based Criterion for Total Organic Contaminants (10,000 mg/kg) and the current 1,000 mg/kg threshold for contingency VO+10 analysis for soil samples collected.

In order to confirm the post-UST closure soil sampling findings, CMX advanced four (4) soil borings along the centerline of the UST excavation for Tank-2. Soil borings were advanced to a maximum of twelve feet (12') bgs utilizing direct push equipment. Soil borings were field screened with a calibrated PID and logged. Soil boring logs are included in Appendix A.



CMX collected soil samples which mimic the frequency required at the time of UST closure described in N.J.A.C. 7:26E [i.e. one (1) sample for every five (5) linear feet of the UST]. Based on this frequency and typical lengths for 6,000-gallon USTs (i.e. 15 to 20 feet), CMX collected four (4) soil samples (Tank2-1 through Tank2-4) from soil borings advanced along the centerline of the former UST. No evidence of impact (i.e. staining, odors or elevated PID readings) was identified in the soil column. With the exception of soil sample Tank2-2, which was collected at the six-inch (6") interval 9.5-10.0' bgs due to refusal encountered, all of the soil samples were collected at the six-inch (6") interval 11.5-12.0' bgs. Since the UST was utilized for the storage of No. 2 heating oil, soil samples were forwarded to HC-V for TPH-DRO analysis pursuant to Table 2-1 of N.J.A.C. 7:26E. Contingency VO+10 analysis was to be performed for twenty-five (25) percent of those samples with a TPH-DRO concentration of 1,000 mg/kg or above. TPH-DRO was reported as non-detect for soil samples Tank2-1 through Tank2-4; therefore contingency VO+10 analysis was not performed. A tabulated summary of analytical results is provided in Table 3. Laboratory analytical results and electronic data deliverables are included in Appendix B. Soil boring/sample locations are presented on Figure 3.

#### *Former 6,000-gallon UST (AOC-2B)*

According to the report titled "Removal of Three Underground Storage Tanks" prepared by Edward Kurth and Sons, Inc., one (1) 6,000-gallon No.2 heating oil UST (Tank-1) was closed and removed at the north exterior of Building B in 1989. Five (5) post-excavation soil samples were collected from the excavation and were laboratory analyzed for TPH. TPH was reported as non-detect for soil samples collected.

In order to confirm the post-UST closure soil sampling findings, CMX advanced four (4) soil borings along the centerline of the UST excavation for Tank-1. Soil borings were advanced to a maximum of twelve feet (12') bgs utilizing direct push equipment. Soil borings were field screened with a calibrated PID and logged. Soil boring logs are included in Appendix A.

CMX collected soil samples which mimic the frequency required at the time of UST closure described in N.J.A.C. 7:26E [i.e. one (1) sample for every five (5) linear feet of the UST]. Based on this frequency and typical lengths for 6,000-gallon USTs (i.e. 15 to 20 feet), CMX collected four (4) soil samples (Tank1-1 through Tank1-4) from soil borings advanced along the centerline of the former UST. No evidence of impact (i.e. staining, odors or elevated PID readings) was identified in the soil column; therefore the soil samples were collected at the six-inch (6") interval 11.5-12.0' bgs. Since the UST was utilized for the storage of No. 2 heating oil, soil samples were forwarded to HC-V for TPH-DRO analysis pursuant to Table 2-1 of N.J.A.C. 7:26E. Contingency VO+10 analysis was to be performed for twenty-five (25) percent of those samples with a TPH-DRO concentration of 1,000 mg/kg or above. TPH-DRO was reported as non-detect for soil samples Tank1-1 through Tank1-4; therefore contingency VO+10 analysis was not performed. A tabulated summary of analytical results is provided in Table 4. Laboratory analytical results and electronic data deliverables are included in Appendix B. Soil boring/sample locations are presented on Figure 4.

#### *Former 2,000-gallon UST (AOC-2C)*

According to the report titled "Removal of Three Underground Storage Tanks" prepared by Edward Kurth and Sons, Inc., one (1) 2,000-gallon No.2 heating oil UST (Tank-3) was closed and removed at the north exterior of Building A in 1989. Five (5) post-excavation soil samples were collected from the excavation and were laboratory analyzed for TPH. TPH was reported as non-detect for soil samples collected.

In order to confirm the post-UST closure soil sampling findings, CMX advanced four (4) soil borings along the centerline of the UST excavation for Tank-3. Soil borings were advanced to a maximum of twelve feet

(12') bgs utilizing direct push equipment. Soil borings were field screened with a calibrated PID and logged. Soil boring logs are included in Appendix A.

CMX collected soil samples which mimic the frequency required at the time of UST closure described in N.J.A.C. 7:26E [i.e. one (1) sample for every five (5) linear feet of the UST]. Based on this frequency and typical lengths for 2,000-gallon USTs (i.e. 15 to 20 feet), CMX collected four (4) soil samples (Tank3-1 through Tank3-4) from soil borings advanced along the centerline of the former UST. No evidence of impact (i.e. staining, odors or elevated PID readings) was identified in the soil column; therefore the soil samples were collected at the six-inch (6") interval 11.5-12.0' bgs. Since the UST was utilized for the storage of No. 2 heating oil, soil samples were forwarded to HC-V for TPH-DRO analysis pursuant to Table 2-1 of N.J.A.C. 7:26E. Contingency VO+10 analysis was performed for twenty-five (25) percent of those samples with a TPH-DRO concentration of 1,000 mg/kg or above. TPH-DRO was reported as non-detect for soil samples Tank3-1 through Tank3-4; therefore contingency VO+10 analysis was not performed. A tabulated summary of analytical results is provided in Table 5. Laboratory analytical results and electronic data deliverables are included in Appendix B. Soil boring/sample locations are presented on Figure 3.

#### *Potential Mercury Surface Spill (AOC-16)*

CMX advanced four (4) soil borings (M-1 through M-4) to characterize soils in the potential mercury surface spill area. Since the initial mercury vapor readings recorded by NJDEP with a Lumex mercury analyzer were limited to shallow surface soils, the soil borings were advanced to a maximum of four feet (4') bgs utilizing direct push equipment. Since the mercury vapor readings were limited to the vicinity of the weather station tower, the initial soil boring (M-1) was advanced in this area. The remaining soil borings (M-2 through M-4) were advanced approximately eight feet (8') to the south, west and north of initial soil boring M-1 respectively. Soil borings were field screened with a calibrated Lumex mercury analyzer for the presence of mercury and logged. Soil boring logs are included in Appendix A.

One (1) sample was collected from each boring at the six-inch (6") interval of greatest observed contamination based on Lumex mercury analyzer readings. Prior to commencement of the soil boring investigation, mercury vapor readings were collected outside of the area where previous vapor readings were encountered for the purpose of establishing a background ambient value. Background vapor mercury values ranging between 500 ng/m<sup>3</sup> and 750 ng/m<sup>3</sup> were identified. During the soil boring investigation, an elevated mercury vapor reading of 861 ng/m<sup>3</sup> was encountered at a depth of eighteen inches (18") bgs at soil boring M-1. In addition, dark purple staining was encountered at a depth interval of eight to twenty-eight inches (8-28") bgs; therefore, CMX collected subsurface soil sample M-1 from the six-inch (6") interval eighteen to twenty-four inches (18-24") bgs where elevated mercury vapor readings and staining were encountered. An additional soil sample (M-1A) was collected from the initial soil boring at the six-inch (6") interval 3.5-4.0' bgs where background mercury vapor readings were measured. No indications of staining or elevated mercury vapor readings were encountered at soil borings M-2 through M-4; therefore, CMX collected one (1) subsurface soil sample from each of the borings at a depth of eighteen to twenty-four inches (18-24") bgs corresponding to the depth of the elevated mercury vapor reading dark purple staining identified at initial soil boring M-1. The initial soil sample (M-1) was forwarded to HC-V for mercury analysis. In the event that mercury was reported at a concentration exceeding the NJDEP SRS for sample M-1, contingency mercury analysis would be performed for soil samples M-1A, M-2, M-3 and M-4.

Mercury was reported at a concentration exceeding the NJDEP Residential Direct Contact (RDC) SRS of 23 mg/kg and Non-Residential Direct Contact (NRDC) SRS of 65 mg/kg for soil sample M-1 (3,700 mg/kg). The reported concentration also exceeds the IGWSSL of 0.1 mg/kg. Since mercury was identified at a concentration exceeding NJDEP SRS, contingency mercury analyses was performed for the remaining soil

samples. Mercury was reported at a concentration exceeding the RDCSRS of 23 mg/kg and NRDCSRS of 65 mg/kg for subsurface soil sample M-1A (2,100mg/kg). Mercury was reported as non-detect for sample M-3 and at concentrations below the most stringent NJDEP direct contact SRS for soil samples M-2 (0.5 mg/kg) and M-4 (0.13 mg/kg). The reported mercury concentrations for samples M-1A, M-2 and M-4 also exceed the IGWSSL of 0.1 mg/kg. A tabulated summary of analytical results is provided in Table 6. Laboratory analytical results and electronic data deliverables are included in Appendix B. Soil boring/sample locations are presented on Figure 5.

#### January 23, 2008 Site Reconnaissance

On January 23, 2008, CMX conducted a site reconnaissance within the Camden Laboratories building compound in order to locate the storage containers which were to be collected and disposed per NJDEP's comments (AOC-3). During the reconnaissance, CMX located eight (8) five-gallon paint buckets, fifty (50) one-gallon paint cans, fourteen (14) ten-gallon muriatic acid containers and two (2) one-gallon paint thinner containers within the freezer room of Building B. All containers were empty at the time of the inspection. CMX notes that the four (4) empty 55-gallon muriatic acid drums and five (5) empty 55-gallon caustic soda drums previously observed in this location were not present at the time of the January 23, 2008 site reconnaissance. Based on our discussion with Mr. Manco, Jr., it appears that recent vandalism of the building has resulted in the destruction and removal of much of the building's contents, including the 55-gallon drums. We understand that the remaining empty containers will be removed and disposed in accordance with applicable waste regulation.

#### January 23, 2009 Soil Boring Investigation

CMX and its subcontractor, Enviroprobe, conducted a soil boring investigation at the site on January 23, 2009. The soil boring investigation was performed in an effort to investigate the potential for impact resulting from the drywell (AOC-6), and to further characterize soils in the vicinity of the elevated mercury vapor measurements (AOC-16).

##### *Building B Drywell (AOC-6)*

Based on information obtained during the December 11, 2008 site reconnaissance, CMX determined the location of the drywell that formerly serviced Building B. Previously, the drywell was believed to be associated with the former hydraulic system (AOC-11), and was investigated as part of the former hydraulic lift system (AOC-11) investigation. During the previous investigation activities, CMX advanced one (1) soil boring adjacent to the drywell. One (1) soil sample was collected from the boring and analyzed for TPH-QAM. TPH-QAM was reported at a concentration below the current NJDEP Health Based Criterion for Total Organic Contaminants (10,000 mg/kg) and the 100 mg/kg threshold for contingency polynuclear aromatic hydrocarbons (PAH) analysis for hydraulic oil spills. In addition, CMX installed a temporary well point at this location and collected a grab ground water sample for volatile organic compound with a forward library search (VO+10) and base neutral compound with a forward library search (BN+15) analyses. All VO+10 and BN+15 compound were reported as non-detect or at concentrations below their respective New Jersey Ground Water Quality Standard (NJGWQS).

Based on the December 11, 2008 site reconnaissance findings and the protocols prescribed in the Technical Requirements for Site Remediation (N.J.A.C. 7:26E), CMX advanced a duplicate boring (SB-5 DUP) and collected one (1) additional soil sample (SB-5 DUP) to investigate this AOC. The soil boring was advanced to a maximum of sixteen feet (16') bgs utilizing direct push equipment. The soil boring was field screened with a calibrated PID and logged. The soil boring log is included in Appendix A. No staining or odors were observed in the soil boring column; however slightly elevated PID readings were encountered at

depths between seven feet (7') and fifteen feet (15') bgs. PID readings ranged from 0.0 ppm to 4.4 ppm. One (1) sample was collected from the boring at the six-inch (6") interval of greatest observed contamination based on PID readings. CMX collected soil sample SB-5DUP from the soil boring at a depth of 10.0-10.5' below grade. The soil sample was forwarded to HC-V for priority pollutant plus forward library search (PP+40) analysis. All PP+40 compounds were reported as non-detect or at concentrations below their respective most stringent direct contact SRS for soil sample SB-5DUP. All reported compounds were also identified at concentrations below their IGWSSL. A tabulated summary of analytical results is provided in Table 7. Laboratory analytical results and electronic data deliverables are included in Appendix B. Soil boring/sample locations are presented on Figure 6.

### *Potential Mercury Surface Spill (AOC-16)*

CMX advanced four (4) additional soil borings (M-1DUP, M-2DUP, M-4DUP and M-5) to further characterize soils in the mercury surface spill area (AOC-16). Duplicate soil borings M-1DUP, M-2DUP and M-4DUP were advanced at previous soil boring locations M-1, M-2 and M-4 respectively. During the soil boring investigation, CMX noted that the NJDEP air monitoring station had been removed. Therefore, CMX advanced soil boring M-5 approximately eight feet (8') to the east of initial soil boring location M-1. Soil borings M-1DUP, M-2DUP, M-4DUP and M-5 were advanced to a maximum depth of twenty-one feet (21') bgs. Soil borings were field screened with a calibrated Lumex mercury analyzer for the presence of mercury and logged. Soil boring logs are included in Appendix A. All soil boring/sample locations are presented on Figures 1 and 5. The following paragraphs present a summary of soil boring investigation findings for each soil boring advanced at this AOC.

#### Soil Boring M-1DUP

Since mercury was identified at a concentration exceeding the RDCSRS of 23 mg/kg for initial soil sample M-1 collected at a depth of 1.5-2.0' bgs and M-1A collected at a depth of 3.5-4.0' bgs, CMX advanced duplicate soil boring M-1-DUP at this location. Soil boring M-1DUP was advanced to a depth of twenty-one feet (21') bgs. Ground water was encountered in soil boring M-1DUP at a depth of 19.0' bgs. Mercury vapor readings in the M-1DUP soil column ranged from 9,971 ng/m<sup>3</sup> to >50,000 ng/m<sup>3</sup>. Based on the vapor readings, CMX collected three (3) soil samples from this soil boring in an effort to vertically delineate the mercury contamination identified. Soil sample (M-1B) was collected at a depth of 15.5'-16.0' bgs. A second sample (M-1C) was collected at a depth of 18.0-18.5' bgs. A third sample (M-1D) was collected at a depth of 20.0-20.5' bgs. Soil samples were forwarded to HCV for mercury analysis. Mercury was reported as non-detect for sample M-1-C and at concentrations below the RDCSRS of 23 mg/kg for samples M-1B (0.95 mg/kg) and M-1D (11 mg/kg). It should be noted that the reported mercury concentrations for samples M-1B and M-1D also exceed the IGWSSL of 0.1 mg/kg.

#### Soil Boring M-2DUP

Since mercury was identified at a concentration exceeding the RDCSRS in soil boring M-1 at depths of 1.5-2.0' bgs and 3.5-4.0' bgs, CMX advanced duplicate soil boring M-2DUP at the location of initial soil boring M-2 in an effort to horizontally delineate the mercury contamination identified. Soil boring M-2 was advanced to a depth of twenty feet (20') bgs. Ground water was encountered in soil boring M-2DUP at a depth of 18.5' bgs. Mercury vapor readings in the M-2DUP soil column ranged from 895 ng/m<sup>3</sup> to 43,350 ng/m<sup>3</sup>. Based on the vapor readings, CMX collected two (2) soil samples from this soil boring. Soil sample (M-2A) was collected at a depth of 11.5-12.0' bgs. A second sample (M-2B) was collected at a depth of 19.5-20.0' bgs. Soil samples were forwarded to HCV for mercury analysis. Mercury was reported at a concentration exceeding the RDCSRS of 23 mg/kg and NRDCSRS of 65 mg/kg for soil sample M-2B (82 mg/kg). Mercury was reported at a concentration below the RDCSRS of 23 mg/kg for soil sample M-

2A (0.84 mg/kg). It should be noted that the reported mercury concentrations for M-2A and M-2B exceed the IGWSSL of 0.1 mg/kg.

#### Soil Boring M-4DUP

Since mercury was identified at a concentration exceeding the RDCSRS in soil boring M-1 at depths of 1.5-2.0' bgs and 3.5-4.0' bgs, CMX advanced duplicate soil boring M-4DUP at the location of initial soil boring M-4 in an effort to horizontally delineate the mercury contamination identified. Soil boring M-4 was advanced to a depth of nineteen feet (19') bgs. Ground water was encountered in soil boring M-4DUP at a depth of 18.5' bgs. Mercury vapor readings in the M-4DUP soil column ranged from 802 ng/m<sup>3</sup> to >50,000 ng/m<sup>3</sup>. Based on the vapor readings, CMX collected two (2) soil samples from this soil boring. Soil sample (M-4A) was collected at a depth of 15.5-16.0' bgs. A second sample (M-4B) was collected at a depth of 18.5-19.0' bgs. Soil samples M-4A and M-4B were forwarded to HCV for mercury analysis. Mercury was reported as non-detect for soil sample M-4B and at a concentration below the RDCSRS of 23 mg/kg for soil samples M-4A (1.1 mg/kg). It should be noted that the reported mercury concentration for M-4A exceeds the IGWSSL of 0.1 mg/kg

#### Soil Boring M-5

CMX advanced soil boring M-5 approximately eight feet (8') to the east of initial soil boring M-1, which was now accessible due to the recent removal of the former NJDEP air monitoring station. The soil boring was advanced in an effort to horizontally delineate the mercury contamination identified a depths of 1.5-2.0' bgs and 3.5-4.0' bgs in initial soil boring M-1. Soil boring M-5 was advanced to a depth of twenty feet (20') bgs. Ground water was encountered in soil boring M-5 at a depth of 18.5' bgs. Mercury vapor readings ranged from 200 ng/m<sup>3</sup> to >50,000 ng/m<sup>3</sup>. Based on the vapor readings, CMX collected two (2) soil samples from this soil boring. Soil sample (M-5A) was collected at a depth of 6.0-6.5' bgs. A second sample (M-5B) was collected at a depth of 19.5-20.0' bgs. Soil samples were forwarded to HC-V for mercury analysis. Mercury was reported at a concentration exceeding the RDCSRS of 23 mg/kg for soil sample M-5A (34 mg/kg). Mercury was reported as non-detect for soil sample M-5B. It should be noted that the reported mercury concentration for M-5 exceeds the IGWSSL of 0.1 mg/kg.

Soil boring, sampling locations and cross sections which provide a summary of soil sample depths, Lumex mercury vapor analyzer measurements and mercury analytical results are presented on Figure 5. A tabulated summary of mercury analytical results is provided in Table 8. Laboratory analytical results and electronic data deliverables are included in Appendix B.

#### January 29, 2009 Soil Boring Investigation

Based on the findings of the January 23, 2009 soil boring investigation, CMX and Enviroprobe advanced eight (8) soil borings (M-2, M-3, M-6, M-7, M-8, M-9, M-10 and M-11) to further characterize and delineate mercury contaminated soils in the mercury surface spill area (AOC-16) on January 29, 2009. Soil borings M-2, M-3, M-6, M-7, M-8 and M-9 were advanced to a maximum depth of twenty-five feet (25') bgs. Due to refusal encountered, soil boring M-11 was advanced to a maximum depth of twenty feet (20') bgs. CMX previously utilized a Lumex mercury analyzer to screen soil borings advanced within the mercury surface spill area. During the previous soil boring investigation, CMX noted erratic readings from the instrument, likely resulting from cold ambient temperatures and damp weather. As a result, soil borings advanced during the January 29, 2008 soil boring investigation were field screened with a calibrated Lumex mercury analyzer and a calibrated Jerome mercury analyzer for the presence of mercury. CMX noted erratic readings from the Lumex during the soil boring investigation; therefore, mercury vapor readings obtained utilizing the Jerome field screening device were logged. Soil boring logs are included in Appendix A. All soil

boring/sample locations are presented on Figures 1 and 5. The following paragraphs present a summary of soil boring investigation findings for each soil boring advanced at this AOC.

#### Soil Boring M-2

Since mercury was identified at a concentration exceeding the RDCSRS in soil boring M-2 at a depth of 19.5-20.0' bgs, CMX advanced a duplicate soil boring at the location of initial soil boring M-2 in an effort to vertically delineate the mercury contamination identified. Soil boring M-2 was advanced to a depth of twenty-five feet (25') bgs. Ground water was encountered in soil boring M-2 at a depth of 18.5' bgs. Mercury vapor readings ranged from 0.0 ng/m<sup>3</sup> to 14.5 ng/m<sup>3</sup>. CMX collected a duplicate sample (M-2B-DUP) from the six-inch interval corresponding with initial soil sample M-2B (i.e. 19.5-20.0' bgs) to verify the initial analytical results. CMX collected three (3) additional soil samples from the soil boring based on mercury vapor measurements as follows: soil sample M-2C was collected at a depth of 14.0-14.5' bgs; soil sample M-2D was collected at a depth of 18.0-18.5' bgs; and, soil sample M-2E was collected at a depth of 22.5-23.0' bgs. The soil samples were forwarded to HC-V for mercury analysis. Mercury was reported at a concentration exceeding the RDCSRS of 23 mg/kg for soil sample M-2D (81 mg/kg). Mercury was reported as non-detect for sample M-2E and at concentrations below the RDCSRS of 23 mg/kg for samples M-2BDUP (11 mg/kg) and M-2C (2.4 mg/kg). It should be noted that the reported mercury concentrations for M-2A, M-2C, M-2D and M-2BDUP exceed the IGWSSL of 0.1 mg/kg.

#### Soil Boring M-3

Since mercury was identified at a concentration exceeding the NJDEP Residential Direct Contact SRS in soil boring M-1 at depths of 1.5-2.0' bgs and 3.5-4.0' bgs, CMX advanced a duplicate soil boring at the location of initial soil boring M-3 in an effort to horizontally delineate the mercury contamination identified. Soil boring M-3 was advanced to a depth of twenty-five feet (25') bgs. Ground water was encountered in soil boring M-3 at a depth of 18.5' bgs. Mercury vapor readings ranged from 0.0 ng/m<sup>3</sup> to 2.6 ng/m<sup>3</sup>. Based on the vapor readings, CMX collected six (6) soil samples from this soil boring based on mercury vapor measurements as follows: soil sample (M-3A) was collected at a depth of 6.5-7.0' bgs; soil sample M-3B was collected at a depth of 14.0-14.5' bgs; soil sample M-3C was collected at a depth of 18.0-18.5' bgs; soil sample M-3D was collected at a depth of 19.5-20.0' bgs; soil sample M-3E was collected at a depth of 22.5-23.0' bgs; and soil sample (M-3F) was collected at a depth of 24.5-25.0' bgs.

Initial soil samples M-3B and M-3D were forwarded to HC-V for mercury analysis. In the event that mercury was reported at a concentration exceeding the RDCSRS for samples M-3B or M-3D, contingency mercury analysis would be performed for soil samples M-3A, M-3C, M-3E and M-3F, as appropriate. Mercury was reported as non-detect for sample M-3D and at a concentration below the RDCSRS of 23 mg/kg for soil sample M-3B (1.6 mg/kg). Based on these results, no contingency mercury analyses were performed. It should be noted that the reported mercury concentration for M-3D exceeds the IGWSSL of 0.1 mg/kg.

#### Soil Boring M-6

Since mercury was identified at a concentration exceeding the RDCSRS in soil boring M-2 at a depth of 18.0-18.5' bgs and 19.5-20.0' bgs, CMX advanced soil boring M-6 approximately eight feet (8') south of soil boring M-2 in an effort to horizontally delineate the mercury contamination identified. Soil boring M-6 was advanced to a depth of twenty-five feet (25') bgs. Ground water was encountered in soil boring M-6 at a depth of 18.5' bgs. Mercury vapor readings ranged from 0.0 ng/m<sup>3</sup> to 36.5 ng/m<sup>3</sup>. CMX collected five (5) soil samples from this soil boring based on mercury vapor measurements as follows: soil sample M-6A was collected at a depth of 14.0-14.5' bgs; soil sample M-6B was collected at a depth of 18.0-18.5' bgs; soil sample M-6C was collected at a depth of 19.5-20.0' bgs; soil sample M-6D was collected at a depth of

22.5-23.0' bgs; and, soil sample M-6E was collected at a depth of 24.5-25.0' bgs. Based on the analytical results for soil samples collected from soil boring M-2, soil samples M-6A, M-6B and M-6D were forwarded to HC-V for mercury analysis. In the event that mercury was reported at a concentration exceeding the RDCSRS for samples M-6A, M-6B or M-6D, contingency mercury analysis would be performed for soil samples M-6C and M-6E. Mercury was reported at a concentration exceeding the RDCSRS of 23 mg/kg for soil sample M-6B (36 mg/kg). Mercury was reported at concentrations below the RDCSRS of 23 mg/kg for soil samples M-6A (0.13 mg/kg) and M-6D (16 mg/kg). Based on these results, no contingency mercury analyses were performed. It should be noted that the reported mercury concentrations for M-6A, M-6B and M-6D exceed the IGWSSL of 0.1 mg/kg.

#### Soil Boring M-7

CMX advanced contingency soil boring M-7 approximately thirteen feet (13') south of soil boring M-6 for the purposes of horizontal delineation of mercury contamination, had it been identified at soil boring M-6. Soil boring M-7 was advanced to a depth of twenty-five feet (25') bgs. Ground water was encountered in soil boring M-7 at a depth of 18.5' bgs. Mercury vapor readings ranged from 0.0 ng/m<sup>3</sup> to 10.6 ng/m<sup>3</sup>. CMX collected five (5) soil samples from soil boring M-7 based on mercury vapor measurements as follows: soil sample M-7A was collected at a depth of 14.0-14.5' bgs; soil sample M-7B was collected at a depth of 18.0-18.5' bgs; soil sample M-7C was collected at a depth of 19.5-20.0' bgs; soil sample M-7D was collected at a depth of 22.5-23.0' bgs; and, soil sample M-7E was collected at a depth of 24.5-25.0' bgs. Based on the analytical results for soil samples collected from soil boring M-6, mercury analyses was performed for soil samples M-7B and M-7C by HC-V. In the event that mercury was reported at a concentration exceeding the RDCSRS for samples M-7B or M-7C, contingency mercury analysis would be performed for soil samples M-7A, M-7D or M-7E. Mercury was reported at concentrations below the RDCSRS of 23 mg/kg for soil samples M-7B (8.5 mg/kg) and M-7C (19 mg/kg). Based on these results, no contingency mercury analyses were performed. It should be noted that the reported mercury concentrations for M-7B and M-7C exceed the IGWSSL of 0.1 mg/kg.

#### Soil Boring M-8

CMX advanced contingency soil boring M-8 twenty-three feet (23') south of soil boring M-7 for the purposes of horizontal delineation of mercury contamination, had it been identified at soil boring M-7. Soil boring M-8 was advanced to a depth of twenty-five feet (25') bgs. Ground water was encountered in soil boring M-7 at a depth of 18.5' bgs. Mercury vapor readings, where measured, ranged from 0.0 ng/m<sup>3</sup> to 2.7 ng/m<sup>3</sup>. CMX collected five (5) soil samples from this soil boring based on mercury vapor measurements as follows: soil sample M-8A was collected at a depth of 14.0-14.5' bgs; soil sample M-8B was collected at a depth of 18.0-18.5' bgs; soil sample M-8C was collected at a depth of 19.5-20.0' bgs; soil sample M-8D was collected at a depth of 22.5-23.0' bgs; and, soil sample M-8E was collected at a depth of 24.5-25.0' bgs. Based on the analytical results for soil samples collected from soil boring M-7, no mercury analyses were performed for soil samples collected from soil boring M-8.

#### Soil Boring M-9

CMX advanced contingency soil boring M-9 approximately eight feet (8') east of soil boring M-5 for the purposes of horizontal delineation of mercury contamination, had it been identified at soil boring M-5. Soil boring M-9 was advanced to a depth of twenty-five feet (25') bgs. Ground water was encountered in soil boring M-9 at a depth of 19.0' bgs. Mercury vapor readings ranged from 0.0 ng/m<sup>3</sup> to 1.5 ng/m<sup>3</sup>. CMX collected four (4) soil samples from soil boring M-9 based on mercury vapor measurements as follows: soil sample M-9A was collected at a depth of 5.0-5.5' bgs; soil sample M-9B was collected at a depth of 14.0-14.5' bgs; soil sample M-9C was collected at a depth of 18.5-19.0' bgs; and, soil sample M-

9D was collected at a depth of 24.5-25.0'. Based on the analytical results for soil samples collected from soil boring M-5, mercury analyses was performed for soil samples M-9A and M-9B by HC-V. In the event that mercury was reported at a concentration exceeding the RDCSRS for samples M-9A or M-9B, contingency mercury analysis would be performed for soil samples M-9C and M-9D. Mercury was reported as non-detect for sample M-9A and at a concentration below the RDCSRS of 23 mg/kg for soil sample M-9B (1.6 mg/kg). Based on these results, no contingency mercury analyses were performed. It should be noted that the reported mercury concentration for M-9B exceeds the IGWSSL of 0.1 mg/kg.

#### Soil Boring M-10

CMX advanced contingency soil boring M-10 approximately eight feet (8') east of soil boring M-9 for the purposes of horizontal delineation of mercury contamination, had it been identified at soil boring M-9. Soil boring M-10 was advanced to a depth of twenty-five feet (25') bgs. Ground water was encountered in soil boring M-10 at a depth of 18.5' bgs. Mercury vapor readings, where measured, ranged from 0.0 ng/m<sup>3</sup> to 0.4 ng/m<sup>3</sup>. CMX collected four (4) soil samples from this soil boring based on mercury vapor measurements as follows: soil sample M-10A was collected at a depth of 5.5-6.0' bgs; soil sample M-10B was collected at a depth of 14.0-14.5' bgs; soil sample M-10C was collected at a depth of 18.0-18.5' bgs; and, soil sample M-10D was collected at a depth of 24.5-25.0' bgs. Based on the analytical results for soil samples collected from soil boring M-9, no mercury analyses were performed for soil samples collected from soil boring M-10.

#### Soil Boring M-11

CMX advanced contingency soil boring M-11 approximately eight feet (8') west of soil boring M-3 for the purposes of horizontal delineation of mercury contamination, had it been identified at soil boring M-3. Soil boring M-11 was advanced to a depth of twenty feet (20') bgs. Ground water was encountered in soil boring M-11 at a depth of 18.5' bgs. Mercury vapor readings, where measured, ranged from 0.0 ng/m<sup>3</sup> to 2.9 ng/m<sup>3</sup>. CMX collected four (4) soil samples from this soil boring based on mercury vapor measurements as follows: soil sample M-11A was collected at a depth of 5.0-5.5' bgs; soil sample M-11B was collected at a depth of 14.0-14.5' bgs; soil sample M-11C was collected at a depth of 18.0-18.5' bgs; and, soil sample M-11D was collected at a depth of 19.5-20.0' bgs. Based on the analytical results for soil samples collected from soil boring M-3, no mercury analyses were performed for soil samples collected from soil boring M-11.

Soil boring, sampling locations and cross sections which provide a summary of soil sample depths, Lumex mercury vapor analyzer measurements and mercury analytical results are presented on Figure 5. A tabulated summary of mercury analytical results is provided in Table 9. Laboratory analytical results and electronic data deliverables are included in Appendix B.

#### **Conclusions and Recommendations**

CMX has conducted supplemental SI activities at the Camden Laboratories property pursuant to the recommendations provided by NJDEP representatives during our November 19, 2008 site meeting and in accordance with the Notice of Deficiency correspondence dated December 8, 2008. The following paragraphs present a summary CMX's conclusions and recommendations by AOC.

##### 275-gallon AST (AOC-1)

CMX advanced three (3) soil borings to investigate the diesel fuel surface spill area (AOC-1). Elevated PID readings were encountered in the soil borings advanced. A soil sample was collected from each soil



boring. TPH-DRO was reported at a concentration exceeding the contingency threshold for VO+10 analysis for soil samples S-2 (4,000 mg/kg) and S-3 (1,500 mg/kg); therefore VO+10 analysis was performed for sample S-2. All VO+10 compounds were reported as non-detect or at concentrations below their respective RDCSRS, NRDCSRS and IGWSSL for soil sample S-2. Based on the analytical results, CMX recommends no additional investigation of the diesel fuel surface spill area. Therefore, CMX respectfully requests a determination of no further action for this AOC.

*Former 6,000-gallon UST (AOC-2A)*

CMX advanced four (4) soil borings along the centerline of the UST excavation for Tank-2 (AOC-2A). No evidence of contamination (i.e. odors, staining, elevated PID readings) was observed in any of the borings advanced. A soil sample was collected from each soil boring. TPH was reported as non-detect for all samples collected; therefore, contingency VO+10 analysis was not performed. Based on the analytical results, CMX recommends no additional investigation of the former 6,000 gallon UST. Therefore, CMX respectfully requests a determination of no further action for this AOC.

*Former 6,000-gallon UST (AOC-2B)*

CMX advanced four (4) soil borings along the centerline of the UST excavation for Tank-1 (AOC-2B). No evidence of contamination (i.e. odors, staining, elevated PID readings) was observed in any of the borings advanced. A soil sample was collected from each soil boring. TPH was reported as non-detect for all samples collected; therefore, contingency VO+10 analysis was not performed. Based on the analytical results, CMX recommends no additional investigation of the former 6,000 gallon UST. Therefore, CMX respectfully requests a determination of no further action for this AOC.

*Former 2,000-gallon UST (AOC-2C)*

CMX advanced four (4) soil borings along the centerline of the UST excavation for Tank-3 (AOC-2C). No evidence of contamination (i.e. odors, staining, elevated PID readings) was observed in any of the borings advanced. A soil sample was collected from each soil boring. TPH was reported as non-detect for all samples collected; therefore, contingency VO+10 analysis was not performed. Based on the analytical results, CMX recommends no additional investigation of the former 2,000 gallon UST. Therefore, CMX respectfully requests a determination of no further action for this AOC.

*Storage Containers (AOC-3)*

During CMX's January 23, 2008 site reconnaissance numerous empty paint, muriatic acid and paint thinner containers were identified within the freezer room of Building B; however, the four (4) empty 55-gallon muriatic acid drums and five (5) empty 55-gallon caustic soda drums previously observed in this location were not present at the time of the reconnaissance. Based on discussions Mr. Manco, Jr., it appears that recent vandalism of the building has resulted in the destruction and removal of much of the building's contents, including the 55-gallon drums. We understand that the remaining empty containers will be removed and disposed in accordance with applicable waste regulation. Copies of disposal receipts will be provided:

*Septic System, Leachfields or Seepage Pits (AOC-5)*

During the April 8, 2008 geophysical survey subsurface components of the on-site septic system were identified, including an approximate 10,000-gallon subsurface septic tank and associated discharge pipe was identified at the septic system location east of Building F. Subsequent to the geophysical survey, CMX

conducted a soil boring investigation in order to investigate the septic system. Based on the findings for the geophysical survey and soil boring investigation, no further investigation of the septic system (AOC-5) was recommended. NJDEP concurred with these investigation findings in their December 3, 2008 letter of correspondence. Based on the information provided by Mr. Manco, Jr. we understand that the septic system is no longer in use at the site. Therefore, CMX recommends closure of the system in accordance with the Standards for Individual Subsurface Sewage Disposal Systems (N.J.A.C. 7:9A) and NJDEP's request for closure of same.

*Building B Drywell (AOC-6)*

Based on information obtained during the December 11, 2008 site reconnaissance, CMX determined that the round geophysical anomaly and associated piping identified south of the building compound corresponded to the location of the drywell that formerly serviced Building B. Previously, the drywell was believed to be associated with the former hydraulic system (AOC-11), and was investigated as part of the former hydraulic lift system (AOC-11) investigation. During the previous investigation activities, CMX advanced one (1) soil boring adjacent to the drywell. One (1) soil sample was collected from the boring and analyzed for TPH-QAM. TPH-QAM was reported at a concentration below the current NJDEP Health Based Criterion for Total Organic Contaminants (10,000 mg/kg) and the 100 mg/kg threshold for contingency polynuclear aromatic hydrocarbons (PAH) analysis for hydraulic oil spills. In addition, CMX installed a temporary well point at this location and collected a grab ground water sample for VO+10 and BN+15 analyses. All VO+10 and BN+15 compound were reported as non-detect or at concentrations below their respective NJGWQS.

Based on the December 11, 2008 site reconnaissance findings and the protocols prescribed in the Technical Requirements for Site Remediation (N.J.A.C. 7:26E), CMX advanced a duplicate boring and collected one (1) additional soil sample to investigate this AOC. CMX collected soil sample SB-5DUP from the soil boring at a depth of 10.0-10.5' below grade corresponding to an elevated PID reading of 4.4 ppm. The soil sample was forwarded to HC-V for PP+40 analysis. All PP+40 compounds were reported as non-detect or at concentrations below their respective most stringent SRS for soil sample SB-5DUP. Based on these findings, CMX recommends no additional investigation of this AOC.

*NJ SPILLS Database Listing (NJDEP Case No. 98-11-20-1919-54) (AOC-13)*

According to the December 8, 2008 correspondence from Mr. Dunfee, the NJDEP requested a copy of the Camden County Health Department file completion memo pertaining to the nitrogen gas release at the site. A copy of the file completion memo is included in Appendix C. According to the file completion memo, "the conditions cited have been mitigated to acceptable limits when compared to the current State of New Jersey, NJDEP&E technical regulations." Therefore, CMX respectfully requests a determination of no further action for this AOC.

*Regional Ground Water Contamination (AOC-14)*

Based on a review of records for the north adjacent RF Products property, RF Products has been identified as a source of chlorinated solvent ground water contamination within the region. As discussed in our Preliminary Assessment (PA) Report, chlorinated solvent ground water contamination was identified on the Camden Laboratories property following investigations completed by NJDEP and has been attributed to migration of contaminants originating from RF Products. CMX recommended no additional investigation of this AOC; however, we understand that the Bureau of Environmental Measurement and Site Assessment will evaluate the RF Products/Fast Doors investigation data to confirm that there is an off-site source of

ground water contamination. We also understand that a vapor intrusion investigation will be required for future site improvements pursuant to N.J.A.C. 7:26E-4.4(h)3.viii.

According to the December 8, 2008 correspondence from Mr. Dunfee, the NJDEP requested a site plan which provides the locations of all site AOCs, sampling locations and construction details for several site features in order to confirm that there are no on site sources of chlorinated solvent ground water contamination. While conducting our PA, CMX requested available City of Camden Building and Engineering Department records via a records request dated November 29, 2007; however, CMX has not received any information regarding records relative to the site to date. Based on these findings, CMX has determined that site plans pertaining to the building compound, including construction details for the on-site septic system, are not available at the City of Camden Building and/or Engineering Departments. CMX requested copies of any as-built drawings or construction plans which provide the construction details for the on-site septic system, drywell and hydraulic lift from Camden Laboratories, LP. Mr. Manco, Jr. indicated that any plans which provide this type of information were maintained at the site; however, Mr. Manco, Jr. indicated that the plans were either removed or damaged during acts of vandalism and were not available. CMX has prepared a site plan which depicts the locations of sanitary system features based on the comprehensive results of the geophysical survey and site reconnaissance activities completed to date (Figure 1).

#### *Potential Mercury Surface Spill (AOC-16)*

CMX conducted a soil boring investigation of the potential mercury surface spill area between December 2008 and January 2009. CMX advanced sixteen (16) soil borings to depths ranging between four feet (4') bgs and twenty-five feet (25') bgs. Soil borings were field screened using a calibrated Lumex and/or Jerome mercury analyzer. Elevated mercury vapor readings were observed throughout a majority of the soil borings advanced; however, elevated mercury vapor readings diminished at the extent of each soil boring. CMX collected soil samples from each of the soil borings corresponding with elevated vapor mercury readings and/or visual indications of mercury contamination (i.e. dark purple staining). Where mercury vapor readings were recorded for multiple intervals, soil samples were collected and analyzed. In addition, CMX collected soil samples from each soil boring at the six-inch (6") interval where no indications of impact were identified in order to horizontally and vertically delineate the mercury contamination. Analytical results reported mercury at a concentration exceeding the RDCSRS of 23 mg/kg for subsurface soil samples M-1 (3,700 mg/kg), M-1A (2,100 mg/kg), M-2B (82 mg/kg), M-2D (81 mg/kg), M-5A (34 mg/kg) and M-6B (36 mg/kg). Mercury was reported as non-detect or at concentrations below the NJDEP SRS for all other soil samples collected.

Based on the analytical results for soil samples collected to investigate the mercury surface spill area to date, mercury contamination has been horizontally and vertically delineated to the RDCSRS. Analytical results indicate that mercury soil contamination has been horizontally delineated to the north by subsurface soil samples M-4 and M-4A, to the east by subsurface soil samples M-9A and M-9B, to the south by subsurface soil samples M-7B and M-7C and to the west by subsurface soil samples M-3 and M-3B. Mercury contamination associated with soil sample location M-1 and M-1A has been vertically delineated by subsurface soil sample M-1B collected from a depth of 15.5-16.0' bgs. Mercury contamination associated with soil sample location M-2B and M-2D has been vertically delineated by subsurface soil sample M-2E collected from a depth of 22.5-23.0' bgs. Mercury contamination associated with soil sample location M-5A has been vertically delineated by subsurface soil sample M-5B collected from a depth of 19.5-20.0' bgs. Mercury contamination associated with soil sample location M-6B has been vertically delineated by subsurface soil sample M-6C collected from a depth of 19.5-20.0' bgs.

070235805  
Raymond S. Souweha  
February 25, 2009  
Page 16

We estimate that the area of mercury contaminated soils measures twenty-four (24) feet in length by thirty-four (34) feet in width and extends to a maximum depth of twenty-three (23) feet bgs. The volume of mercury contaminated soils is estimated to range from 500 to 700 cubic yards, or approximately 750 to 1050 tons. We are currently exploring remedial strategies to address the mercury contaminated soil with Camden Laboratories, LP. Once an appropriate remedial strategy has been selected, CMX will prepare and submit a Remedial Action Workplan for your review.

We look forward to continuing to work with you on this project. If you have any questions or require anything further do not hesitate to contact me at 856-783-1900.

Very truly yours,

CMX



Mark Pietrucha, P.E.  
Associate

C: Martin Manco, Camden Laboratories, LP

MEP  
Enclosure

\\s09svr01\project\2007\0702358\05\05\_reports\supplemental sir\1667 davis supplemental si summary update.doc

*m.pietrucha@cmxengineering.com*

CERTIFICATION

N.J.A.C. 7:26-1.2 et. seq.

Any person making a submission to the Department required by this chapter and pursuant to N.J.A.C. 7:26E, will include the following signature and notarized certification, for each technical submittal. Additionally, the certification will indicate the case name and address, case number, type of documents submitted, e.g. Remedial Action Report, for each technical submittal.


TYPE OF DOCUMENT: SUPPLEMENTAL SITE INVESTIGATION REPORT  
CASE NAME: CAMDEN LABORATORIES  
CASE ADDRESS: 1667 Davis Street, Block 1392, Lot 33, City of Camden, Camden County, New Jersey  
CASE NUMBER: 08-07-01-1547-19


The following certification will be signed by:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For a partnership or sole proprietorship, by a general partner of the proprietor, respectively, or;
3. For a municipality, State, Federal or other public agency, by either a principal executive officer or ranking elected official.
4. For persons other than 1 through 3 above, by the person with legal responsibility for the Site.

"I certify, under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate, or incomplete information, and that I am committing a crime of the fourth degree if I make a written false statement that I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

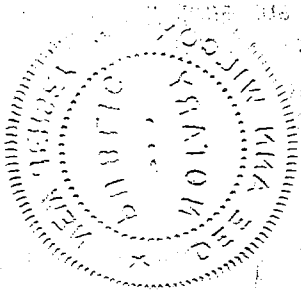
PRINTED NAME: MARTIN P. MANCO TITLE GENERAL PARTNER

SIGNATURE  DATE 3/4/2009

NOTARY SIGNATURE  DATE 3/4/2009

DEE ANN WILCOX  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires Dec. 18, 2013

Handwritten text at the top of the page, including a date and possibly a recipient's name.



Handwritten address or recipient information, possibly including a street name and number.

Main body of handwritten text, consisting of several lines of a letter or message.

Bottom section of handwritten text, possibly a signature or a closing line.

# Tables

Table 1: Summary of Analytical Methods and Quality Assurance Indicators  
 Supplemental Site Investigation  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, NJ  
 NJDEP Case Number: 08-07-01-1547-19

AOC	Sample ID	Sample Date	Sample Depth	Matrix	Sampling Method	Parameter
AOC-1	S-1	12/11/2008	0.5-1.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-1	S-2	12/11/2008	0.5-1.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-1	S-3	12/11/2008	0.5-1.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-2A	Tank2-1	12/11/2008	11.5-12.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-2A	Tank2-2	12/11/2008	11.5-12.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-2A	Tank2-3	12/11/2008	11.5-12.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-2A	Tank2-4	12/11/2008	11.5-12.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-2B	Tank1-1	12/11/2008	11.5-12.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-2B	Tank1-2	12/11/2008	11.5-12.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-2B	Tank1-3	12/11/2008	11.5-12.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-2B	Tank1-4	12/11/2008	11.5-12.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-2C	Tank3-1	12/11/2008	11.5-12.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-2C	Tank3-2	12/11/2008	11.5-12.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-2C	Tank3-3	12/11/2008	11.5-12.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-2C	Tank3-4	12/11/2008	11.5-12.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	TPH-DRO, VO+10*
AOC-14	M-1	12/11/2008	1.5-2.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-1A	12/11/2008	3.5-4.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-2	12/11/2008	1.5-2.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-3	12/11/2008	1.5-2.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-4	12/11/2008	1.5-2.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-6	SB-5-DUP	1/23/2009	10.0-10.5'	Soil	Direct Push Macrocore/Stainless Steel Spoon	PP+40
AOC-14	M-1-B	1/23/2009	15.5-16.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-1-C	1/23/2009	18.0-18.5'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-1-D	1/23/2009	20.5-21.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-2-A	1/23/2009	11.5-12.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-2-B	1/23/2009	19.5-20.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-4-A	1/23/2009	15.5-16.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-4-B	1/23/2009	18.5-19.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-5-A	1/23/2009	6.0-6.5'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-5-B	1/23/2009	19.5-20.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-2B-DUP	1/29/2009	19.5-20.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-2C	1/29/2009	14.0-14.5'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-2D	1/29/2009	18.0-18.5'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-2E	1/29/2009	22.5-23.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-3B	1/29/2009	14.0-14.5'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-3D	1/29/2009	19.5-20.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-6A	1/29/2009	14.0-14.5'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-6B	1/29/2009	18.0-18.5'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-6D	1/29/2009	22.5-23.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-7B	1/29/2009	18.0-18.5'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-7C	1/29/2009	19.5-20.0'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-9A	1/29/2009	5.0-5.5'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury
AOC-14	M-9B	1/29/2009	14.0-14.5'	Soil	Direct Push Macrocore/Stainless Steel Spoon	Mercury

\*Contingent laboratory analysis based on initial analytical results





Table 2: Supplemental Site Investigation Analytical Summary  
 Aboveground Storage Tanks (AOC-1)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 NJDEP Case Number: 08-07-01-1547-19

Sample ID	NJDEP SRS			Default Impact to Ground Water Soil Screening Levels	S-1	S-2	S-3
	Residential Direct Contact	Non-Residential Direct Contact	Residual				
Lab Sample No.					AC41717-006	AC41717-007	AC41717-008
Sampling Date					12/11/2008	12/11/2008	12/11/2008
Matrix					Soil	Soil	Soil
Sample Depth					0.5-1.0'	0.5-1.0'	0.5-1.0'
					Result	Result	Result
TPH-DRO (mg/kg)	NS	NS	NS	NS	150	4000	1500
% Solids (%)	NS	NS	NS	NS	86	88	87
					RDL	RDL	RDL
					70	200	69
<b>Volatiles Organics (mg/kg)</b>							
:Total Volatile Tic	NS	NS	NS	NS	NR	92.7	J
1,1,1-Trichloroethane	290	4200	0.2	0.2	NR	ND	0.43
1,1,2,2-Tetrachloroethane	1	3	0.005	0.005	NR	ND	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	NS	NS	NS	NR	ND	0.43
1,1,2-Trichloroethane	2	6	0.001	0.001	NR	ND	0.43
1,1-Dichloroethane	8	24	0.2	0.2	NR	ND	0.43
1,1-Dichloroethene	11	150	0.005	0.005	NR	ND	0.43
1,2-Dibromo-3-chloropropane	0.08	0.2	0.005	0.005	NR	ND	0.43
1,2-Dibromoethane	0.008	0.04	0.005	0.005	NR	ND	0.43
1,2-Dichlorobenzene	5300	59000	11	11	NR	ND	0.43
1,2-Dichloroethane	0.9	3	0.005	0.005	NR	ND	0.22
1,2-Dichloropropane	2	5	0.005	0.005	NR	ND	0.43
1,3-Dichlorobenzene	5300	59000	12	12	NR	ND	0.43
1,4-Dichlorobenzene	5	13	1	1	NR	ND	0.43
2-Butanone	3100	44000	0.6	0.6	NR	ND	0.43
2-Chloroethoxyvinylether	NS	NS	NS	NS	NR	ND	0.43
2-Hexanone	NS	NS	NS	NS	NR	ND	0.43
4-Methyl-2-pentanone	NS	NS	NS	NS	NR	ND	0.43
Acetone	70000	NS	12	12	NR	ND	2.2
Acrolein	0.5	1	0.5	0.5	NR	ND	2.2
Acrylonitrile	0.9	3	0.5	0.5	NR	ND	0.43
Benzene	2	5	0.005	0.005	NR	ND	0.22
Bromodichloromethane	1	3	0.005	0.005	NR	ND	0.43
Bromoform	81	280	0.02	0.02	NR	ND	0.43
Bromomethane	25	59	0.03	0.03	NR	ND	0.43
Carbon disulfide	7800	110000	4	4	NR	ND	0.43
Carbon tetrachloride	0.6	2	0.005	0.005	NR	ND	0.43
Chlorobenzene	510	7400	0.4	0.4	NR	ND	0.43

Table 2: Supplemental Site Investigation Analytical Summary  
 Aboveground Storage Tanks (AOC-1)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 NJDEP Case Number: 08-07-01-1547-19

Sample ID	NJDEP SRS			Default Impact to Ground Water Soil Screening Levels	S-1		S-2		S-3	
	Residential Direct Contact	Non-Residential Direct Contact			AC41717-006	AC41717-007	AC41717-008	Soil	Soil	Soil
Lab Sample No.				Result	Result	Result	0.5-1.0'	0.5-1.0'	0.5-1.0'	RDL
Sampling Date										
Matrix										
Sample Depth										
Chloroethane	220	1100	NS	NR	ND	0.43	NR	0.43	NR	0.43
Chloroform	0.6	2	0.2	NR	ND	0.43	NR	0.43	NR	0.43
Chloromethane	4	12	NS	NR	ND	0.43	NR	0.43	NR	0.43
cis-1,2-Dichloroethene	230	560	0.2	NR	ND	0.43	NR	0.43	NR	0.43
cis-1,3-Dichloropropene	2	7	0.005	NR	ND	0.43	NR	0.43	NR	0.43
Dibromochloromethane	3	8	0.005	NR	ND	0.43	NR	0.43	NR	0.43
Dichlorodifluoromethane	490	230000	25	NR	ND	0.43	NR	0.43	NR	0.43
Ethylbenzene	7800	110000	8	NR	ND	0.43	NR	0.43	NR	0.43
m&p-Xylenes	12000	170000	12	NR	5	0.87	NR	0.87	NR	0.87
Methyl Acetate	78000	NS	14	NR	ND	0.43	NR	0.43	NR	0.43
Methylene chloride	34	97	0.007	NR	ND	0.43	NR	0.43	NR	0.43
Methyl-t-butyl ether	110	320	0.2	NR	ND	0.22	NR	0.22	NR	0.22
o-Xylene	12000	170000	12	NR	2.6	0.43	NR	0.43	NR	0.43
Styrene	90	260	2	NR	ND	0.43	NR	0.43	NR	0.43
t-Butyl Alcohol	1400	11000	0.2	NR	ND	2.2	NR	2.2	NR	2.2
Tetrachloroethene	2	5	0.005	NR	ND	0.43	NR	0.43	NR	0.43
Toluene	6300	91000	4	NR	0.78	0.43	NR	0.43	NR	0.43
trans-1,2-Dichloroethene	300	720	0.4	NR	ND	0.43	NR	0.43	NR	0.43
trans-1,3-Dichloropropene	2	7	0.005	NR	ND	0.43	NR	0.43	NR	0.43
Trichloroethene	7	20	0.007	NR	ND	0.43	NR	0.43	NR	0.43
Trichlorofluoromethane	23000	340000	22	NR	ND	0.43	NR	0.43	NR	0.43
Vinyl chloride	0.7	2	0.005	NR	ND	0.43	NR	0.43	NR	0.43
Xylenes (Total)	12,000	170,000	12	NR	7.6	0.43	NR	0.43	NR	0.43

NJDEP SRS - New Jersey Department of Environmental Protection Soil Remediation Standards  
 TPH-DR0 - Total Petroleum Hydrocarbons Diesel Range Organics

RDL - Reporting Detection Limit

NS - No Standard

ND - Not detected at the indicated concentration

NR - Not Analyzed

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration is given an approximate value

Bold values indicate exceedances in Residential Direct Contact and/or Non-Residential Direct Contact NJDEP SRS

Table 3: Supplemental Site Investigation Analytical Summary  
 Underground Storage Tanks (AOC-2A)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 NJDEP Case Number: 08-07-01-1547-19

Sample ID	NJDEP SRS			TANK2-1	TANK2-2	TANK2-3	TANK2-4
	Residential Direct Contact	Non-Residential Direct Contact	Default Impact to Ground Water Soil Screening Levels				
Lab Sample No.				AC41717-013	AC41717-014	AC41717-015	AC41717-016
Sampling Date				12/11/2008	12/11/2008	12/11/2008	12/11/2008
Matrix				Soil	Soil	Soil	Soil
Sample Depth				11.5-12.0'	9.5-10.0'	11.5-12.0'	11.5-12.0'
				RDL	RDL	RDL	RDL
TPH-DRO (mg/kg)	NS	NS	NS	ND	ND	ND	ND
% Solids (%)	NS	NS	NS	88	89	86	94
				Result	Result	Result	Result
				67	70	70	64

NJDEP SRS - New Jersey Department of Environmental Protection Soil Remediation Standards

RDL - Reporting Detection Limit

NS - No Standard

ND - Not detected at the indicated concentration

Table 4: Supplemental Site Investigation Analytical Summary  
 Underground Storage Tanks (AOC-2B)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 NJDEP Case Number: 08-07-01-1547-19

Sample ID	NJDEP SRS		TANK1-1	TANK1-2	TANK1-3	TANK1-4
	Residential Direct Contact	Non-Residential Direct Contact				
Lab Sample No.			AC41717-009	AC41717-010	AC41717-011	AC41717-012
Sampling Date			12/11/2008	12/11/2008	12/11/2008	12/11/2008
Matrix			Soil	Soil	Soil	Soil
Sample Depth			11.5-12.0'	11.5-12.0'	11.5-12.0'	11.5-12.0'
			RDL	RDL	RDL	RDL
TPH-DRO (mg/kg)	NS	NS	ND	ND	ND	ND
% Solids (%)	NS	NS	96	95	96	91
			63	63	63	66

NJDEP SRS - New Jersey Department of Environmental Protection Soil Remediation Standards

RDL - Reporting Detection Limit

NS - No Standard

ND - Not detected at the indicated concentration

Table 5: Supplemental Site Investigation Analytical Summary  
 Underground Storage Tanks (AOC-2C)

Camden Laboratories

1667 Davis Street

City of Camden, Camden County, New Jersey

NJDEP Case Number: 08-07-01-1547-19

Sample ID	NJDEP SRS		Default Impact to Ground Water Soil Screening Levels	TANK3-1		TANK3-2		TANK3-3		TANK3-4	
	Residential Direct Contact	Non-Residential Direct Contact		AC41717-017 12/11/2008 Soil 11.5-12.0'	AC41717-018 12/11/2008 Soil 11.5-12.0'	AC41717-019 12/11/2008 Soil 11.5-12.0'	AC41717-020 12/11/2008 Soil 11.5-12.0'				
TPH+DRO (mg/kg)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
% Solids (%)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
				RDL 61	RDL 67	RDL 90	RDL 65	RDL 92	RDL 65	RDL 92	RDL 65
				Result 98	Result 67	Result 90	Result 65	Result 92	Result 65	Result 92	Result 65

NJDEP SRS - New Jersey Department of Environmental Protection Soil Remediation Standards

RDL - Reporting Detection Limit

NS - No Standard

ND - Not detected at the indicated concentration

Table 6: Supplemental Site Investigation Summary of Analytical Results  
 Potential Mercury Spill (AOC-14)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 NJDEP Case Number 08-07-01-1547-19

Sample ID	NJDEP SRS		M-1	M-1A	M-2	M-3	M-4
	Residential Direct Contact	Non-Residential Direct Contact					
Lab Sample No.	Default Impact to Ground Water		AC41717-001	AC41717-002	AC41717-003	AC41717-004	AC41717-005
Sampling Date	Soil Screening Levels		12/11/2008	12/11/2008	12/11/2008	12/11/2008	12/11/2008
Matrix	Soil		Soil	Soil	Soil	Soil	Soil
Sample Depth	1.5-2.0'		1.5-2.0'	3.5-4.0'	1.5-2.0'	1.5-2.0'	1.5-2.0'
Mercury (mg/kg)	23	65	3700	2100	0.5	ND	0.13
% Solids	NS	NS	84	87	88	85	88
			RDL	RDL	RDL	RDL	RDL
			99	96	96	96	96
			Result	Result	Result	Result	Result
			84	87	88	85	88
			0.095	0.095	0.098	0.098	0.095

NJDEP SRS - New Jersey Department of Environmental Protection Soil Remediation Standards

RDL - Reporting Detection Limit

NS - No Standard

ND - Not detected at the indicated concentration

**Bold values indicate exceedances in Residential Direct Contact and/or Non-Residential Direct Contact NJDEP SRS**

*Italic values indicate exceedances in Default Impact to Ground Water Soil Screening Levels*

Table 7: Supplemental Site Investigation summary of Analytical Results  
 Building B Drywell (AOC-6)  
 Camden Laboratories  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235805

Sample ID Lab Sample No. Sampling Date Matrix Sample Depth	NJDEP SRS			SB-5-DUP		
	Residential Direct Contact	Non-Residential Direct Contact	Default Impact to Ground Water Soil Screening Levels	AC42354-001		
				1/23/2009		
				Soil		
				10.0-10.5'		
			Result	Flg	RDL	
<b>Volatile Organics (mg/kg)</b>						
Total Volatile Tic	NS	NS	NS	ND	NA	
1,1,1-Trichloroethane	290	4200	0.2	ND	0.005	
1,1,2,2-Tetrachloroethane	1	3	0.005	ND	0.005	
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	NS	NS	ND	0.005	
1,1,2-Trichloroethane	2	6	0.001	ND	0.005	
1,1-Dichloroethane	8	24	0.2	ND	0.005	
1,1-Dichloroethene	11	150	0.005	ND	0.005	
1,2-Dibromo-3-chloropropane	0.08	0.2	0.005	ND	0.005	
1,2-Dibromoethane	0.008	0.04	0.005	ND	0.005	
1,2-Dichlorobenzene	5300	59000	11	ND	0.005	
1,2-Dichloroethane	0.9	3	0.005	ND	0.005	
1,2-Dichloropropane	2	5	0.005	ND	0.005	
1,3-Dichlorobenzene	5300	59000	12	ND	0.005	
1,4-Dichlorobenzene	5	13	1	ND	0.005	
2-Butanone	3100	44000	0.6	ND	0.005	
2-Chloroethylvinylether	NS	NS	NS	ND	0.005	
2-Hexanone	NS	NS	NS	ND	0.005	
4-Methyl-2-pentanone	NS	NS	NS	ND	0.005	
Acetone	70000	NS	12	ND	0.025	
Acrolein	0.5	1	0.5	ND	0.025	
Acrylonitrile	0.9	3	0.5	ND	0.005	
Benzene	2	5	0.005	ND	0.001	
Bromodichloromethane	1	3	0.005	ND	0.005	
Bromoform	81	280	0.02	ND	0.005	
Bromomethane	25	59	0.03	ND	0.005	
Carbon disulfide	7800	110000	4	ND	0.005	
Carbon tetrachloride	0.6	2	0.005	ND	0.005	
Chlorobenzene	510	7400	0.4	ND	0.005	
Chloroethane	220	1100	NS	ND	0.005	
Chloroform	0.6	2	0.2	ND	0.005	
Chloromethane	4	12	NS	ND	0.005	
cis-1,2-Dichloroethene	230	560	0.2	ND	0.005	
cis-1,3-Dichloropropene	2	7	0.005	ND	0.005	
Dibromochloromethane	3	8	0.005	ND	0.005	
Dichlorodifluoromethane	490	230000	25	ND	0.005	
Ethylbenzene	7800	110000	8	ND	0.001	
m&p-Xylenes	12000	170000	12	ND	0.002	
Methyl Acetate	78000	NS	14	ND	0.005	
Methylene chloride	34	97	0.007	ND	0.005	
Methyl-t-butyl ether	110	320	0.2	ND	0.001	
o-Xylene	12000	170000	12	ND	0.001	
Styrene	90	260	2	ND	0.005	
t-Butyl Alcohol	1400	11000	0.2	ND	0.025	
Tetrachloroethene	2	5	0.005	ND	0.005	
Toluene	6300	91000	4	ND	0.001	
trans-1,2-Dichloroethene	300	720	0.4	ND	0.005	



Table 7: Supplemental Site Investigation summary of Analytical Results  
 Building B Drywell (AOC-6)  
 Camden Laboratories  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235805

Sample ID Lab Sample No. Sampling Date Matrix Sample Depth	NJDEP SRS			SB-5-DUP		
	Residential Direct Contact	Non-Residential Direct Contact	Default Impact to Ground Water Soil Screening Levels	AC42354-001		
				1/23/2009		
				Soil		
				10.0-10.5'		
Result	Fig	RDL				
trans-1,3-Dichloropropene	2	7	0.005	ND		0.005
Trichloroethene	7	20	0.007	ND		0.005
Trichlorofluoromethane	23000	340000	22	ND		0.005
Vinyl chloride	0.7	2	0.005	ND		0.005
Xylenes (Total)	12,000	170,000	12	ND		0.001
<b>Base Neutrals (mg/kg)</b>						
:TotalSemiVolatileTic	NS	NS	NS	54	J	NA
1,1'-Biphenyl	3100	34000	90	ND		0.069
1,2,4-Trichlorobenzene	73	820	0.4	ND		0.069
1,2-Diphenylhydrazine	0.7	2	0.7	ND		0.069
2,4,5-Trichlorophenol	6100	68000	44	ND		0.069
2,4,6-Trichlorophenol	19	74	0.2	ND		0.069
2,4-Dichlorophenol	180	2100	0.2	ND		0.069
2,4-Dimethylphenol	1200	14000	0.7	ND		0.069
2,4-Dinitrophenol	120	1400	0.3	ND		0.34
2,4-Dinitrotoluene	0.7	3	NS	ND		0.069
2,6-Dinitrotoluene	0.7	3	NS	ND		0.069
2-Chloronaphthalene	NS	NS	NS	ND		0.069
2-Chlorophenol	310	2200	0.5	ND		0.069
2-Methylnaphthalene	230	2400	5	ND		0.069
2-Methylphenol	310	3400	NS	ND		0.069
2-Nitroaniline	39	23000	NS	ND		0.069
2-Nitrophenol	NS	NS	NS	ND		0.069
3&4-Methylphenol	31	340	NS	ND		0.069
3,3'-Dichlorobenzidine	1	4	0.2	ND		0.069
3-Nitroaniline	NS	NS	NS	ND		0.069
4,6-Dinitro-2-methylphenol	6	68	0.3	ND		0.34
4-Bromophenyl-phenylether	NS	NS	NS	ND		0.069
4-Chloro-3-methylphenol	NS	NS	NS	ND		0.069
4-Chloroaniline	NS	NS	NS	ND		0.069
4-Chlorophenyl-phenylether	NS	NS	NS	ND		0.069
4-Nitroaniline	NS	NS	NS	ND		0.069
4-Nitrophenol	NS	NS	NS	ND		0.069
Acenaphthene	3400	37000	74	ND		0.069
Acenaphthylene	NS	300000	NS	ND		0.069
Acetophenone	2	5	2	ND		0.069
Anthracene	17000	30000	1500	ND		0.069
Atrazine	210	2400	0.2	ND		0.069
Benzaldehyde	6100	68000	NS	ND		0.069
Benzidine	0.7	0.7	0.7	ND		0.34
Benzo[a]anthracene	0.6	2	0.5	ND		0.069
Benzo[a]pyrene	0.2	0.2	0.2	ND		0.069
Benzo[b]fluoranthene	0.6	2	2	ND		0.069
Benzo[g,h,i]perylene	380000	30000	NS	ND		0.069
Benzo[k]fluoranthene	6	23	16	ND		0.069
bis(2-Chloroethoxy)methane	NS	NS	NS	ND		0.069
bis(2-Chloroethyl)ether	0.4	2	0.2	ND		0.069

Table 7: Supplemental Site Investigation summary of Analytical Results  
 Building B Drywell (AOC-6)  
 Camden Laboratories  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235805

Sample ID Lab Sample No. Sampling Date Matrix Sample Depth	NJDEP SRS			SB-5-DUP		
	Residential Direct Contact	Non-Residential Direct Contact	Default Impact to Ground Water Soil Screening Levels	AC42354-001		
				1/23/2009		
				Soil		
				10.0-10.5'		
Result	Fig	RDL				
bis(2-Chloroisopropyl)ether	23	67	3	ND		0.069
bis(2-Ethylhexyl)phthalate	35	140	790	ND		0.069
Butylbenzylphthalate	1200	14000	150	ND		0.069
Caprolactam	31000	340000	8	ND		0.069
Carbazole	24	96	NS	ND		0.069
Chrysene	62	230	52	ND		0.069
Dibenzof[a,h]anthracene	0.2	0.2	0.5	ND		0.069
Dibenzofuran	NS	NS	NS	ND		0.069
Diethylphthalate	49000	550000	57	ND		0.069
Dimethylphthalate	NS	NS	NS	ND		0.069
Di-n-butylphthalate	6100	68000	620	ND		0.069
Di-n-octylphthalate	2400	27000	3300	ND		0.069
Fluoranthene	2300	24000	840	ND		0.069
Fluorene	2300	24000	110	ND		0.069
Hexachlorobenzene	0.3	1	0.2	ND		0.069
Hexachlorobutadiene	6	25	0.6	ND		0.069
Hexachlorocyclopentadiene	45	110	210	ND		0.069
Hexachloroethane	35	140	0.2	ND		0.069
Indeno[1,2,3-cd]pyrene	0.6	2	5	ND		0.069
Isophorone	510	2000	0.2	ND		0.069
Naphthalene	6	17	16	ND		0.069
Nitrobenzene	31	340	0.2	ND		0.069
N-Nitrosodimethylamine	0.7	0.7	0.7	ND		0.069
N-Nitroso-di-n-propylamine	0.2	0.3	0.2	ND		0.069
N-Nitrosodiphenylamine	99	390	0.2	ND		0.069
Pentachlorophenol	3	10	0.3	ND		0.69
Phenanthrene	NS	300000	NS	ND		0.069
Phenol	18000	210000	5	ND		0.069
Pyrene	1700	18000	550	ND		0.069
<b>Metals (mg/kg)</b>						
Mercury	23	65	0.1	ND		0.086
Antimony	31	450	6	ND		2.1
Arsenic	19	19	19	ND		2.1
Barium	16000	59000	1300	ND		10
Beryllium	16	140	0.5	ND		0.62
Cadmium	78	78	1	ND		0.62
Chromium	NS	NS	NS	ND		5.2
Copper	3100	45000	7300	ND		5.2
Lead	400	800	59	7.6		5.2
Nickel	1600	23000	31	ND		5.2
Selenium	390	5700	7	ND		1.9
Silver	390	5700	1	ND		1.5
Thallium	5	79	3	ND		1.2
Zinc	23000	110000	600	ND		10

Table 7: Supplemental Site Investigation summary of Analytical Results  
 Building B Drywell (AOC-6)  
 Camden Laboratories  
 City of Camden, Camden County, New Jersey  
 Project Number: 070235805

Sample ID Lab Sample No. Sampling Date Matrix Sample Depth	NJDEP SRS			SB-5-DUP		
	Residential Direct Contact	Non-Residential Direct Contact	Default Impact to Ground Water Soil Screening Levels	AC42354-001		
				1/23/2009		
				Soil		
				10.0-10.5'		
			Result	Fig	RDL	
<b>PCBs (mg/kg)</b>						
Aroclor (Total)	0.2	1	0.2	ND		0.026
Aroclor-1016	0.2	1	NS	ND		0.026
Aroclor-1221	0.2	1	NS	ND		0.026
Aroclor-1232	0.2	1	NS	ND		0.026
Aroclor-1242	0.2	1	NS	ND		0.026
Aroclor-1248	0.2	1	NS	ND		0.026
Aroclor-1254	0.2	1	NS	ND		0.026
Aroclor-1260	0.2	1	NS	ND		0.026
Aroclor-1262	NS	NS	NS	ND		0.026
Aroclor-1268	NS	NS	NS	ND		0.026
<b>Pesticides (mg/kg)</b>						
Aldrin	0.04	0.2	0.1	ND		0.0052
Alpha-BHC	0.1	0.5	0.002	ND		0.001
beta-BHC	0.4	2	0.002	ND		0.001
Chlordane	0.2	1	0.03	ND		0.01
delta-BHC	NS	NS	NS	ND		0.0052
Dieldrin	0.04	0.2	0.003	ND		0.001
Endosulfan I	470	6800	2	ND		0.0052
Endosulfan II	470	6800	2	ND		0.0052
Endosulfan Sulfate	470	6800	1	ND		0.0052
Endrin	23	340	0.6	ND		0.0052
Endrin Aldehyde	NS	NS	NS	ND		0.0052
Endrin Ketone	NS	NS	NS	ND		0.0052
gamma-BHC	0.4	2	0.002	ND		0.001
Heptachlor	0.1	0.7	0.3	ND		0.0052
Heptachlor Epoxide	0.07	0.3	0.009	ND		0.0052
Methoxychlor	390	5700	100	ND		0.0052
p,p'-DDD	3	13	3	ND		0.0026
p,p'-DDE	2	9	12	ND		0.0026
p,p'-DDT	2	8	7	ND		0.0026
Toxaphene	0.6	3	0.2	ND		0.026
<b>Other Parameters (mg/kg)</b>						
Cyanide	1600	23000	13	ND		0.26
Total Phenolics	NS	NS	5	ND		1.3

NJDEP SRS - New Jersey Department of Environmental Protection

Soil Remediation Standards

RDL - Reporting Detection Limit

NS - No Standard

ND - Not detected at the indicated concentration

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration is given an approximate value

Table 8: Supplemental Site Investigation Summary of Analytical Results  
 Potential Mercury Spill (AOC-14)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 NJDEP Case Number: 08-07-01-1547-19

Sample ID	NJDEP SRS		Default Impact to Ground Water Soil Screening Levels	M-1-B	M-1-C	M-1-D	M-2-A	M-2-B
	Residential Direct Contact	Non-Residential Direct Contact						
Lab Sample No.				AC42354-002	AC42354-003	AC42354-004	AC42354-005	AC42354-006
Sampling Date				1/23/2009	1/23/2009	1/23/2009	1/23/2009	1/23/2009
Matrix				Soil	Soil	Soil	Soil	Soil
Sample Depth				15.5-16.0'	18.0-18.5'	20.5-21.0'	11.5-12.0'	19.5-20.0'
Mercury (mg/kg)	23	65	0.1	0.95	ND	11	0.84	82
% Solids	NS	NS	NS	88	84	84	94	84
				RDL	RDL	RDL	RDL	RDL
				Result	Result	Result	Result	Result

NJDEP SRS - New Jersey Department of Environmental Protection

Soil Remediation Standards

RDL - Reporting Detection Limit

NS - No Standard

ND - Not detected at the indicated concentration

Bold values indicate exceedances in Residential Direct Contact and/or

Non-Residential Direct Contact NJDEP SRS

Italic values indicate exceedances in Default Impact to Ground Water

Soil Screening Levels

Table 8: Supplemental Site Investigation Summary of Analytical Results  
 Potential Mercury Spill (AOC-14)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 NJDEP Case Number: 08-07-01-1547-19

Sample ID	NJDEP SRS			Default Impact to Ground Water Soil Screening Levels	M-4-A	M-4-B	M-5-A	M-5-B
	Residential Direct Contact	Non-Residential Direct Contact						
Lab Sample No.					AC42354-007	AC42354-008	AC42354-009	AC42354-010
Sampling Date					1/23/2009	1/23/2009	1/23/2009	1/23/2009
Matrix					Soil	Soil	Soil	Soil
Sample Depth					15.5-16.0'	18.5-19.0'	6.0-6.5'	19.5-20.0'
Mercury (mg/kg)	23	65	0.1		1.1	0.088	0.1	0.86
% Solids	NS	NS	NS		95	83	97	83
					RDL	RDL	RDL	RDL
					Result	Result	Result	Result

NJDEP SRS - New Jersey Department of Environmental Protection

Soil Remediation Standards

RDL - Reporting Detection Limit

NS - No Standard

ND - Not detected at the indicated concentration

**Bold values indicate exceedances in Residential Direct Contact and/or**

**Non-Residential Direct Contact NJDEP SRS**

**Italic values indicate exceedances in Default Impact to Ground Water**

**Soil Screening Levels**

Table 9: Supplemental Site Investigation Summary of Analytical Results  
 Potential Mercury Spill (AOC-14)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 NJDEP Case Number: 08-07-01-1547-19

Sample ID	NJDEP SRS			M-2B-DUP AC42470-001 1/29/2009 Soil 19.5-20.0'	M-2C AC42470-002 1/29/2009 Soil 14.0-14.5'	M-2D AC42470-003 1/29/2009 Soil 18.0-18.5'	M-2E AC42470-004 1/29/2009 Soil 22.5-23.0'	M-3B AC42470-029 1/29/2009 Soil 14.0-14.5'
	Residential Direct Contact	Non-Residential Direct Contact	Default Impact to Ground Water Soil Screening Levels					
Mercury (mg/kg)	23	65	0.1	RDL 0.1	RDL 0.085	RDL 1.8	RDL 0.1	RDL 1.6
% Solids	NS	NS	NS	98	81	82	81	97
				Result 7.4	Result 2.4	Result 81	Result ND	Result 97

NJDEP SRS - New Jersey Department of Environmental Protection

Soil Remediation Standards

RDL - Reporting Detection Limit

NS - No Standard

ND - Not detected at the indicated concentration

Bold values indicate exceedances in Residential Direct Contact and/or

Non-Residential Direct Contact NJDEP SRS

Italic values indicate exceedances in Default Impact to Ground Water

Soil Screening Levels

Table 9: Supplemental Site Investigation Summary of Analytical Results  
 Potential Mercury Spill (AOC-14)  
 Camden Laboratories  
 1667 Davis Street  
 City of Camden, Camden County, New Jersey  
 NJDEP Case Number: 08-07-01-1547-19

Sample ID	NJDEP SRS		M-3D	M-6A	M-6B	M-6D	M-7B
	Residential Direct Contact	Non-Residential Direct Contact					
Lab Sample No.			AC42470-031	AC42470-005	AC42470-006	AC42470-008	AC42470-011
Sampling Date			1/29/2009	1/29/2009	1/29/2009	1/29/2009	1/29/2009
Matrix			Soil	Soil	Soil	Soil	Soil
Sample Depth			19.5-20.0'	14.0-14.5'	18.0-18.5'	22.5-23.0'	18.0-18.5'
Mercury (mg/kg)	23	65	ND	0.13	36	16	8.5
% Solids	NS	NS	82	98	82	86	85
				0.085	1	0.49	RDL
							Result

NJDEP SRS - New Jersey Department of Environmental Protection

Soil Remediation Standards

RDL - Reporting Detection Limit

NS - No Standard

ND - Not detected at the indicated concentration

Bold values indicate exceedances in Residential Direct Contact and/or

Non-Residential Direct Contact NJDEP SRS

Italic values indicate exceedances in Default Impact to Ground Water

Soil Screening Levels

Table 9: Supplemental Site Investigation Summary of Analytical Results  
 Potential Mercury Spill (AOC-14)

Camden Laboratories  
 1667 Davis Street

City of Camden, Camden County, New Jersey  
 NJDEP Case Number: 08-07-01-1547-19

Sample ID Lab Sample No.	NJDEP SRS			M-7C AC42470-012 1/29/2009 Soil 19.5-20.0'	M-9A AC42470-020 1/29/2009 Soil 5.0-5.5'	M-9B AC42470-021 1/29/2009 Soil 14.0-14.5'
	Residential Direct Contact	Non-Residential Direct Contact	Default Impact to Ground Water Soil Screening Levels			
Mercury (mg/kg)	23	65	0.1	RDL 19	RDL ND	RDL 1.6
% Solids	NS	NS	NS	Fig 85	93	93

NJDEP SRS - New Jersey Department of Environmental Protection

Soil Remediation Standards

RDL - Reporting Detection Limit

NS - No Standard

ND - Not detected at the indicated concentration

**Bold values indicate exceedances in Residential Direct Contact and/or**

**Non-Residential Direct Contact NJDEP SRS**

**Italic values indicate exceedances in Default Impact to Ground Water**

Soil Screening Levels



Appendix A  
Soil Boring Logs



## LOG OF SOIL BORING M-1

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 4'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) M-1			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe	DRILLING CONTRACTOR Enviroprobe			
	BORING DIAMETER (in) 2"	DRILLER NAME Brian	INSPECTOR Mary Ann Gilmore	DRILLING EQUIPMENT Track-mounted Dingo	
	DRILLING FLUID NA	HAMMER WEIGHT (lbs) NA	HAMMER DROP (in) NA		
	SAMPLER DIAM./TYPE 2"				
ABANDONMENT Method: Backfill		GROUNDWATER OBSERVATIONS (depth in ft bgs)			Observed WT NA
MATERIAL Soil		Depth	Date/Time	Seasonal High WT NA	
QUANTITY NA		Depth	Date/Time		

Interval Description	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATION			
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	Lumex	MANUF./MODEL	LAMP (eV)	SOURCE
0-4'	48" Recovery	0										500.0			751.0			
	0-8" medium orange silty sand														561.0			
	8-28" purple silty sand, non-native	1													542.0			
															861.0			
		2													849.0	Collected sample M-1 at 18-24" bgs for Mercury analysis at 10:50		
															750.0			
	28-48" medium orange silty sand	3													736.0			
		4													721.0	Collected sample M1-A at 42-48" bgs for Mercury analysis at 11:00		
															750.0			
																End of boring @ 4.0'		
		5																
		6																
		7																
		8																
		9																
		10																
		11																



## LOG OF SOIL BORING M-2

PRJCT NAME Camden Laboratories	PRJCT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME CDMPLT 12/11/08	GRDUND ELEVATION (FT. MSL)	TDOTAL DEPTH (ft) 4'
PRJCT LDCATION 1667 Davis Street Camden, NJ		BORING LOCATIDN (Description and/or surveyed coordinates, if available) M-2			

BDRING LDCATION (sketch)		DRILLING METHDD Direct Push Geoprobe		DRILLING CONTRACTDR Enviroprobe	
BDRING DIAMETER (in) 2"		DRILLER NAME Brian		INSPECTOR Mary Ann Gilmore	
DRILLING FLUID NA		HAMMER WEIGHT (lbs) NA		HAMMER DROP (in) NA	
SAMPLER DIAM./TYPE 2"		GRDUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT NA	
METHDD Backfill		Depth		Date/Time	
MATERIAL Soil		Depth		Date/Time	
QUANTITY NA		Depth		Date/Time	

Interval Description	Sample Interval (ft bgs)	Groundwater	Graphic Log	Stratum	Samples							MERCURY VAPDR READINGS (ng/m3)			MERCURY VAPDR METER INFORMATION		
					Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	ROD	Time	Bkg	Sample	Head Space	Lumex	MANUF./MDEL	LAMP (eV)	SDURCE
0-4'	0 -											500.0			601.0		
0-8" organic matter-grass	-														561.0		
8-28" Strong brown silty sand	- 1 -														542.0		
	-														608.0		
	- 2 -														612.0	Collected sample M-2 at 18-24" bgs for Mercury analysis at 11:10	
	-														604.0		
12-36" orange silty sand	- 3 -														602.0		
	4																
	- 5 -																
	- 6 -																
	- 7 -																
	- 8 -																
	- 9 -																
	- 10 -																
	- 11 -																
																End of boring @ 4.0'	



### LOG OF SOIL BORING M-3

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	OATE/TIME STARTED 12/11/08	OATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 4'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) M-3			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe	DRILLING CONTRACTOR Enviroprobe
	BORING DIAMETER (in) 2"	DRILLER NAME Brian
	DRILLING FLUID NA	INSPECTOR Mary Ann Gilmore
	SAMPLER DIAM./TYPE 2"	HAMMER WEIGHT (lbs) NA
		HAMMER DROP (in) NA
	ABANDONMENT	GROUNDWATER OBSERVATIONS (depth in ft bgs)
	METHOD Backfill	Observed WT NA
	MATERIAL Soil	Seasonal High WT NA
	QUANTITY NA	

Interval Description	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples					Time	MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATION					
					Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQO		Bkg	Sample	Head Space	Lumex	MANUF./MOEL	LAMP (eV)	SOURCE		
																		REMARKS	
0-4'																			
48" Recovery	- 0 -											500.0			541.0				
0-8" organic matter-grass strong brown silty sand	- - -														561.0				
	- 1 -														542.0				
	- - -														540.0				
	- 2 -														576.0	Collected sample M-3 at 18-24" bgs for Mercury analysis at 11:10			
8-48" orange silty sand	- - -														518.0				
	- 3 -														521.0				
	- - -														541.0				
	- 4 -														538.0				
																End of boring @ 4.0'			
	- 5 -																		
	- - -																		
	- 6 -																		
	- - -																		
	- 7 -																		
	- - -																		
	- 8 -																		
	- - -																		
	- 9 -																		
	- - -																		
	- 10 -																		
	- - -																		
	- 11 -																		



# LOG OF SOIL BORING M-4

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GRDUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 4'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description end/or surveyed coordinates, if available) M-4			

BDRING LDCATION (sketch)		DRILLING METHOD Direct Push Geoprobe		DRILLING CONTRACTOR Enviroprobe	
BORING DIAMETER (in) 2"		DRILLER NAME Brian		INSPECTOR Mary Ann Gilmore	
DRILLING FLUID NA		HAMMER WEIGHT (lbs) NA		HAMMER DROP (in) NA	
SAMPLER DIAM./TYPE 2"		ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)	
METHOD Backfill		Depth		Date/Time	
MATERIAL Soil		Depth		Date/Time	
QUANTITY NA		Depth		Date/Time	
		Observed WT		NA	
		Seasonal High WT		NA	

Interval Description	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATION			
					Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	Lumex	MANUF./MODEL	LAMP (eV)	SOURCE
0-4'	0											500.0			570.0		
0-8" recovery 0-8" organic matter-grass strong brown silty sand	-														561.0		
	-1														542.0		
	-														519.0		
	-2														513.0	Collected sample M-4 at 18-24" bgs for Mercury analysis at 11:20	
8-32" orange silty sand	-														519.0		
	-3														512.0		
	4															End of boring @ 4.0'	
	-5																
	-6																
	-7																
	-8																
	-9																
	-10																
	-11																



## LOG OF SOIL BORING S-1

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 4'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) S-1			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe	DRILLING CONTRACTOR Enviroprobe			
	BORING DIAMETER (in) 2"	DRILLER NAME Brian		INSPECTOR Mary Ann Gilmore	DRILLING EQUIPMENT Track-mounted Dingo
	DRILLING FLUID NA	HAMMER WEIGHT (lbs) NA		HAMMER DRDP (in) NA	
	SAMPLER DIAM./TYPE 2"				
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)			Observat WT NA
METHOD Backfill		Depth	Date/Time		Seasonal High WT NA
MATERIAL Soil		Depth	Date/Time		
QUANTITY NA		Depth	Date/Time		

Interval Description	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS (ppm)			ORGANIC VAPOR METER INFORMATION				
					Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	ROD	Time	Bkg	Sample	Head Space	MiniRae	LAMP (eV)	SDURCE		
																	REMARKS	
0-4'	0 -																4.5	
0-3" asphalt	-																561.0	Collected sample S-1 at 6-12" bgs for VO+10 & TPH-DRO analysis at 9:00
3-20" orange medium sand	- 1 -																542.0	
	-																5.1	
20-36" orange silty sand	- 2 -																5.0	
	-																4.6	
	- 3 -																	
	- 4 -																	End of boring @ 4.0'
	- 5 -																	
	- 6 -																	
	- 7 -																	
	- 8 -																	
	- 9 -																	
	- 10 -																	
	- 11 -																	



## LOG OF SOIL BORING S-2

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 4'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) S-2			

BORING LOCATION (sketch)		DRILLING METHOD Direct Push Geoprobe		DRILLING CONTRACTOR Enviroprobe	
BORING DIAMETER (in) 2"		DRILLER NAME Brian		INSPECTOR Mary Ann Gilmore	DRILLING EQUIPMENT Track-mounted Dingo
DRILLING FLUID NA		HAMMER WEIGHT (lbs) NA		HAMMER DROP (in) NA	
SAMPLER DIAM./TYPE 2"		ABANDONMENT Backfill		GROUNDWATER OBSERVATIONS (depth in ft bgs)	
METHOD Soil		Depth		Date/Time	
MATERIAL NA		Depth		Date/Time	
QUANTITY NA		Depth		Date/Time	
		Observed WT NA		Seasonal High WT NA	

Interval Description	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS (ppm)			ORGANIC VAPOR METER INFORMATION				
					Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (eV)	SOURCE		
																	10.6	US ENV
0-4'	- 0 -																	REMARKS
36" Recovery																		4.1
0-6" asphalt																		561.0 Collected sample S-2 at 6-12" bgs for VO+10 & TPH-DRO analysis at 9:10
6-18" orange medium sand	- 1 -																	542.0
																		4.8
	- 2 -																	4.2
8-36" orange silty sand																		4.0
	- 3 -																	
	- 4 -																	
																		End of boring @ 4.0'
	- 5 -																	
	- 6 -																	
	- 7 -																	
	- 8 -																	
	- 9 -																	
	- 10 -																	
	- 11 -																	



## LOG OF SOIL BORING S-3

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 4'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) S-3			

BORING LOCATION (sketch)		DRILLING METHOD Direct Push Geoprobe		DRILLING CONTRACTOR Enviroprobe	
		BORING DIAMETER (in) 2"		DRILLER NAME Brian	
		DRILLING FLUID NA		INSPECTOR Mary Ann Gilmore	
		SAMPLER DIAM./TYPE 2"		HAMMER WEIGHT (lbs) NA	
				HAMMER DROP (in) NA	
		ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)	
		METHOD Backfill		Observed WT NA	
		MATERIAL Soil		Seasonal High WT NA	
		QUANTITY NA			

Interval Description	Depth (ft bgs)	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS (ppm)			ORGANIC VAPOR METER INFORMATION				
				Sample Interval	Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	ROD	Time	Bkg	Sample	Head Space	MiniRae	MANUF./MODEL	LAMP (eV)	SOURCE
															10.6	US ENV	
				REMARKS													
0-4'	- 0 -														4.2		
36" Recovery 0-6" asphalt	- -														561.0 Collected sample S-3 at 6-12" bgs for VO+10 & TPH-DRO analysis at 9:20		
6-20" orange medium sand	- 1 -														542.0		
20-30" orange silty sand	- 2 -														5.0		
	- -														4.6		
	- 3 -														4.1		
	- 4 -														End of boring @ 4.0'		
	- 5 -																
	- 6 -																
	- 7 -																
	- 8 -																
	- 9 -																
	- 10 -																
	- 11 -																





### LOG OF SOIL BORING TANK 1-1

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 12'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) TANK 1-1			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe		DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in) 2"	DRILLER NAME Brian	INSPECTOR Mary Ann Gilmbro	DRILLING EQUIPMENT Track-mounted Dingo	
	DRILLING FLUID NA	HAMMER WEIGHT (lbs) NA		HAMMER DRDP (in) NA	
SAMPLER DIAM./TYPE 2"		ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)	
		Depth	Date/Time	Observed WT	NA
METHOD Backfill				Seasonal High WT	NA
MATERIAL Sbil		Depth	Date/Time		
QUANTITY NA		Depth	Date/Time		

INTERVAL DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS (ppm)			ORGANIC VAPOR METER INFORMATION				
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MODEL			LAMP (eV)	SOURCE
															MiniRae	10.6	US ENV		

0-4'		48" Recovery 0-6" organic matter-grass 6-48" medium orange silty sand															0.0			
4-8'		48" Recovery 48-96" SAA															0.0			
8-12'		48" Recovery 96-144" SAA															0.0			
																	0.0	Collected sample TANK1-1 at 11.5-12" bgs for VO+10 & TPH-DRO analysis at 10:10  End of boring @ 12.0'		

\\s09svr01\project\2007\0702358\05\02\_Survey\_and\_Workpapers\Supplemental SI boring logs\soil boring logs.xls\tank1-1



### LOG OF SOIL BORING TANK 1-2

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 12'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) TANK 1-2			

BORING LOCATION (sketch) 		DRILLING METHOD Direct Push Geoprobe		DRILLING CONTRACTOR Enviroprobe	
		BORING DIAMETER (in) 2"		DRILLER NAME Brian	INSPECTOR Mary Ann Gilmore
		DRILLING FLUID NA		ORILLING EQUIPMENT Track-mounted Dingo	
		SAMPLER DIAM./TYPE 2"	HAMMER WEIGHT (lbs) NA	HAMMER DROP (in) NA	
		ABANDONMENT Backfill		GROUNDWATER OBSERVATIONS (depth in ft bgs)	
		METHOD Soil	Depth	Date/Time	Observed WT NA
		MATERIAL NA	Depth	Date/Time	Seasonal High WT NA
		QUANTITY NA	Depth	Date/Time	

Interval	Description	Sample Interval (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS (ppm)			ORGANIC VAPOR METER INFORMATION			REMARKS	
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQO	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (eV)			SOURCE
																10.6			
0-4'	48" Recovery 0-6" organic matter-grass 6-48" medium orange silty sand	0																0.0	
																		0.0	
		1																0.0	
																		0.0	
																		0.0	
		2																0.0	
																		0.0	
																		0.0	
		3																0.0	
																		0.0	
																		0.0	
		4																0.0	
4-8'	48" Recovery 48-96" tan orange fine sand																	0.0	
																		0.0	
		5																0.0	
																		0.0	
																		0.0	
		6																0.0	
																		0.0	
																		0.0	
		7																0.0	
																		0.0	
		8																0.0	
8-12'	48" Recovery 96-144" SAA																	0.0	
																		0.0	
		9																0.0	
																		0.0	
																		0.0	
		10																0.0	
																		0.0	
																		0.0	
		11																0.0	
																		0.0	
																		0.0	
		12																0.0	
		Collected sample TANK1-2 at 11.5-12" bgs for VO+10 & TPH-DRO analysis at 10:20  End of boring @ 12.0'																	



LOG OF SOIL BORING TANK 1-3

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 12'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) TANK 1-3			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe		DRILLING CONTRACTOR Enviroprobe			
	BDRING DIAMETER (in) 2"		DRILLER NAME Brian	INSPECTOR Mary Ann Gilmore	DRILLING EQUIPMENT Track-mounted Dingo	
	DRILLING FLUID NA		HAMMER WEIGHT (lbs) NA		HAMMER DROP (in) NA	
	SAMPLER DIAM./TYPE 2"					
	ABANDONMENT Backfill		GRDUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT NA	

METHOD	Soil	Depth	Date/Time	Seasonal High WT	NA
MATERIAL	Soil	Depth	Date/Time		
QUANTITY	NA	Depth	Date/Time		

Interval Description	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS (ppm)			ORGANIC VAPOR METER INFORMATION							
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (eV)	SDURCE	10.6	US ENV			
0-4' 48" Recovery 0-6" organic matter-grass 6-48" medium orange silty sand		0														0.0						
																0.0						
																0.0						
																0.0						
4-8' 48" Recovery 48-96" SAA		4														0.0						
																0.0						
																0.0						
																0.0						
8-12' 48" Recovery 96-144" tan orange fine sand		8														0.0						
																0.0						
																0.0						
																0.0						
																0.0						
																0.0						
																0.0						
																0.0						
<p>Collected sample TANK1-3 at 11.5-12" bgs for VO+10 &amp; TPH-DRO analysis at 10:30</p> <p>End of boring @ 12.0'</p>																						

\\s09swr01\project\2007\0702358\05\02\_Survey\_and\_Workpapers\Supplemental SI boring logs\soil boring logs.xls\tank1-3



## LOG OF SOIL BORING TANK 1-4

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 12'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) TANK 1-4			

BORING LOCATION (sketch) <div style="text-align: center; margin-top: 10px;"> </div>	DRILLING METHOD Direct Push Geoprobe		DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in) 2"		DRILLER NAME Brian	INSPECTOR Mary Ann Gilmorb	DRILLING EQUIPMENT Track-mounted Dingo
	DRILLING FLUID NA		HAMMER WEIGHT (lbs) NA	HAMMER DROP (in) NA	
	SAMPLER DIAM./TYPE 2"				
	ABANDONMENT Backfill		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT NA
	METHOD Soil		Depth	Date/Time	Seasonal High WT NA
	MATERIAL Soil		Depth	Date/Time	
	QUANTITY NA		Depth	Date/Time	

Interval Description	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples							ORGANIC VAPOR READINGS (ppm)			ORGANIC VAPOR METER INFORMATION			REMARKS
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (eV)	SOURCE		
																		MiniRae	
0-4'		0																	0.0
																			0.0
		1																	0.0
																			0.0
		2																	0.0
																			0.0
		3																	0.0
																			0.0
		4																	0.0
4-8'																			0.0
		5																	0.0
																			0.0
		6																	0.0
																			0.0
		7																	0.0
																			0.0
		8																	0.0
8-12'																			0.0
		9																	0.0
																			0.0
		10																	0.0
																			0.0
		11																	0.0
																			0.0
		12																	0.0
Collected sample TANK1-4 at 11.5-12" bgs for VO+10 & TPH-DRO analysis at 10:40  End of boring @ 12.0'																			



## LOG OF SOIL BORING TANK 2-1

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 12'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) TANK 2-1			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe	DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in) 2"	DRILLER NAME Brian	INSPECTOR Mary Ann Gilmore	
	DRILLING FLUID NA	DRILLING EQUIPMENT Track-mounted Dingo		
	SAMPLER DIAM./TYPE 2"	HAMMER WEIGHT (lbs) NA	HAMMER DRDP (ft) NA	
ABANDONMENT		GRUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT NA
METHOD Backfill	Depth	Date/Time	Seasonal High WT NA	
MATERIAL Soil	Depth	Date/Time		
QUANTITY NA	Depth	Date/Time		

Interval	Description	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples							DRGANIC VAPOR READINGS (ppm)			DRGANIC VAPDR METER INFRDMATION			REMARKS			
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RDD	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (eV)	SOURCE					
																		Mini		Ree	US ENV	
0-4'	24" Recovery 0-8" organic matter-grass 8-24" medium orange silty sand	0																			0.0	
		1																				0.0
		2																				0.0
		3																				0.0
		4																				0.0
4-8'	24" Recovery 48-72" SAA	5																				0.0
		6																				0.0
		7																				0.0
		8																				0.0
8-12'	36" Recovery 96-132" tan orange fine sand	9																				0.0
		10																				0.0
		11																				0.0
		12																				0.0
																						Collected sample TANK2-1 at 11.5-12" bgs for VO+10 & TPH-DRO analysis at 9:40
																						End of boring @ 12.0'



# LOG OF SOIL BORING TANK 2-2

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 10'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) TANK 2-2			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe	DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in) 2"	DRILLER NAME Brian	INSPECTOR Mary Ann Gilmore	DRILLING EQUIPMENT Track-mounted Dingo
	DRILLING FLUID NA	HAMMER WEIGHT (lbs) NA	HAMMER DROP (in) NA	
	SAMPLER DIAM./TYPE 2"			
	ABANDONMENT	GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT NA
METHOD Backfill	Depth	Date/Time	Seasonal High WT NA	
MATERIAL Soil	Depth	Date/Time		
QUANTITY NA	Depth	Date/Time		

INTERVAL DESCRIPTION	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS (ppm)			ORGANIC VAPOR METER INFORMATION				
					Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQO	Time	Bkg	Sample	Head Space	MiniRee	MANUF./MODEL	LAMP (eV)	SOURCE	
															10.6	US ENV		
0-4'	48" Recovery 0-6" organic matter-grass 6-48" medium orange silty sand																	
4-8'	48" Recovery 48-96" SAA																	
8-12'	24" Recovery																	
96-120"	96-120" tan orange silty sand																	
																		End of boring @ 10.0'



## LOG OF SOIL BORING TANK 2-3

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 12'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) TANK 2-3			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe	DRILLING CONTRACTOR Enviroprobe			
	BORING DIAMETER (in) 2"	DRILLER NAME Brian	INSPECTOR Mary Ann Gilmore	DRILLING EQUIPMENT Track-mounted Dingo	
	DRILLING FLUID NA	HAMMER WEIGHT (lbs) NA	HAMMER DROP (in) NA		
	SAMPLER DIAM./TYPE 2"				
	ABANDONMENT Backfill		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT NA
METHOD Soil		Depth	Date/Time	Seasonal High WT NA	
MATERIAL Soil		Depth	Date/Time		
QUANTITY NA		Depth	Date/Time		

INTERVAL DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS (ppm)			ORGANIC VAPOR METER INFORMATION			REMARKS
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	ROD	Time	Bkg	Sample	Head Space	MANUF./MODEL LAMP (eV) SOURCE			
															MiniRae	10.6	US ENV	
0-4'		0																0.0
																		0.0
		1																0.0
																		0.0
		2																0.0
																		0.0
		3																0.0
																		0.0
		4																0.0
4-8'																		0.0
		5																0.0
																		0.0
		6																0.0
																		0.0
		7																0.0
																		0.0
		8																0.0
8-12'																		0.0
		9																0.0
																		0.0
		10																0.0
																		0.0
		11																0.0
																		0.0
		12																0.0

Collected sample TANK2-3 at 11.5-12" bgs for VO+10 & TPH-DRO analysis at 14:00

End of boring @ 12.0'



## LOG OF SOIL BORING TANK 2-4

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 12'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) TANK 2-4			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe	DRILLING CONTRACTOR Enviroprobe			
	BORING DIAMETER (in) 2"	DRILLER NAME Brian	INSPECTOR Mary Ann Gilmore	DRILLING EQUIPMENT Track-mounted Dingo	
	DRILLING FLUID NA	HAMMER WEIGHT (lbs) NA	HAMMER DROP (in) NA		
	SAMPLER DIAM./TYPE 2"				
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT NA	
METHOD	Backfill	Depth	Date/Time	Seasonal High WT NA	
MATERIAL	Soil	Depth	Date/Time		
QUANTITY	NA	Depth	Date/Time		

INTERVAL DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS (ppm)			ORGANIC VAPOR METER INFORMATION			
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (eV)	SOURCE	
																		MiniRae
REMARKS																		
0-4'		0														0.0		
48" Recovery 0-8" organic matter-grass 8-48" medium orange silty sand		1														0.0		
		2														0.0		
		3														0.0		
		4														0.0		
4-8'		5														0.0		
48" Recovery 48-96" SAA		6														0.0		
		7														0.0		
		8														0.0		
8-12'		9														0.0		
48" Recovery 96-144" tan orange silty sand		10														0.0		
		11														0.0		
		12														0.0		
															Collected sample TANK2-4 at 11.5-12" bgs for VO+10 & TPH-DRO analysis at 11:30			
															End of boring @ 12.0'			





LOG OF SOIL BORING TANK 3-1

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 12'
-------------------------------------	----------------------------	-------------------------------	--------------------------------	----------------------------	-------------------------

PROJECT LOCATION 1667 Davis Street Camden, NJ	BORING LOCATION (Description and/or surveyed coordinates, if available) TANK 3-1
--	---

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe	DRILLING CONTRACTOR Enviroprobe			
	BORING DIAMETER (in) 2"	DRILLER NAME Brian	INSPECTOR Mary Ann Gilmore	DRILLING EQUIPMENT Track-mounted Dingo	
	DRILLING FLUID NA	HAMMER WEIGHT (lbs) NA	HAMMER DROP (in) NA		
	SAMPLER DIAM./TYPE 2"				
	ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT NA

METHOD Backfill	Depth	Date/Time	Seasonal High WT NA
MATERIAL Soil	Depth	Date/Time	
QUANTITY NA	Depth	Date/Time	

Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples							ORGANIC VAPOR READINGS (ppm)			ORGANIC VAPOR METER INFORMATION		
					Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MOEEL	LAMP (eV)	SOURCE	

Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MOEEL	LAMP (eV)	SOURCE	REMARKS
0-4'	0																0.0
	0.2																0.0
	1																0.0
	2																0.0
	3																0.0
	4																0.0
4-8'	5																0.0
	6																0.0
	7																0.0
	8																0.0
8-12'	9																0.0
	10																0.0
	11																0.0
	12																0.0
														Collected sample TANK3-1 at 11.5-12" bgs for VO+10 & TPH-DRO analysis at 13:00			
														End of boring @ 12.0'			



# LOG OF SOIL BORING TANK 3-2

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 12'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) TANK 3-2			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe			DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in) 2"		DRILLER NAME Brian		INSPECTOR Mary Ann Gilmore	DRILLING EQUIPMENT Track-mounted Dingo
	DRILLING FLUID NA			HAMMER WEIGHT (lb) NA		
	SAMPLER DIAM./TYPE 2"		HAMMER DROP (in) NA			
ABANDONMENT			GROUNDWATER OBSERVATIONS (depth in ft bgs)			Observed WT NA
METHOD Backfill		Depth	Date/Time		Seasonal High WT NA	
MATERIAL Soil		Depth	Date/Time			
QUANTITY NA		Depth	Date/Time			

INTERVAL DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples					ORGANIC VAPOR READINGS (ppm)			ORGANIC VAPOR METER INFORMATION			REMARKS	
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQO	Time	Bkg	Sample	Head Space	MANUF./MOEL	LAMP (eV)		SOURCE
0-4' 48" Recovery 0-3" grass and roots 3-12" strong brown silty sand 12-48" med brown orange silty sand		0															0.0	
		1															0.0	
		2															0.0	
		3															0.0	
		4															0.0	
4-8' 48" Recovery 48-96" SAA		5															0.0	
		6															0.0	
		7															0.0	
		8															0.0	
8-12' 48" Recovery 96-144" SAA		9															0.0	
		10															0.0	
		11															0.0	
		12															0.0	
																	Collected sample TANK3-2 at 11.5-12" bgs for VO+10 & TPH-DRO analysis at 13:10	
																	End of boring @ 12.0'	



## LOG OF SOIL BORING TANK 3-3

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 12'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) TANK 3-3			

BORING LOCATION (sketch)           	N ↑	DRILLING METHOD Direct Push Geoprobe			DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in) 2"			DRILLER NAME Brian		INSPECTOR Mary Ann Gilmre	DRILLING EQUIPMENT Track-mounted Dingo
	DRILLING FLUID NA			HAMMER WEIGHT (lbs) NA		HAMMER DROP (in) NA	NA
	SAMPLER DIAM. TYPE 2"						
	ABANDONMENT Backfill			GROUNDWATER OBSERVATIONS (depth in ft bgs)			Observed WT NA
	METHOOD Soil			Depth	Date/Time		Seasonal High WT NA
	MATERIAL Soil			Depth	Date/Time		
	QUANTITY NA			Depth	Date/Time		
				Depth	Date/Time		
				Depth	Date/Time		

INTERVAL DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						ORGANIC VAPOR READINGS (ppm)			ORGANIC VAPOR METER INFORMATION			REMARKS
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MOEL	LAMP (eV)	SOURCE	
0-4'		0																0.0
																		0.0
		1																0.0
																		0.0
		2																0.0
																		0.0
		3																0.0
																		0.0
		4																0.0
4-8'																		0.0
		5																0.0
																		0.0
		6																0.0
																		0.0
		7																0.0
																		0.0
		8																0.0
8-12'																		0.0
		9																0.0
																		0.0
		10																0.0
																		0.0
		11																0.0
																		0.0
		12																0.0

Collected sample TANK3-3 at 11.5-12" bgs for VO+10 & TPH-DRO analysis at 13:20

End of boring @ 12.0'



### LOG OF SOIL BORING TANK 3-4

PROJECT NAME Camden Laboratories		PROJECT NUMBER 70235805	DATE/TIME STARTED 12/11/08	DATE/TIME COMPLETE 12/11/08	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 12'										
PROJECT LOCATION 1667 Davis Street Camden, NJ			BORING LOCATION (Description and/or surveyed coordinates, if available) TANK 3-4													
BORING LOCATION (sketch) <span style="float: right;">N ↑</span>		DRILLING METHOD Direct Push Geoprobe			DRILLING CONTRACTOR Enviroprobe											
		BORING DIAMETER (in) 2"		DRILLER NAME Brian		INSPECTOR Mary Ann Gilmore	DRILLING EQUIPMENT Track-mounted Dingo									
		DRILLING FLUID NA		HAMMER WEIGHT (lbs) NA		HAMMER DROP (in) NA	NA									
		ABANDONMENT			GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT NA									
		METHOD Backfill		Depth	DATE/TIME		Seasonal High WT NA									
		MATERIAL Soil		Depth	DATE/TIME											
		QUANTITY NA		Depth	DATE/TIME											
INTERVAL DESCRIPTION	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratun	Samples					ORGANIC VAPOR REAGINGS (ppm)			ORGANIC VAPOR METER INFORMATION			
					Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQO	Time	Bkg	Sample	Head Space	MANUF./MOEL	LAMP (eV)	SOURCE
														MiniRae	10.6	US ENV
0-4'	48" Recovery 0-3" organic matter-grass  3-10" strong brown silty sand 10-48" med brown orange silty sand	0														
4-8'	48" Recovery 48-96" SAA	4														
8-12'	48" Recovery 96-144" SAA	8														
		9														
		10														
		11														
		12														

End of boring @ 12.0'



# LOG OF SOIL BORING SB-5 DUP

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 01/23/09	DATE/TIME COMPLETE 01/23/09	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 16'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) SB-5 DUP			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe		DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in) 2"		DRILLER NAME Brien		INSPECTOR Tom Cunningham
	ORILLING FLUID NA		DRILLING EQUIPMENT Truck-mounted Geoprobe		
	SAMPLER DIAM./TYPE 2"		HAMMER WEIGHT (lbs) NA		HAMMER DROP (in) NA
	ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		
	METHOD Backfill		Depth	Date/Time	
MATERIAL Soil		Depth	Date/Time		Seasonal High WT NA
QUANTITY NA		Depth	Date/Time		

INTERVAL DESCRIPTION	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples							ORGANIC VAPOR READINGS (ppm)			ORGANIC VAPOR METER INFORMATION			REMARKS
					Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	ROD	Time	Ekg	Sample	Head Space	MANUF./MODEL LAMP (eV) SOURCE				
														10.8	US Env			
0-4' 36" Recovery 0-4" Asphalt 4-36" brown clayey silt little fine to medium sand	0											0.00						
	1											0.00						
	2											0.00						
	3											0.00						
4-8' 48" recovery 48-68" SAA  68-96" tan fine to medium sand trace silt	4											0.10						
	5											0.10						
	6											0.00						
	7											2.50						
8-12' 48" Recovery 96-144" SAA	8											2.30						
	9											0.50						
	10											0.60						
	11											1.30						Collected sample SB-5DUP at 120-126" bgs for PP+40 analysis at 9:34
	12											4.40						





# LOG OF SOIL BORING M-1DUP

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 01/23/09	DATE/TIME COMPLETE 01/23/09	GROUND ELEVATION (FT. MSL) 21'	TOTAL DEPTH (ft)
-------------------------------------	----------------------------	-------------------------------	--------------------------------	-----------------------------------	------------------

PROJECT LOCATION 1567 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) M-1-DUP	
--	--	--	--

DRILLING METHOD Direct Push Geoprobe		DRILLING CONTRACTOR	
DRILLING EQUIPMENT Enviroprobe		DRILLER NAME Bran	
BORING DIAMETER (in) 2"		INSPECTOR Tom Cunningham	
DRILLING FLUID NA		TRUCK-MOUNTED GEOPROBE	
SAMPLER DIAM./TYPE 2"		HAMMER WEIGHT (lbs) NA	
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs) Observed WT NA	
METHOD Backfill		DATE/TIME NA	
MATERIAL Soil		DATE/TIME NA	
QUANTITY NA		DATE/TIME NA	
SAMPLES		MERCURY VAPOR	
DATE/TIME		READINGS (ng/ml)	
DEPTH		BKG	
TIME		SMPLE	
ROD		HEAD	
RECOVERED (feet)		SPACE	
DRIVEN (feet)		REMARKS	
BLOWN PER 6 INCHES			
SAMPLE NO.			
STRIKES			
GRAPHIC LOG			
GROUNDWATER			
DEPTH (ft bgs)			
SAMPLE INTERVAL			

Interval Description	0-4'	4-8'	8-12'
48" Recovery 0-7" Topsoil 7-48" brown clayey silt trace fine to medium sand	48" recovery 48-60" SAA to medium sand 60-96" tan fine to medium sand trace silt	24" Recovery 96-144" SAA	
21180	24850	43350	39140
			40040
			25840
			24345
			>50,000
			33810
			>50,000
			32160
			36240
			>50,000
			44240
			>50,000
			>50,000
			30055
			>50,000
			>50,000
			27800
			40042
			32160
			25331
			18052







## LOG OF SOIL BORING M-2DUP

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 01/23/09	DATE/TIME COMPLETE 01/23/09	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 20'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) M-2 Dup			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe	DRILLING CONTRACTOR Enviroprobe	
	BORING DIAMETER (in) 2"	DRILLER NAME Brian	INSPECTOR Tom Cunningham
	DRILLING FLUID NA	DRILLING EQUIPMENT Truck-mounted Geoprobe	
	SAMPLER DIAM./TYPE 2"	HAMMER WEIGHT (lbs) NA	HAMMER DROP (in) NA
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)	
METHOD Backfill	Depth	Date/Time	Observed WT NA
MATERIAL Soil	Depth	Date/Time	Seasonal High WT NA
QUANTITY NA	Depth	Date/Time	

INTERVAL DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						MERCURY VAPOR READINGS (ng/m3)			ORGANIC VAPOR METER INFORMATION			
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	ROD	Time	Bkg	Sample	Head Space	Lumex	MANUF./MODEL	LAMP (eV)	SOURCE
0-4'		0										36240						
												1182						
		1										2585						
												2585						
		2																
		3																
		4										895						
4-8'												1753						
		5										2920						
												3887						
		6										6630						
												4839						
		7										15710						
		8										9474						
8-12'												9152						
		9										3521						
		10										6000						
												7924						
		11										9728						
												15100						
		12																Collected sample M-2A at 138-144" bgs for Mercury analysis et 16:34





## LOG OF SOIL BORING M-4DUP

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 01/23/09	DATE/TIME COMPLETE 01/23/09	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 19'
PROJECT LOCATION 1667 Devis Street Camden, NJ		BORING LOCATION (Description end/or surveyed coordinates, if available) M-4 Dup			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe	DRILLING CONTRACTOR Enviroprobe		
	BORING DIAMETER (in) 2"	DRILLER NAME Brian	INSPECTOR Tom Cunningham	
	DRILLING FLUID NA	DRILLING EQUIPMENT Truck-mounted Geoprobe		
	SAMPLER DIAM./TYPE 2"	HAMMER WEIGHT (lbs) NA	HAMMER DROP (in) NA	
	ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)	Observed WT NA
	METHOD Backfill	Depth	Date/Time	Seasonal High WT NA
MATERIAL Soil	Depth	Date/Time		
QUANTITY NA	Depth	Date/Time		

INTERVAL DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						MERCURY VAPOR READINGS (ng/m3)		ORGANIC VAPOR METER INFORMATION				
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	Lumex	MANUF./MODEL	LAMP (eV)	SOURCE
																10.6	US ENV	REMARKS
0-4'		0										1365						
												1291						
		1										875						
												910						
		2										950						
												920						
		3										1512						
		4										802						
4-8'												992						
		5										1850						
												994						
		6										921						
												999						
		7																
		8										3263						
8-12'												3416						
		9										4552						
												3561						
		10										2278						
												2291						
		11										3188						
												4891						
		12										4177						







### LOG OF SOIL BORING M-5

PROJECT NAME Camden Laboratories	PROJECT NUMBER 70235805	DATE/TIME STARTED 01/23/09	DATE/TIME COMPLETE 01/23/09	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 20'
PROJECT LOCATION 1667 Davis Street Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available) M-5			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe	DRILLING CONTRACTOR Enviroprobe			
	BORING DIAMETER (in) 2"	DRILLER NAME Brian		INSPECTOR Tom Cunningham	DRILLING EQUIPMENT Truck-mounted Geoprobe
	DRILLING FLUID NA				
	SAMPLER DIAM./TYPE 2"	HAMMER WEIGHT (lbs) NA	HAMMER DROP (in) NA		
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT NA	
METHOD Backfill		Depth	Date/Time		Seasonal High WT NA
MATERIAL Soil		Depth	Date/Time		
QUANTITY NA		Depth	Date/Time		

INTERVAL DESCRIPTION		Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						MERCURY VAPOR READINGS (ng/m <sup>3</sup> )			ORGANIC VAPOR METER INFORMATION			
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	ROD	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (eV)	SOURCE	
																		REMARKS
12-16'	48" Recovery 144-192" SAA	-										34140						
		- 13 -										20960						
		- 14 -										32362						
		- 15 -										10170						
		- 16 -										5713						
		- 17 -										>50,000						
		- 18 -										>50,000						
16-20'	48" Recovery 192-240" SAA	- 19 -										>50,000						
		- 20 -										17700						
		- 21 -										1293						
		- 22 -										2787						
		- 23 -										911						
		- 24 -										1609						wet at 18.5'
		- 25 -										1727						
		- 26 -										1705						Collected sample M5-B at 236-240" bgs for Mercury analysis at 15:56 End of boring @ 20.0'



## LOG OF SOIL BORING M-2

PROJECT NAME Camden Labs	PROJECT NUMBER 070235804	DATE/TIME STARTED 01/29/09	DATE/TIME COMPLETE 01/29/09	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 25
PROJECT LOCATION 1667 Davis Street, Camden, NJ			BORING LOCATION (Description and/or surveyed coordinates, if available)		

BORING LOCATION (sketch)			DRILLING METHOD Direct Push Geoprobe			DRILLING CONTRACTOR Enviroprobe		
BORING DIAMETER (in) 3"			DRILLER NAME NA			INSPECTOR Mary Ann Gilmore		DRILLING EQUIPMENT Track-mounted Geoprobe
DRILLING FLUID NA			HAMMER WEIGHT (lbs) NA			HAMMER DROP (in) NA		
SAMPLER DIAM./TYPE 3"			GROUNDWATER OBSERVATIONS (depth in ft bgs)			Observed WT NA		
ABANDONMENT			METHOD Backfill			Seasonal High WT NA		
MATERIAL Soil/Bentonite			Date/Time			Date/Time		
QUANTITY NA			Date/Time			Date/Time		

Interval Description	Sample Interval (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATION				
					Sample No.	Blows per 8 inches	Depth (feet)	Recovery (feet)	ROO	Time	Bkg	Sample	Head Space	Jerome	MANUF./MODEL	LAMP (eV)	SOURCE	
																		REMARKS
0-5' 48" Recovery 0-42" orange-brown silty sand	0																	
	1																	
	2																	
	3																	
	4																	
5-10' 60" Recovery 60-120" saa	5								5.0									
	6																	
	7																	
	8																	
	9																	
10-15' 60" Recovery 120-180" tan-orange fine sand	10								5.0									
	11																	
	12																	
	13																	
	14																	
	15																	

Collected sample M-2C at 168-174" bgs for mercury analysis at 8:35



### LOG OF SOIL BORING M-2

PROJECT NAME <b>Camden Labs</b>	PROJECT NUMBER <b>070235804</b>	DATE/TIME STARTED <b>01/29/09</b>	DATE/TIME COMPLETE <b>01/29/09</b>	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) <b>25</b>
PROJECT LOCATION <b>1667 Davis Street, Camden, NJ</b>			BORING LOCATION (Description and/or surveyed coordinates, if available)		

BORING LOCATION (sketch)		DRILLING METHOD <b>Direct Push Geoprobe</b>			DRILLING CONTRACTOR <b>Enviroprobe</b>		
		BORING DIAMETER (in) <b>3"</b>		DRILLER NAME <b>NA</b>		INSPECTOR <b>Mary Ann Gilmore</b>	DRILLING EQUIPMENT <b>Track-mounted Geoprobe</b>
		DRILLING FLUID <b>NA</b>		HAMMER WEIGHT (lbs) <b>NA</b>		HAMMER DROP (in) <b>NA</b>	
		SAMPLER DIAM./TYPE <b>3"</b>		GROUNDWATER OBSERVATIONS (depth in ft bgs)			
		ABANDONMENT		Observed WT <b>NA</b>		Seasonal High WT <b>NA</b>	
		METHOD <b>Backfill</b>		Date/Time			
		MATERIAL <b>Soil/Bentonite</b>		Date/Time			
		QUANTITY <b>NA</b>		Date/Time			
		SAMPLES			MERCURY VAPOR READINGS (ng/m3)		
					MANUF./MODEL    LAMP (eV)    SOURCE		
					Bkg	Sample	Head Space
					Jerome		

INTERVAL DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Sample No.	Blows per 6 inches	Driven (feet)	Recovery (feet)	RQO	Time	MERCURY VAPOR			REMARKS	
												Bkg	Sample	Head Space		
15-20' 60" Recovery 180-240" saa		-							5.0							
		16														
		-														
		17														
		-														
		18													Collected sample M-2D at 216-222" bgs for mercury analysis at 8:40 wet @ 18.5' bgs	
20-25' 60" Recovery 240-288" saa		-														
		19														
		-														
		20							5.0						Collected sample M-2B-dup at 234-240" bgs for mercury analysis at 8:30	
		-														
		21														
		-														
		22														
		-														
288-300" grey silty clay		23														
		-														
		24														
		-														
		25													End of Boring	

\\s09svr011\project\2007\0702358\05\02\_Survey\_and\_Workpapers\Supplemental SI boring logs\Mercury Boring logs 1-29-09.xls\M-2





### LOG OF SOIL BORING M-3

PROJECT NAME Camden Labs	PROJECT NUMBER 070235804	DATE/TIME STARTED 01/29/09	DATE/TIME COMPLETE 01/29/09	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (#) 25
-----------------------------	-----------------------------	-------------------------------	--------------------------------	----------------------------	-----------------------

PROJECT LOCATION: 1667 Davis Street, Camden, NJ      BORING LOCATION (Description and/or surveyed coordinates, if available)

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe	DRILLING CONTRACTOR Enviroprobe	
	BORING DIAMETER (in) 3"	DRILLER NAME NA	INSPECTOR Mary Ann Gilmore
	DRILLING FLUID NA	ORILLING EQUIPMENT Track-mounted Geoprobe	
	SAMPLER DIAM./TYPE 3"	HAMMER WEIGHT (lbs) NA	HAMMER DROP (in) NA
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)	
METHOD Backfill	Depth	Observed WT NA	
MATERIAL Soil/Bentonite	Depth	Seasonal High WT NA	
QUANTITY NA	Depth	Date/Time	

INTERVAL DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples							MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATION					
						Sample No.	Blows per 6 inches	Driven (feet)	Recovery (feet)	RQD	Time	Bkg	Sample	Head Space	Jerome	MANUF./MODEL	LAMP (eV)	SOURCE			
																			REMARKS		
0-5'		0																			
48" Recovery 0-12" strong brown silty loam		0																			
12-36" orange silty loam		1																			
36-48" orange fine sand		3																			
5-10'		5																			
60" Recovery 60-90" saa		5																			
90-120" tan-orange fine sand		8																			
10-15'		10																			
60" Recovery 120-180" saa		10																			
		15																			
		15																			

Collected sample M-3A at 66-72" bgs for mercury analysis at 10:50

Collected sample M-3B at 168-174" bgs for mercury analysis at 11:00



# LOG OF SOIL BORING M-3

PROJECT NAME Camden Labs	PROJECT NUMBER 070235804	DATE/TIME STARTED 01/29/09	DATE/TIME COMPLETE 01/29/09	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 25
PROJECT LOCATION 1667 Davis Street, Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available)			

BORING LOCATION (sketch)		DRILLING METHOD Direct Push Geoprobe		DRILLING CONTRACTOR Enviroprobe	
		BDRING OIAMETER (in) 3"		ORILLER NAME NA	
		ORILLING FLUID NA		INSPECTOR Mary Ann Gilmore	
		SAMPLER OIAM./TYPE 3"		ORILLING EQUIPMENT Track-mounted Geoprobe	
		HAMMER WEIGHT (lbs) NA		HAMMER DROP (in) NA	
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT NA	
METHOO Backfill		Oepth		Oate/Time	
MATERIAL Soil/Betonite		Oepth		Seasonal High WT NA	
QUANTITY NA		Oepth		Date/Time	

INTERVAL DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples					MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATION			REMARKS		
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	Jerome	MANUF./MOEEL		LAMP (eV)	SOURCE
15-20'	60" Recovery 180-240" saa	-	-	-	-	-	-	5.0	-	-	-	0.4	-	-	-	-	-	-	
		16										0.4						Collected sample M-3C at 216-222" bgs for mercury analysis at 11:10 wet @ 18.5' bgs	
		17										0.4							
		18										0.4							
		19										0.9							
		20						5.0				1.0						Collected sample M-3D at 234-240" bgs for mercury analysis at 11:15	
20-25'	60" Recovery 240-288" saa	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	
		21										0.0							
		22										1.0							
		23										1.0							
		24										1.7						Collected sample M-3E at 270-276" bgs for mercury analysis at 11:30	
		25										0.0						Collected sample M-3F at 294-300" bgs for mercury analysis at 11:35	
	288-300" grey silty clay	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	End of Boring	





## LOG OF SOIL BORING M-6

PROJECT NAME Camden Labs	PROJECT NUMBER 070235804	DATE/TIME STARTED 01/29/09	DATE/TIME COMPLETE 01/29/09	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 25
PROJECT LOCATION 1667 Davis Street, Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available)			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe		DRILLING CONTRACTOR Enviroprobe	
	BORING DIAMETER (in) 3"	DRILLER NAME NA	INSPECTOR Mary Ann Gilmore	DRILLING EQUIPMENT Track-mounted Geoprobe
	DRILLING FLUID NA	HAMMER WEIGHT (lbs) NA	HAMMER DROP (in) NA	
	SAMPLER DIAM./TYPE 3"			
	ABANDONMENT	GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT NA
	METHOD Backfill	Depth	Date/Time	Seasonal High WT NA
	MATERIAL Soil/Betonite	Depth	Date/Time	
	QUANTITY NA	Depth	Date/Time	

Interval Description	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples								MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATION			
					Sample No.	Blows per 6 inches	Driven (feet)	Recovery d (feet)	RQO	Time	Bkg	Sample	Head Space	MANUF./MDOEL	LAMP (eV)	SDURCE			
														Jerome					
REMARKS																			
15-20' 60" Recovery 180-240" saa	-																		
	16																		
	17																		
	18																		
	19																		
20-25' 60" Recovery 240-294" saa	20																		
	21																		
	22																		
	23																		
	24																		
294-300" grey clay	25																		







### LOG OF SOIL BORING M-8

PROJECT NAME <b>Camden Labs</b>	PROJECT NUMBER <b>070235804</b>	DATE/TIME STARTED <b>01/29/09</b>	DATE/TIME COMPLETE <b>01/29/09</b>	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) <b>25</b>
PROJECT LOCATION <b>1667 Davis Street, Camden, NJ</b>		BORING LOCATION (Description and/or surveyed coordinates, if available)			

BORING LOCATION (sketch)		DRILLING METHOD <b>Direct Push Geoprobe</b>		DRILLING CONTRACTOR <b>Enviroprobe</b>	
		BORING DIAMETER (in) <b>3"</b>		DRILLER NAME	
		DRILLING FLUID <b>NA</b>		INSPECTOR <b>Mary Ann Gilmore</b>	
		SAMPLER DIAM./TYPE <b>3"</b>		HAMMER WEIGHT (lbs) <b>NA</b>	
				HAMMER DROP (in) <b>NA</b>	
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT <b>NA</b>	
METHOD <b>Backfill</b>		Depth		Date/Time	
MATERIAL <b>Soil/Bentonite</b>		Depth		Date/Time	
QUANTITY <b>NA</b>		Depth		Date/Time	

INTERVAL DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATION				
						Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RQD	Time	Bkg	Sample	Head Space	Jerome	MANUF./MODEL	LAMP (eV)	SOURCE	
																			REMARKS
0-5'	36" Recovery 0-12" silty loam	0																	
	12-36" orange silty sand	1																	
		2																	
		3																	
		4																	
5-10'	48" Recovery 60-72" saa	5																	
	72-84" orange fine sand	6																	
		7																	
	84-108" tan-orange fine sand	8																	
		9																	
10-15'	60" Recovery 120-180" saa	10																	
		11																	
		12																	
		13																	
		14																	
		15																	

Collected sample M-8A at 168-174" bgs for mercury analysis at 9:40



## LOG OF SOIL BORING M-8

PROJECT NAME Camden Labs	PROJECT NUMBER 070235804	DATE/TIME STARTED 01/29/09	DATE/TIME COMPLETE 01/29/09	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 25
PROJECT LOCATION 1667 Davis Street, Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available)			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe			DRILLING CONTRACTOR Enviroproba		
	BORING DIAMETER (in) 3"		DRILLER NAME NA		INSPECTOR Mary Ann Gilmore	DRILLING EQUIPMENT Track-mounted Geoprobe
	DRILLING FLUID NA		HAMMER WEIGHT (lbs) NA		HAMMER DROP (in) NA	
	SAMPLER DIAM./TYPE 3"					
ABANDONMENT			GROUNDWATER OBSERVATIONS (depth in ft bgs)			
METHOD Backfill		Depth	Date/Time		Observed WT NA	
MATERIAL Soil/Bentonite		Depth	Date/Time		Seasonal High WT NA	
QUANTITY NA		Depth	Date/Time			

INTERVAL DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples					MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATION					
						Sample No.	Blows per 6 inches	Driven (feet)	Recovery (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MODEL LAMP (eV) SOURCE				
															Jerome				
15-20'	60" Recovery 180-240" saa	-																	
		16																	
		17																	
		18																	
		19																	
		20																	
20-25'	60" Recovery 240-264" orange sand	-																	
		21																	
		22																	
	264-276" tan sand	-																	
		23																	
	276-300" tan clay	-																	
		24																	
		25																	





## LOG OF SOIL BORING M-9

PROJECT NAME <b>Camden Labs</b>	PROJECT NUMBER <b>070235804</b>	DATE/TIME STARTED <b>01/29/09</b>	DATE/TIME COMPLETE <b>01/29/09</b>	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) <b>25</b>
PROJECT LOCATION <b>1667 Davis Street, Camden, NJ</b>		BORING LOCATION (Description and/or surveyed coordinates, if available)			

BORING LOCATION (sketch)		DRILLING METHOD <b>Direct Push Geoprobe</b>		DRILLING CONTRACTOR <b>Enviroprobe</b>	
BORING DIAMETER (in) <b>3"</b>		DRILLER NAME		INSPECTOR <b>Mary Ann Gilmore</b>	DRILLING EQUIPMENT <b>Track-mounted Geoprobe</b>
DRILLING FLUID <b>NA</b>		<b>NA</b>			
SAMPLER DIAM./TYPE <b>3"</b>		HAMMER WEIGHT (lbs) <b>NA</b>	HAMMER DROP (in) <b>NA</b>		
ABANDONMENT		GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT <b>NA</b>	
METHOD <b>Backfill</b>		Depth	Date/Time	Seasonal High WT <b>NA</b>	
MATERIAL <b>Soil/Bentonite</b>		Depth	Date/Time		
QUANTITY <b>NA</b>		Depth	Date/Time		

Interval Description	Sample Interval (ft bgs)	Groundwater	Graphic Log	Stratum	Samples					MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATION							
					Sample No.	Blows per 6 inches	Driven (feet)	Recovery (feet)	RQD	Time	Bkg	Sample	Head Space	MANUF./MODEL LAMP (eV) SOURCE						
														Jerome						
REMARKS																				
0-5'	48" Recovery	- 0 -																		
	0-12" silty loam	- -																		
	12-36" orange silty loam	- 1 -																		
		- -																		
		- 2 -																		
5-10'	48" Recovery	- 3 -																		
	60-84" saa	- 4 -																		
		- 5 -						4.0												
		- 6 -																		
		- 7 -																		
10-15'	84-108" tan-orange fine sand	- 8 -																		
		- 9 -																		
		- 10 -																		
		- 11 -																		
		- 12 -																		
		- 13 -																		
		- 14 -																		
		- 15 -																		

Collected sample M-9A at 60-66" bgs for mercury analysis at 10:10

Collected sample M-9B at 168-174" bgs for mercury analysis at 10:15



### LOG OF SOIL BORING M-9

PROJECT NAME Camden Labs	PROJECT NUMBER 070235804	DATE/TIME STARTED 01/29/09	DATE/TIME COMPLETE 01/29/09	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 25
PROJECT LOCATION 1667 Davis Street, Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available)			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe	DRILLING CONTRACTOR Enviroprobe			
	BORING DIAMETER (in) 3"	DRILLER NAME NA	INSPECTOR Mary Ann Gilmore	DRILLING EQUIPMENT Track-mounted Geoprobe	
	DRILLING FLUID NA	NA			
	SAMPLER DIAM./TYPE 3"	HAMMER WEIGHT (lbs) NA	HAMMER DROP (in) NA		
	ABANDONMENT	GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT NA	
	METHOD Backfill	Depth	Date/Time	Seasonal High WT NA	
	MATERIAL Sol/Bentonite	Depth	Date/Time		
	QUANTITY NA	Depth	Date/Time		

Interval Description	Sample Interval Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATION										
					Sample No.	Blows per 6 inches	Driven (feet)	Recovered (feet)	RDD	Time	Bkg	Sample	Head Space	MANUF./MODEL	LAMP (eV)	SOURCE								
					Jerome																			
15-20' 60" Recovery 180-240" saa	15							5.0				0.0												
	16											0.0												
	17											0.0												
	18											0.0												
	18											1.4												
	19											1.4												
	19											0.4												
	20											0.0												
20-25' 60" Recovery 240-276" saa	20											0.0												
	21											0.0												
	22											0.0												
	23											0.0												
276-282" orange medium sand	23											0.0												
	24											0.0												
282-300" tan clay	24											0.0												
	25											0.0												
	25											0.0												
	25											0.0												

Collected sample M-9C at 216-222" bgs for mercury analysis at 10:20  
wet @ 19.0' bgs

Collected sample M-9D at 294-300" bgs for mercury analysis at 10:25  
End of Boring



## LOG OF SOIL BORING M-10

PROJECT NAME Camden Labs	PROJECT NUMBER 07.0235804	DATE/TIME STARTED 01/29/09	DATE/TIME COMPLETE 01/29/09	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 25
PROJECT LOCATION 1667 Davis Street, Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available)			

BDRING LOCATION (sketch)		DRILLING METHOD/D <b>Direct Push Geoprobe</b>		DRILLING CONTRACTOR <b>Enviroprobe</b>	
BDRING OIAMETER (in)		3"		DRILLER NAME	
DRILLING FLUID		NA		INSPECTOR Mary Ann Gilmore	
SAMPLER OIAM./TYPE		3"		DRILLING EQUIPMENT Track-mounted Geoprobe	
ABANDONMENT		GRDUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT NA	
METHOO Backfill		Depth		Date/Time	
MATERIAL Soil/Betonite		Depth		Date/Time	
QUANTITY NA		Depth		Date/Time	

INTERVAL DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATION							
						Sample No.	Blows per 6 inches	Driven (feet)	Recovery d (feet)	RQD	Time	Bkg	Sample	Head	Jerome	MANUF./MOOEL	LAMP (eV)	SOURCE				
																			Space	REMARKS		
0-5'	36" Recovery 0-12" organic matter, graas, roots	0																				
	12-18" ash	1																				
	18-36" orange silty loam	2																				
		3																				
		4																				
5-10'	36" Recovery 60-84" saa	5						3.0														
		6																				Collected sample M-10A at 66-72" bgs for mercury analysis at 10:30
		7																				
	84-96" tan-orange fine sand	8																				
		9																				
10-15'	60" Recovery 120-180" saa	10																				
		11																				
		12																				
		13																				
		14																				
		15																				Collected sample M-10B at 174-180" bgs for mercury analysis at 10:35





LOG OF SOIL BORING M-11

PROJECT NAME Camden Labs	PROJECT NUMBER 070235804	DATE/TIME STARTED 01/29/09	DATE/TIME COMPLETE 01/29/09	GRDUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 20
PROJECT LOCATION 1667 Davis Street, Camden, NJ		BDRING LOCATIDN (Description and/or surveyed coordinates, if available)			

BORING LOCATION (sketch)				DRILLING METHOD Direct Push Geoprobe		DRILLING CONTRACTOR Enviroprobe			
BORING DIAMETER (in) 3"		ORILLER NAME NA		INSPECTOR Mary Ann Gilmore		ORILLING EQUIPMENT Track-mounted Geoprobe			
ORILLING FLUID NA		HAMMER WEIGHT (lbs) NA		HAMMER DROP (In) NA					
SAMPLER OIAM./TYPE 3"									

METHOO Backfill		Oeeph		Date/Time		Observed WT NA		Seasonal High WT NA	
MATERIAL Soil/Bentonite		Oeeph		Date/Time					
QUANTITY NA		Oeeph		Oate/Time					

Samples						MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATIDN		
Sample No.	Blow per 6 inches	Driven (feet)	Recovere d (feet)	RQO	Time	Bkg	Sample	Head Space	MERCURY VAPOR METER INFORMATIDN		
									Jerome	LAMP (eV)	SOURCE
Interval Description						REMARKS					

Interval Description	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples					MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATIDN			
						Sample No.	Blow per 6 inches	Driven (feet)	Recovere d (feet)	RQO	Time	Bkg	Sample	Head Space	Jerome	LAMP (eV)	SOURCE
0-5' 48" Recovery 0-12" grass, organic matter  12-24" strong brown silty loam  24-48" orange silty sand		0										0.0					
												0.0					
												0.0					
												0.0					
												0.0					
5-10' 48" Recovery 60-72" orange fine sand  72-108" tan sand		5						4.0				0.0					
												0.4			Collected sample M-11A at 60-66" bgs for mercury analysis at 11:40		
												0.0					
												0.0					
												0.0					
10-15' 60" Recovery 120-180" saa		10										0.0					
												0.0					
												0.0					
												0.0					
												0.0					
											0.0						
											0.8						
											0.4						
											0.8						
											0.8						
											0.8						
											0.8						

Collected sample M-11B at 168-174" bgs for mercury analysis at 12:00



LOG OF SOIL BORING M-11

PROJECT NAME Camden Labs	PROJECT NUMBER 070235804	DATE/TIME STARTED 01/29/09	DATE/TIME COMPLETE 01/29/09	GROUND ELEVATION (FT. MSL)	TOTAL DEPTH (ft) 20
PROJECT LOCATION 1667 Davis Street, Camden, NJ		BORING LOCATION (Description and/or surveyed coordinates, if available)			

BORING LOCATION (sketch)	DRILLING METHOD Direct Push Geoprobe		DRILLING CONTRACTOR Enviroprobe	
	BORING DIAMETER (in)	3"	DRILLER NAME	INSPECTOR Mary Ann Gilmore
	DRILLING FLUID	NA	NA	DRILLING EQUIPMENT Track-mounted Geoprobe
	SAMPLER DIAM./TYPE	3"	HAMMER WEIGHT (lbs)	NA
	ABANDONMENT	GROUNDWATER OBSERVATIONS (depth in ft bgs)		Observed WT
	METHOD	Backfill	Depth	Date/Time
	MATERIAL	Soil/Bentonite	Depth	Date/Time
	QUANTITY	NA	Depth	Date/Time
				Seasonal High WT
				NA

INTERVAL DESCRIPTION	Sample Interval	Depth (ft bgs)	Groundwater	Graphic Log	Stratum	Samples						MERCURY VAPOR READINGS (ng/m3)			MERCURY VAPOR METER INFORMATION				
						Sample No.	Blows per 6 inches	Driven (feet)	Recovery d (feet)	RQD	Time	Bkg	Sample	Head Space	Jerome	MANUF./MODEL		LAMP (eV)	SOURCE
																REMARKS			
15-20'	60" Recovery																		
	180-240" saa																		
		16																	
		17																	
		18																	
		19																	
		20																	
20-25'	No Recovery																		
		21																	
		22																	
		23																	
		24																	
		25																	
																			End of Boring

---

## APPENDIX B: GEOPHYSICAL SURVEY REPORT

Woodard & Curran  
Attn: Robert W. Fisler  
2 Executive Campus  
2370 State Route 70 West, Suite 125  
Cherry Hill, NJ 08002

February 23, 2018

Re: Engineering Report – Former Camden Labs Site

Dear Robert W. Fisler,

February 2018 Master Locators (ML) performed a geophysical survey at 1667 Davis Street in Camden, NJ. The purpose of the survey was to scan for and mark out all locatable utilities/anomalies and within the boundaries of the Former Camden Labs Site. The client was specifically interested in possible underground storage tanks (USTs) that were thought to be present within the scan area. A bulk of the site was inaccessible due to collapsed buildings, demolition, debris piles and vegetation overgrowth. ML focused its efforts on areas surrounding the structures/buildings and in areas where the vegetation was less and allowed access.

## METHODOLOGY

ML utilized Electromagnetic (EM) and Ground Penetrating Radar (GPR) technology to perform the subsurface investigation with the following equipment.

- Profiler EMP-400 manufactured by GSSI
- A6 Tracer manufactured by Aquatronics (split box)
- RD 8000 Digital Locator manufactured by Radiodetection
- Noggin SmartCart with 250MHz GPR antenna manufactured by Sensors and Software

Profiler scans were completed throughout the scan area on the non-vegetated pathways and paved areas to depict relative conductivity. During data collection, the instrumentation must remain level and close the ground at all times; heavy vegetation and debris prevents this. The Profiler is an EM induction tool that emits user selected frequencies ranging between 1,000 Hz to 16,000 Hz. The EM fields produced by these frequencies are measured for soil conductivity. These scans were georeferenced using an internal GPS antenna. All Profiler data was saved for post processing via Surfer Pro software.

Inductive EM scans were then performed with the A6 Tracer using a 118kHz frequency. Inductive EM data was collected at 10' spacing in both the x and the y directions. The A6 Tracer scans were performed to identify any potential metallic objects within the scan area.

Electromagnetic scanning was performed to trace all conductive utilities which were visually evident within or adjacent to the scan area. This included both active and inactive methods of locating with the RD 8000 Digital Locator. Active and inductive scans were performed on various frequencies ranging from 8 KHz to 200 KHz. Passive scans were performed on a 60Hz frequency.

GPR scans were performed with a 250MHz antenna. GPR data was collected at 10' spacing in both the x and the y directions. During the scanning process, the GPR operator continuously monitored the imaging results displayed for indications of any anomalies within the soil below the ground surface. Any anomalies which were detected were investigated further to identify the target as a potential utility or unknown.





## RESULTS

### GPR/EM Investigation

*Attachment 1: Digitized Print Mark Up* contains the results of the EM/GPR scan for locatable utilities and unknowns. Multiple utilities and unknown linear features were observed within the boundaries of the property. A majority of the investigation was limited to accessible paved areas and sections of the property with less vegetation. ML couldn't access the buildings due to observed safety hazards.

In addition to utilities and unknown linear features, two (2) areas targets were marked out. ML field staff were informed that the section of the scan area northeast of Building 1 may contain a possible underground storage tank (UST). ML field staff observed an unknown, non-linear, metallic area target in this section of the site using the split box. *Attachment 2: Site Photos, Possible UST* depicts photos related to the unknown non-linear, metallic area target for additional reference.

ML field staff noted a second unknown non-linear, metallic area target located in close proximity to an unknown linear feature southwest of Building 5. The margins of that target were not easily defined. This area target may represent a possible UST, buried debris, buried utility structure or some other buried structure.

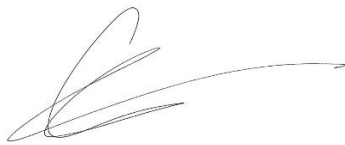
### Profiler Investigation

Profiler data was collected over the accessible pathways and in areas of low vegetation. *Attachment 3: Profiler Conductivity Images* contains conductivity results at two (2) frequencies 15000 Hz and 10000 Hz (lower the frequency, lower the signal depth penetration). The Profiler conductivity data overlays Google aerial imagery dated 2011. 2011 was chosen for base imagery because of its clarity in comparison to recent imagery. Those areas circle in dashed, red-line type are the areas highest in conductivity. Although high in conductivity, these circled areas are near surface structures, buildings and fence line/property line. A majority of the scan area covered has some level of conductivity. This overall conductivity could be due to the observed debris covering the site and/or the wet/damp conditions the data was collected in (note snow present on the ground in *Attachment 2*).

ML recommends that the site be cleared of debris and vegetation and a rescan of the property be conducted to get a less obstructed picture of the subsurface conditions at the Former Camden Labs Site.

We would like to thank you for the opportunity to assist with this project. Please feel free to contact me with any questions regarding this report and the attachments.

Sincerely,



Crystal Gardener  
Geologist/Project Manager

Attachment 1: Digitized Print Mark Up  
Attachment 2: Site Photos, Possible UST  
Attachment 3: Profiler Conductivity Images

DIGITAL SKETCH  
NOT TO SCALE  
NOT GEO-REFERENCED

Decatur St

Block 1392 Lot 33

Hallowell Ln

UNKNOWN METALLIC ANOMALY OBSERVED WITH SPLIT BOX

SUSPECTED ROUTE  
SUSPECTED ROUTE

POSSIBLE GAS LINE

HEAVY VEGETATION

OPEN UNKNOWN STRUCTURE FILLED WITH DEBRIS

UNKNOWN ABOVE-GROUND PIPES UNABLE TO ACCESS

HEAVY VEGETATION

SUSPECTED LIST METALLIC ANOMALY OBSERVED USING SPLIT BOX

5

6 Garage

6

2

7

HEAVY VEGETATION

SUSPECTED ROUTE

POSSIBLE STORM LINE

UTILITIES LEGEND

- E - U/G ELECTRIC LINE
- C - U/G COMMUNICATION LINE
- SD - U/G STORM LINE
- W - U/G WATER LINE
- G - U/G GAS LINE
- SS - U/G SAN LINE
- UNK - UNKNOWN LINE

- - MANHOLE (MH)
- - STORM INLET/CATCH BASIN (CB)
- ⊗ - LIGHT STANDARD/SITE LIGHT (SL)
- - JUNCTION BOX/PULL BOX
- ⊕ - FIRE HYDRANT (FH)
- × - LAST LOCATABLE POINT
- ~ - LINE CONTINUES

Buildings  
Boundary  
Boundary





Photo 1: Direction SW, possible UST with unknown linear feature (possible UST associated piping) leading into building  
Photo 2: Direction SW, unknown linear feature leading into building.  
Photo 3: Direction SSE, possible UST with unknown linear feature (possible UST associated piping) leading into buildin



Conductivity[100InPhase[15000] 2011 Google Imagery  
Areas of near-zero positive conductivity (green), areas of high positive conductivity (warm colors)





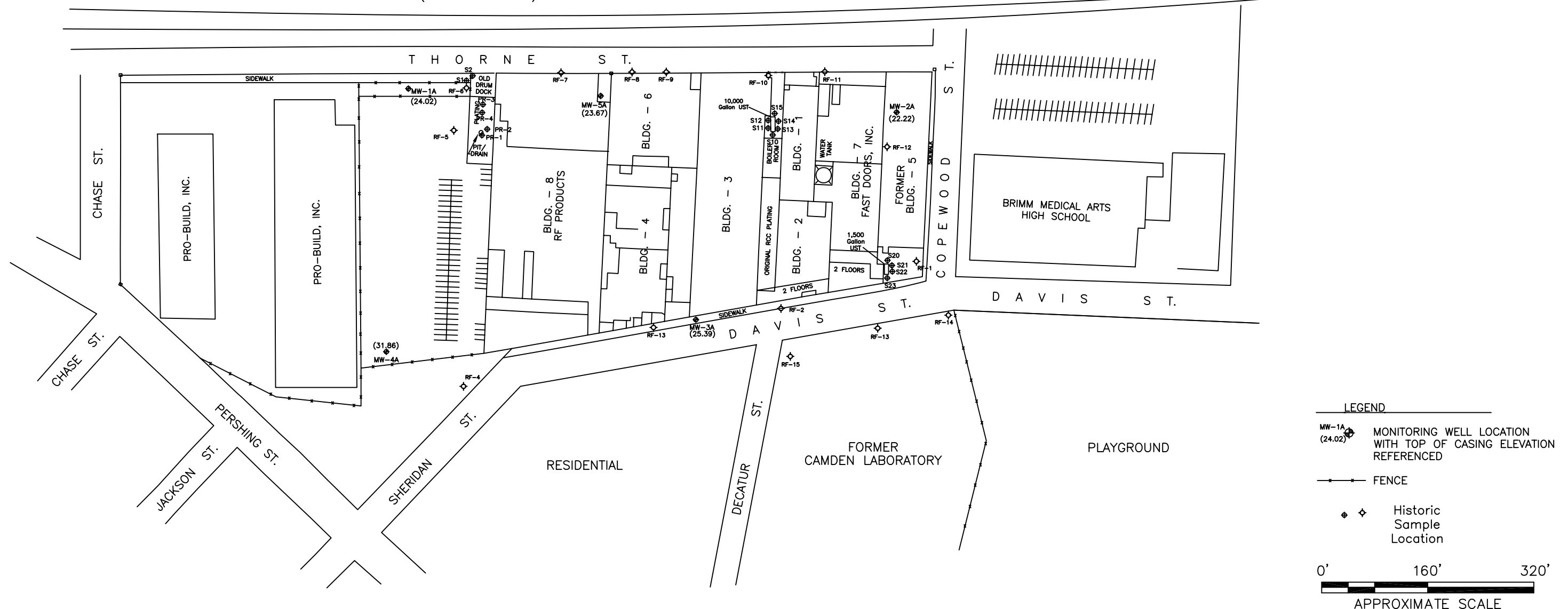
Conductivity[500InPhase[10000] 2011 Google Imagery  
Areas of near-zero positive conductivity (light green), areas of high positive conductivity (warm colors)



---

## APPENDIX C: REGIONAL GROUNDWATER EVALUATION

DELAWARE RIVER PORT AUTHORITY (HIGH SPEED LINE)



**LEGEND**

- MW-1A (24.02) MONITORING WELL LOCATION WITH TOP OF CASING ELEVATION REFERENCED
- FENCE
- Historic Sample Location

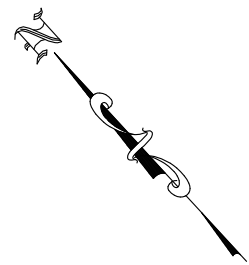
0' 160' 320'  
APPROXIMATE SCALE

SOURCE:

**AECOM**  
4 NESHAMINY INTERPLEX, SUITE 300  
TREVOSE, PA 19053  
P(215) 244-7100 F(215) 244-7179  
www.aecom.com

**FIGURE 4**  
Historic Sample Location Map  
R.F. PRODUCTS SITE  
DAVIS AND COPEWOOD STREETS  
CAMDEN, NJ  
OCTOBER 2010 60161486





H A D D O N A V E.

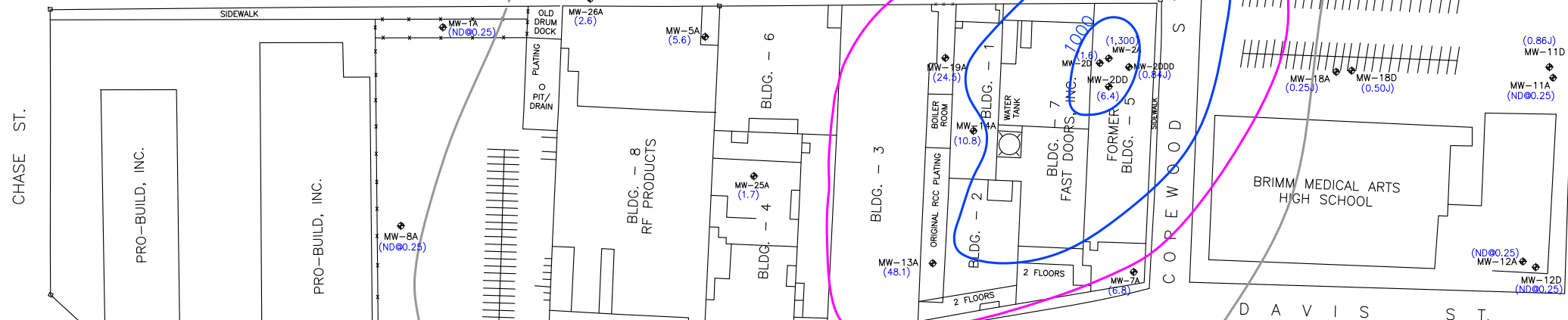
PARKING LOT

OUR LADY OF LOURDES

1643 HADDON AVE. BLDG.  
Former TCE AST Location  
MW-20A (84.1)  
MW-17A (6.8)  
MW-15A (13)  
MW-16A (3.2)  
MW-22A (5.7)  
MW-21A (36.8)

DELAWARE RIVER PORT AUTHORITY (HIGH SPEED LINE)

T H O R N E S T.



- LEGEND**
- MW-6A (1.3) Monitoring Well Location with TCE Concentration in µg/L
  - µg/L micrograms per liter
  - 1000 Isopleth Concentration Contour in µg/L (Dashed where inferred)
  - 10 TCE Background Isopleth Concentration Contour
  - 1 NJDEP GWQS for TCE Isopleth Concentration Contour
  - a Elevated sample detection limit due to difficult sample matrix.
  - Not analyzed
  - No standard
  - \* Consistent with NJDEP rules, result rounded to one significant digit and to nearest event number; therefore, result does not exceed NJ Groundwater Criteria.



SOURCE:

**AECOM**  
125 ROCK ROAD  
HORSHAM, PENNSYLVANIA 19044  
P(215) 315-4150 F(215) 315-4151  
www.aecom.com

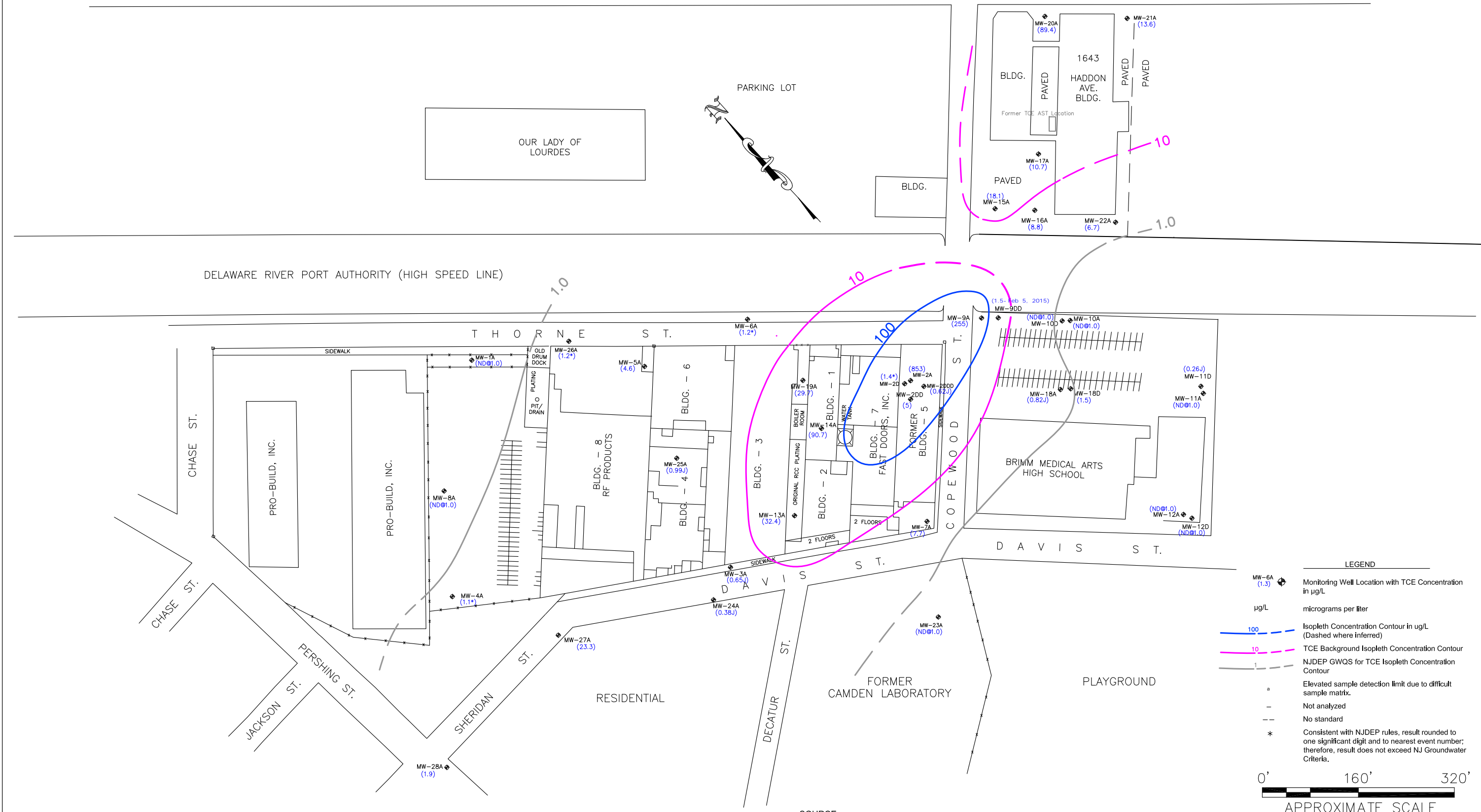
**FIGURE 12**  
TCE Isoconcentration Map  
November 20, 2014  
R.F. PRODUCTS SITE  
DAVIS AND COPELAND STREETS  
CAMDEN, NJ

March 2015

60161486



H A D D O N A V E .



**LEGEND**

- MW-6A (1.3) Monitoring Well Location with TCE Concentration in  $\mu\text{g/L}$
- $\mu\text{g/L}$  micrograms per liter
- 100 Isopleth Concentration Contour in  $\mu\text{g/L}$  (Dashed where inferred)
- 10 TCE Background Isopleth Concentration Contour
- 1 NJDEP GWQS for TCE Isopleth Concentration Contour
- Elevated sample detection limit due to difficult sample matrix.
- Not analyzed
- No standard
- \* Consistent with NJDEP rules, result rounded to one significant digit and to nearest event number; therefore, result does not exceed NJ Groundwater Criteria.

0' 160' 320'  
APPROXIMATE SCALE

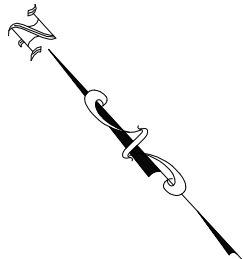
SOURCE:

**AECOM**  
 125 ROCK ROAD  
 HORSHAM, PENNSYLVANIA 19044  
 P(215) 315-4150 F(215) 315-4151  
 www.aecom.com

**FIGURE 13**  
 TCE Isoconcentration Map  
 April 23, 2015  
 R.F. PRODUCTS SITE  
 DAVIS AND COPELAND STREETS  
 CAMDEN, NJ

May 2015

60161486



**LEGEND**

- MW-2A (210) Monitoring Well Location with Concentration of TCE in  $\mu\text{g/L}$  detected September 4, 2012
- x-x-x- Fence
- (ND @ 0.22) TCE not detected. Method detection limit shown in parentheses.
- 100 Isoconcentration Contour in  $\mu\text{g/L}$  (Dashed where inferred)
- MW-12D Proposed Monitoring Well

0' 160' 320'  
APPROXIMATE SCALE

SOURCE:

**AECOM**

4 NESHAMINY INTERPLEX, SUITE 300  
 TREVOSE, PA 19053  
 P(215) 244-7100 F(215) 244-7179  
 www.aecom.com

FIGURE 12  
 TCE Isoconcentration Map  
 September 4, 2012

R.F. PRODUCTS SITE  
 DAVIS AND COPELAND STREETS  
 CAMDEN, NJ

October 2012 60161486



SOURCE:

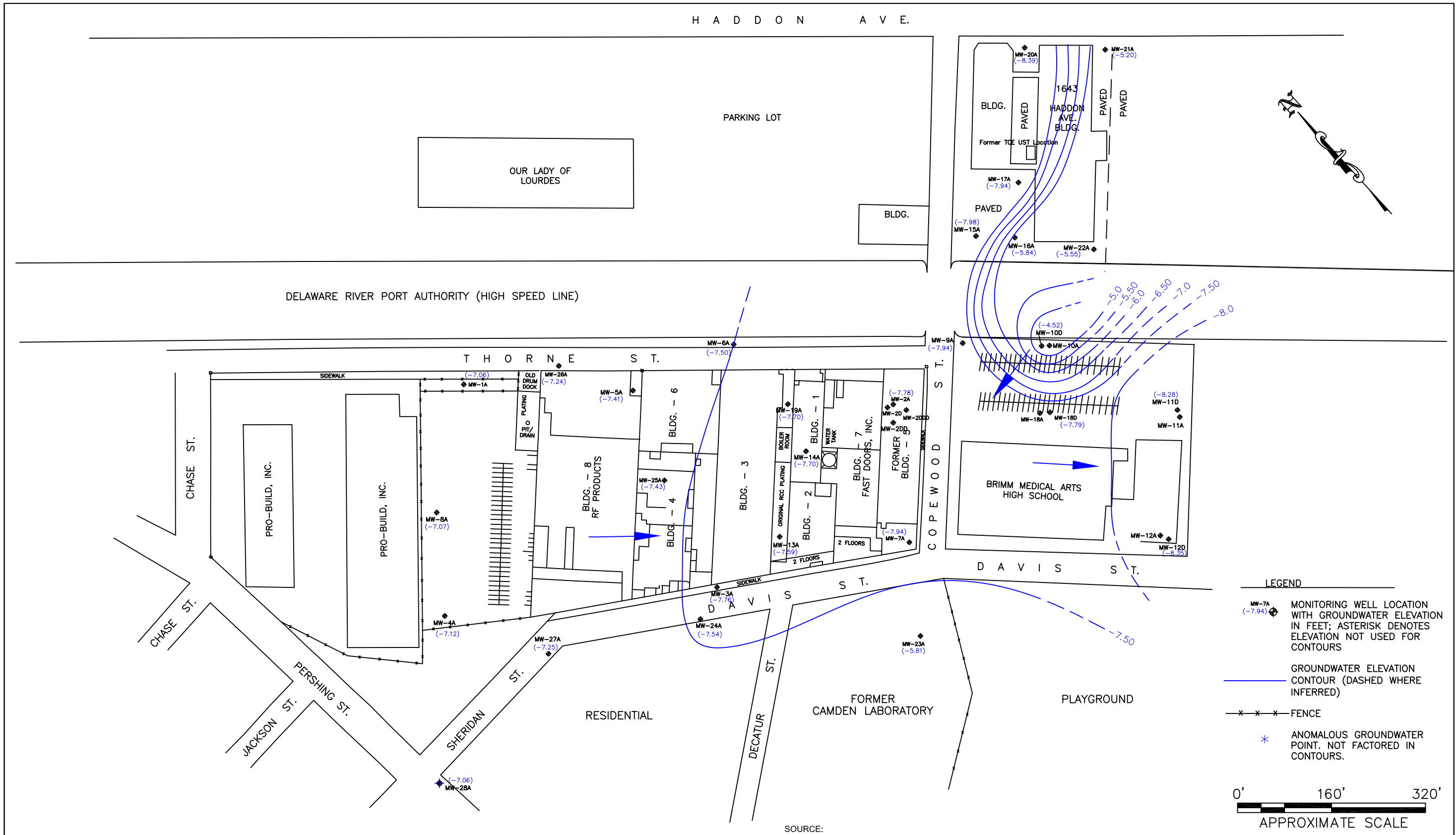
**AECOM**

4 NESHAMINY INTERPLEX, SUITE 300  
 TREVOSE, PA 19053  
 P(215) 244-7100 F(215) 244-7179  
 www.aecom.com

**FIGURE 13**  
 TCE Isoconcentration Map  
 January 2, 2013

R.F. PRODUCTS SITE  
 DAVIS AND COPELAND STREETS  
 CAMDEN, NJ

January 2013 60161486

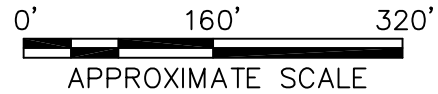


SOURCE:



125 ROCK ROAD  
 HORSHAM, PA 19044  
 P(215) 315-4150 F(215) 315-4151  
 www.aecom.com

- LEGEND**
- MW-7A (-7.94) MONITORING WELL LOCATION WITH GROUNDWATER ELEVATION IN FEET; ASTERISK DENOTES ELEVATION NOT USED FOR CONTOURS
  - GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
  - FENCE
  - ANOMALOUS GROUNDWATER POINT. NOT FACTORED IN CONTOURS.



**FIGURE 9**  
 Groundwater Elevation Contour Map  
 April 23, 2015  
 R.F. PRODUCTS SITE  
 DAVIS AND COPELAND STREETS  
 CAMDEN, NJ

May 2015

60161486

H A D D O N A V E .

PARKING LOT

OUR LADY OF LOURDES

DELAWARE RIVER PORT AUTHORITY (HIGH SPEED LINE)

T H O R N E S T .

CHASE ST.

PRO-BUILD, INC.

PRO-BUILD, INC.

OLD DRUM DOCK

PLATING

BLDG. - 8  
RF PRODUCTS

BLDG. - 6

BLDG. - 4

BLDG. - 3

BLDG. - 1

BLDG. - 2

BLDG. - 7

BLDG. - 1

BLDG. - 1

BLDG. - 1

BLDG. - 1

BLDG. - 1

BLDG. - 1

BLDG. - 1

BLDG. - 1

BLDG. - 1

BLDG. - 1

BLDG. - 1

BLDG. - 1

BLDG. - 1

BLDG. - 1

BLDG. - 1

BLDG. - 1

CHASE ST.

JACKSON ST.

PERSHING ST.

SHERIDAN ST.

RESIDENTIAL

DECATUR ST.

FORMER CAMDEN LABORATORY

COPEWOOD ST.

PLAYGROUND

DAVIS ST.

BRIMM MEDICAL ARTS HIGH SCHOOL

BLDG. PAVED

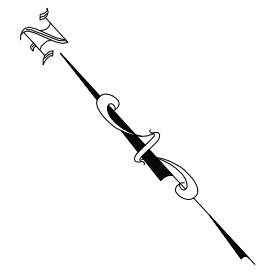
BLDG. PAVED

BLDG. PAVED

BLDG. PAVED

BLDG. PAVED

BLDG. PAVED



**LEGEND**

- MW-7A (-11.32) MONITORING WELL LOCATION WITH GROUNDWATER ELEVATION IN FEET; ASTERISK DENOTES ELEVATION NOT USED FOR CONTOURS
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- x - x - FENCE

0' 160' 320'  
APPROXIMATE SCALE

SOURCE:

**AECOM**

4 NESHAMINY INTERPLEX, SUITE 300  
TREVOSE, PA 19053  
P(215) 244-7100 F(215) 244-7179  
www.aecom.com

**FIGURE 9**  
Groundwater Elevation Contour Map  
December 19, 2012  
R.F. PRODUCTS SITE  
DAVIS AND COPELAND STREETS  
CAMDEN, NJ

March 2013 60161486

**Table 4. Summary of Historic Groundwater Analytical Results  
RF Products Site, Camden, New Jersey.**

Well ID		NJGWQC Sample Date	Carbon Tetrachloride	Methylene Chloride	Tetrachloroethene	Trichloroethene	Vinyl Chloride
			1 µg/L	3 µg/L	1 µg/L	1 µg/L	1 µg/L
MW-23A	A	10/5/2011	<0.19	<0.20	<0.32	<0.21	<0.27
MW-23A	B	10/5/2011	<0.19	<0.20	<0.32	<0.21	<0.27
MW-23A		9/4/2012	<0.22	<0.70	<0.28	<0.22	<0.21
MW-23A		1/2/2013	<0.22	<0.70	<0.28	<0.22	<0.21
MW-23A		5/2/2013	<0.22	<0.70	<0.28	<0.22	<0.21
MW-23A		11/7/2013	<0.23	<0.86	<0.25	<0.50	<0.41
MW-23A		7/10/2014	<0.24	<0.81	<0.35	<0.25	<0.17
MW-23A		11/20/2014	<0.24	<0.81	<0.35	<0.25	<0.17
MW-23A		4/23/2015	<1.0	<2.0	<1.0	<1.0	<1.0
MW-23A		11/23/2015	<1.0	<1.0	<1.0	<1.0	<1.0
MW-23A		4/21/2016	<1.0	<1.0	<1.0	<1.0	<1.0
MW-23A		9/5/2017	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

- NJGWQC New Jersey Groundwater Quality Criteria.
- VOCs Volatile Organic Compounds
- µg/L micrograms per liter
- 82** Result exceeds the NJGWQC.
- Not analyzed
- < 0.4 Not detected above laboratory detection limit.
- B Analyte detected in laboratory method blank.
- D Sample results obtained from a dilution.
- J Estimated Value

---

## APPENDIX D: SUPPORTING DOCUMENTS FOR AOC-15

Table D1. Maximum Observed Soil Concentrations Following Remediation and SESOIL Input Concentrations.

Sample ID		AM-4	AM-15	AM-5	AM-12	AM-14	PE-1	PE-2	PE-3	PE-4	PE-5	PE-6	PE-7	PE-8	PE-9
Lab ID	SESOIL	J93728-6	J93728-15	J93728-7	J93728-13	J93728-14	AC39795-001	AC39795-002	AC39795-003	AC39795-004	AC39795-005	AC39795-006	AC39795-007	AC39795-008	AC39795-009
Sampling Date	Sublayer	06/20/2008	06/20/2008	06/20/2008	06/20/2008	06/20/2008	09/08/2008	09/08/2008	09/08/2008	09/08/2008	09/08/2008	09/08/2008	09/08/2008	09/08/2008	09/08/2008
Sample Depth (ft bgs)	Depth (ft bgs)	0.5-1	1.5-2	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
Lead Results (mg/kg)	0-1	8.6	-	-	-	-	-	-	-	-	-	-	-	-	-
	1-2	-	9.8	8.8	41.8	9.3	28	89	73	78	98	140	150	98	98
	2-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10-11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Notes:  
ft bgs = feet below ground surface  
mg/kg = milligrams per kilogram



Table D1. Maximum Observed Soil Concentrations Following Remediation and SESOIL Input Concentrations.

Sample ID		PE-10	AM-7	AM-8	AM-7A	AM-16	PE-11	PE-12	PE-13	PE-14	PE-15	AM-8A	
Lab ID	SESOIL	AC39795-010	J93728-9	J93728-11	J93728-10	J93728-16	AC39826-001	AC39826-002	AC39826-003	AC39826-004	AC39826-005	J93728-12	SESOIL
Sampling Date	Sublayer	09/08/2008	06/20/2008	06/20/2008	06/20/2008	06/20/2008	09/09/2008	09/09/2008	09/09/2008	09/09/2008	09/09/2008	06/20/2008	Sublayer
Sample Depth (ft bgs)	Depth (ft bgs)	1-1.5	2.25-2.75	2.25-2.75	2.5-3	2.5-3	2.5-3	2.5-3	2.5-3	2.5-3	2.5-3	2.75-3.25	Load (mg/kg)
Lead Results (mg/kg)	0-1	-	-	-	-	-	-	-	-	-	-	-	0
	1-2	69	-	-	-	-	-	-	-	-	-	-	150
	2-3	-	18.5	58.8	6.8	53.9	7.3	6.6	5.9 U	13	14	7.0	0
	3-4	-	-	-	-	-	-	-	-	-	-	7.0	0
	4-5	-	-	-	-	-	-	-	-	-	-	-	0
	5-6	-	-	-	-	-	-	-	-	-	-	-	0
	6-7	-	-	-	-	-	-	-	-	-	-	-	0
	7-8	-	-	-	-	-	-	-	-	-	-	-	0
	8-9	-	-	-	-	-	-	-	-	-	-	-	0
	9-10	-	-	-	-	-	-	-	-	-	-	-	0
	10-11	-	-	-	-	-	-	-	-	-	-	-	0
	11-12	-	-	-	-	-	-	-	-	-	-	-	0
	12-13	-	-	-	-	-	-	-	-	-	-	-	0
	13-14	-	-	-	-	-	-	-	-	-	-	-	0
14-15	-	-	-	-	-	-	-	-	-	-	-	0	
15-16	-	-	-	-	-	-	-	-	-	-	-	0	

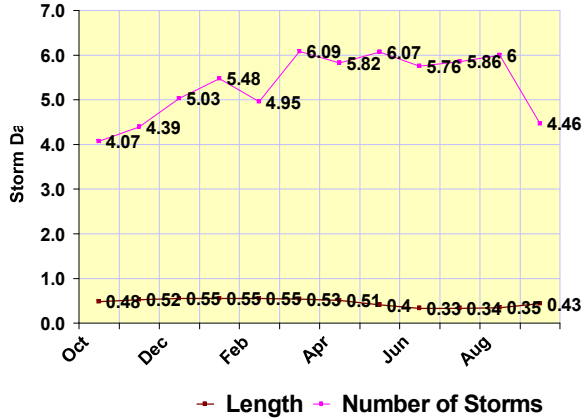
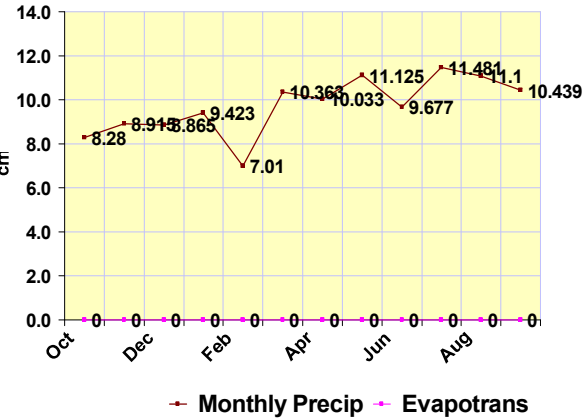
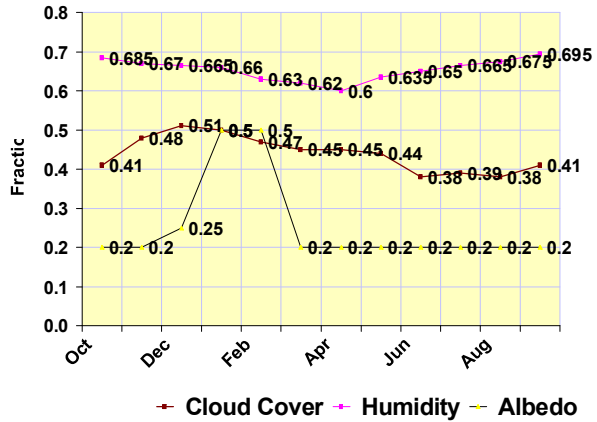
Notes:  
ft bgs = feet below ground surface  
mg/kg = milligrams per kilogram

# Climate Report

Location Description: CAMDEN

Climatic Input File: C:\SEV7 WIN7\CAMDEN LABS\CAMDEN.CLM

Month	Temperature		Precipitation		Evapotranspiration Rate		Storms		Cloud Cover	Albedo	Humidity	
	Units	°C	°F	cm	Inches	cm	Inches	# per Month	Length Days	Fraction	Fraction	Fraction
October		13.89	57.00	8.280	3.26	0.00	0.00	4.07	0.480	0.410	0.200	0.685
November		8.33	46.99	8.915	3.51	0.00	0.00	4.39	0.520	0.480	0.200	0.670
December		3.33	37.99	8.865	3.49	0.00	0.00	5.03	0.550	0.510	0.250	0.665
January		0.56	33.01	9.423	3.71	0.00	0.00	5.48	0.550	0.500	0.500	0.660
February		2.22	36.00	7.010	2.76	0.00	0.00	4.95	0.550	0.470	0.500	0.630
March		6.67	44.01	10.363	4.08	0.00	0.00	6.09	0.530	0.450	0.200	0.620
April		11.67	53.01	10.033	3.95	0.00	0.00	5.82	0.510	0.450	0.200	0.600
May		17.22	63.00	11.125	4.38	0.00	0.00	6.07	0.400	0.440	0.200	0.635
June		22.22	72.00	9.677	3.81	0.00	0.00	5.76	0.330	0.380	0.200	0.650
July		25.00	77.00	11.481	4.52	0.00	0.00	5.86	0.340	0.390	0.200	0.665
August		23.89	75.00	11.100	4.37	0.00	0.00	6.00	0.350	0.380	0.200	0.675
September		20.00	68.00	10.439	4.11	0.00	0.00	4.46	0.430	0.410	0.200	0.695
Total				116.71	45.95	0.00	0.00					



# SESOIL Profile and Load Report

Layer No.	Number of Sub-Layers	Thickness		Intrinsic Permeability cm <sup>2</sup>	Organic Carbon Content percent	Adsorption Coefficient $\frac{\mu\text{g/g}}{\mu\text{g/mL}}$	Cation Exchange Capacity $\frac{\text{mEq}}{100 \text{ g soil}}$	Freundlich Exponent unitless	Solid Phase Degradation Rate 1/day	Liquid Phase Degradation Rate 1/day	Soil pH
		cm	feet								
1	10	305.0	10.01	1.00E-8	0.20	900.00	0.00	1.00	0.00E+00	0.00E+00	7.00
2	6	183.0	6.00	1.00E-8	0.20	900.00	0.00	1.00	0.00E+00	0.00E+00	7.00
3		0.0	0.00	1.00E-8	0.00	0.00	0.00	0.00	0.00E+00	0.00E+00	0.00
4		0.0	0.00	1.00E-8	0.00	0.00	0.00	0.00	0.00E+00	0.00E+00	0.00

### Soil Parameters

<b>Bulk Density</b> (g/cm <sup>3</sup> )	1.50
<b>Effective Porosity</b> (fraction)	0.30
<b>Soil Pore Disconnectedness</b>	3.70

### Chemical Parameters

<b>Water Solubility</b> ( $\mu\text{g/mL}$ )	1.00E+5	<b>Moles Ligand / Moles Chemical</b>	0.00
<b>Henry's Law</b> ( $\text{M}^3\text{atm/mol}$ )	0.00	<b>Ligand Molecular Weight</b> (g/mol)	0.00
<b>K<sub>OC</sub> Adsorp</b> ( $\mu\text{g/g}/(\mu\text{g/mL})$ )	0.00	<b>K<sub>OC</sub> Dedsorp</b> ( $\mu\text{g/g}/(\mu\text{g/mL})$ )	0.00
<b>K<sub>d</sub> Adsorp</b> ( $\mu\text{g/g}/(\mu\text{g/mL})$ )	900.00	<b>K<sub>d</sub> Dedsorp</b> ( $\mu\text{g/g}/(\mu\text{g/mL})$ )	0.00
<b>Valence</b> (g/mole)	0.00	<b>Ligand Dissociation Constant</b>	0.00
<b>Air Diffusion</b> (cm <sup>2</sup> /sec)	0.00	<b>Base Hydrolysis Rate</b> (L/mol/day)	0.00
<b>Water Diffusion</b> (cm <sup>2</sup> /sec)	0.00	<b>Neutral Hydrolysis</b> (L/mol/day)	0.00
<b>Molecular Weight</b> (g/mol)	207.00	<b>Acid Hydrolysis</b> (L/mol/day)	0.00

### Application Parameters

<b>Area</b>	cm <sup>2</sup>	3.01E+7
	ft <sup>2</sup>	3.23E+4
<b>Latitude</b>	degrees	39.9
<b>Spill Index</b>		1

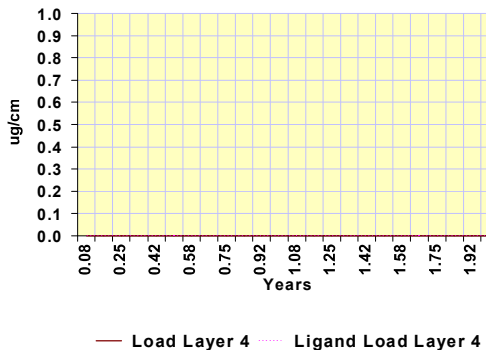
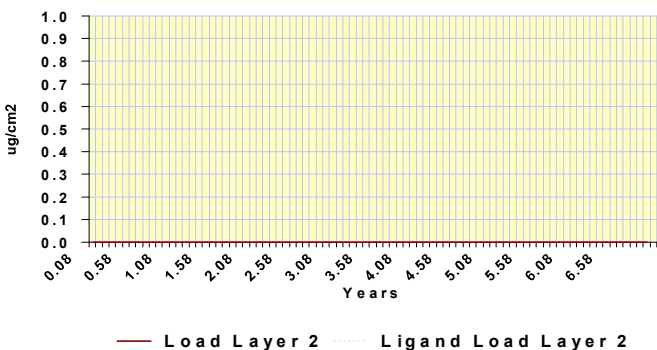
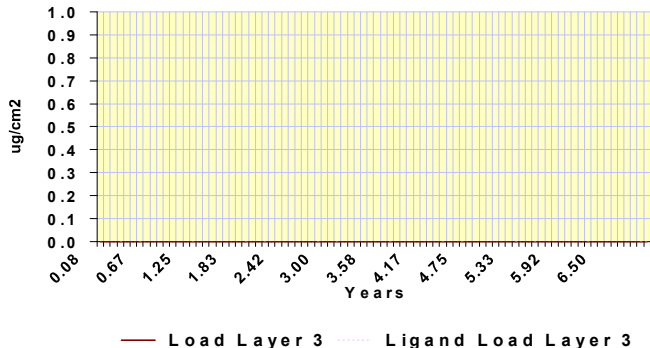
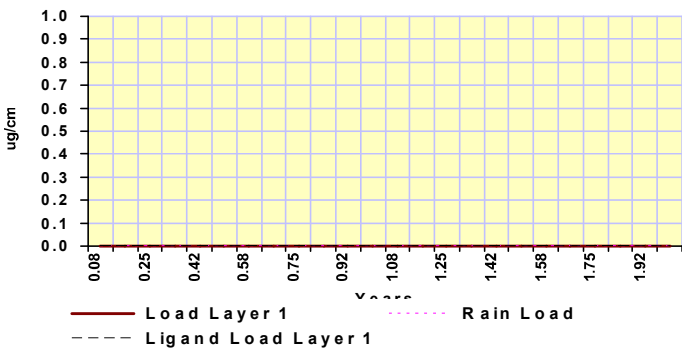
**Output File:** Vadose-1  
C:\SEV7 WIN7\S01.OUT

**Chemical File:** Lead And Compounds (Kd)  
C:\SEV7 WIN7\CAMDEN LABS\LEAD AND COMPOUNDS (KD).CHM

**Soil File:** Sand, Perm = 1.00E-3 cm/sec  
C:\SEV7 WIN7\CAMDEN LABS\SAND.SOI

**Application File:** SEVIEW Default Application Parameters  
C:\SEV7 WIN7\CAMDEN LABS\LEAD - POST-EX.APL

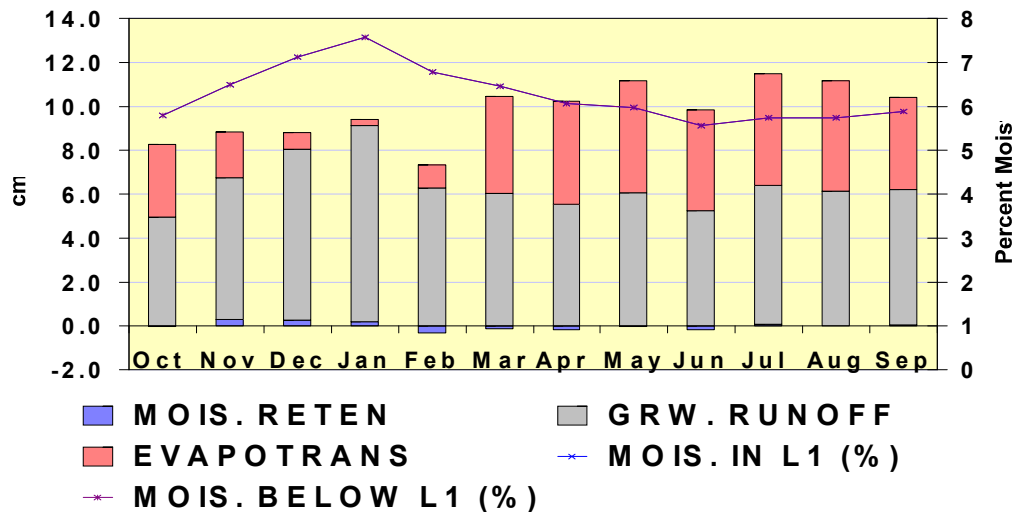
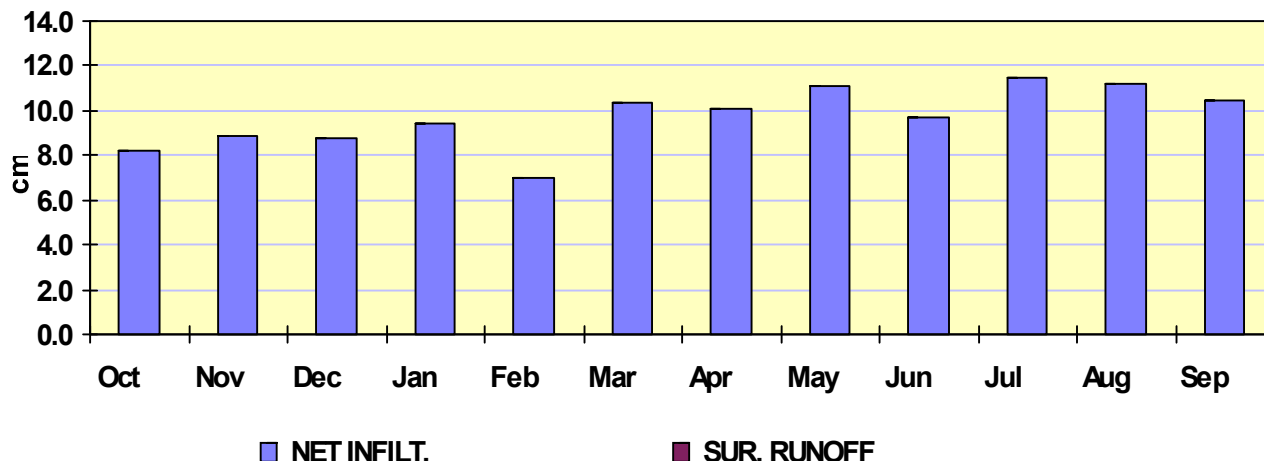
Sublayer Loads	1	2	3	4	5	6	7	8	9	10
Layer 1 (ug/g)		1.50E+02								
Layer 2 (ug/g)										
Layer 3 (ug/g)										
Layer 4 (ug/g)										



# SESOIL Hydrologic Cycle Report

Scenario Description: Vadose-1

SESOIL Output File: C:\SEV7 WIN7\S01.OUT



	Surface Water Runoff		Net Infiltration		Evapotranspiration		Soil Moisture Retention		Groundwater Runoff (Recharge)		Soil Moisture	
	cm	Inches	cm	Inches	cm	Inches	cm	Inches	cm	Inches	Layer 1 Percent	Below Layer 1 Percent
Units	cm	Inches	cm	Inches	cm	Inches	cm	Inches	cm	Inches	Percent	Percent
October	0.00	0.00	8.23	3.24	3.30	1.30	-0.04	-0.02	4.97	1.96	5.80	5.80
November	0.00	0.00	8.85	3.48	2.11	0.83	0.28	0.11	6.46	2.54	6.49	6.49
December	0.00	0.00	8.79	3.46	0.73	0.29	0.26	0.10	7.80	3.07	7.12	7.12
January	0.00	0.00	9.42	3.71	0.30	0.12	0.18	0.07	8.94	3.52	7.57	7.57
February	0.00	0.00	7.02	2.76	1.04	0.41	-0.32	-0.13	6.30	2.48	6.79	6.79
March	0.00	0.00	10.33	4.07	4.42	1.74	-0.13	-0.05	6.05	2.38	6.46	6.46
April	0.00	0.00	10.06	3.96	4.68	1.84	-0.16	-0.06	5.54	2.18	6.07	6.07
May	0.00	0.00	11.12	4.38	5.09	2.00	-0.04	-0.02	6.06	2.39	5.98	5.98
June	0.00	0.00	9.68	3.81	4.62	1.82	-0.17	-0.07	5.24	2.06	5.56	5.56
July	0.00	0.00	11.50	4.53	5.12	2.02	0.07	0.03	6.30	2.48	5.74	5.74
August	0.00	0.00	11.16	4.39	5.03	1.98	0.00	0.00	6.13	2.41	5.74	5.74
September	0.00	0.00	10.43	4.11	4.21	1.66	0.06	0.02	6.16	2.43	5.89	5.89
<b>Total</b>	0.00	0.00	116.59	45.90	40.64	16.00	0.00	0.00	75.94	29.90	--	--

# SESOIL Pollutant Cycle Report

Scenario Description: Vadose-1

SESOIL Output File: C:\SEV7 WIN7\S01.OUT

SESOIL Process	Pollutant Mass (µg)	Percent of Total
Volatilized	0.000E+00	0.00
In Soil Air	0.000E+00	0.00
Sur. Runoff	0.000E+00	0.00
In Washld	0.000E+00	0.00
Ads On Soil	2.062E+11	99.90
Hydrol Soil	0.000E+00	0.00
Degrad Soil	0.000E+00	0.00
Pure Phase	0.000E+00	0.00
Complexed	0.000E+00	0.00
Immobile CEC	0.000E+00	0.00
Hydrol CEC	0.000E+00	0.00
In Soil Moi	8.997E+06	0.00
Hydrol Mois	0.000E+00	0.00
Degrad Mois	0.000E+00	0.00
Other Trans	0.000E+00	0.00
Other Sinks	0.000E+00	0.00
Gwr. Runoff	0.000E+00	0.00
<b>Total Output</b>	<b>2.062E+11</b>	<b>99.91</b>
<b>Total Input</b>	<b>2.064E+11</b>	
<b>Input - Output</b>	<b>1.910E+08</b>	

Maximum leachate concentration: 0.000E+00 mg/l

Climate File: CAMDEN

C:\SEV7 WIN7\CAMDEN LABS\CAMDEN.CLM

Chemical File: Lead And Compounds (Kd)

C:\SEV7 WIN7\CAMDEN LABS\LEAD AND COMPOUNDS (KD).CHM

Soil File: Sand, Perm = 1.00E-3 cm/sec

C:\SEV7 WIN7\CAMDEN LABS\SAND.SOI

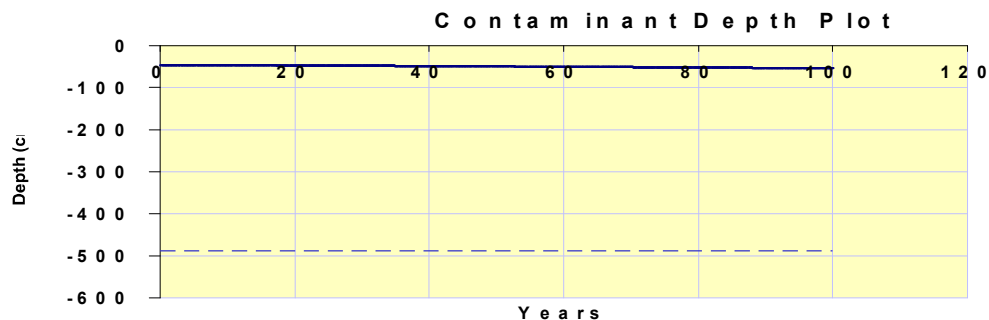
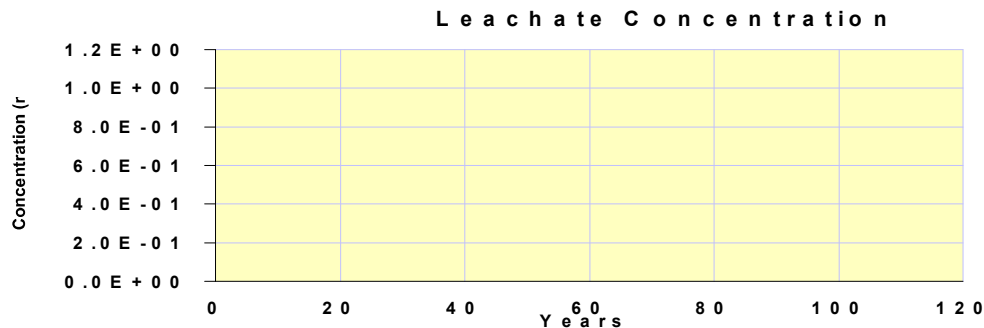
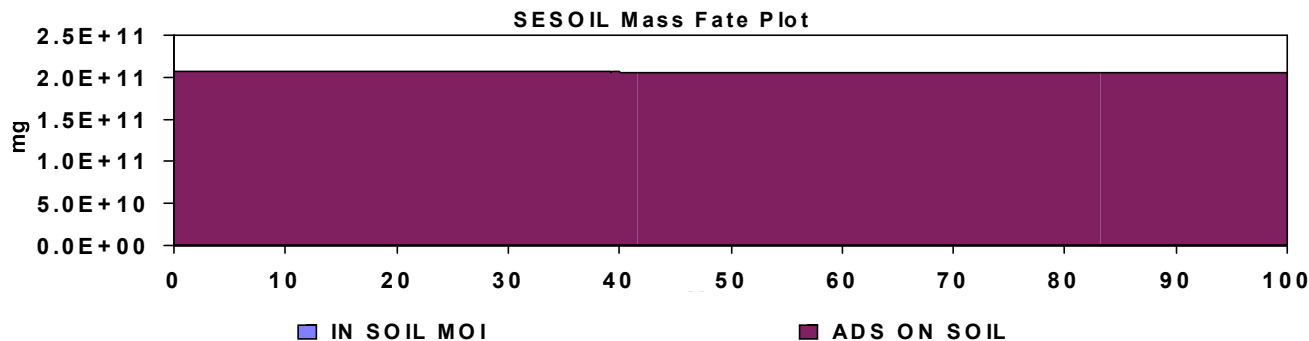
Application File: SEVIEW Default Application Parameters

C:\SEV7 WIN7\CAMDEN LABS\LEAD - POST-EX.APL

Starting Depth: 45.73 cm

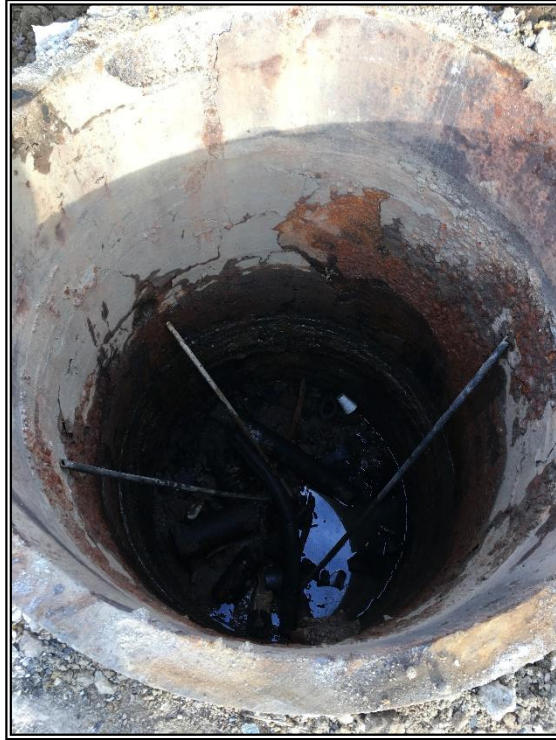
Ending Depth: 53.42 cm

Total Depth: 488.00 cm



---

## APPENDIX E: PHOTO LOG



*Photo 1: Sump 1 (Interior)*



*Photo 2: Sump 1 (Exterior)*





*Photo 3: Sump 2 (Interior)*



*Photo 4: Sump 2 (Exterior)*





*Photo 5: Sump 3 (Interior)*



*Photo 6: Sump 3 (Exterior)*





*Photo 7: Hyrdaulic Pit (Interior)*



*Photo 8: Hydraulic Pit Hole*





*Photo 9: Hydraulic Pit – Soil Staining*



*Photo 10: Anomaly Test Pit*

---

## APPENDIX F: SOIL BORING LOGS

WOODARD & CURRAN STANDARD - GINT STD US.GDT - 3/8/18 16:43 - \\WOODARDCURRAN.NET\SHARED\PROJECTS\0230198.01 CAMDEN LABS REMEDIAL INVESTIGATION\WIP\02 - SURVEY AND WORKPAPERS\BORING LOGS\CAMDEN LABS MERCURY.GPJ



Woodard & Curran

# BORING NUMBER M-8

PAGE 1 OF 1

<b>CLIENT</b> <u>Camden Redevelopment Agency</u>	<b>PROJECT NAME</b> <u>Camden Labs</u>
<b>PROJECT NUMBER</b> <u>230198</u>	<b>PROJECT LOCATION</b> <u>Camden, NJ</u>
<b>DATE STARTED</b> <u>2/5/18</u> <b>COMPLETED</b> <u>2/5/18</u>	<b>GROUND ELEVATION</b> _____ <b>HOLE SIZE</b> <u>2</u>
<b>DRILLING CONTRACTOR</b> <u>Enviroprobe Service, Inc.</u>	<b>GROUND WATER LEVELS:</b>
<b>DRILLING METHOD</b> <u>Direct Push</u>	∇ <b>AT TIME OF DRILLING</b> <u>16.00 ft</u>
<b>LOGGED BY</b> <u>Adam Kloo</u> <b>CHECKED BY</b> _____	<b>AT END OF DRILLING</b> <u>---</u>
<b>NOTES</b> _____	<b>AFTER DRILLING</b> <u>---</u>

DEPTH (ft)	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
2	Sample M-8 (1.5-2')	SP-SC		Brownish orange fine to medium SAND, some Clay; No stain; No odor; Dry.	Vapor = 0ppmv
3.0		OL		Brown fine to medium ORGANICS; No stain; No odor; Dry.	
4.0					
6		SP		Grayish tan fine to medium SAND; No stain; No odor; Dry.	
7.5					
8		SP		Tanish orange fine SAND; No stain; No odor; Dry.	
8.0					
10		SP		Grayish tan fine SAND; No stain; No odor; Dry.	
11.5					
12		SP		Brownish tan fine to medium SAND; No stain; No odor; Dry.	
12.0					
14		SP		Grayish tan fine SAND; No stain; No odor; Dry.	
16					
16.0	∇	SP		Tanish orange fine SAND; No stain; No odor; Wet.	
17.0					
18	Sample M-8 (18-18.5')	SP		Grayish tan fine SAND; No stain; No odor; Wet.	Vapor = 0ppmv
19.5					
20		SP		Tanish brown fine SAND; No stain; No odor; Dry.	
20.0					

Bottom of borehole at 20.0 feet.

WOODARD & CURRAN STANDARD - GINT STD US.GDT - 3/8/18 16:43 - \\WOODARDCURRAN.NET\SHARE\PROJECTS\0230198.01 CAMDEN LABS REMEDIAL INVESTIGATION\WIP\02 - SURVEY AND WORKPAPERS\BORING LOGS\CAMDEN LABS MERCURY.GPJ



Woodard & Curran

# BORING NUMBER M-9

PAGE 1 OF 1

**CLIENT** Camden Redevelopment Agency      **PROJECT NAME** Camden Labs  
**PROJECT NUMBER** 230198      **PROJECT LOCATION** Camden, NJ  
**DATE STARTED** 2/5/18      **COMPLETED** 2/5/18      **GROUND ELEVATION** \_\_\_\_\_      **HOLE SIZE** 2  
**DRILLING CONTRACTOR** Enviroprobe Service, Inc.      **GROUND WATER LEVELS:**  
**DRILLING METHOD** Direct Push      ∇ **AT TIME OF DRILLING** 16.00 ft  
**LOGGED BY** Adam Kloo      **CHECKED BY** \_\_\_\_\_      **AT END OF DRILLING** ---  
**NOTES** \_\_\_\_\_      **AFTER DRILLING** ---

DEPTH (ft)	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
2		SP-SC		Brownish tan fine SAND, some Clay; No stain; No odor; Dry.	
4		OL		Brown fine to medium ORGANICS; No stain; No odor; Dry.	
6		SP		Tan medium SAND; No stain; No odor; Dry.	
8		SP		Tan fine to medium SAND; No stain; No odor; Dry.	
10		SP		Tan fine to medium SAND; No stain; No odor; Dry.	
12		SP		Tan fine to medium SAND; No stain; No odor; Dry.	
14		SP		Tan fine to medium SAND; No stain; No odor; Dry.	
16		SP		16.0 ∇ Grayish tan fine to medium SAND; No stain; No odor; Wet.	
18	Sample MW-9 (18-18.5')	SP		18.0 Grayish tan fine to medium SAND; No stain; No odor; Dry.	
20		SP		20.0	Vapor = 0ppmv

Bottom of borehole at 20.0 feet.

WOODARD & CURRAN STANDARD - GINT STD US.GDT - 3/8/18 16:43 - \\WOODARD\CURRAN\NET\SHARED\PROJECTS\0230198.01 CAMDEN LABS REMEDIAL INVESTIGATION\WIP\02 - SURVEY AND WORKPAPERS\BORING LOGS\CAMDEN LABS MERCURY.GPJ



Woodard & Curran

# BORING NUMBER M-10

PAGE 1 OF 1

<b>CLIENT</b> <u>Camden Redevelopment Agency</u>	<b>PROJECT NAME</b> <u>Camden Labs</u>
<b>PROJECT NUMBER</b> <u>230198</u>	<b>PROJECT LOCATION</b> <u>Camden, NJ</u>
<b>DATE STARTED</b> <u>2/5/18</u> <b>COMPLETED</b> <u>2/5/18</u>	<b>GROUND ELEVATION</b> _____ <b>HOLE SIZE</b> <u>2</u>
<b>DRILLING CONTRACTOR</b> <u>Enviroprobe Service, Inc.</u>	<b>GROUND WATER LEVELS:</b>
<b>DRILLING METHOD</b> <u>Direct Push</u>	▽ <b>AT TIME OF DRILLING</b> <u>16.00 ft</u>
<b>LOGGED BY</b> <u>Adam Kloo</u> <b>CHECKED BY</b> _____	<b>AT END OF DRILLING</b> <u>---</u>
<b>NOTES</b> _____	<b>AFTER DRILLING</b> <u>---</u>

DEPTH (ft)	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
2	Sample M-10 (1.5-2')	SP-SC		Brown fine to medium SAND, some Clay; No stain; No odor; Dry.	Vapor = 0ppmv
4		OL		Brown fine to medium ORGANICS; No stain; No odor; Dry.	
6		SP		Tan fine to medium SAND; No stain; No odor; Dry.	Vapor = 0ppmv
8		SP		Tan medium to coarse SAND; No stain; No odor; Dry.	
10		SP		Tan fine SAND; No stain; No odor; Dry.	
12		SP		Tanish brown fine to medium SAND; No stain; No odor; Dry.	
12.5		SP-SM		Blackish tan fine to medium SAND; No stain; No odor; Dry.	
13.0		SP-SM		Brick Blackish tan fine to medium SAND; No stain; No odor; Dry.	
14		SP		Tan fine to medium SAND; No stain; No odor; Dry.	Vapor = 0ppmv
16		SP		16.0 ▽ Grayish tan fine to medium SAND; No stain; No odor; Wet.	
18	Sample M-10 (18-18.5')	SP		Grayish tan fine to medium SAND; No stain; No odor; Dry.	
20					

Bottom of borehole at 20.0 feet.

WOODARD & CURRAN STANDARD - GINT STD US.GDT - 3/8/18 16:43 - \\WOODARD\CURRAN\NET\SHARED\PROJECTS\0230198.01 CAMDEN LABS REMEDIAL INVESTIGATION\WIP\02 - SURVEY AND WORKPAPERS\BORING LOGS\CAMDEN LABS MERCURY.GPJ



Woodard & Curran

# BORING NUMBER M-11

PAGE 1 OF 1

<b>CLIENT</b> <u>Camden Redevelopment Agency</u>	<b>PROJECT NAME</b> <u>Camden Labs</u>
<b>PROJECT NUMBER</b> <u>230198</u>	<b>PROJECT LOCATION</b> <u>Camden, NJ</u>
<b>DATE STARTED</b> <u>2/5/18</u> <b>COMPLETED</b> <u>2/5/18</u>	<b>GROUND ELEVATION</b> _____ <b>HOLE SIZE</b> <u>2</u>
<b>DRILLING CONTRACTOR</b> <u>Enviroprobe Service, Inc.</u>	<b>GROUND WATER LEVELS:</b>
<b>DRILLING METHOD</b> <u>Direct Push</u>	▽ <b>AT TIME OF DRILLING</b> <u>16.00 ft</u>
<b>LOGGED BY</b> <u>Adam Kloo</u> <b>CHECKED BY</b> _____	<b>AT END OF DRILLING</b> <u>---</u>
<b>NOTES</b> _____	<b>AFTER DRILLING</b> <u>---</u>

DEPTH (ft)	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0				Feet BGS Tan fine to medium SILT; No stain; No odor; Dry.	
1.0		ML		Tan fine to medium SILT; No stain; No odor; Dry.	
2.0		ML		Tan fine to medium SILT; No stain; No odor; Wet.	
3.0		SM		Black SILTY SAND; No odor; Wet.	
4.0		SM		Black SILTY SAND; No odor; Dry.	
5.3		SP		Tan fine SAND; No stain; No odor; Dry.	
6.0		SP		Brown fine SAND; No stain; No odor; Dry.	
8.0		SP		Tan fine SAND; No stain; No odor; Dry.	
10.0					
12.0		SP		Tan fine SAND; No stain; No odor; Dry.	
14.0					
16.0		SP		16.0 ▽ Blackish tan fine to medium SAND; No odor; Wet.	
17.0					
18.0	Sample MW-11 (18-18.5').	SP		Grayish tan fine to medium SAND; No stain; No odor; Dry.	
19.0					

Vapor = 0ppmv

Refusal at 19.0 feet.  
Bottom of borehole at 19.0 feet.



WOODARD & CURRAN STANDARD - GINT STD US.GDT - 3/8/18 16:43 - \\WOODARD\CURRAN\NET\SHARED\PROJECTS\0230198.01 CAMDEN LABS REMEDIAL INVESTIGATION\WIP\02 - SURVEY AND WORKPAPERS\BORING LOGS\CAMDEN LABS MERCURY.GPJ



Woodard & Curran

# BORING NUMBER M-12

PAGE 1 OF 1

<b>CLIENT</b> <u>Camden Redevelopment Agency</u>	<b>PROJECT NAME</b> <u>Camden Labs</u>
<b>PROJECT NUMBER</b> <u>230198</u>	<b>PROJECT LOCATION</b> <u>Camden, NJ</u>
<b>DATE STARTED</b> <u>2/5/18</u> <b>COMPLETED</b> <u>2/5/18</u>	<b>GROUND ELEVATION</b> _____ <b>HOLE SIZE</b> <u>2</u>
<b>DRILLING CONTRACTOR</b> <u>Enviroprobe Service, Inc.</u>	<b>GROUND WATER LEVELS:</b>
<b>DRILLING METHOD</b> <u>Direct Push</u>	▽ <b>AT TIME OF DRILLING</b> <u>16.00 ft</u>
<b>LOGGED BY</b> <u>Adam Kloo</u> <b>CHECKED BY</b> _____	<b>AT END OF DRILLING</b> <u>---</u>
<b>NOTES</b> _____	<b>AFTER DRILLING</b> <u>---</u>

DEPTH (ft)	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
2	Sample MW-12 (1.5-2')	SP-SC		Blackish tan fine to medium SANDY CLAY; No stain; No odor; Wet.	Vapor = 0ppmv
4		OL		Brownish tan ORGANICS; No stain; No odor; Dry.	
4.8		SP		Tan fine to medium SAND; No stain; No odor; Wet.	
8.0		SM		Brownish tan fine to medium SILTY SAND; No stain; No odor; Wet.	
16.0		SP		Dark tan fine SAND; No stain; No odor; Dry.	
18.5	Sample MW-12 (18-18.5')	SP		Brownish tan fine SAND; No stain; No odor; Wet.	
19.0		SP		Grayish brown fine SAND; No stain; No odor; Wet.	Vapor = 0ppmv

Refusal at 19.0 feet.  
Bottom of borehole at 19.0 feet.

---

## APPENDIX G: SPLP CALCULATORS FOR AOC-16

NJDEP SPLP Spreadsheet, V3.1, November 2013

Case name/area of concern: Camden Labs/AOC-16  
 Case number: 08-07-01-1547-19  
 Sampling date: 2/5/2018

**CALCULATE SITE SPECIFIC IGW STANDARD**

Reset Spreadsheet

Print Results

Instructions

Print to file

Exit

Contaminant: Mercury (total)

CAS No: 7439-97-6  
 Water solubility (mg/L): NA  
 Aqueous reporting limit (µg/L): 5.00E-02  
 Soil reporting limit (mg/kg): 1.00E-01  
 Health-based GWQC (µg/L): 2.00E+00  
 DAF (20, or site-specific if approved): 20  
 Leachate Criterion (µg/L): 4.00E+01  
 Henry's law constant (dimensionless): 0.00E+00

**NOTE:**

USE ONE PAGE PER CONTAMINANT, do not leave empty rows between samples  
 Do not enter samples with soil concentrations at or below the reporting limit  
 When leachate concentration is non-detect, enter the aqueous reporting limit  
 Enter site-specific dilution-attenuation factor (DAF) if desired

- Data entry cells (do not skip rows)
- Optional data entry
- Calculated or locked cells
- Indicates that Alternative Remediation Standard needs to be recalculated

Sample ID	Soil sample weight (kg)	Leachate Volume (L)	Total Soil Concentration (mg/kg)	SPLP Leachate Concentration (µg/L)	Final pH of Leachate (except VOCs)	Optional data		Kd (L/kg)	% Contaminant in Leachate	Field leachate concentration (µg/L)	Pass or fail?
						Sampling Depth (ft)	Soil Type				
M-10(1.5-2.0)	0.1003	2.005	0.048	0.2	6.22			220.0	8.33	0.22	PASS
M-10(1.5-2.0)	0.1003	2.005	0.048	0.2	6.22			220.0	8.33	0.22	PASS
M-9(18-18.5)	0.1004	2.009	0.68	0.68	8.22			980.0	2.00	0.69	PASS
M-9(18-18.5)	0.1004	2.009	0.68	0.68	8.22			980.0	2.00	0.69	PASS

**SPLP RESULTS for**

**OPTION 1a: All adjusted leachate concentrations are below the leachate criterion**

**REMEDIATION STANDARD = 0.68 mg/kg**

**OPTION 1b: Simple inspection of tabulated results to find highest acceptable standard**

EVERYTHING PASSED, OPTION 1b NOT VALID

**OPTION 2: Remediation standard using site-specific Kd value**

Kd ratio = 4.45, AVERAGING Kds OK

Kd USED FOR CALCULATING STANDARD = 600. L/kg

result before rounding = 24.0061 mg/kg

**REMEDIATION STANDARD = 0.7 mg/kg (controlled by maximum soil concentration)**

**OPTION 3: Remediation standard using linear regression**

Number of points = 4

Soil concentration midrange = .36

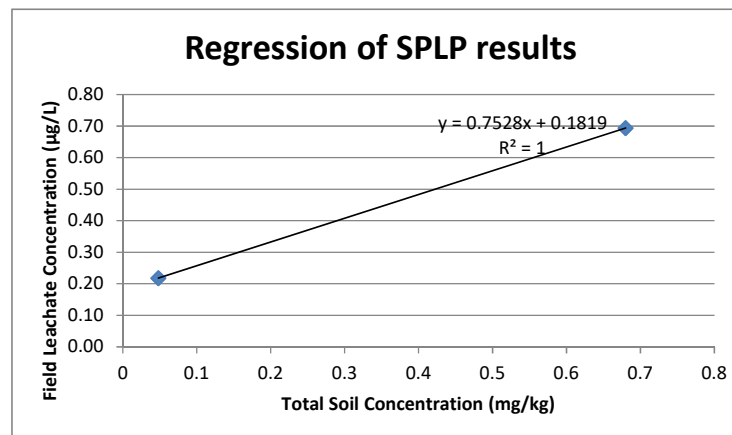
Number of points above midrange = 2

Enough points above midrange? YES

R-Square high enough? YES

Leachate criterion within range of leachate concentrations? NO

OPTION 3 NOT VALID



---

## APPENDIX H: MONITORING WELL DOCUMENTATION



New Jersey Department of Environmental Protection  
Site Remediation Program

Monitoring Well Certification Form B - Location Certification

Date Stamp  
(For Department use only)

**SECTION A. SITE NAME AND LOCATION**

Site Name: **51326-CAMDEN LABORATORIES**

List all AKAs: **CAMDEN LABORATORIES**

Street Address: **1667 DAVIS STREET & COPEWOOD STREET - CAMDEN, NJ**

Municipality: **CITY OF CAMDEN** (Township, Borough or City)

County: **CAMDEN** Zip Code: **08103**

Program Interest (PI) Number(s): **016718** Case Tracking Number(s): **08-07-01-1547-19**

**SECTION B. WELL OWNER AND LOCATION**

1. Name of Well Owner **CITY OF CAMDEN**

2. Well Location (Street Address) **1667 DAVIS STREET**

3. Well Location (Municipal Block and Lot) Block# **1392** Lot # **33**

**SECTION C. WELL LOCATION SPECIFICS**

1. Well Permit Number (This number must be permanently affixed to the well casing): **E201807594**

2. Site Well Number (As shown on application or plans): **MW-1**

3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:

Latitude: North **39 ° 55 ' 23.120 "** Longitude: West **75 ° 5 ' 51.650 "**

4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to nearest foot:

North **397461.61** East **324505.49**

5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): **22.24**

Elevation Top of Outer casing: **22.50** Elevation of ground: **22.41**

Check one:  NAVD 88  NGVD 29  On Site Datum  Other

6. Source of elevation datum (benchmark, number/description and elevation/datum). If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation (referencing NAVD 88).

**NGS "PAPH" (CORS) (NAD 83\_2011) (EPOCH 2010.00) (GEOID 12B)**

7. Significant observations and notes:

**SECTION D. LAND SURVEYOR'S CERTIFICATION**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

SEAL

PROJECT NO. **2105LIST**

Professional Land Surveyor's Signature:  Date **08/31/18**

Surveyor's Name: **JAMES M. STEWART** License Number: **24GS02610800**

Firm Name: **DENNIS W. SKLAR, INC.** Certificate of Authorization #: **24GA28150900**

Mailing Address **2837 OGDEN AVENUE**

City/Town: **BENSALEM** State **PENNSYLVANIA** Zip Code: **19020**

Phone Number **(215) 268-7988** Ext.: **N/A** Fax: **(215) 268-7966**





**New Jersey Department of Environmental Protection**  
**Site Remediation Program**

**Monitoring Well Certification Form B - Location Certification**

Date Stamp  
 (For Department use only)

**SECTION A. SITE NAME AND LOCATION**

Site Name: **51326-CAMDEN LABORATORIES**

List all AKAs: **CAMDEN LABORATORIES**

Street Address: **1667 DAVIS STREET & COPEWOOD STREET - CAMDEN, NJ**

Municipality: **CITY OF CAMDEN** (Township, Borough or City)

County: **CAMDEN** Zip Code: **08103**

Program Interest (PI) Number(s): **016718** Case Tracking Number(s): **08-07-01-1547-19**

**SECTION B. WELL OWNER AND LOCATION**

1. Name of Well Owner **CITY OF CAMDEN**

2. Well Location (Street Address) **1667 DAVIS STREET**

3. Well Location (Municipal Block and Lot) Block# **1392** Lot # **33**

**SECTION C. WELL LOCATION SPECIFICS**

1. Well Permit Number (This number must be permanently affixed to the well casing): **E201807595**

2. Site Well Number (As shown on application or plans): **MW-2**

3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:

Latitude: North **39 ° 55 ' 22.570 "** Longitude: West **75 ° 5 ' 50.535 "**

4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to nearest foot:

North **397405.32** East **324592.03**

5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): **20.92**

Elevation Top of Outer casing: **21.23** Elevation of ground: **21.23**

Check one:  NAVD 88  NGVD 29  On Site Datum  Other

6. Source of elevation datum (benchmark, number/description and elevation/datum). If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation (referencing NAVD 88).

**NGS "PAPH" (CORS) (NAD 83\_2011) (EPOCH 2010.00) (GEOID 12B)**

7. Significant observations and notes:

**SECTION D. LAND SURVEYOR'S CERTIFICATION**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

SEAL

PROJECT NO. **2105LIST**

Professional Land Surveyor's Signature: **[Signature]** Date **08/31/18**

Surveyor's Name: **JAMES M. STEWART** License Number: **24GS02610800**

Firm Name: **DENNIS W. SKLAR, INC.** Certificate of Authorization #: **24GA28150900**

Mailing Address **2837 OGDEN AVENUE**

City/Town: **BENSALEM** State **PENNSYLVANIA** Zip Code: **19020**

Phone Number **(215) 268-7988** Ext.: **N/A** Fax: **(215) 268-7966**



New Jersey Department of Environmental Protection  
Site Remediation Program

Monitoring Well Certification Form B - Location Certification

Date Stamp  
(For Department use only)

**SECTION A. SITE NAME AND LOCATION**

Site Name: **51326-CAMDEN LABORATORIES**

List all AKAs: **CAMDEN LABORATORIES**

Street Address: **1667 DAVIS STREET & COPEWOOD STREET - CAMDEN, NJ**

Municipality: **CITY OF CAMDEN** (Township, Borough or City)

County: **CAMDEN** Zip Code: **08103**

Program Interest (PI) Number(s): **016718** Case Tracking Number(s): **08-07-01-1547-19**

**SECTION B. WELL OWNER AND LOCATION**

1. Name of Well Owner **CITY OF CAMDEN**

2. Well Location (Street Address) **1667 DAVIS STREET**

3. Well Location (Municipal Block and Lot) Block# **1392** Lot # **33**

**SECTION C. WELL LOCATION SPECIFICS**

1. Well Permit Number (This number must be permanently affixed to the well casing): **E201807596**

2. Site Well Number (As shown on application or plans): **MW-3**

3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:

Latitude: North **39 ° 55 ' 22.294 "** Longitude: West **75 ° 5 ' 51.299 "**

4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to nearest foot:

North **397377.89** East **324532.29**

5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): **21.34**

Elevation Top of Outer casing: **21.56** Elevation of ground: **21.42**

Check one:  NAVD 88  NGVD 29  On Site Datum  Other

6. Source of elevation datum (benchmark, number/description and elevation/datum). If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation (referencing NAVD 88).

**NGS "PAPH" (CORS) (NAD 83\_2011) (EPOCH 2010.00) (GEOID 12B)**

7. Significant observations and notes:

**SECTION D. LAND SURVEYOR'S CERTIFICATION**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

SEAL

PROJECT NO. **2105LIST**

Professional Land Surveyor's Signature:  Date **08/31/18**

Surveyor's Name: **JAMES M. STEWART** License Number: **24GS02610800**

Firm Name: **DENNIS W. SKLAR, INC.** Certificate of Authorization #: **24GA28150900**

Mailing Address **2837 OGDEN AVENUE**

City/Town: **BENSALEM** State **PENNSYLVANIA** Zip Code: **19020**

Phone Number **(215) 268-7988** Ext.: **N/A** Fax: **(215) 268-7966**



**WELL PERMIT**

**New Well**

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

**Certifying Driller:** JASON J KUNI, MONITORING LICENSE # 450560

**Permit Issued to:** ENVIROPROBE SERVICE INC

**Company Address:** 81 MARTER AVE MOUNT LAUREL, NJ 08057

**PROPERTY OWNER**

**Name:** CITY OF CAMDEN

**Organization:** City of Camden

**Address:** 520 Market ST

**City:** Camden

**State:** New Jersey

**Zip Code:** 08101

**PROPOSED WELL LOCATION**

**Facility Name:** Former Camden Labs

**Address:** 1667 Davis St

**County:** Camden

**Municipality:** Camden City

**Lot:** 33

**Block:** 1392

**Easting (X):** 324506 **Northing (Y):** 397423

**Coordinate System:** NJ State Plane (NAD83) - USFEET

**Local ID:** MW-1

**SITE CHARACTERISTICS**

**PROPOSED CONSTRUCTION**

**WELL USE:** MONITORING

**Other Use(s):** \_\_\_\_\_

**Diameter (in.):** 2

**Regulatory Program**

**Depth (ft.):** 25

**Requiring Wells/Borings:** \_\_\_\_\_

**Pump Capacity (gpm):** 0

**Case ID Number:** \_\_\_\_\_

**Drilling Method:** Hollow Stem Augers

**Deviation Requested:** N

**Attachments:** \_\_\_\_\_

**SPECIFIC CONDITIONS/REQUIREMENTS**

**Approval Date:** July 31, 2018

**Expiration Date:** July 31, 2019

Approved by the authority of:  
Catherine R. McCabe  
Commissioner

*Terry D. Pilawski*  
Terry Pilawski, Chief  
Bureau of Water Allocation and Well Permitting



**WELL PERMIT**

New Well

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

**Certifying Driller:** JASON J KUNI, MONITORING LICENSE # 450560

**Permit Issued to:** ENVIROPROBE SERVICE INC

**Company Address:** 81 MARTER AVE MOUNT LAUREL, NJ 08057

**PROPERTY OWNER**

Name: CITY OF CAMDEN

Organization: City of Camden

Address: 520 Market ST

City: Camden State: New Jersey Zip Code: 08101

**PROPOSED WELL LOCATION**

Facility Name: Former Camden Labs

Address: 1667 Davis St

County: Camden Municipality: Camden City Lot: 33 Block: 1392

Easting (X): 324574 Northing (Y): 397410  
Coordinate System: NJ State Plane (NAD83) - USFEET

Local ID: MW-2

**SITE CHARACTERISTICS**

**PROPOSED CONSTRUCTION**

WELL USE: MONITORING

Other Use(s): \_\_\_\_\_

Diameter (in.): 2

Regulatory Program

Requiring Wells/Borings: \_\_\_\_\_

Depth (ft.): 25

Case ID Number: \_\_\_\_\_

Pump Capacity (gpm): 0

Deviation Requested: N

Drilling Method: Hollow Stem Augers

Attachments: \_\_\_\_\_

**SPECIFIC CONDITIONS/REQUIREMENTS**

Approval Date: July 31, 2018  
Expiration Date: July 31, 2019

Approved by the authority of:  
Catherine R. McCabe  
Commissioner

*Terry D. Pilawski*

Terry Pilawski, Chief  
Bureau of Water Allocation and Well Permitting



**WELL PERMIT**

New Well

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

**Certifying Driller:** JASON J KUNI, MONITORING LICENSE # 450560

**Permit Issued to:** ENVIROPROBE SERVICE INC

**Company Address:** 81 MARTER AVE MOUNT LAUREL, NJ 08057

**PROPERTY OWNER**

Name: CITY OF CAMDEN

Organization: City of Camden

Address: 520 Market ST

City: Camden State: New Jersey Zip Code: 08101

**PROPOSED WELL LOCATION**

Facility Name: Former Camden Labs

Address: 1667 Davis St

County: Camden Municipality: Camden City Lot: 33 Block: 1392

Easting (X): 324555 Northing (Y): 397347  
Coordinate System: NJ State Plane (NAD83) - USFEET

Local ID: MW-3

**SITE CHARACTERISTICS**

**PROPOSED CONSTRUCTION**

WELL USE: MONITORING

Other Use(s): \_\_\_\_\_

Diameter (in.): 2

Regulatory Program

Requiring Wells/Borings: \_\_\_\_\_

Depth (ft.): 25

Case ID Number: \_\_\_\_\_

Pump Capacity (gpm): 0

Deviation Requested: N

Drilling Method: Hollow Stem Augers

Attachments: \_\_\_\_\_

**SPECIFIC CONDITIONS/REQUIREMENTS**

Approval Date: July 31, 2018  
Expiration Date: July 31, 2019

Approved by the authority of:  
Catherine R. McCabe  
Commissioner

*Jerry D. Pilawski*  
Terry Pilawski, Chief  
Bureau of Water Allocation and Well Permitting



**MONITORING WELL RECORD**

**PROPERTY OWNER:** CITY OF CAMDEN

Company/Organization: City of Camden

Address: 520 Market ST Camden, New Jersey 08101

**WELL LOCATION:** Former Camden Labs

Address: 1667 Davis St

County: Camden Municipality: Camden City Lot: 33 Block: 1392

Easting (X): 324488 Northing (Y): 397465  
 Coordinate System: NJ State Plane (NAD83) - USFEET

**DATE WELL STARTED:** August 6, 2018

**DATE WELL COMPLETED:** August 6, 2018

**WELL USE:** MONITORING

**Other Use(s):** \_\_\_\_\_

**Local ID:** MW-1

**WELL CONSTRUCTION**

Total Depth Drilled (ft.): 24 Finished Well Depth (ft.): 24 Well Surface: Flush Mount

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole	0	24	8		
Casing	0	14	2	PVC	sch 40
Screen	14	24	2	pvc	.010

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in.)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	12	8	2		329	18.20
Gravel Pack	12	24	8	2	#1 well gravel		

Grouting Method: Pressure method (Tremie Pipe)

Drilling Method: Hollow Stem Augers

**ADDITIONAL INFORMATION**

Protective Casing: Yes

Static Water Level: 16.7 ft. below land surface

Water Level Measure Tool: tape

Well Development Period: 1 hrs.

Method of Development: pump and surge

Pump Type: \_\_\_\_\_

Pump Capacity: \_ gpm

Total Design Head: \_ ft.

Drilling Fluid: \_\_\_\_\_

Drill Rig: 7822

Health and Safety Plan Submitted? No

**ATTACHMENTS:**

**GEOLOGIC LOG**

0 - 5: brown OT - Other clayey silt

5 - 10: tan OT - Other silty sand

10 - 20: light tan OT - Other sand

20 - 24: light tan OT - Other clayey sand

**ADDITIONAL INFORMATION:**

Jason J Kuni,  
 Driller of Record: MONITORING LICENSE # 450560

Company: ENVIROPROBE SERVICE INC



**MONITORING WELL RECORD**

PROPERTY OWNER: CITY OF CAMDEN

Company/Organization: City of Camden

Address: 520 Market ST Camden, New Jersey 08101

WELL LOCATION: Former Camden Labs

Address: 1667 Davis St

County: Camden Municipality: Camden City Lot: 33 Block: 1392

Easting (X): <u>324597</u>	Northing (Y): <u>397409</u>	DATE WELL STARTED: <u>August 6, 2018</u>
Coordinate System: <u>NJ State Plane (NAD83) - USFEET</u>		DATE WELL COMPLETED: <u>August 6, 2018</u>

WELL USE: MONITORING

Other Use(s): \_\_\_\_\_ Local ID: MW-2

**WELL CONSTRUCTION**

Total Depth Drilled (ft.): 24 Finished Well Depth (ft.): 24 Well Surface: Flush Mount

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole	0	24	8		
Casing	0	14	2	PVC	sch 40
Screen	14	24	2	pvc	.010

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in.)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	12	8	2		329	18.20
Gravel Pack	12	24	8	2	#1 well gravel		

Grouting Method: Pressure method (Tremie Pipe) Drilling Method: Hollow Stem Augers

**ADDITIONAL INFORMATION**

Protective Casing: Yes  
 Static Water Level: 15.6 ft. below land surface  
 Water Level Measure Tool: tape  
 Well Development Period: 1 hrs.  
 Method of Development: pump and surge  
 Pump Type: \_\_\_\_\_

Pump Capacity: \_ gpm  
 Total Design Head: \_ ft.  
 Drilling Fluid: \_\_\_\_\_  
 Drill Rig: 7822  
 Health and Safety Plan Submitted? No

**ATTACHMENTS:**

**GEOLOGIC LOG**

0 - 5: brown OT - Other sands some silt  
 5 - 15: light tan OT - Other sand  
 15 - 24: brown black OT - Other sands

**ADDITIONAL INFORMATION:**

Driller of Record: Jason J Kuni,  
MONITORING LICENSE # 450560

Company: ENVIROPROBE SERVICE INC



**MONITORING WELL RECORD**

**PROPERTY OWNER:** CITY OF CAMDEN

Company/Organization: City of Camden

Address: 520 Market ST Camden, New Jersey 08101

**WELL LOCATION:** Former Camden Labs

Address: 1667 Davis St

County: Camden Municipality: Camden City Lot: 33 Block: 1392

Easting (X): 324544 Northing (Y): 397387  
 Coordinate System: NJ State Plane (NAD83) - USFEET

**DATE WELL STARTED:** August 6, 2018

**DATE WELL COMPLETED:** August 6, 2018

**WELL USE:** MONITORING

**Other Use(s):** \_\_\_\_\_

**Local ID:** MW-3

**WELL CONSTRUCTION**

Total Depth Drilled (ft.): 24 Finished Well Depth (ft.): 24 Well Surface: Flush Mount

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole	0	24	8		
Casing	0	14	2	PVC	sch 40
Screen	14	24	2	pvc	.010

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in.)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	12	8	2		329	18.20
Gravel Pack	12	24	8	2	#1 well gravel		

Grouting Method: Pressure method (Tremie Pipe)

Drilling Method: Hollow Stem Augers

**ADDITIONAL INFORMATION**

Protective Casing: Yes

Static Water Level: 16.2 ft. below land surface

Water Level Measure Tool: tape

Well Development Period: 1 hrs.

Method of Development: pump and surge

Pump Type: \_\_\_\_\_

Pump Capacity: \_ gpm

Total Design Head: \_ ft.

Drilling Fluid: \_\_\_\_\_

Drill Rig: 7822

Health and Safety Plan Submitted? No

**ATTACHMENTS:**

<b>GEOLOGIC LOG</b>
0 - 5: brown OT - Other sands some silt
5 - 15: light tan OT - Other sand
15 - 20: dark tan OT - Other sand
20 - 24: grey OT - Other clay

**ADDITIONAL INFORMATION:**

Jason J Kuni,  
 Driller of Record: MONITORING LICENSE # 450560

Company: ENVIROPROBE SERVICE INC

---

## APPENDIX I: DISPOSAL DOCUMENTATION

1157512

WORK ORDER NO: 1001018158

DOCUMENT NO.

STRAIGHT BILL OF LADING

TRANSPORTER 1 Clean Harbors Environmental Services, Inc. VEHICLE ID # 5556  
 EPA ID # MAD039322250 TRANS. 1 PHONE (781)792-5000  
 TRANSPORTER 2 \_\_\_\_\_ VEHICLE ID # \_\_\_\_\_  
 EPA ID # \_\_\_\_\_ TRANS. 2 PHONE \_\_\_\_\_

DESIGNATED FACILITY Clean Harbors Environmental Services, Inc.			SHIPPER The Ambient Group		
FACILITY EPA ID # OHD000724153			SHIPPER EPA ID # CESOG		
ADDRESS 2900 Rockefeller Avenue			ADDRESS 1557 Davis Street		
CITY Cleveland		STATE OH	ZIP 44115	CITY Camden	
		STATE NJ	ZIP 08103		
CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1 x 55	Dm		A. NON DOT REGULATED MATERIAL	400	P
2 x 90	DF		B. NON DOT REGULATED MATERIAL	850	P
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		
SPECIAL HANDLING INSTRUCTIONS A.CH178555B EMERGENCY PHONE #: (800) 483-3718 GENERATOR: The Ambient Group					

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

SHIPPER	PRINT MARKHARTMAN	SIGN <i>Mark Hartman</i>	DATE 2/27/19
TRANSPORTER 1	PRINT T. Charles	SIGN <i>T. Charles</i>	DATE 02-27-19
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT	SIGN	DATE



Site Address : SAME

SC PPW 2/14/2019

1157513

WORK ORDER NO. 1901018158

DOCUMENT NO.

STRAIGHT BILL OF LADING

TRANSPORTER 1 Clean Harbors Environmental Services, Inc VEHICLE ID # 5556

EPA ID # MAPO39322250 TRANS. 1 PHONE (781) 792-5000

TRANSPORTER 2 \_\_\_\_\_ VEHICLE ID # \_\_\_\_\_

EPA ID # \_\_\_\_\_ TRANS. 2 PHONE \_\_\_\_\_

DESIGNATED FACILITY Spring Grove Resource Recovery Inc.			SHIPPER The Ambient Group		
FACILITY EPA ID # OHDC00816629			SHIPPER EPA ID # CESQG		
ADDRESS 4879 Spring Grove Avenue			ADDRESS 1067 Davis Street		
CITY Cincinnati		STATE OH	ZIP 45232	CITY Camden	
				STATE NJ	ZIP 08103
CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
6 x 55	DM		A. NON DOT REGULATED MATERIAL (SOIL)	300	P
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		
SPECIAL HANDLING INSTRUCTIONS A.CH1785421 EMERGENCY PHONE #: (800) 483-3718 GENERATOR: The Ambient Group					

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

SHIPPER	PRINT MARK HARTMAN	SIGN <i>Mark Hartman</i>	DATE 2/27/19
TRANSPORTER 1	PRINT J. C. Davis	SIGN <i>J. C. Davis</i>	DATE 2-27-19
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT	SIGN	DATE



Envirowaste  
13 Pattison Ave  
Philadelphia, PA 19148  
(215) 755-1060



Ticket: 144520  
Date: 3/27/2019  
Time: 14:41:55 - 14:54:15

Truck: ROB3  
Truck Type: ROLLOFF TRUCK

Gross: 26120lb In Scale INBOUN  
Tare: 24980lb Out Scale OUTBOI  
Net: 1140lb

Customer: 2391570001/ROBINSON WASTE DISPOSAL SERVICE  
INC  
310 AMERICAN WAY  
VOORHEES, NJ 08043-1117

Carrier: ROBINSON/ROLL OFF

Comment:

Origin	Materials & Services	Quantity Unit
NJ004000/Camden County	C&D/C&D	0.57 Ton

Driver: \_\_\_\_\_

Deputy Weighmaster: Yilisi A.

Envirowaste  
13 Pattison Ave  
Philadelphia, PA 19148  
(215) 755-1060



Ticket: 144520  
Date: 3/27/2019  
Time: 14:41:55 - 14:54:15

Truck: ROB3  
Truck Type: ROLLOFF TRUCK

Gross: 26120lb In Scale INBOUN  
Tare: 24980lb Out Scale OUTBOI  
Net: 1140lb

Customer: 2391570001/ROBINSON WASTE DISPOSAL SERVICE  
INC  
310 AMERICAN WAY  
VOORHEES, NJ 08043-1117

Carrier: ROBINSON/ROLL OFF

Comment:

Origin	Materials & Services	Quantity Unit
NJ004000/Camden County	C&D/C&D	0.57 Ton

Driver: Bill Sto

Deputy Weighmaster: Yilisi A.

Ambient Group LLC 1667 Davis Camden 1107

---

## APPENDIX J: FIELD SAMPLING FORMS



WATER SAMPLE COLLECTION REPORT

Project Camden Labs Sample ID MW-1  
 Project No. 230198 Well No. \_\_\_\_\_  
 Sample Date 8 1281 2018 Sampled By AG  
 Sample Time (start/end) 1120 1150 Sample Sequence No. 3  
 Sample Collection Equipment bailey / whale pump  
 Depth to Water Prior to Purging/Sampling (ft) 16.86 / 17.00  
 Recharge Time NA Measured from  TOC  TOR  GS

FIELD MEASUREMENTS		
pH	Standard Units	<u>6.80</u>
Specific Conductance	µs/cm	<u>328</u>
Water Temperature	°C	<u>15.98</u>
Dissolved Oxygen	ppm	<u>5.12</u>
Redox	mV	<u>2124.5</u>
Turbidity	NTU	<u>1225.2</u>

Meter Calibration Performed? N  Y  Date \_\_\_\_\_  
 Water Appearance, Immiscible Phases or Odors: Brown Cloudy  
 Sampling Flow Rate: NA

SAMPLE TYPES COLLECTED

Parameter	Volume	# Containers	Field Filtered?		Preserved?	
<u>AG</u>	<u>500 mL</u>	<u>1</u>	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>

Number of Containers 1 Filtration Method None  
 Laboratory SGS Delivered Via Courier Date 8/28  
 Weather Conditions Hot, Sunny, Humid  
 Comments \_\_\_\_\_



WATER SAMPLE COLLECTION REPORT

Project Camden Labs Sample ID MW-2  
 Project No. 230198 Well No. \_\_\_\_\_  
 Sample Date 8/12/2018 Sampled By AG  
 Sample Time (start/end) 1040/1050 Sample Sequence No. 2  
 Sample Collection Equipment Bailor / Wheel Pump  
 Depth to Water Prior to Purging/Sampling (ft) 15.70 / 15.86  
 Recharge Time NA Measured from  TOC  TOR  GS

FIELD MEASUREMENTS		
Parameter	Standard Units	Value
pH		6.74
Specific Conductance	µs/cm	265
Water Temperature	°C	17.58
Dissolved Oxygen	ppm	4.26
Redox	mV	207.1
Turbidity	NTU	470.1

Meter Calibration Performed? N  Y  Date \_\_\_\_\_  
 Water Appearance, Immiscible Phases or Odors: Cloudy Brown  
 Sampling Flow Rate: NA

SAMPLE TYPES COLLECTED

Parameter	Volume	# Containers	Field Filtered?		Preserved?	
			Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
<u>AG</u>	<u>500ml</u>	<u>1</u>	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/>	N <input type="checkbox"/>

Number of Containers 1 Filtration Method None  
 Laboratory SGS Delivered Via Carrier Date 8/28  
 Weather Conditions Hot, Sunny, Humid  
 Comments \_\_\_\_\_



WATER SAMPLE COLLECTION REPORT

Project Camden Lebs Sample ID MW-3  
 Project No. 230198 Well No. \_\_\_\_\_  
 Sample Date 8 128 118 Sampled By AK  
 Sample Time (start/end) 1008 1018 Sample Sequence No. 1  
 Sample Collection Equipment Bailor / Whale Pump  
 Depth to Water Prior to Purging/Sampling (ft) 16.22 / 17.72  
 Recharge Time NA Measured from  TOC  TOR  GS

FIELD MEASUREMENTS		
pH	Standard Units	4.34
Specific Conductance	µs/cm	391
Water Temperature	°C	15.97
Dissolved Oxygen	ppm	1.30
Redox	mV	209.2
Turbidity	NTU	635.3

Meter Calibration Performed? N  Y  Date \_\_\_\_\_  
 Water Appearance, Immiscible Phases or Odors: Brownish / Cloudy  
 Sampling Flow Rate: NA

SAMPLE TYPES COLLECTED					
Parameter	Volume	# Containers	Field Filtered?		Preserved?
<u>HG</u>	<u>500mL</u>	<u>1</u>	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>	Y <input checked="" type="checkbox"/> <u>HNO3</u> N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/> _____ N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/> _____ N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/> _____ N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/> _____ N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/> _____ N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/> _____ N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/> _____ N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/> _____ N <input type="checkbox"/>
_____	_____	_____	Y <input type="checkbox"/>	N <input type="checkbox"/>	Y <input type="checkbox"/> _____ N <input type="checkbox"/>

Number of Containers 1 Filtration Method None  
 Laboratory SGS Delivered Via Carrier Date 8/28  
 Weather Conditions Hot, Sunny, Humid  
 Comments \_\_\_\_\_

---

## APPENDIX K: RECEPTOR EVALUATION

---

## APPENDIX L: LABORATORY REPORTS

**Table K1. Land Use - Camden Labs; Camden, New Jersey.**

<b>BLOCK</b>	<b>LOT</b>	<b>PROPERTY LOCATION</b>	<b>CLASSIFICATION</b>	<b>OWNER NAME</b>
1391	35	SW DAVIS & SHERIDAN ST	Appartment/Res.	BEACON PLACE LIMITED
1368	26	1417 DECATUR ST	Residential	DECARLO, DANIEL J
1368	12	1423 DECATUR ST	Residential	UZZLE, ANDRE P & TANGRIS D
1368	101	1425 DECATUR ST	Residential	COMBS, SHARON
1376	57	1430 DAYTON ST	Residential	TUBENS, MANUEL & OLGA
1374	56	1756 PERSHING ST	Residential	HILL, ANNELLE & SELLERS, NORMA
1374	35	1770 PERSHING ST	Residential	MORALES, JOSE LUIS
1374	17	1416 DECATUR ST	Residential	ROY, SANDY C
1374	82	1418 DECATUR ST	Residential	RODRIQUEZ, CARLOS M
1374	42	1423 DAYTON ST	Residential	SEANEUS, LLC
1374	67	1772 PERSHING ST	Residential	FARHAT, EZAT
1374	68	1774 PERSHING ST	Residential	CICONTA, ROBERT & MARK
1374	65	1762 PERSHING ST	Residential	COLLINS, KATHY
1374	89	1427 DAYTON ST	Residential	BROWN, MELODY
1374	83	1420 DECATUR ST	Residential	SEANEUS, LLC
1374	84	1422 DECATUR ST	Residential	MACBELLO, THOMAS
1374	85	1424 DECATUR ST	Residential	FARQUHARSON, MICHELLE R
1374	41	1426 DECATUR ST	Residential	BUSSIE, OLLIE ET UX
1374	66	1768 PERSHING ST	Residential	LAND, APRIL
1374	87	1421 DAYTON ST	Residential	COLE, IRIS A
1374	20	1752 PERSHING ST	Residential	CORBETT, DORIS
1368	100	1428 CARL MILLER BLVD	Residential	JENKINS, RHONDA D
1374	63	1780 PERSHING ST	Residential	MARSH, BILLY F; ET AL
1374	69	1776 PERSHING ST	Residential	MORGAN, FRANCES V
1376	53	1806 PERSHING ST	Residential	PADILLA, ERNESTO
1376	41	1414 DAYTON ST	Residential	BOONE, KAPRENA
1376	55	1426 DAYTON ST	Residential	ROBLES, CARLOS
1374	64	1760 PERSHING ST	Residential	PAYTON, DENISE A
1376	54	1419-1435 BROWNING ST	Residential	CAMPOS, JAIME
1374	45	1419 DAYTON ST	Residential	MCKINNEY, DONALD & SHIRLEY D
1374	88	1425 DAYTON ST	Residential	LEE, ANNIE M
1374	57	1758 PERSHING ST	Residential	GOMEZ-MATA, ROSAURA
1374	70	1778 PERSHING ST	Residential	BAGBY, SCOTT
1376	58	NS BROWNING 130E PERSHING	Residential	CAMPOS, JAIME
1374	86	1417 DAYTON ST	Residential	HALL, TRACEY L
1374	40	1754 PERSHING ST	Residential	BRITO, JOSE
1392	33	1667 DAVIS ST	Commercial	CAMDEN LABORATORIES
1388	7	1800 COPEWOOD ST	Commercial	PHIL-MAR INDUSTRIES, INC
1392	3	NE SAYRS & HALLOWELL LANE	Public Park	CAMDEN CITY
1389	9	1626 COPEWOOD ST	Public School	CAMDEN BOARD OF EDUCATION
1376	56	NS BROWNING 90 E PERSHING	Vacant	CAMPOS, JAIME
1368	115	SS CARL MILLER 120E PRSHG	Vacant	JENKINS, RHONDA D
1368	54	SS CARL MILLER 1403 PRSHG	Vacant	JENKINS, RHONDA D
1368	116	SS CARL MILLER 160E PRSHG	Vacant	JENKINS, RHONDA D

**Notes:**

Data extracted from NJDEP GeoWeb



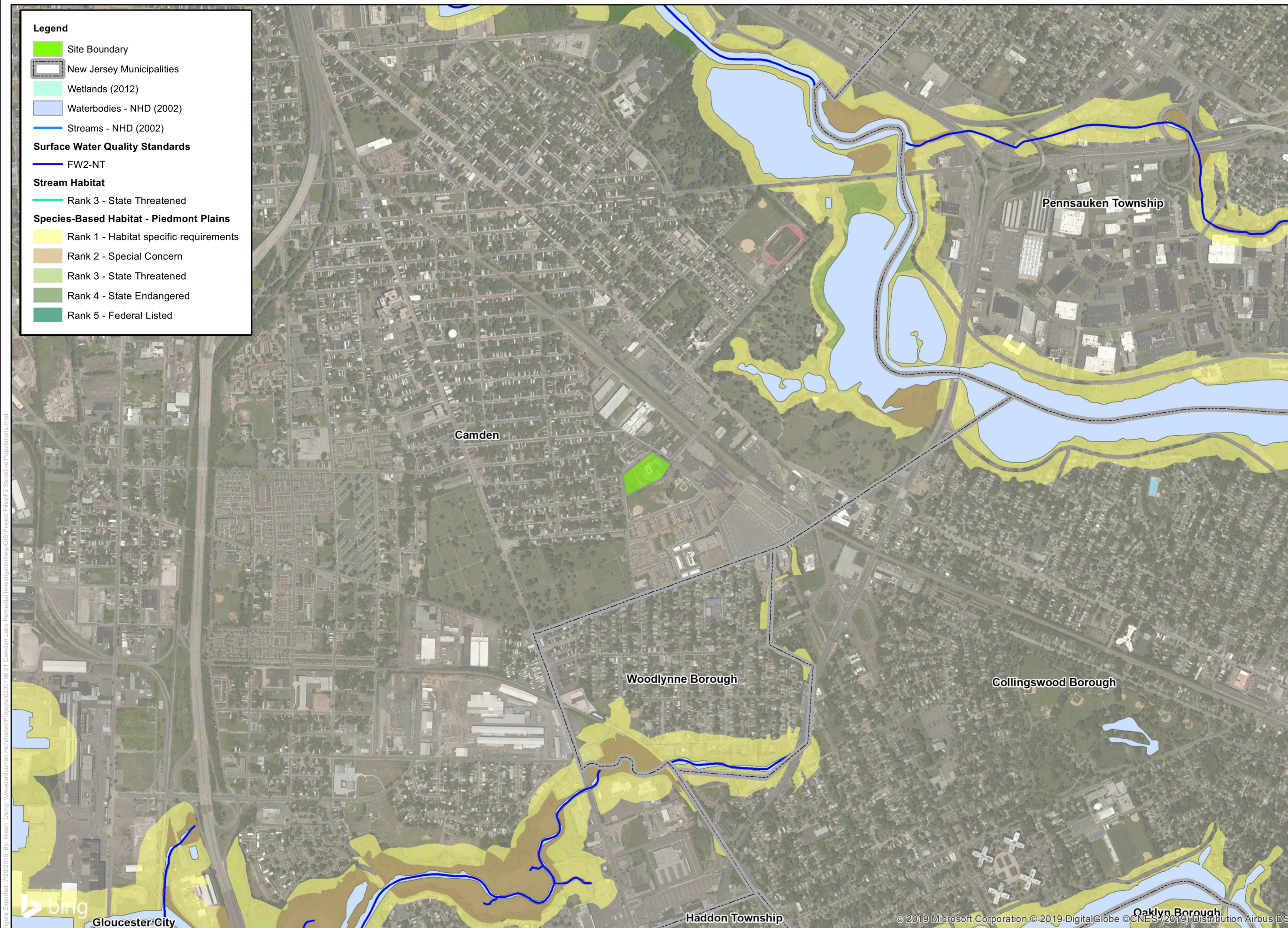
**Legend**

-  Site Boundary
-  New Jersey Municipalities
-  Wetlands (2012)
-  Waterbodies - NHD (2002)
-  Streams - NHD (2002)
- Surface Water Quality Standards**
-  FW2-NT
- Stream Habitat**
-  Rank 3 - State Threatened
- Species-Based Habitat - Piedmont Plains**
-  Rank 1 - Habitat specific requirements
-  Rank 2 - Special Concern
-  Rank 3 - State Threatened
-  Rank 4 - State Endangered
-  Rank 5 - Federal Listed

# Ecological Evaluation

Camden Laboratories  
1667 Davis Street  
Camden, New Jersey

**Figure 2**



0 270 540 1,080  
Feet



Project #: 230198  
Map Created: July 2019

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**

Figure Exported: 7/29/2019 11:45 AM Using: \\woodardcurran.net\share\Projects\230198\_01\_Camden\_Labs\_Remedial\_Investigation\wp\GIS\Project\_Files\F2\_Sensitive\_Populations.mxd



© 2019 Microsoft Corporation © 2019 DigitalGlobe © CNES (2019) Distribution Airbus DS











# Land Use

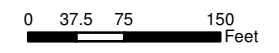
Camden Laboratories  
1667 Davis Street  
Camden, New Jersey

Figure 1



## Legend

-  Site Boundary
-  200ft Buffer
-  1: Vacant Land
-  2: Residential
-  4A: Commercial
-  4C: Apartment
-  15A: Public School Property
-  15C: Public Property



Project #: 230198  
Map Created: July 2019

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**

Figure Exported: 7/29/2019 By: Keen Using: \\woodardcurran.net\share\Projects\230198\_01 Camden Labs Remedial Investigation\wp\GIS\Project Files\F1 Land Use.mxd

