

**HARMON RAILROAD YARD
OPERABLE UNIT II
JANUARY 1, 2010 – SEPTEMBER 30, 2010 STATUS REPORT
METRO-NORTH RAILROAD**

Prepared For: Metro-North Railroad
Environmental Services and Compliance Department
525 North Broadway, 2nd Floor
White Plains, New York, 10603

Prepared By: Day Engineering P.C.
40 Commercial Street
Rochester, New York 14614

Project No.: 10-3231M (46)

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1.0 INTRODUCTION

Day Engineering, P.C. (DAY) prepared this report describing monitoring and testing conducted to evaluate the effectiveness of remedial actions conducted at the Metro North Railroad (MNR) Harmon Yard Operable Unit II (OU-II), Croton-on-Hudson, New York in the period between January 1, 2010 and September 30, 2010. This report also provides a brief summary of the NAPL removal efforts since 2002. Based on data presented in this report recommendations are provided for future remediation and management of OU-II.

1.1 Site Background

OU-II is located in the northwestern portion of the Metro North Railroad Harmon Yard, Town of Croton-on-Hudson, New York (see Figures 1: Project Locus and Figure 2: Harmon Yard Location Map). MNR entered into a Record of Decision (ROD) with the New York State Department of Environmental Conservation (NYSDEC) in March 1998 to remediate NAPL surrounding a closed wastewater lagoon. The closed wastewater lagoon is known as Operable Unit OU-I (OU-I) and the area surrounding the former lagoon is known as OU-II.

OU-II consists of four areas of NAPL on the shallow water table known as NAPL Areas L1, L2, L3, and L4 located north-northwest, north, northeast and south-southeast of OU-I, respectively (see Figure 3: Operable Unit II Site Plan). As noted in the ROD, since the closure of OU-I, the general shallow groundwater flow direction in OU-II is predominately to the northwest. NAPL Areas L1 – L4 are collectively one acre in size. The largest portion of OU-II is NAPL Area L4, which is approximately 0.61 acres in size. The ROD identifies polychlorinated biphenyls (PCBs) that were present in the oil disposed of in the former wastewater lagoon as the primary contaminant of concern in the water/oil present in OU-II.

Beginning in 2002, MNR implemented a vacuum enhanced NAPL removal system remedy in accordance with the ROD. The vacuum enhanced NAPL removal system was comprised of a central vapor (soil gas) extraction system connected to a network of vapor extraction wells and a network of air inlet wells (both passive and active depending on location). Initially, separate vacuum enhanced NAPL removal systems were installed for the four NAPL areas, however, the L1 and L2 systems were subsequently combined into one treatment system. The vacuum enhanced NAPL removal system was designed to promote NAPL remediation via biodegradation, physical removal and volatilization. Due to operational difficulties, the vacuum enhanced NAPL removal system was modified prior to 2005 to focus on physical removal of NAPL. The vacuum enhanced NAPL recovery system for NAPL Area L3 was decommissioned in 2009. Currently the enhanced vacuum NAPL removal systems are not operating in NAPL Area L1/L2 or NAPL Area L4.

OU-II contains a series of different types of wells that were installed during the construction of the enhanced NAPL removal system. These wells include vapor extraction (“VE”), passive air inlet (“AI”), forced air inlet (“FA”), a NAPL recovery well (“RW-1”), and observation wells (“OW” or “PGW”) depending on the well function. The OU-II well locations are presented on Figure 3.

The OU-II well network is periodically monitored and accumulated NAPL is physically removed using a combination of pumps, passive absorbent media and bailers. In the January 1, 2010 to September 30, 2010 reporting period, NAPL was removed utilizing a dedicated automatic product skimmer known as a Magnum Spill Buster™ installed in well RW-1 located in NAPL Area L4. NAPL was also recovered from a temporary product skimmer device known as a Spill Buddy Pro™ from well VE4-5 in NAPL Area L4 during this reporting period. NAPL recovery in the other wells was conducted by installing absorbent media into wells with encountered product for a period of time sufficient to transfer the product to the recovery device. NAPL remaining in the subject well after removal of the recovery device is physically removed using a bailer until the measured NAPL thickness was less than approximately 0.05 feet. The recovered NAPL is transferred into a 500-gallon above-ground storage tank within the OU-II NAPL Area L4. NAPL removed via absorbent media is managed as a non-hazardous petroleum waste in accordance with the applicable rules and regulations. The NAPL stored in drums is also reused, recycled or disposed of by MNR in accordance with the applicable rules and regulations.

2.0 JANUARY – SEPTEMBER, 2010 NAPL RECOVERY SUMMARY

A tabulated summary of the NAPL recovery efforts for this reporting period and the overall NAPL recovery information is provided below. The tabulated summary includes the total amounts of NAPL removed in each area since implementation of the remedy, the amounts of NAPL recovery for the January 1, 2010 to September 30, 2010 reporting period for each area, and a list of wells with recovered NAPL during the 2010 reporting period.

OU-II Site NAPL Area	NAPL Removed from 1/1/10 – 9/30/10	Wells with NAPL removal from 1/1/10 – 9/30/10	Total NAPL Removed (2002 through 9/30/10)
NAPL Area L1	0.5 gallons	VE1-1	65.5 gallons
NAPL Area L2	No NAPL recovered	No NAPL recovered	14.8 gallons
NAPL Area L3	0.05 gallons	VE3-3	38.7 gallons
NAPL Area L4	152 gallons	RW-1, VE4-5, FA4- 8, FA4-14, FA4-10 & FA4-23	5,428 gallons
Total			5,547 gallons

No NAPL was recovered in Area L2 during this reporting period. NAPL recovery in Areas L1 and L3 were both less than one gallon during this reporting period and NAPL was recovered from a single well in each area (i.e. well VE1-1 in NAPL Area L1 & VE3-3 in NAPL Area L3). NAPL removal in Area L4 was limited to six wells. Historically, NAPL recovery has been most persistent in the central portion of NAPL Area L4. The volume of NAPL recovered from each well in NAPL Area L4 during this reporting period is listed below:

- Well RW-1: 141 gallons
- Well VE4-5: 6.92 gallons
- Well FA4-8: 2.19 gallons
- Well FA4-14: 1.70 gallons
- Well FA4-10: 0.18 gallons
- Well FA4-23: 0.05 gallons

The extent of NAPL detected during the January through September 2010 reporting period is noted on Figure 4. The extent of NAPL shown on this Figure does not represent a snapshot of any one monitoring event but a composite of January – September 2010 reporting period data. For comparative purposes, Figure 4 also includes the extent of NAPL reported in 2002. A review of Figure 4 indicates that the OU-II remedial effort has reduced the horizontal extent of NAPL in OU-II. The NAPL thickness levels within NAPL Areas L1 – L4 has also generally decreased. A copy of the 2010 NAPL recovery data sheets for each well evaluated are available and these sheets will be provided on request.

3.0 GROUNDWATER SAMPLING AND ANALYSIS

NAPL thickness and depth to water measurements were made in the 82 functioning wells located in NAPL Areas L1, L2, L3, and L4 on March 24, 2010. The measurements of NAPL thickness and depth to groundwater obtained on March 24, 2010 are presented on Table 1. Based on this data and the results of previous measurements, selected locations within each NAPL area were identified for the subsequent collection of ground water samples and analytical laboratory testing. Specifically, the following 10 wells in which NAPL was not detected on March 24, 2010 were selected for sampling and testing are listed below:

NAPL Area	Sampled Well Number
NAPL Area L1	VE1-2
	VE1-5
	VE1-10
	AI1-5
	AI1-16 and AI1-16B (Duplicate sample)
NAPL Area L2	VE2-1
NAPL Area L3	AI3-3
NAPL Area L4	VE4-1
	VE4-11
	VE4-13

On April 6 and 7, 2010, prior to sample collection, an oil/water interface probe was used to confirm that the above wells were free of NAPL and to determine the depth to water. Subsequently, groundwater samples were collected using low-flow sampling techniques. Each groundwater sample was tested in the field for pH, dissolved oxygen, turbidity, conductivity, and ORP using a Horiba U-22 water quality meter until the following parameters were achieved:

- pH (± 0.1);
- Specific conductance ($\pm 3\%$);
- Dissolved oxygen ($\pm 10\%$);
- Oxidation-reduction potential (± 10 mV);

- Temperature ($\pm 10\%$); and
- Turbidity ($\pm 10\%$, when turbidity is greater than 10 NTUs).

Following stabilization of the water quality parameters, the groundwater samples were collected for testing from the bladder pump effluent tubing.

3.1 Analytical Laboratory Testing

The groundwater samples collected on April 6 and 7, 2010 were submitted to York Analytical Laboratories, Inc. (York) of Stratford, Connecticut for testing following standard chain-of-custody protocols. York is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory. Each groundwater sample was tested for the following parameters:

- NYSDEC Spill Technology and Remediation Series (STARS)-List Volatile Organic Compounds (VOCs) via USEPA Method 8260B;
- NYSDEC STARS-List Semi-Volatile Organic Compounds (SVOCs) via USEPA Method 8270C; and
- Polychlorinated Biphenyls (PCBs) via USEPA Method SW846-3510C.

Copies of the analytical laboratory summary reports prepared by York and executed chain-of-custody documentation are included in Appendix A.

4.0 DISCUSSION

This section presents the findings of the fieldwork and analytical laboratory testing completed during this monitoring period.

4.1 NAPL Extent

As shown on Figure 4, the lateral extent of NAPL has decreased in each area between 2002 and 2010. It also appears that the lateral extent of NAPL has migrated slightly to the east in Area L2 and slightly to the south in Area L3. The slight movement of NAPL in these areas has not resulted in NAPL migration beyond the OU-II boundaries.

With the exception of NAPL Area L4, the maximum thickness of NAPL encountered on March 24, 2010 was less than 0.50 feet. A summary of the maximum measured NAPL thickness on March 24, 2010 is provided below:

- L1 NAPL Area, Six wells (VE1-1, AI1-4, AI1-7, AI1-8, AI1-11 & AI1-15) – 0.10 feet. The encountered NAPL in this area is very viscous, which reduces the resolution of the product thickness data.
- L2 NAPL Area, Well AI2-3 – 0.45 feet
- L3 NAPL Area, Well VE3-1 – 0.32 feet
- L4 NAPL Area, Well FA4-11 – 1.50 feet

A comparison of the average NAPL thickness measured on March 24, 2010 to the historic average measured in each area between 2002 and 2009 is summarized below:

Area	2002 – 2009 Average NAPL Thickness	3/24/10 Average NAPL Thickness
NAPL Area L1	0.24 feet	0.02 feet
NAPL Area L2	0.37 feet	0.18 feet
NAPL Area L3	0.79 feet (Only 2002 data)	0.07 feet
NAPL Area L4	0.53 feet*	0.19 feet*

* - Value may be biased low due to the presence of an automated product removal skimmer in well RW-1 and more regular NAPL recovery activities in NAPL Area L4 than elsewhere in OU-II. NAPL thickness measured at a well is a function of NAPL thickness in the aquifer and the frequency of NAPL removal. Since, NAPL removal episodes were more frequent in NAPL Area L4 than elsewhere in OU-II the average NAPL thickness in NAPL Area L4 may be low.

4.2 Groundwater Testing Results

The VOC, SVOC and PCB analytical laboratory results for the groundwater samples collected on April 6 and 7, 2010 from the above wells are presented on Tables 2 through Table 4, respectively and discussed below.

NAPL Area L1

The groundwater samples collected from wells AI 1-5, AI-1-16, VE-1-5 and VE 1-10 during this period did not contain STARS VOCs, STARS SVOCs or PCBs at concentrations exceeding the detection limit utilized by the analytical laboratory. The VOC naphthalene was reported in the sample collected from well VE1-2 at a concentration below the corresponding New York State Water Quality Standard referenced in 6NYCRR Part 703.5. The remaining groundwater samples did not contain a tested constituent exceeding the detection limit utilized by the analytical laboratory. Refer to the analytical laboratory report included in Appendix A for the laboratory detection limits.

NAPL Area L2

The groundwater sample collected from well VE 2-1 did not contain STARS VOCs, STARS SVOCs or PCBs at concentrations exceeding the detection limit utilized by the analytical laboratory. Refer to the analytical laboratory report included in Appendix A for the detection limits utilized by the analytical laboratory.

NAPL Area L3

The groundwater sample collected from well AI 3-3 did not contain STARS VOCs, STARS SVOCs or PCBs at concentrations exceeding the detection limit utilized by the analytical laboratory. Refer to the analytical laboratory report included in Appendix A for the detection limits utilized by the analytical laboratory.

NAPL Area L4

The groundwater sample collected from well VE 4-1 did not contain STARS VOCs, STARS SVOCs or PCBs at concentrations exceeding the detection limit utilized by the analytical laboratory. Concentrations of three VOCs (n-propylbenzene, naphthalene and isopropylbenzene) were detected in the sample from well VE4-13 at levels below the two parts per billion (ppb) and below the corresponding State Ground Water Quality Standards. The groundwater sample collected from well VE 4-11 contained PCB aroclor 1254 at a concentration of 1.22 ppb, which is above the New York State Water Quality standard of 0.09 ppb. Refer to the analytical laboratory report included in Appendix A for the detection limits utilized by the analytical laboratory.

4.3 Well Network Modifications

There are approximately 82 wells located in OU-II and 35 of these wells are proposed for decommissioning since NAPL has not been measured at these locations in the past five years. The wells proposed for decommissioning are not being considered for ground water quality monitoring in the future. Well VE4-11 will not be included in the list of monitoring wells scheduled for decommissioning since PCB aroclor-1254 was detected at this location during the April 2010 sampling round as noted above. A summary of the number of wells proposed for decommissioning in each NAPL area is listed in the following table.

Area	Number of Wells Scheduled for decommissioning
NAPL Area L1	15
NAPL Area L2	1
NAPL Area L3	4
NAPL Area L4	15

A detailed summary of the wells scheduled for decommissioning is provided in Tables 5 – 8 and, the wells scheduled for decommissioning are shown in Figure 5. The well decommissioning will consist of abandoning the wells in place utilizing bentonite cement grout in general accordance with the NYSDEC Groundwater Monitoring Well Decommissioning Policy number CP-43 dated November 3, 2009. The well decommissioning is scheduled for completion by November 1, 2011. The active well monitoring network that will remain following decommissioning is shown on Figure 6.

4.4 Vacuum Enhanced NAPL Removal System Decommissioning

The removal of NAPL utilizing the vacuum enhanced NAPL removal system has been completed to the extent practicable. NAPL removal for this reporting period has been limited to the physical extraction using a permanently installed automatic product skimmer system at recovery well RW-1, and periodic NAPL removal utilizing a combination of techniques including bailers, a portable product skimmer pump and/or passive NAPL recovery devices. The vacuum enhanced NAPL removal system is not currently functioning and it should be decommissioned to focus resources on NAPL recovery by physical methods at the Site.

The vacuum enhanced NAPL removal system at NAPL Area L3 was previously decommissioned in 2009. The remaining vacuum enhanced NAPL removal systems at NAPL Areas L1/L2 and L4 should be decommissioned utilizing the procedures previously implemented for NAPL Area L3. The NAPL L3 vacuum enhanced NAPL removal system decommissioning procedures are outlined in a memorandum from Day Engineering, P.C. to Metro-North Railroad entitled “Decommissioning Requirements for the L3 NAPL Area Harmon Yard Operable Unit II” dated February 26, 2009. This Memorandum is provided in Appendix B. The vacuum enhanced NAPL removal system decommissioning effort is scheduled for completion by November 1, 2011.

4.5 NAPL Recovery System Modifications

To date, approximately 67% of NAPL recovered at the Site is limited to two wells located in the central portion of NAPL Area L4, wells RW-1 and VE4-5. Since January 1, 2010, approximately, 97% of NAPL recovered was collected from these two wells, which are located in the central portion of NAPL Area L4. NAPL is recovered from a permanently installed automated product skimmer installed at well RW-1 and portable product skimmer pump at well VE4-5.

Installation of a permanent automated product skimmer at well VE4-5 is recommended to increase the rate of NAPL recovery within OU-II. The recommended product skimmer at well VE4-5 is the Magnum Spill Buster™ based on past performance of this unit at well RW-1. The Magnum Spill Buster™ is manufactured by Clean Earth Technology of North Ferrisburgh, Vermont utilizing a 1.9-inch probe and a 115 VAC power source. The Magnum Spill Buster™ will be directly connected to a series of four 55-gallon drums with an overflow sensor and secondary containment. The Spill Buster™ will be installed by February 1, 2010. Both RW-1 and VE4-5 will be inspected on a weekly basis to ensure that it is operating properly. Following the installation and operation of the Magnum Spill Buster™ within well VE4-5, the need for any further modifications of the NAPL removal efforts in OU-II will be evaluated.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The pertinent findings of the work completed during the monitoring period, and recommendations for additional investigation and/or remediation are presented in this section.

5.1 Conclusions

The continued NAPL removal and remedy implementation since 2002 has resulted in reducing the thickness and lateral extent of NAPL in OU-II. Most of the remaining NAPL is being removed from NAPL Area L4. With the exception of the sample collected from well VE4-11 during this monitoring period, the ground water quality was within the New York State Ground Water Quality Standards. PCB aroclor 1254 was detected at the sample collected from well VE4-11 at a concentration of 1.22 ppb, which is above the 0.09 ppb State standard.

5.2 Recommendations

The following recommendations are provided to focus resources more efficiently and improve NAPL recovery at the Site.


- A measurable thickness of NAPL has not been recorded for several years in many of the 82 wells measured in the OU-II NAPL Areas L-1 through L-4. Wells that do not exhibit a measurable thickness of NAPL over time should no longer be monitored and these wells should be decommissioned as described in Section 4.3.
- The vacuum enhanced NAPL removal system is no longer used and it should be decommissioned as described in Section 4.4.
- As described in Section 4.5, additional measures should be considered to enhance NAPL recovery efforts in NAPL Area L4.
- Periodic ground water monitoring should be conducted from selected locations in OU-II on an annual basis including well VE4-11 to document changes in ground water quality. The ground water monitoring protocols and schedules will be provided in the OU-I and OU-II Site Management Plan.
- A Site Management Plan should be prepared to outline the long-term monitoring and maintenance activities for both Operable Units OU-I and OU-II.

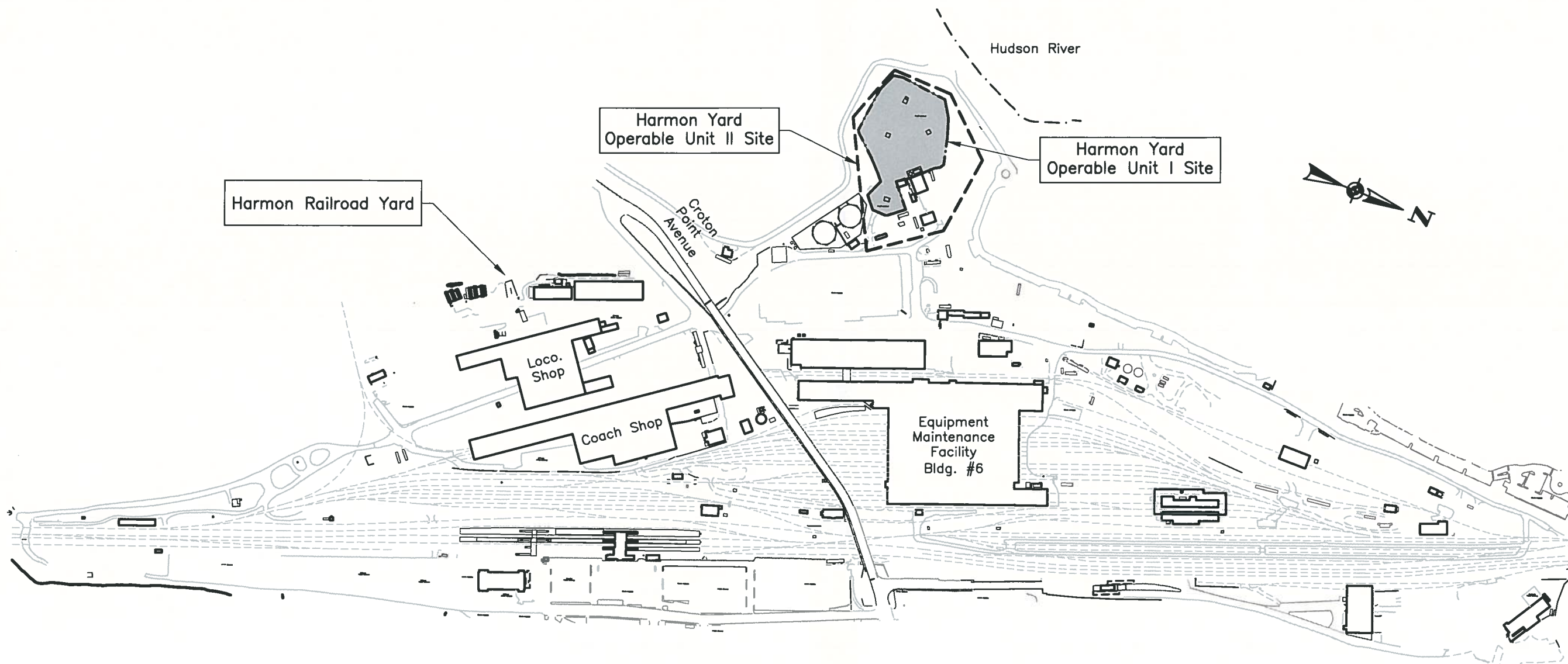
Figures



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 1:50 ft Scale: 1:10,000 Detail: 14-0 Datum: WGS84

Drawing Produced From: 3-D TopoQuads, DeLorme Map Co., referencing USGS quad maps Haverstraw (NY) 1979 and Ossining (NY) '979. Site Lat/Long: N40°11.4' – W73°53.3'

DATE 10-14-2010	 DAY ENGINEERING, P.C. ENVIRONMENTAL ENGINEERING CONSULTANTS ROCHESTER, NEW YORK 14614-1008 NEW YORK, NEW YORK 10165-1617	PROJECT TITLE METRO-NORTH RAILROAD HARMON RAILROAD YARD OPERABLE UNIT II (OU-II) SITE OU-II STATUS REPORT	PROJECT NO. 10-3231M (46)
DRAWN BY RJM		DRAWING TITLE PROJECT LOCUS MAP	FIGURE 1
SCALE 1" = 2000'			



**OPERABLE UNIT II
 SITE LOCATION MAP**

1" = 400'



LEGEND:



Approximate Boundary Of Operable Unit I



Approximate Boundary Of Operable Unit II



Railroad Tracks

FIELD VERIFIED BY	ADL	DATE	10-2010
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SCALE	As Noted	DATE ISSUED	10-12-2010

day
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 ROCHESTER, NEW YORK 14614-1008
 NEW YORK, NEW YORK 10165-1617

PROJECT TITLE
 METRO-NORTH RAILROAD
 HARMON YARD OPERABLE UNIT II (OU-II)
 CROTON-ON-HUDSON, NEW YORK

OU-II STATUS REPORT

DRAWING TITLE
 Harmon Yard Location Map

PROJECT NO.
 10-3231M (46)

FIGURE 2

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HUDSON RIVER



**SITE PLAN
 OU-II NAPL AREAS**
 1" = 80'

NOTES:

1. This drawing was prepared from a CAD base file provided by others, from a drawing by ERM, entitled "EXISTING SITE PLAN AND SURVEY CONTROL" sheet No. C-1 dated 7/31/00 and from a drawing by ERM, "SITE PLAN WITH LOCATIONS OF PROPOSED WELLS AND SHEET PILING", sheet No. C-2, dated 7/31/00.
2. This figure shows four (4) areas where non-aqueous phase liquids (NAPL) have been detected. The four (4) NAPL areas are identified as NAPL AREA L1, NAPL AREA L2, NAPL AREA L3, and NAPL AREA L4.
3. Operable Unit II (OU-II) remedy well locations were determined from coordinate values listed on the ERM drawings identified in note No. 1.

LEGEND:

- ◆ VE1-2 Existing OU-II Remedy Vapor Extraction Well Location
- ◆ AI2-1 Existing OU-II Remedy (Passive) Air Inlet Well Location
- ◆ FA4-1 Existing OU-II Remedy Forced Air Injection Well Location
- ◆ PGW-1 Existing OU-II Remedy Perimeter Groundwater Monitoring Well Location
- ▨ Approximate NAPL Extent In 2002
- Approximate Fence And Harmon Yard Property Line Location
- - - - - Approximate Location Of Sheet Pile Wall Around Remediated Former Lagoon Area (OU-I)



DATE	10-2010
PROJECT MANAGER	ADL
DATE DRAWN	10-8-2010
DRAWN BY	RJM
DATE ISSUED	10-12-2010
SCALE	1" = 80'

day
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 ROCHESTER, NEW YORK 14614-1008
 NEW YORK, NEW YORK 10016-0710

PROJECT TITLE
**METRO-NORTH RAILROAD
 HARMON YARD OPERABLE UNIT II (OU-II)
 CROTON-ON-HUDSON, NEW YORK**
 DRAWING TITLE
OU-II STATUS REPORT
Operable Unit II Site Plan

PROJECT NO.
10-3231M (46)

FIGURE 3

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 Ref3:

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HUDSON RIVER



SITE PLAN
 OU-II NAPL AREAS
 1" = 80'

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- ◆ AI2-1 Existing OU-II Remedy (Passive) Air Inlet Well Location
- ◆ FA4-1 Existing OU-II Remedy Forced Air Injection Well Location
- ◆ PGW-1 Existing OU-II Remedy Perimeter Groundwater Monitoring Well Location
- ◆ AI1-15 Well Sampled In April 2010
- ▨ Approximate NAPL Extent in 2002
- Approximate NAPL Extent in 2010
- Approximate Fence And Harmon Yard Property Line Location
- - - Approximate Location Of Sheet Pile Wall Around Remediated Former Lagoon Area (OU-I)



DATE	10-2010
PROJECT MANAGER	ADL
DATE DRAWN	10-8-2010
DRAWN BY	RJM
DATE ISSUED	10-13-2010
SCALE	1" = 80'

day
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 NEW YORK, NEW YORK 10016-0710

PROJECT TITLE
 METRO-NORTH RAILROAD
 HARMON YARD OPERABLE UNIT II (OU-II)
 CROTON-ON-HUSON, NEW YORK
 OU-II STATUS REPORT
 DRAWING TITLE
 Operable Unit II Extent Of NAPL in 2010

PROJECT NO.
 10-3231M (46)
FIGURE 4

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NOTES:

1. This drawing was prepared from a CAD base file provided by others, from a drawing by ERM, entitled "EXISTING SITE PLAN AND SURVEY CONTROL" sheet No. C-1 dated 7/31/00 and from a drawing by ERM, "SITE PLAN WITH LOCATIONS OF PROPOSED WELLS AND SHEET PILING", sheet No. C-2, dated 7/31/00.
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- ◆ PGW-1 Existing OU-II Remedy Perimeter Groundwater Monitoring Well Location
- ◆ AI1-5 Wells Scheduled For Decommissioning
- NAPL Area Boundary
- Approximate Fence And Harmon Yard Property Line Location
- - - - - Approximate Location Of Sheet Pile Wall Around Remediated Former Lagoon Area (OU-I)



**SITE PLAN
OU-II NAPL AREAS**
1" = 80'

PROJECT MANAGER	ADL
DATE	10-2010
DRAWN BY	RJM
DATE DRAWN	10-8-2010
SCALE	AS NOTED
DATE ISSUED	10-21-2010

day
DAY ENGINEERING, P.C.
ENVIRONMENTAL ENGINEERING CONSULTANTS
ROCHESTER, NEW YORK 14614-1008
NEW YORK, NEW YORK 10016-0710

PROJECT TITLE
**METRO-NORTH RAILROAD
HARMON YARD OPERABLE UNIT II (OU-II)
CROTON-ON-HUSON, NEW YORK
OU-II STATUS REPORT**
DRAWING TITLE
Wells Scheduled for Decommissioning

PROJECT NO.
10-3231M (46)
FIGURE 5

Ref1:
Ref2:
Ref3:

Xerox432AnsiB-2; 11 x 17
Layout Name: Layout2
Pen Setting File: 800psHalfScaleColor.ctb

Time Plotted: Thursday, October 21, 2010 11:27:31 AM
File Name: U:\McPhee\Drawings\Metro\Harmon\Remediation-46\Treatment Plant Decommission Wells.dwg



**SITE PLAN
OU-II NAPL AREAS**
1" = 80'

NOTES:

1. This drawing was prepared from a CAD base file provided by others, from a drawing by ERM, entitled "EXISTING SITE PLAN AND SURVEY CONTROL" sheet No. C-1 dated 7/31/00 and from a drawing by ERM, "SITE PLAN WITH LOCATIONS OF PROPOSED WELLS AND SHEET PILING", sheet No. C-2, dated 7/31/00.
2. This figure shows four (4) areas where non-aqueous phase liquids (NAPL) have been detected. The four (4) NAPL areas are identified as NAPL AREA L1, NAPL AREA L2, NAPL AREA L3, and NAPL AREA L4.
3. Operable Unit II (OU-II) remedy well locations were determined from coordinate values listed on the ERM drawings identified in note No. 1.

LEGEND:

- ◆ VE1-2 Active OU-II Remedy Vapor Extraction Well Location
- ◆ AI2-1 Active OU-II Remedy (Passive) Air Inlet Well Location
- ◆ FA4-1 Active OU-II Remedy Forced Air Injection Well Location
- ◆ PGW-1 Active OU-II Remedy Perimeter Groundwater Monitoring Well Location
- NAPL Area Boundary
- Approximate Fence And Harmon Yard Property Line Location
- - - - - Approximate Location Of Sheet Pile Wall Around Remediated Former Lagoon Area (OU-I)



PROJECT MANAGER	ADL	DATE	10-2010
DRAWN BY	RJM	DATE DRAWN	10-8-2010
SCALE	AS NOTED	DATE ISSUED	10-21-2010

day
DAY ENGINEERING, P.C.
ENVIRONMENTAL ENGINEERING CONSULTANTS
ROCHESTER, NEW YORK 14614-1008
NEW YORK, NEW YORK 10016-0710

PROJECT TITLE
**METRO-NORTH RAILROAD
HARMON YARD OPERABLE UNIT II (OU-II)
CROTON-ON-HUSON, NEW YORK
OU-II STATUS REPORT**
DRAWING TITLE
Modified Well Network

PROJECT NO.
10-3231M (46)
FIGURE 6

Tables

Table 1
NAPL Water-Level Measurements
March 24, 2010
Metro-North Railroad
Harmon Yard OU- II

L1 NAPL Area				
Well ID	Depth to NAPL (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Notes
VE 1-1	5.70	5.80	0.10	
VE 1-2	ND	6.60	0.00	
VE 1-3	ND	6.75	0.00	
VE 1-4	ND	7.25	0.00	
VE 1-5	ND	12.00	0.00	
VE 1-6	ND	11.00	0.00	
VE 1-7	ND	8.90	0.00	NAPL Observed on Probe
VE 1-8	ND	9.80	0.00	
VE 1-9	ND	12.22	0.00	
VE 1-10	ND	11.44	0.00	
VE 1-11	ND	12.00	0.00	
AI 1-1	ND	10.10	0.00	
AI 1-2	ND	10.77	0.00	
AI 1-3	ND	9.70	0.00	
AI 1-4	9.60	9.70	0.10	
AI 1-5	ND	11.41	0.00	
AI 1-6	ND	11.85	0.00	
AI 1-7	12.45	12.55	0.10	
AI 1-8	12.40	12.50	0.10	
AI 1-9	ND	12.88	0.00	
AI 1-10	ND	16.30	0.00	
AI 1-11	16.10	16.20	0.10	
AI 1-12	15.90	15.99	0.09	
AI 1-13	ND	12.90	0.00	
AI 1-14	ND	16.05	0.00	
AI 1-15	17.40	17.50	0.10	
AI 1-16	ND	13.90	0.00	
AI 1-17	ND	11.01	0.00	

Table 1
NAPL Water-Level Measurements
March 24, 2010
Metro-North Railroad
Harmon Yard OU- II

L2 NAPL Area				
Well ID	Depth to NAPL (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Notes
VE 2-1	ND	10.20	0.00	
AI 2-1	ND	14.04	0.00	
AI 2-2	13.46	13.72	0.26	
AI 2-3	15.00	15.45	0.45	

Harmon Yard OU-II L3 NAPL Area				
Well ID	Depth to NAPL (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Notes
VE 3-1	10.38	10.70	0.32	
VE 3-2	ND	10.00	0.00	
VE 3-3	10.63	10.90	0.27	
AI 3-1	ND	13.89	0.00	
AI 3-2	ND	13.52	0.00	
AI 3-3	ND	12.86	0.00	
AI 3-4	ND	9.96	0.00	
AI 3-5	15.72	15.74	0.02	
AI 3-6	ND	16.08	0.00	

L4 NAPL Area				
Well ID	Depth to NAPL (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Notes
VE 4-1	ND	4.20	0.00	
VE 4-2	ND	2.90	0.00	
VE 4-3	ND	3.50	0.00	
VE 4-4	ND	1.60	0.00	
VE 4-5	10.10	10.16	0.06	
VE 4-6	4.65	5.42	0.77	
VE 4-7	4.15	4.50	0.35	
VE 4-8	4.70	4.71	0.01	
VE 4-9	5.11	5.49	0.38	
VE 4-10	9.21	9.23	0.02	
VE 4-11	ND	10.40	0.00	
VE 4-12	ND	11.11	0.00	
VE 4-13	ND	10.03	0.00	

Table 1
NAPL Water-Level Measurements
March 24, 2010
Metro-North Railroad
Harmon Yard OU- II

L4 NAPL Area				
Well ID	Depth to NAPL (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Notes
FA 4-1	ND	10.90	0.00	
FA 4-2	ND	2.65	0.00	
FA 4-3	ND	6.10	0.00	
FA 4-4	ND	8.95	0.00	
FA 4-5	ND	3.70	0.00	
FA 4-6	ND	9.15	0.00	
FA 4-7	ND	3.60	0.00	
FA 4-8	12.94	13.90	0.96	
FA 4-9	7.10	7.85	0.75	
FA 4-10	ND	8.96	0.00	
FA 4-11	7.35	8.85	1.50	
FA 4-12	9.74	9.75	0.01	
FA 4-13	ND	9.55	0.00	
FA 4-14	9.27	10.35	1.08	
FA 4-15	ND	5.80	0.00	
FA 4-16	9.65	10.70	1.05	
FA 4-17	ND	5.70	0.00	
FA 4-18	8.60	8.61	0.01	
FA 4-19		Fouled		
FA 4-20	ND	10.59	0.00	
FA 4-21	ND	12.28	0.00	
FA 4-22	ND	11.13	0.00	
FA 4-23	12.30	12.50	0.20	
FA 4-24	ND	10.91	0.00	
FA 4-25	10.61	10.63	0.02	
RW-1	13.97	14.10	0.13	
PGW-2	4.60	4.65	0.05	
PWW / DAY-1	14.80	14.87	0.07	

TABLE 2
 Metro-North Railroad
 Harmon Yard OU-II
 Summary of Volatile Organic Compounds in Ground Water

STARS Volatile Organic Compounds	Groundwater Standard	Well VE 1-2	Well VE 1-5	Well VE 1-10	Well AI 1-5	Well AI 1-16	Well AI 1-16B ⁽¹⁾	Well VE 2-1	Well AI 3-3	Well VE 4-1	Well VE 4-11	Well VE 4-13
1,2,4-Trimethylbenzene	5	U [0.53]	U [0.53]	U [0.53]	U [0.53]	U [0.53]	U [0.53]	U [0.53]	U [0.53]	U [0.53]	U [0.53]	U [0.53]
1,3,5-Trimethylbenzene	5	U [0.37]	U [0.37]	U [0.37]	U [0.37]	U [0.37]	U [0.37]	U [0.37]	U [0.37]	U [0.37]	U [0.37]	U [0.37]
Benzene	1	U [0.48]	U [0.48]	U [0.48]	U [0.48]	U [0.48]	U [0.48]	U [0.48]	U [0.48]	U [0.48]	U [0.48]	U [0.48]
Ethylbenzene	5	U [0.35]	U [0.35]	U [0.35]	U [0.35]	U [0.35]	U [0.35]	U [0.35]	U [0.35]	U [0.35]	U [0.35]	U [0.35]
isopropylbenzene	5	U [0.39]	U [0.39]	U [0.39]	U [0.39]	U [0.39]	U [0.39]	U [0.39]	U [0.39]	U [0.39]	U [0.39]	0.95 J
Methyl tert-butyl ether	10	U [0.38]	U [0.38]	U [0.38]	U [0.38]	U [0.38]	U [0.38]	U [0.38]	U [0.38]	U [0.38]	U [0.38]	U [0.38]
Naphthalene	10	5.9	U [0.50]	U [0.50]	U [0.50]	U [0.50]	U [0.50]	U [0.50]	U [0.50]	U [0.50]	U [0.50]	1.2 J
n-Butylbenzene	5	U [0.32]	U [0.32]	U [0.32]	U [0.32]	U [0.32]	U [0.32]	U [0.32]	U [0.32]	U [0.32]	U [0.32]	U [0.32]
n-Propylbenzene	5	U [0.58]	U [0.58]	U [0.58]	U [0.58]	U [0.58]	U [0.58]	U [0.58]	U [0.58]	U [0.58]	U [0.58]	1.4 J
o-Xylene	5	U [0.50]	U [0.50]	U [0.50]	U [0.50]	U [0.50]	U [0.50]	U [0.50]	U [0.50]	U [0.50]	U [0.50]	U [0.50]
m,p-Xylene	5	U [0.55]	U [0.55]	U [0.55]	U [0.55]	U [0.55]	U [0.55]	U [0.55]	U [0.55]	U [0.55]	U [0.55]	U [0.55]
p-Isopropyltoluene	5	U [0.25]	U [0.25]	U [0.25]	U [0.25]	U [0.25]	U [0.25]	U [0.25]	U [0.25]	U [0.25]	U [0.25]	U [0.25]
sec-Butylbenzene	5	U [0.52]	U [0.52]	U [0.52]	U [0.52]	U [0.52]	U [0.52]	U [0.52]	U [0.52]	U [0.52]	U [0.52]	U [0.52]
tert-Butylbenzene	5	U [0.46]	U [0.46]	U [0.46]	U [0.46]	U [0.46]	U [0.46]	U [0.46]	U [0.46]	U [0.46]	U [0.46]	U [0.46]
Toluene	5	U [0.23]	U [0.23]	U [0.23]	U [0.23]	U [0.23]	U [0.23]	U [0.23]	U [0.23]	U [0.23]	U [0.23]	U [0.23]
Total VOCs	-	5.9	U	U	U	U	U	U	U	U	U	3.55

Notes

(1) = Sample AI 1-16B is a duplicate sample of AI 1-16. This sample was collected using a purge and sample technique with a new disposable bailer and string.

All values are in parts per billion (ppb)

Groundwater standards are as referenced in 6NYCRR Part 703.5.

U = Not-Detected

NA = Not Available

J = Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL); therefore, the result is an estimated concentration

VE - Vapor Extraction Well

AI - Air Inlet Well

TABLE 3
 Metro-North Railroad
 Harmon Yard OU-II
 Summary of Semi-Volatile Organic Compounds in Ground Water

STARS SVOCs	Groundwater Standard or Guidance Value	Well VE 1-2	Well VE 1-5	Well VE 1-10	Well AI 1-5	Well AI 1-16	Well AI 1-16B (1)	Well VE 2-1	Well AI 3-3	Well VE 4-1	Well VE 4-11	Well VE 4-13
Acenaphthene	20	U [6.8]	U [6.8]	U [6.8]	U [6.8]	U [6.8]	U [6.8]	U [6.8]	U [6.8]	U [6.8]	U [6.8]	U [6.8]
Acenaphthylene	NA	U [9.0]	U [9.0]	U [9.0]	U [9.0]	U [9.0]	U [9.0]	U [9.0]	U [9.0]	U [9.0]	U [9.0]	U [9.0]
Anthracene	50	U [7.7]	U [7.7]	U [7.7]	U [7.7]	U [7.7]	U [7.7]	U [7.7]	U [7.7]	U [7.7]	U [7.7]	U [7.7]
Benz(a)anthracene	0.002	U [8.6]	U [8.6]	U [8.6]	U [8.6]	U [8.6]	U [8.6]	U [8.6]	U [8.6]	U [8.6]	U [8.6]	U [8.6]
Benzo(a)pyrene	U	U [10]	U [10]	U [10]	U [10]	U [10]	U [10]	U [10]	U [10]	U [10]	U [10]	U [10]
Benzo(b)fluoranthene	0.002	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]
Benzo(g,h,i)perylene	NA	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]
Benzo(k)fluoranthene	0.002	U [7.3]	U [7.3]	U [7.3]	U [7.3]	U [7.3]	U [7.3]	U [7.3]	U [7.3]	U [7.3]	U [7.3]	U [7.3]
Chrysene	0.002	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]	U [8.7]
Dibenz (a,h) anthracene	NA	U [6.5]	U [6.5]	U [6.5]	U [6.5]	U [6.5]	U [6.5]	U [6.5]	U [6.5]	U [6.5]	U [6.5]	U [6.5]
Fluoranthene	50	U [3.4]	U [3.4]	U [3.4]	U [3.4]	U [3.4]	U [3.4]	U [3.4]	U [3.4]	U [3.4]	U [3.4]	U [3.4]
Fluorene	50	U [6.8]	U [6.8]	U [6.8]	U [6.8]	U [6.8]	U [6.8]	U [6.8]	U [6.8]	U [6.8]	U [6.8]	U [6.8]
Indeno (1,2,3-cd) pyrene	0.002	U [5.8]	U [5.8]	U [5.8]	U [5.8]	U [5.8]	U [5.8]	U [5.8]	U [5.8]	U [5.8]	U [5.8]	U [5.8]
Naphthalene	10	U [8.1]	U [8.1]	U [8.1]	U [8.1]	U [8.1]	U [8.1]	U [8.1]	U [8.1]	U [8.1]	U [8.1]	U [8.1]
Phenanthrene	50	U [7.6]	U [7.6]	U [7.6]	U [7.6]	U [7.6]	U [7.6]	U [7.6]	U [7.6]	U [7.6]	U [7.6]	U [7.6]
Pyrene	50	U [5.0]	U [5.0]	U [5.0]	U [5.0]	U [5.0]	U [5.0]	U [5.0]	U [5.0]	U [5.0]	U [5.0]	U [5.0]
Total SVOCs		U	U	U	U	U	U	U	U	U	U	U

Notes

(1) = Sample AI 1-16B is a duplicate sample of AI 1-16. This sample was collected using a purge and sample technique with a new disposable bailer and string.

All values are in parts per billion (ppb)

Groundwater standards are as referenced in 6NYCRR Part 703.5.

U = Not-Detected

NA = Not Available

J = Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL); therefore, the result is an estimated concentration

VE - Vapor Extraction Well

AI - Air Inlet Well

TABLE 4
 Metro-North Railroad
 Harmon Yard OU-II
 Summary of PCBs in Groundwater

Contaminant	Groundwater Standard or Guidance Value	Well 1-2	Well 1-5	Well VE 1-10	Well 1-5	Well VE 1-10	Well 1-5	Well AI 1-16	Well AI 1-16B (1)	Well 2-1	Well 3-3	Well 4-1	Well VE 4-11	Well VE 4-13
Aroclor 1016	0.09	U [0.0363]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0363]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0363]	U [0.0363]
Aroclor 1221	0.09	U [0.0363]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0363]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0363]	U [0.0363]
Aroclor 1232	0.09	U [0.0363]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0363]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0363]	U [0.0363]
Aroclor 1242	0.09	U [0.0363]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0363]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0363]	U [0.0363]
Aroclor 1248	0.09	U [0.0363]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0363]	U [0.0764]	U [0.0764]	U [0.0764]	U [0.0363]	U [0.0363]
Aroclor 1254	0.09	U [0.0422]	U [0.0888]	U [0.0888]	U [0.0888]	U [0.0888]	U [0.0888]	U [0.0888]	U [0.0422]	U [0.0888]	U [0.0888]	U [0.0888]	1.22	U [0.0422]
Aroclor 1260	0.09	U [0.0422]	U [0.0888]	U [0.0888]	U [0.0888]	U [0.0888]	U [0.0888]	U [0.0888]	U [0.0422]	U [0.0888]	U [0.0888]	U [0.0888]	U [0.0422]	U [0.0422]
Total PCBs	0.09	U	U	U	U	U	U	U	U	U	U	U	1.22	U

Notes

(1) = Sample AI 1-16B is a duplicate sample of AI 1-16. This sample was collected using a purge and sample technique with a new disposable bailer and string.

All values are in parts per billion (ppb)

Groundwater standards are as referenced in 6NYCRR Part 703.5.

U = Not-Detected

NA = Not Available

J = Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL); therefore, the result is an estimated concentration

VE - Vapor Extraction Well

AI - Air Inlet Well

1.22 = Shading indicates a detected concentration above a groundwater quality standard or guidance value

Table 5
Metro North Harmon Yard Operable Unit OU-II
January 1, 2010 - September 30, 2010 Status Report
NAPL Area L1 Well Network

Well #	Well Depth	Screen Interval (ft) bgs	Diameter (Inches)	Recommended Action
Active Monitoring Well Network				
PGW-1	23	13 - 23	2	Annual Ground Water Sampling
AI1-1	13*	3 - 13*	2	NAPL monitoring quarterly, remove NAPL if encountered.
AI1-4	13	3 - 13	2	NAPL monitoring quarterly, remove NAPL if encountered.
AI1-8	16	6 - 16	2	NAPL monitoring quarterly, remove NAPL if encountered.
AI1-11	19	9 - 19	2	NAPL monitoring quarterly, remove NAPL if encountered.
AI1-12	18	8 - 18	2	NAPL monitoring quarterly, remove NAPL if encountered.
AI1-15	17	7 - 17	2	NAPL monitoring quarterly, remove NAPL if encountered.
AI1-16	18.5	8.5 - 18.5	2	NAPL monitoring quarterly, remove NAPL if encountered.
VE1-1	20	5 - 20	4	NAPL monitoring quarterly, remove NAPL if encountered.
VE1-2	20	5 - 20	4	NAPL monitoring quarterly, remove NAPL if encountered.
VE1-3	20	5 - 20	4	NAPL monitoring quarterly, remove NAPL if encountered.
VE1-4	20	5 - 20	4	NAPL monitoring quarterly, remove NAPL if encountered.
VE1-11	20	5 - 20	4	NAPL monitoring quarterly, remove NAPL if encountered.
Wells Scheduled for Decommissioning				
AI1-2	13	3 - 13	2	Remove from monitoring network: No NAPL since 9/1/04
AI1-3	13	3 - 13	2	Remove from monitoring network: No NAPL since 9/1/04
AI1-5	15	5 - 15	2	Remove from monitoring network: No NAPL since 11/9/04
AI1-6	15	5 - 15	2	Remove from monitoring network: No NAPL since 11/9/04
AI1-7	15	5 - 15	2	Remove from monitoring network: No NAPL since 9/1/04
AI1-9	16	6 - 16	2	Remove from monitoring network: No NAPL since 9/1/04
AI1-10	19	9 - 19	2	Remove from monitoring network: No NAPL since 9/1/04
AI1-13	15	5 - 15	2	Remove from monitoring network: No NAPL since 9/1/04
AI1-14	17	7 - 17	2	Remove from monitoring network: No NAPL since 9/1/04
VE1-5	19	9 - 19	4	Remove from monitoring network: No NAPL since 9/1/04
VE1-6	20	5 - 20	4	Remove from monitoring network: No NAPL since 9/1/04
VE1-7	20	5 - 20	4	Remove from monitoring network: No NAPL since 9/1/04
VE1-8	20	5 - 20	4	Remove from monitoring network: No NAPL since 9/1/04
VE1-9	20	5 - 20	4	Remove from monitoring network: No NAPL since 9/1/04
VE1-10	20	5 - 20	4	Remove from monitoring network: No NAPL since 9/1/04

Notes:

* - Well log not available. Well construction is assumed to be the same as the other NAPL Area L1 "AI" wells.

PGW- Perimeter ground water monitoring well

AI - Air Inlet Well

VE-Vapor extraction well

bgs - Below ground surface

NAPL - Non-aqueous phase liquid

Table 6
Metro North Harmon Yard Operable Unit OU-II
January 1, 2010 - September 30, 2010 Status Report
NAPL Area L2 Well Network

Well #	Well Depth	Screen Interval (ft) bgs	Diameter (Inches)	Recommended Action
Active Monitoring Well Network				
VE2-1	23	8 - 13	4	Annual ground water sampling
AI2-2	17	7 - 17	2	NAPL monitoring quarterly, remove NAPL if encountered.
AI2-3	16	6 - 16	2	NAPL monitoring quarterly, remove NAPL if encountered.
Well Scheduled for Decommissioning				
AI2-1	17	7 - 17	2	Remove from monitoring network: No NAPL since 9/1/04

Notes:

AI - Air Inlet Well

VE-Vapor extraction well

bgs - Below ground surface

NAPL - Non-aqueous phase liquid

Table 7
Metro North Harmon Yard Operable Unit OU-II
January 1, 2010 - September 30, 2010 Status Report
NAPL Area L3 Well Network

Well #	Well Depth	Screen Interval (ft) bgs	Diameter (Inches)	Recommended Action
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Active Monitoring Well Network

VE3-1	20	5 - 20	4	Annual ground water sampling & NAPL monitoring quarterly, remove NAPL if encountered.
AI3-4	15	5 - 15	2	NAPL monitoring quarterly, remove NAPL if encountered.
AI3-6	17	7 - 17	2	NAPL monitoring quarterly, remove NAPL if encountered.

Wells to be Decommissioned from Monitoring Network

AI3-1	16	6 - 16	2	Remove from monitoring network: No NAPL since 3/31/05
AI3-2	15	5 - 15	2	Remove from monitoring network: No NAPL since 4/26/05
AI3-3	15	5 - 15	2	Remove from monitoring network: No NAPL since 9/1/04
AI3-5	17	7 - 17	2	Remove from monitoring network: No NAPL since 5/31/06
VE3-2	20	5 - 20	4	Remove from monitoring network: No NAPL since 3/31/05
VE3-3	20*	5 - 20*	4	Remove from monitoring network: No NAPL since 10/20/04

Notes:

* - Well log not available. Well construction is assumed to be the same as the other NAPL Area L3 "VE" wells.

AI - Air Inlet Well

VE-Vapor extraction well

bgs - Below ground surface

NAPL - Non-aqueous phase liquid

Table 8
Metro North Harmon Yard Operable Unit OU-II
January 1, 2010 - September 30, 2010 Status Report
NAPL Area L4 Well Network

Well #	Well Depth	Screen Interval (ft) bgs	Diameter (Inches)	Recommended Action
Active Monitoring Well Network				
OW-6				Annual Ground Water Sampling
PGW-2	15	5 - 15	2	Annual Ground Water Sampling, NAPL monitoring, remove NAPL if encountered
VE4-11	20	5 - 20	4	Annual Ground Water Sampling
RW-1*			6	Continue to operate an automated skimmer.
VE4-5*			4	Install an automated skimmer.
FA4-8	17.5	7.5 - 17.5	2	NAPL monitoring quarterly, remove NAPL if encountered.
FA4-14	15	5 - 15	2	NAPL monitoring quarterly, remove NAPL if encountered.
FA4-9*			2	NAPL monitoring quarterly, remove NAPL if encountered.
FA4-10	15	5 - 15	2	NAPL monitoring quarterly, remove NAPL if encountered.
FA4-11*			2	NAPL monitoring quarterly, remove NAPL if encountered.
FA4-12	15	5 - 15	2	NAPL monitoring quarterly, remove NAPL if encountered.
FA4-13*			2	NAPL monitoring quarterly, remove NAPL if encountered.
FA4-15	15	5 - 15	2	NAPL monitoring quarterly, remove NAPL if encountered.
FA4-16	15	5 - 15	2	NAPL monitoring quarterly, remove NAPL if encountered.
FA4-17	15	5 - 15	2	NAPL monitoring quarterly, remove NAPL if encountered.
FA4-18	15	5 - 15	2	NAPL monitoring quarterly, remove NAPL if encountered.
FA4-19	18	8 - 18	2	NAPL monitoring quarterly, remove NAPL if encountered.
FA4-20	15	5 - 15	2	NAPL monitoring quarterly, remove NAPL if encountered.
FA4-21	17	7 - 17	2	NAPL monitoring quarterly, remove NAPL if encountered.
FA4-23	17	7 - 17	2	NAPL monitoring quarterly, remove NAPL if encountered.
VE4-1	20	5 - 20	4	NAPL monitoring quarterly, remove NAPL if encountered.
VE4-6	20	5 - 20	4	NAPL monitoring quarterly, remove NAPL if encountered.
VE4-7	20	5 - 20	4	NAPL monitoring quarterly, remove NAPL if encountered.
VE4-8	20	5 - 20	4	NAPL monitoring quarterly, remove NAPL if encountered.
VE4-9	20	5 - 20	4	NAPL monitoring quarterly, remove NAPL if encountered.
VE4-10	20	5 - 20	4	NAPL monitoring quarterly, remove NAPL if encountered.
VE4-12	21	6 - 21	4	NAPL monitoring quarterly, remove NAPL if encountered.
Wells to be Decommissioned from Monitoring Network				
FA4-1	17	7 - 17	2	Remove from monitoring network: No NAPL since 9/1/04
FA4-2	15	5 - 15	2	Remove from monitoring network: No NAPL since 9/1/04
FA4-3	15	5 - 15	2	Remove from monitoring network: No NAPL since 9/1/04
FA4-4	17	7 - 17	2	Remove from monitoring network: No NAPL since 3/31/05
FA4-5	15	5 - 15	2	Remove from monitoring network: No NAPL since 9/1/04
FA4-6	17	7 - 17	2	Remove from monitoring network: No NAPL since 9/1/04
FA4-7*			2	Remove from monitoring network: No NAPL since 9/1/04
FA4-22	16	6 - -16	2	Remove from monitoring network: No NAPL since 9/1/04
FA4-24	17	7 - 17	2	Remove from monitoring network: No NAPL since 9/1/04
FA4-25	17	7 - 17	2	Remove from monitoring network: No NAPL since 9/1/04
VE4-2	20	5 - 20	4	Remove from monitoring network: No NAPL since 9/1/04
VE4-3	20	5 - 20	4	Remove from monitoring network: No NAPL since 9/1/04
VE4-4	20	5 - 20	4	Remove from monitoring network: No NAPL since 9/1/04
VE4-13	20	5 - 20	4	Remove from monitoring network: No NAPL since 4/22/05

Notes:

* - Well log not available.

PGW- Perimeter ground water monitoring well

AI - Air Inlet Well

VE-Vapor extraction well

OW - Observation Well

bgs - Below ground surface

NAPL - Non-aqueous phase liquid

Appendix A

**April 7, 2010 Sample Event Analytical Laboratory Report
and
Chain-of-Custody Documentation**

YORK

ANALYTICAL LABORATORIES, INC.

Technical Report

prepared for:

Metro North Commuter Railroad
Env. Dept. c/o Yardmaster, 24 Fisher Lane
White Plains NY, 10603
Attention: Mr. Ken McHale, Ass't. Director

Report Date: 04/23/2010
Client Project ID: MNR Harmon OU 2
York Project (SDG) No.: 10D0353

CT License No. PH-0723

New Jersey License No. CT-005



New York License No. 10854

PA Reg. 68-04440

Report Date: 04/23/2010
Client Project ID: MNR Harmon OU 2
York Project (SDG) No.: 10D0353

Metro North Commuter Railroad
Env. Dept. c/o Yardmaster, 24 Fisher Lane
White Plains NY, 10603
Attention: Mr. Ken McHale, Ass't. Director

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on April 09, 2010 and listed below. The project was identified as your project: **MNR Harmon OU 2**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
10D0353-01	VE 1-2	Water	04/07/2010	04/09/2010
10D0353-02	VE 1-5	Water	04/07/2010	04/09/2010
10D0353-03	VE 1-10	Water	04/07/2010	04/09/2010
10D0353-04	AI 1-5	Water	04/07/2010	04/09/2010
10D0353-05	AI 1-16	Water	04/07/2010	04/09/2010
10D0353-06	VE 2-1	Water	04/07/2010	04/09/2010
10D0353-07	AI 3-3	Water	04/07/2010	04/09/2010
10D0353-08	VE 4-1	Water	04/07/2010	04/09/2010
10D0353-09	VE 4-11	Water	04/07/2010	04/09/2010
10D0353-10	VE 4-13	Water	04/07/2010	04/09/2010
10D0353-11	AI 1-16B	Water	04/07/2010	04/09/2010

General Notes for York Project (SDG) No.: 10D0353

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Robert Q. Bradley
Managing Director

Date: 04/23/2010

YORK

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: **VE 1-2**

York Sample ID: **10D0353-01**

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatiles Organics, STARS List

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.53	5.0	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.37	5.0	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS
71-43-2	Benzene	ND		ug/L	0.48	5.0	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.39	5.0	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.38	5.0	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS
91-20-3	Naphthalene	5.9		ug/L	0.50	5.0	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.32	5.0	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS
95-47-6	o-Xylene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS
1330-20-7P/M	p- & m- Xylenes	ND		ug/L	0.55	10	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.25	5.0	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.46	5.0	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS
108-88-3	Toluene	ND		ug/L	0.23	5.0	1	EPA SW846-8260B	04/16/2010 19:54	04/16/2010 19:54	SS

Semi-Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
208-96-8	Acenaphthylene	ND		ug/L	9.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
120-12-7	Anthracene	ND		ug/L	7.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
56-55-3	Benzo(a)anthracene	ND		ug/L	8.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
50-32-8	Benzo(a)pyrene	ND		ug/L	10	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
205-99-2	Benzo(b)fluoranthene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
207-08-9	Benzo(k)fluoranthene	ND		ug/L	7.3	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
218-01-9	Chrysene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	6.5	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
206-44-0	Fluoranthene	ND		ug/L	3.4	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
86-73-7	Fluorene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	5.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
91-20-3	Naphthalene	ND		ug/L	8.1	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
85-01-8	Phenanthrene	ND		ug/L	7.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD
129-00-0	Pyrene	ND		ug/L	5.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/15/2010 17:02	TD

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: VE 1-2

York Sample ID: 10D0353-01

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

PCB (Polychlorinated Biphenyls)

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 09:43	JW
11104-28-2	Aroclor 1221	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 09:43	JW
11141-16-5	Aroclor 1232	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 09:43	JW
53469-21-9	Aroclor 1242	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 09:43	JW
12672-29-6	Aroclor 1248	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 09:43	JW
11097-69-1	Aroclor 1254	ND		ug/L	0.0422	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 09:43	JW
11096-82-5	Aroclor 1260	ND		ug/L	0.0422	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 09:43	JW

Sample Information

Client Sample ID: VE 1-5

York Sample ID: 10D0353-02

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatile Organics, STARS List

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.53	5.0	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.37	5.0	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS
71-43-2	Benzene	ND		ug/L	0.48	5.0	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.39	5.0	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.38	5.0	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS
91-20-3	Naphthalene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.32	5.0	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS
95-47-6	o-Xylene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS
1330-20-7P/M	p- & m- Xylenes	ND		ug/L	0.55	10	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.25	5.0	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.46	5.0	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS
108-88-3	Toluene	ND		ug/L	0.23	5.0	1	EPA SW846-8260B	04/16/2010 20:41	04/16/2010 20:41	SS

Semi-Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: VE 1-5

York Sample ID: 10D0353-02

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Semi-Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
208-96-8	Acenaphthylene	ND		ug/L	9.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD
120-12-7	Anthracene	ND		ug/L	7.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD
56-55-3	Benzo(a)anthracene	ND		ug/L	8.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD
50-32-8	Benzo(a)pyrene	ND		ug/L	10	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD
205-99-2	Benzo(b)fluoranthene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD
207-08-9	Benzo(k)fluoranthene	ND		ug/L	7.3	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD
218-01-9	Chrysene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	6.5	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD
206-44-0	Fluoranthene	ND		ug/L	3.4	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD
86-73-7	Fluorene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	5.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD
91-20-3	Naphthalene	ND		ug/L	8.1	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD
85-01-8	Phenanthrene	ND		ug/L	7.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD
129-00-0	Pyrene	ND		ug/L	5.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:03	TD

PCB (Polychlorinated Biphenyls)

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 10:21	JW
11104-28-2	Aroclor 1221	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 10:21	JW
11141-16-5	Aroclor 1232	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 10:21	JW
53469-21-9	Aroclor 1242	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 10:21	JW
12672-29-6	Aroclor 1248	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 10:21	JW
11097-69-1	Aroclor 1254	ND		ug/L	0.0888	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 10:21	JW
11096-82-5	Aroclor 1260	ND		ug/L	0.0888	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 10:21	JW

Sample Information

Client Sample ID: VE 1-10

York Sample ID: 10D0353-03

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatile Organics, STARS List

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.53	5.0	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: VE 1-10

York Sample ID: 10D0353-03

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatile Organics, STARS List

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.37	5.0	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS
71-43-2	Benzene	ND		ug/L	0.48	5.0	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.39	5.0	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.38	5.0	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS
91-20-3	Naphthalene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.32	5.0	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS
95-47-6	o-Xylene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS
1330-20-7P/M	p- & m- Xylenes	ND		ug/L	0.55	10	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.25	5.0	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.46	5.0	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS
108-88-3	Toluene	ND		ug/L	0.23	5.0	1	EPA SW846-8260B	04/16/2010 21:27	04/16/2010 21:27	SS

Semi-Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
208-96-8	Acenaphthylene	ND		ug/L	9.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
120-12-7	Anthracene	ND		ug/L	7.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
56-55-3	Benzo(a)anthracene	ND		ug/L	8.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
50-32-8	Benzo(a)pyrene	ND		ug/L	10	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
205-99-2	Benzo(b)fluoranthene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
207-08-9	Benzo(k)fluoranthene	ND		ug/L	7.3	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
218-01-9	Chrysene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	6.5	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
206-44-0	Fluoranthene	ND		ug/L	3.4	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
86-73-7	Fluorene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	5.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
91-20-3	Naphthalene	ND		ug/L	8.1	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
85-01-8	Phenanthrene	ND		ug/L	7.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD
129-00-0	Pyrene	ND		ug/L	5.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 02:35	TD

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: VE 1-10

York Sample ID: 10D0353-03

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

PCB (Polychlorinated Biphenyls)

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 11:00	JW
11104-28-2	Aroclor 1221	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 11:00	JW
11141-16-5	Aroclor 1232	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 11:00	JW
53469-21-9	Aroclor 1242	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 11:00	JW
12672-29-6	Aroclor 1248	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 11:00	JW
11097-69-1	Aroclor 1254	ND		ug/L	0.0888	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 11:00	JW
11096-82-5	Aroclor 1260	ND		ug/L	0.0888	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 11:00	JW

Sample Information

Client Sample ID: AI 1-5

York Sample ID: 10D0353-04

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatile Organics, STARS List

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.53	5.0	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.37	5.0	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS
71-43-2	Benzene	ND		ug/L	0.48	5.0	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.39	5.0	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.38	5.0	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS
91-20-3	Naphthalene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.32	5.0	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS
95-47-6	o-Xylene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS
1330-20-7P/M	p- & m- Xylenes	ND		ug/L	0.55	10	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.25	5.0	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.46	5.0	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS
108-88-3	Toluene	ND		ug/L	0.23	5.0	1	EPA SW846-8260B	04/16/2010 22:14	04/16/2010 22:14	SS

Semi-Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: AI 1-5

York Sample ID: 10D0353-04

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Semi-Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
208-96-8	Acenaphthylene	ND		ug/L	9.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD
120-12-7	Anthracene	ND		ug/L	7.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD
56-55-3	Benzo(a)anthracene	ND		ug/L	8.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD
50-32-8	Benzo(a)pyrene	ND		ug/L	10	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD
205-99-2	Benzo(b)fluoranthene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD
207-08-9	Benzo(k)fluoranthene	ND		ug/L	7.3	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD
218-01-9	Chrysene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	6.5	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD
206-44-0	Fluoranthene	ND		ug/L	3.4	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD
86-73-7	Fluorene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	5.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD
91-20-3	Naphthalene	ND		ug/L	8.1	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD
85-01-8	Phenanthrene	ND		ug/L	7.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD
129-00-0	Pyrene	ND		ug/L	5.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:07	TD

PCB (Polychlorinated Biphenyls)

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 11:39	JW
11104-28-2	Aroclor 1221	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 11:39	JW
11141-16-5	Aroclor 1232	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 11:39	JW
53469-21-9	Aroclor 1242	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 11:39	JW
12672-29-6	Aroclor 1248	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 11:39	JW
11097-69-1	Aroclor 1254	ND		ug/L	0.0888	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 11:39	JW
11096-82-5	Aroclor 1260	ND		ug/L	0.0888	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 11:39	JW

Sample Information

Client Sample ID: AI 1-16

York Sample ID: 10D0353-05

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatile Organics, STARS List

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.53	5.0	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS

120 RESEARCH DRIVE

STRATFORD, CT 06615

(203) 325-1371

FAX (203) 357-0166

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: AI 1-16

York Sample ID: 10D0353-05

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatiles Organics, STARS List

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.37	5.0	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS
71-43-2	Benzene	ND		ug/L	0.48	5.0	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.39	5.0	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.38	5.0	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS
91-20-3	Naphthalene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.32	5.0	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS
95-47-6	o-Xylene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS
1330-20-7P/M	p- & m- Xylenes	ND		ug/L	0.55	10	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.25	5.0	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.46	5.0	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS
108-88-3	Toluene	ND		ug/L	0.23	5.0	1	EPA SW846-8260B	04/16/2010 23:00	04/16/2010 23:00	SS

Semi-Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
208-96-8	Acenaphthylene	ND		ug/L	9.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
120-12-7	Anthracene	ND		ug/L	7.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
56-55-3	Benzo(a)anthracene	ND		ug/L	8.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
50-32-8	Benzo(a)pyrene	ND		ug/L	10	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
205-99-2	Benzo(b)fluoranthene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
207-08-9	Benzo(k)fluoranthene	ND		ug/L	7.3	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
218-01-9	Chrysene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	6.5	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
206-44-0	Fluoranthene	ND		ug/L	3.4	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
86-73-7	Fluorene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	5.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
91-20-3	Naphthalene	ND		ug/L	8.1	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
85-01-8	Phenanthrene	ND		ug/L	7.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD
129-00-0	Pyrene	ND		ug/L	5.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 03:39	TD

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: AI 1-16

York Sample ID: 10D0353-05

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

PCB (Polychlorinated Biphenyls)

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 12:18	JW
11104-28-2	Aroclor 1221	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 12:18	JW
11141-16-5	Aroclor 1232	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 12:18	JW
53469-21-9	Aroclor 1242	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 12:18	JW
12672-29-6	Aroclor 1248	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 12:18	JW
11097-69-1	Aroclor 1254	ND		ug/L	0.0888	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 12:18	JW
11096-82-5	Aroclor 1260	ND		ug/L	0.0888	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 12:18	JW

Sample Information

Client Sample ID: VE 2-1

York Sample ID: 10D0353-06

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatile Organics, STARS List

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.53	5.0	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.37	5.0	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS
71-43-2	Benzene	ND		ug/L	0.48	5.0	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.39	5.0	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.38	5.0	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS
91-20-3	Naphthalene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.32	5.0	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS
95-47-6	o-Xylene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS
1330-20-7P/M	p- & m- Xylenes	ND		ug/L	0.55	10	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.25	5.0	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.46	5.0	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS
108-88-3	Toluene	ND		ug/L	0.23	5.0	1	EPA SW846-8260B	04/16/2010 23:47	04/16/2010 23:47	SS

Semi-Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: VE 2-1

York Sample ID: 10D0353-06

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Semi-Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
208-96-8	Acenaphthylene	ND		ug/L	9.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD
120-12-7	Anthracene	ND		ug/L	7.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD
56-55-3	Benzo(a)anthracene	ND		ug/L	8.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD
50-32-8	Benzo(a)pyrene	ND		ug/L	10	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD
205-99-2	Benzo(b)fluoranthene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD
207-08-9	Benzo(k)fluoranthene	ND		ug/L	7.3	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD
218-01-9	Chrysene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	6.5	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD
206-44-0	Fluoranthene	ND		ug/L	3.4	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD
86-73-7	Fluorene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	5.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD
91-20-3	Naphthalene	ND		ug/L	8.1	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD
85-01-8	Phenanthrene	ND		ug/L	7.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD
129-00-0	Pyrene	ND		ug/L	5.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:10	TD

PCB (Polychlorinated Biphenyls)

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 12:57	JW
11104-28-2	Aroclor 1221	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 12:57	JW
11141-16-5	Aroclor 1232	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 12:57	JW
53469-21-9	Aroclor 1242	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 12:57	JW
12672-29-6	Aroclor 1248	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 12:57	JW
11097-69-1	Aroclor 1254	ND		ug/L	0.0888	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 12:57	JW
11096-82-5	Aroclor 1260	ND		ug/L	0.0888	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 12:57	JW

Sample Information

Client Sample ID: AI 3-3

York Sample ID: 10D0353-07

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatile Organics, STARS List

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.53	5.0	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS

120 RESEARCH DRIVE

STRATFORD, CT 06615

(203) 325-1371

FAX (203) 357-0166

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: AI 3-3

York Sample ID: 10D0353-07

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatile Organics, STARS List

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.37	5.0	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS
71-43-2	Benzene	ND		ug/L	0.48	5.0	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.39	5.0	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.38	5.0	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS
91-20-3	Naphthalene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.32	5.0	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS
95-47-6	o-Xylene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS
1330-20-7P/M	p- & m- Xylenes	ND		ug/L	0.55	10	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.25	5.0	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.46	5.0	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS
108-88-3	Toluene	ND		ug/L	0.23	5.0	1	EPA SW846-8260B	04/17/2010 00:33	04/17/2010 00:33	SS

Semi-Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
208-96-8	Acenaphthylene	ND		ug/L	9.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
120-12-7	Anthracene	ND		ug/L	7.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
56-55-3	Benzo(a)anthracene	ND		ug/L	8.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
50-32-8	Benzo(a)pyrene	ND		ug/L	10	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
205-99-2	Benzo(b)fluoranthene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
207-08-9	Benzo(k)fluoranthene	ND		ug/L	7.3	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
218-01-9	Chrysene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	6.5	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
206-44-0	Fluoranthene	ND		ug/L	3.4	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
86-73-7	Fluorene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	5.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
91-20-3	Naphthalene	ND		ug/L	8.1	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
85-01-8	Phenanthrene	ND		ug/L	7.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD
129-00-0	Pyrene	ND		ug/L	5.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 04:42	TD

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: AI 3-3

York Sample ID: 10D0353-07

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

PCB (Polychlorinated Biphenyls)

Sample Prepared by Method: EPA SW846-3510C Low Level

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 16:13	JW
11104-28-2	Aroclor 1221	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 16:13	JW
11141-16-5	Aroclor 1232	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 16:13	JW
53469-21-9	Aroclor 1242	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 16:13	JW
12672-29-6	Aroclor 1248	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 16:13	JW
11097-69-1	Aroclor 1254	ND		ug/L	0.0888	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 16:13	JW
11096-82-5	Aroclor 1260	ND		ug/L	0.0888	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 16:13	JW

Sample Information

Client Sample ID: VE 4-1

York Sample ID: 10D0353-08

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatile Organics, STARS List

Sample Prepared by Method: EPA 5030B

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.53	5.0	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.37	5.0	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS
71-43-2	Benzene	ND		ug/L	0.48	5.0	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.39	5.0	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.38	5.0	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS
91-20-3	Naphthalene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.32	5.0	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS
95-47-6	o-Xylene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS
1330-20-7P/M	p- & m- Xylenes	ND		ug/L	0.55	10	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.25	5.0	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.46	5.0	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS
108-88-3	Toluene	ND		ug/L	0.23	5.0	1	EPA SW846-8260B	04/17/2010 01:20	04/17/2010 01:20	SS

Semi-Volatiles, STARS List

Sample Prepared by Method: EPA 3510C

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD

120 RESEARCH DRIVE

STRATFORD, CT 06615

(203) 325-1371

FAX (203) 357-0166

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: VE 4-1

York Sample ID: 10D0353-08

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Semi-Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
208-96-8	Acenaphthylene	ND		ug/L	9.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD
120-12-7	Anthracene	ND		ug/L	7.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD
56-55-3	Benzo(a)anthracene	ND		ug/L	8.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD
50-32-8	Benzo(a)pyrene	ND		ug/L	10	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD
205-99-2	Benzo(b)fluoranthene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD
207-08-9	Benzo(k)fluoranthene	ND		ug/L	7.3	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD
218-01-9	Chrysene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	6.5	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD
206-44-0	Fluoranthene	ND		ug/L	3.4	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD
86-73-7	Fluorene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	5.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD
91-20-3	Naphthalene	ND		ug/L	8.1	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD
85-01-8	Phenanthrene	ND		ug/L	7.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD
129-00-0	Pyrene	ND		ug/L	5.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:13	TD

PCB (Polychlorinated Biphenyls)

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 16:51	JW
11104-28-2	Aroclor 1221	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 16:51	JW
11141-16-5	Aroclor 1232	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 16:51	JW
53469-21-9	Aroclor 1242	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 16:51	JW
12672-29-6	Aroclor 1248	ND		ug/L	0.0764	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 16:51	JW
11097-69-1	Aroclor 1254	ND		ug/L	0.0888	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 16:51	JW
11096-82-5	Aroclor 1260	ND		ug/L	0.0888	0.105	1	EPA Method 608	04/14/2010 13:12	04/20/2010 16:51	JW

Sample Information

Client Sample ID: VE 4-11

York Sample ID: 10D0353-09

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatile Organics, STARS List

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.53	5.0	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS

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STRATFORD, CT 06615

(203) 325-1371

FAX (203) 357-0166

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: **VE 4-11**

York Sample ID: **10D0353-09**

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.37	5.0	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS
71-43-2	Benzene	ND		ug/L	0.48	5.0	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.39	5.0	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.38	5.0	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS
91-20-3	Naphthalene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.32	5.0	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS
95-47-6	o-Xylene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS
1330-20-7P/M	p- & m- Xylenes	ND		ug/L	0.55	10	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.25	5.0	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.46	5.0	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS
108-88-3	Toluene	ND		ug/L	0.23	5.0	1	EPA SW846-8260B	04/17/2010 02:06	04/17/2010 02:06	SS

Semi-Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
208-96-8	Acenaphthylene	ND		ug/L	9.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
120-12-7	Anthracene	ND		ug/L	7.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
56-55-3	Benzo(a)anthracene	ND		ug/L	8.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
50-32-8	Benzo(a)pyrene	ND		ug/L	10	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
205-99-2	Benzo(b)fluoranthene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
207-08-9	Benzo(k)fluoranthene	ND		ug/L	7.3	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
218-01-9	Chrysene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	6.5	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
206-44-0	Fluoranthene	ND		ug/L	3.4	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
86-73-7	Fluorene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	5.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
91-20-3	Naphthalene	ND		ug/L	8.1	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
85-01-8	Phenanthrene	ND		ug/L	7.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD
129-00-0	Pyrene	ND		ug/L	5.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 05:45	TD

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: **VE 4-11**

York Sample ID: **10D0353-09**

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

PCB (Polychlorinated Biphenyls)

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 17:30	JW
11104-28-2	Aroclor 1221	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 17:30	JW
11141-16-5	Aroclor 1232	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 17:30	JW
53469-21-9	Aroclor 1242	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 17:30	JW
12672-29-6	Aroclor 1248	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 17:30	JW
11097-69-1	Aroclor 1254	1.22		ug/L	0.0422	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 17:30	JW
11096-82-5	Aroclor 1260	ND		ug/L	0.0422	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 17:30	JW

Sample Information

Client Sample ID: **VE 4-13**

York Sample ID: **10D0353-10**

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatile Organics, STARS List

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.53	5.0	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.37	5.0	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS
71-43-2	Benzene	ND		ug/L	0.48	5.0	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS
98-82-8	Isopropylbenzene	0.95	J	ug/L	0.39	5.0	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.38	5.0	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS
91-20-3	Naphthalene	1.2	J	ug/L	0.50	5.0	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.32	5.0	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS
103-65-1	n-Propylbenzene	1.4	J	ug/L	0.58	5.0	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS
95-47-6	o-Xylene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS
1330-20-7P/M	p- & m- Xylenes	ND		ug/L	0.55	10	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.25	5.0	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.46	5.0	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS
108-88-3	Toluene	ND		ug/L	0.23	5.0	1	EPA SW846-8260B	04/17/2010 02:53	04/17/2010 02:53	SS

Semi-Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: VE 4-13

York Sample ID: 10D0353-10

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Semi-Volatiles, STARS List

Sample Prepared by Method: EPA 3510C

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
208-96-8	Accnaphthylene	ND		ug/L	9.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD
120-12-7	Anthracene	ND		ug/L	7.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD
56-55-3	Benzo(a)anthracene	ND		ug/L	8.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD
50-32-8	Benzo(a)pyrene	ND		ug/L	10	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD
205-99-2	Benzo(b)fluoranthene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD
207-08-9	Benzo(k)fluoranthene	ND		ug/L	7.3	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD
218-01-9	Chrysene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	6.5	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD
206-44-0	Fluoranthene	ND		ug/L	3.4	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD
86-73-7	Fluorene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	5.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD
91-20-3	Naphthalene	ND		ug/L	8.1	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD
85-01-8	Phenanthrene	ND		ug/L	7.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD
129-00-0	Pyrene	ND		ug/L	5.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:16	TD

PCB (Polychlorinated Biphenyls)

Sample Prepared by Method: EPA SW846-3510C Low Level

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 18:09	JW
11104-28-2	Aroclor 1221	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 18:09	JW
11141-16-5	Aroclor 1232	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 18:09	JW
53469-21-9	Aroclor 1242	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 18:09	JW
12672-29-6	Aroclor 1248	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 18:09	JW
11097-69-1	Aroclor 1254	ND		ug/L	0.0422	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 18:09	JW
11096-82-5	Aroclor 1260	ND		ug/L	0.0422	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 18:09	JW

Sample Information

Client Sample ID: AI 1-16B

York Sample ID: 10D0353-11

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatile Organics, STARS List

Sample Prepared by Method: EPA 5030B

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.53	5.0	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS

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STRATFORD, CT 06615

(203) 325-1371

FAX (203) 357-0166

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: AI 1-16B

York Sample ID: 10D0353-11

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

Volatiles Organics, STARS List

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.37	5.0	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS
71-43-2	Benzene	ND		ug/L	0.48	5.0	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.39	5.0	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.38	5.0	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS
91-20-3	Naphthalene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.32	5.0	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS
95-47-6	o-Xylene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS
1330-20-7P/M	p- & m- Xylenes	ND		ug/L	0.55	10	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.25	5.0	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.46	5.0	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS
108-88-3	Toluene	ND		ug/L	0.23	5.0	1	EPA SW846-8260B	04/17/2010 03:39	04/17/2010 03:39	SS

Semi-Volatiles, STARS List

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
208-96-8	Acenaphthylene	ND		ug/L	9.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
120-12-7	Anthracene	ND		ug/L	7.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
56-55-3	Benzo(a)anthracene	ND		ug/L	8.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
50-32-8	Benzo(a)pyrene	ND		ug/L	10	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
205-99-2	Benzo(b)fluoranthene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
207-08-9	Benzo(k)fluoranthene	ND		ug/L	7.3	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
218-01-9	Chrysene	ND		ug/L	8.7	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	6.5	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
206-44-0	Fluoranthene	ND		ug/L	3.4	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
86-73-7	Fluorene	ND		ug/L	6.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	5.8	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
91-20-3	Naphthalene	ND		ug/L	8.1	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
85-01-8	Phenanthrene	ND		ug/L	7.6	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD
129-00-0	Pyrene	ND		ug/L	5.0	11	1	EPA SW-846 8270C	04/14/2010 10:20	04/17/2010 06:48	TD

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: AI 1-16B

York Sample ID: 10D0353-11

York Project (SDG) No.
10D0353

Client Project ID
MNR Harmon OU 2

Matrix
Water

Collection Date/Time
April 7, 2010 3:00 pm

Date Received
04/09/2010

PCB (Polychlorinated Biphenyls)

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 18:47	JW
11104-28-2	Aroclor 1221	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 18:47	JW
11141-16-5	Aroclor 1232	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 18:47	JW
53469-21-9	Aroclor 1242	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 18:47	JW
12672-29-6	Aroclor 1248	ND		ug/L	0.0363	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 18:47	JW
11097-69-1	Aroclor 1254	ND		ug/L	0.0422	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 18:47	JW
11096-82-5	Aroclor 1260	ND		ug/L	0.0422	0.0500	1	EPA Method 608	04/14/2010 13:12	04/20/2010 18:47	JW

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Notes and Definitions

- J** Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL); therefore, the result is an estimated concentration.
-
- ND** Analyte NOT DETECTED at the stated Reporting Limit (RL) or above.
- RL** REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
- MDL** METHOD DETECTION LIMIT - the minimum concentration that can be measured and reported with a 99% confidence that the concentration is greater than zero. If requested or required, a value reported below the RL and above the MDL is considered estimated and is noted with a "J" flag.
- NR** Not reported
- RPD** Relative Percent Difference
- Wet** The data has been reported on an as-received (wet weight) basis
- Low Bias** Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
- High Bias** High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
- Non-Dir.** Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

YORK

ANALYTICAL LABORATORIES, INC.
 120 RESEARCH DRIVE STRATFORD, CT 06615
 (203) 325-1371 FAX (203) 357-0166

Field Chain-of-Custody Record

Page of

OUZ well sample for closure consideration. 10 D0 353

Company Name MNR	Report To: MNR McTale DAY Roszak	Invoice To: MNR	Project ID/No. MNR Harmon Ouz	Sample Collected By (Signature) <i>TRoszak</i>	Name (Printed) Tom Roszak
----------------------------	---	---------------------------	---	--	-------------------------------------

Sample No.	Location/ID	Date Sampled	Sample Matrix				ANALYSES REQUESTED	Container Description(s)
			Water	Soil	Air	OTHER		
VE 1-2								
VE 1-5								
VE 1-10								
AI 1-5								
AI 1-16								
VE 2-1								
AI 3-3								
VE 4-1								
VE 4-11								
VE 4-13								

Chain-of-Custody Record

Bottles Relinquished from Lab by <i>TRoszak</i>	Date/Time 4/8/10 1145	Sample Received by <i>PGore</i>	Date/Time 4/9/10 1210
Bottles Received in Field by	Date/Time	Sample Received in LAB by	Date/Time 4.4

Comments/Special Instructions

Turn-Around Time
 Standard RUSH(define)

YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615
 (203) 228-1371 FAX (203) 357-0166

Field Chain-of-Custody Record

Page ___ of ___

OUZ well sample for closure consideration 10 D0353

Company Name: MNR Report To: MNR Michele Day Roszak Invoice To: MNR Project ID/No.: MNR Harmon OUZ

Name (Printed): Tom Roszak Samples Collected By (Signature): [Signature]

Sample No.	Location/ID	Date Sampled	Sample Matrix			ANALYSES REQUESTED	Container Description(s)
			Water	Soil	Air		
VE 1-2		4/7/10				STARS 8260 + STARS 8270	10200A
VE 1-5						8 PCB's (80822) (Low)	
VE 1-10							
AI 1-5							
AI 1-16						Split 1 Lamber	
VE 2-1						for PCB's and PAH's	
AI 3-3							
VE 4-1						- as per Tom Roszak 4/12/10	
VE 4-11							
VE 4-13							

Chain-of-Custody Record

Bottles Relinquished from Lab by: [Signature] Date/Time: 4/8/10 1145

Bottles Received in Field by: [Signature] Date/Time: 4/12/10 6:00

Comments/Special Instructions: Left message for Tom Roszak 4/12/10

Sample Received by: PCose Date/Time: 4/9/10 1210

Sample Received in LAB by: PCose Date/Time: 4.4

Turn-Around Time: X Standard RUSH(define)

Appendix B
Vacuum Enhanced NAPL Removal System
Decommissioning Requirements Memorandum

MEMORANDUM

Day Engineering, P.C.
274 Madison Avenue, Suite 1104
New York, New York 10016

Phone: (212) 986-8645
Fax: (212) 986-8657
e-mail: jiannone@daymail.net

TO: Ken McHale (Metro-North Railroad)
CC: Karen Timko (Metro-North Railroad)
Noel Russ (Miller Environmental Group)
FROM: John Iannone (Day Engineering, P.C.)
RE: **Decommissioning Requirements for the L3 NAPL Area**
Harmon Yard Operable Unit II
DATE: February 26, 2009

GREETINGS:

Day Engineering, P.C. ("DAY") has prepared this memo in response to your request to evaluate requirements to prepare an area of the Metro-North Railroad ("MNR") Harmon Railroad Yard ("Harmon Yard") for the construction of a Recycling Center. This memo identifies and describes the components of the MNR remedial system at the L3 Area of the Operable Unit II ("OU-II") Site at Harmon Yard that are to be removed or modified. The memo describes the above ground soil vapor extraction system to be decommissioned and removed from the L3 Area and the Vapor Extraction ("VE") and Air Inlet ("AI") wells at the L3 Area to be modified to prepare the area for the planned Harmon Yard Recycling Center.

The remainder of this memo is organized as follows:

- **Introduction and Purpose**
- **Limitations**
- **Description of the L3 Area OU-II Remedy**
- **Above Ground Soil Vapor Extraction System Components to be Removed**
- **Vapor Extraction and Air Inlet Wells to be Modified**

The key design drawings that describe these system components are presented at the end of this memo and are listed on Table 1.

INTRODUCTION AND PURPOSE

A remedy to remove Non-Aqueous Phase Liquids ("NAPL") is in place in four areas located within Harmon Yard and adjacent to the former Harmon Yard lagoon. One of these areas (i.e., the L3 Area) is to be used for a Recycling Center, including access roads and driveways. The Recycling Center will serve MNR Harmon Yard and other railroad operations.

TO: Ken McHale (Metro-North Railroad)
CC: Karen Timko (Metro-North Railroad) and Noel Russ (Miller Environmental Group)
FROM: John Iannone (Day Engineering, P.C.)
RE: **Decommissioning Requirements for the L3 NAPL Area; Harmon Yard Operable Unit II**

The NAPL removal remedy in the L3 Area has been in operation since April 2002 and has reduced the thickness of the NAPL that accumulates in the wells in the L3 Area to relatively low levels (i.e., a maximum of 4" in February 2009). These low levels have remained relatively constant over the past few years.

NAPL thickness data for the L3 Area were evaluated by DAY and the results will be presented in a separate memo. DAY has concluded that the active (i.e., vapor extraction) component of this remedy has achieved the NAPL removal goal for the remedy established in the New York State Department of Environmental Conservation ("NYSDEC") Record of Decision ("ROD") issued in March 1998. The NAPL removal goal described in the ROD is to remove NAPL to the extent practicable.

As a result, the active components of the L3 Area NAPL removal remedy (i.e., the soil vapor extraction system) will be decommissioned and removed from the area and the remaining components of the remedy in this area (i.e., the vapor extraction and air inlet wells) will be modified as necessary. The decommissioning and well modification work will be performed to prepare the area for the construction of the Harmon Yard Recycling Center.

DAY understands that the MNR contractor, Miller Environmental Group ("Miller"), will probably perform the system decommissioning and removal and well modification work described in this memo (i.e., the "removal contractor").

LIMITATIONS OF USE

The information presented in this memo is limited by the conditions described below.

Design Drawings - As-Built Drawings that describe the manner in which the remedy was actually constructed were not available to DAY at the time this memo was prepared. As a result, information on system components and locations presented in this memo are based on the design drawings available to DAY and may not accurately reflect the manner in which the L3 Area NAPL removal system was constructed. As a result, the removal contractor is responsible for the accuracy of this information and, at a minimum, will need to inspect this system and to identify any differences between the design information presented here and the actual (as-built) system components.

Work Methods - This memo only identifies and describes the L3 Area remedial equipment that is to be removed or modified. It does not describe the manner in which this equipment is to be removed and does not address key issues, such as: (1) decontaminating equipment and material prior to off-site disposal or use, if required; (2) disconnecting all electrical power to the equipment prior to the start of work; and (3) overall project health and safety requirements.

TO: Ken McHale (Metro-North Railroad)
CC: Karen Timko (Metro-North Railroad) and Noel Russ (Miller Environmental Group)
FROM: John Iannone (Day Engineering, P.C.)
RE: Decommissioning Requirements for the L3 NAPL Area; Harmon Yard Operable Unit II

DESCRIPTION OF THE L3 AREA OU-II REMEDY

In general, the L3 Area NAPL removal system consists of a central vapor (soil gas) extraction system connected to three vapor extraction wells. In addition, six passive air inlet wells were installed around the perimeter of the L3 NAPL Area. The air inlet wells are passive, i.e., they are not connected to the vapor extraction or blower system. Their purpose is to provide a pathway for air to replenish the air in subsurface soil in the L3 treatment area removed by the vapor extraction system. The vapor extraction system was designed to draw the vapors (air) in subsurface soil towards the three vapor extraction wells to achieve the following:

1. Provide oxygen to subsurface soil containing NAPL, primarily in the soil zone above the NAPL layer referred to as the smear zone, in order to enhance the natural biodegradation of NAPL constituents within this subsurface soil zone.
2. To use air flow and pressure gradients to accelerate the migration of NAPL that has adhered to soil particles in the smear zone toward the vapor extraction wells, where it would be manually removed.
3. To remove vapors related to the presence of NAPL that might have accumulated in the subsurface soil in this area.

The location of this system within Harmon Yard is shown on the attached Drawings C-3 (Underground Field Piping Layout) and E-1 (Electrical Site Plan). The system has been in operation since April 2002. Vapor extraction and air inlet wells are monitored periodically and accumulated NAPL is manually removed. That is, NAPL is removed from wells using a portable pump, transferred to the L4 Area temporary storage tank, tested and disposed of off-site.

A sample of accumulated NAPL was collected from well AI3-4 in November 2008 and analyzed for PCBs. The sample contained 2.8 mg/kg of PCBs. This is less than the 10 mg/kg NYSDEC TAGM Recommended Soil Cleanup Objective ("RSCO") for PCBs in subsurface soil at petroleum spill sites and the 25 mg/kg NYSDEC Part 375 Soil Cleanup Objective ("SCO") for PCBs in soil at all other (industrial) sites. It is also less than the 50 mg/kg toxic Substances and Control Act ("TSCA") or NYSDEC Resource Conservation and recovery Act ("RCRA") threshold levels for TSCA and RCRA wastes.

As shown on the attached Process and Instrumentation Diagram PID-3, soil gas (vapor) is drawn from the three vapor extraction wells (VE3-1, VE3-2 and VE3-3) through a liquid/vapor separation unit (tank) and an air treatment unit consisting of two canisters of granular activated carbon. The treated air is discharged to the atmosphere. Condensate recovered from the liquid/vapor separation unit is stored in a drum. The arrangement of this equipment and the concrete pads on which the equipment is located and the concrete base for the air exhaust are shown on Drawing EA-2 (NAPL Area 3 Equipment Arrangement).

TO: Ken McHale (Metro-North Railroad)
CC: Karen Timko (Metro-North Railroad) and Noel Russ (Miller Environmental Group)
FROM: John Iannone (Day Engineering, P.C.)
RE: **Decommissioning Requirements for the L3 NAPL Area; Harmon Yard Operable Unit II**

Monitoring data has shown that relatively low levels of NAPL have accumulated in four of the area wells: VE3-1, AI3-4, AI3-5 and AI3-6. The system was not designed to accumulate NAPL in the air inlet (AI) wells. The accumulation of NAPL in these air inlet wells indicates that there is a small amount of NAPL accumulating within this area that is not affected by the vapor extraction component of this system. This small amount of NAPL has been and will continue to be addressed by the manual removal of accumulated NAPL from these wells. As a result, the vapor extraction system will be decommissioned and removed but the vapor extraction and the air inlet wells will be modified so that they can continue to be used to manually remove NAPL. The vapor extraction system removal and well modification work is described on Table 1 and discussed below.

ABOVE GROUND SOIL VAPOR EXTRACTION SYSTEM COMPONENTS TO BE REMOVED

The following equipment related to the vapor extraction component of the L3 Area NAPL removal system should be removed as part of this work:

- Control panel.
- Instrumentation.
- Liquid/vapor separator tank.
- Exhaust stack.
- Vacuum pump (blower).
- Condensate pump.
- Condensate storage tank.
- Activated carbon air treatment units (2 drums).
- Conduits and piping connecting this equipment.

Refer to Drawings EA-2 (NAPL Area L3 Equipment Arrangements) and PID-3 (NAPL Area L3 Soil Gas Extraction System Process and Instrumentation Diagram) for additional information.

MNR will need to determine the methods to be used to handle this equipment, such as:

- Relocate to another area of the Harmon Yard OU-II site and store for possible re-use in other parts of the OU-II site in the future (i.e., as possible replacement equipment).
- Test, decontaminate (if necessary) and use or store in other areas of Harmon Yard.
- Test, decontaminate (if necessary) and use, store or dispose of off-site.

The granular activated carbon air treatment units, however, should be disposed of off-site.

TO: Ken McHale (Metro-North Railroad)
CC: Karen Timko (Metro-North Railroad) and Noel Russ (Miller Environmental Group)
FROM: John Iannone (Day Engineering, P.C.)
RE: **Decommissioning Requirements for the L3 NAPL Area; Harmon Yard Operable Unit II**

UNDERGROUND PIPING AND VAPOR EXTRACTION AND AIR INLET WELLS TO BE MODIFIED

There are nine wells that will need to be modified as part of this work. These wells and the modification work to be performed on these wells are described below.

Vapor Extraction ("VE") Wells and Underground Piping - As discussed on Table 1 with respect to Drawing C-6, there are three vapor extraction ("VE") wells that are part of the L3 Area NAPL removal system: VE3-1, VE3-2 and VE3-3. A cross-section of these vapor extraction wells is shown on Drawing C-6. These wells would be modified as part of this work by cutting and removing the portions of the underground 2" or 4" diameter schedule 40 (or 80) PVC vapor extraction system piping that connects each of these three vapor extraction wells to the vapor extraction blower. The remaining opening to the wells (stub) would be plugged. Drawing C-6 show that the VE wells are completed as flush-mounted wells with a concrete pad or curb box. The concrete pad or curb box should be left in place.

As discussed in a footnote to Table 1, Drawing EA-2 describes the pipes between the vapor extraction system and the VE wells as 2" diameter schedule 80 PVC piping but Drawing PID-3 describes this piping as 4" diameter schedule 40 PVC. The removal contractor will need to determine the actual diameter and piping material.

MNR will need to determine whether the piping between the vapor extraction system and the VE wells should be removed as part of this project. If this piping were to be left in place, both ends of this piping would be capped. If this piping were to be removed, the fill material, pea gavel and topsoil would be left in place. If this piping were to be removed, it should be tested for the presence of PCBs and decontaminated if necessary before it is disposed of off-site.

Air Inlet Wells - As discussed on Table 1 with respect to Drawing C-6, there are six air inlet ("AI") wells that are part of the L3 Area NAPL removal system: AI3-1, AI3-2, AI3-3, AI3-4, AI3-5, and AI3-6. As noted above, the air inlet wells are passive, i.e., they are not connected to the vapor extraction or blower system. Drawing C-6 show that these AI wells extend above the ground surface. The above ground piping component of the air inlet wells should be removed and the well completed as a flush-mounted well with a concrete curb box.

CONCLUSION

This memo, including Table 1, describes the components of and the work to be done to decommission the L3 NAPL Area at the MNR Harmon Yard OU-II Site. Please feel free to call me if you have any questions.

Thank you,



John Iannone
Project Manager

**Table 1: Key Design Drawings ⁽¹⁾ Related to the Decommissioning of the L3 NAPL Area
Metro-North Railroad Harmon Yard Operable Unit II Site**

Drawing No.	Title	Description	Action
C-3	Underground Field Piping Layout, Areas L1, L2 and L3	Shows the location of underground utilities as identified by ERM and the design location of the vapor extraction system subsurface piping.	The vapor extraction system subsurface piping may be removed as part of this L3 Area decommissioning project, as determined by MNR. The connections between this piping and the VE wells are described below. See Drawing C-6.
C-6	Well Cross-Sections and Schedules	Shows the well construction diagrams for: 1. The three Vapor Extraction ("VE") wells VE3-1, VE3-2 and VE3-3; and 2. The six Air Inlet ("AI") wells AI3-1, AI3-2, AI3-3, AI3-4, AI3-5, and AI3-6.	The wells will be modified as follows: 1. The 2" or 4" diameter schedule 40 PVC vapor extraction system piping ⁽²⁾ that connects to each of the three VE wells would be cut and removed and the remaining opening to the well (stub) would be plugged. The existing flush-mounted well covers should remain as is. 2. The above ground piping component of the air inlet wells would be removed and the well completed as a flush-mounted well with a concrete curb box.
C-7	Sheet Piling and Miscellaneous Civil Details	This drawing shows a typical trench detail for the 2" or 4" diameter schedule 40 PVC vapor extraction system piping ⁽²⁾ that connects to each of the three VE wells.	MNR will need to determine whether the piping between the vapor extraction system and the VE wells should be removed as part of this project. If this piping were to be left in place, both ends of this piping would be capped. If this piping were to be removed, the fill material, pea gravel and topsoil would be left in place.

**Table 1: Key Design Drawings ⁽¹⁾ Related to the Decommissioning of the L3 NAPL Area
Metro-North Railroad Harmon Yard Operable Unit II Site**

Drawing No.	Title	Description	Action
EA-2	NAPL Area L3 Equipment Arrangement	This drawing presents cross-sectional and plan views of the vapor extraction equipment. Refer to the entry below for Drawing PID-3 for additional information.	This equipment would be removed from the site as part of this project. MNR will determine whether this equipment is to be stored on-site for use in other parts of the OU-II NAPL removal system or if it is to be tested, decontaminated if necessary and reused for other MNR projects or disposed of off-site.
E-1	Electrical Site Plan	This drawing shows the locations proposed by the design engineer for underground ("UE") and overhead ("E") electrical lines.	These are not as-built drawings. The removal contractor is responsible for: (1) disconnecting electrical service to this equipment prior to the start of work; and (2) to determine the actual location of underground and overhead electrical lines related to the L3 NAPL Area remedy or to other MNR operations. The removal contractor and MNR will need to determine whether disconnecting this electrical service affects any other OU-II or MNR operations and to revise their decommissioning plan accordingly.
PID-1	Symbols and Legends, Process and Instrumentation Diagram (PID)	Defines the terms and symbols used in the process and instrumentation diagram (PID) diagram described below (i.e., PID-3).	No actions related to this drawing.

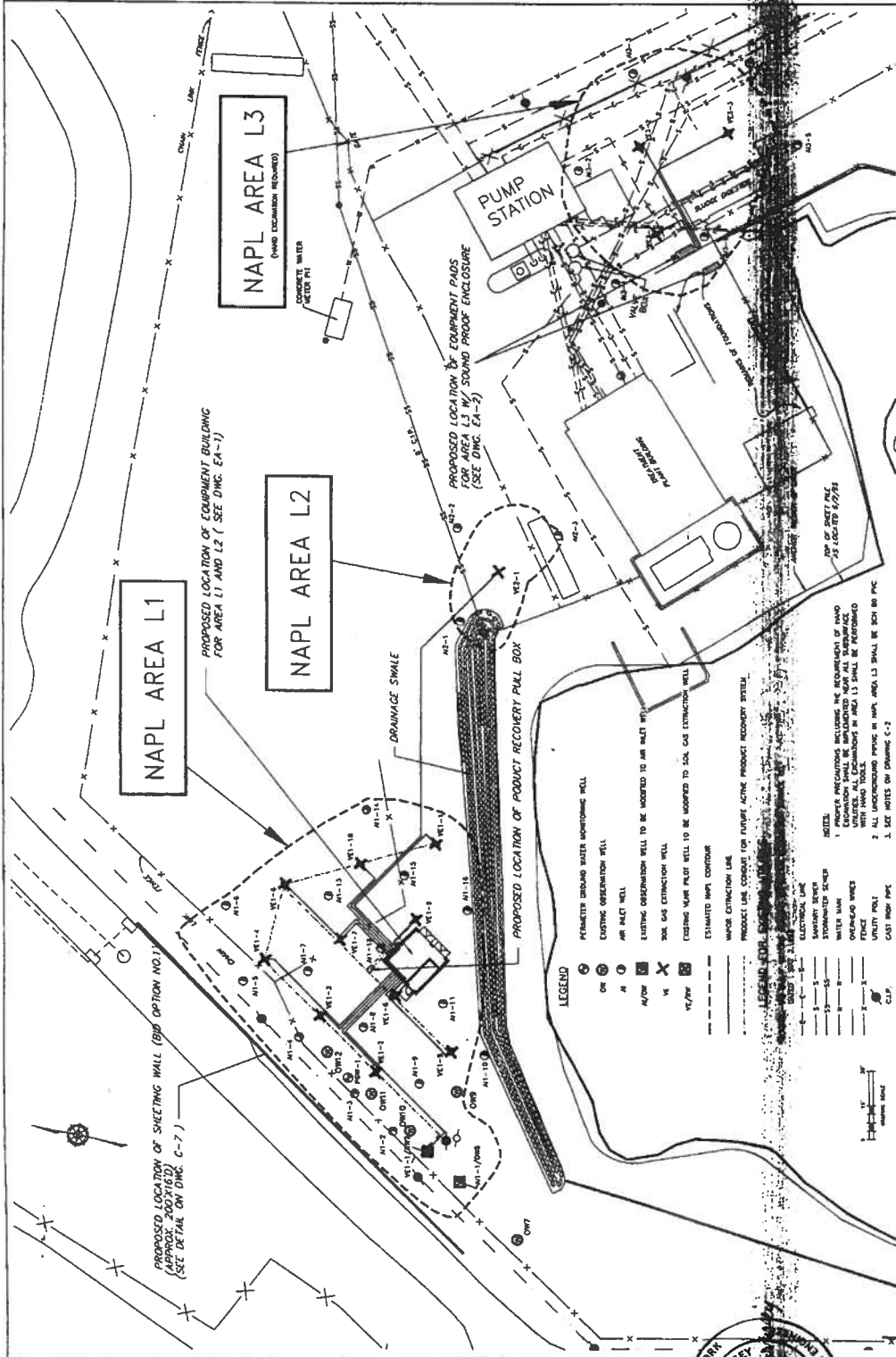
**Table 1: Key Design Drawings ⁽¹⁾ Related to the Decommissioning of the L3 NAPL Area
Metro-North Railroad Harmon Yard Operable Unit II Site**

Drawing No.	Title	Description	Action
PID-3	NAPL Area L3 Soil Gas Extraction System Process and Instrumentation Diagram	This drawing shows the equipment, connections and instrumentation for the vapor extraction system component of the L3 Area NAPL removal system and the manner in which this equipment is connected and operated.	<p>This equipment would be removed from the site as part of this project. See actions described above for drawing EA-2. The equipment to be removed includes, but is not limited to, the following:</p> <ul style="list-style-type: none"> • Control panel. • Instrumentation. • Liquid/vapor separator tank. • Exhaust stack. • Vacuum pump (blower). • Condensate pump. • Condensate storage tank. • Activated carbon air treatment units (2 drums). • Conduits and piping connecting this equipment.

Notes

"VE" wells = Vapor Extraction wells
 "AI" = Air Inlet Wells.

1. Design drawings entitled "Vacuum-Enhanced NAPL Removal System at OU-II Metro-North Commuter Railroad - Harmon Yard, Croton, NY" prepared by Environmental Resources Management, Woodbury New York and dated September 2002.
2. The Design Drawing EA-2 describes the pipes between the vapor extraction system and the VE wells as 2" diameter schedule 80 PVC piping but Design Drawing PID-3 describes this piping as 4" diameter schedule 40 PVC. The removal contractor will need to determine the actual diameter and piping material.



UNDERGROUND FIELD PIPING LAYOUT - AREAS L1, L2 AND L3

NO.	DESCRIPTION	DATE	BY	CHECKED
1	FIELD PIPING LAYOUT	10/15/95	J.P. MORRISSEY	C.A. GIBBS
2	REVISION			
3	REVISION			
4	REVISION			
5	REVISION			
6	REVISION			
7	REVISION			
8	REVISION			
9	REVISION			
10	REVISION			

VACUUM ENHANCED NAPL REMOVAL SYSTEM AT 04-8
LITTON-NORTH COASTAL HILLMAN-JANSON TANK, CANTON, NY

SCALE: AS SHOWN

NORTH

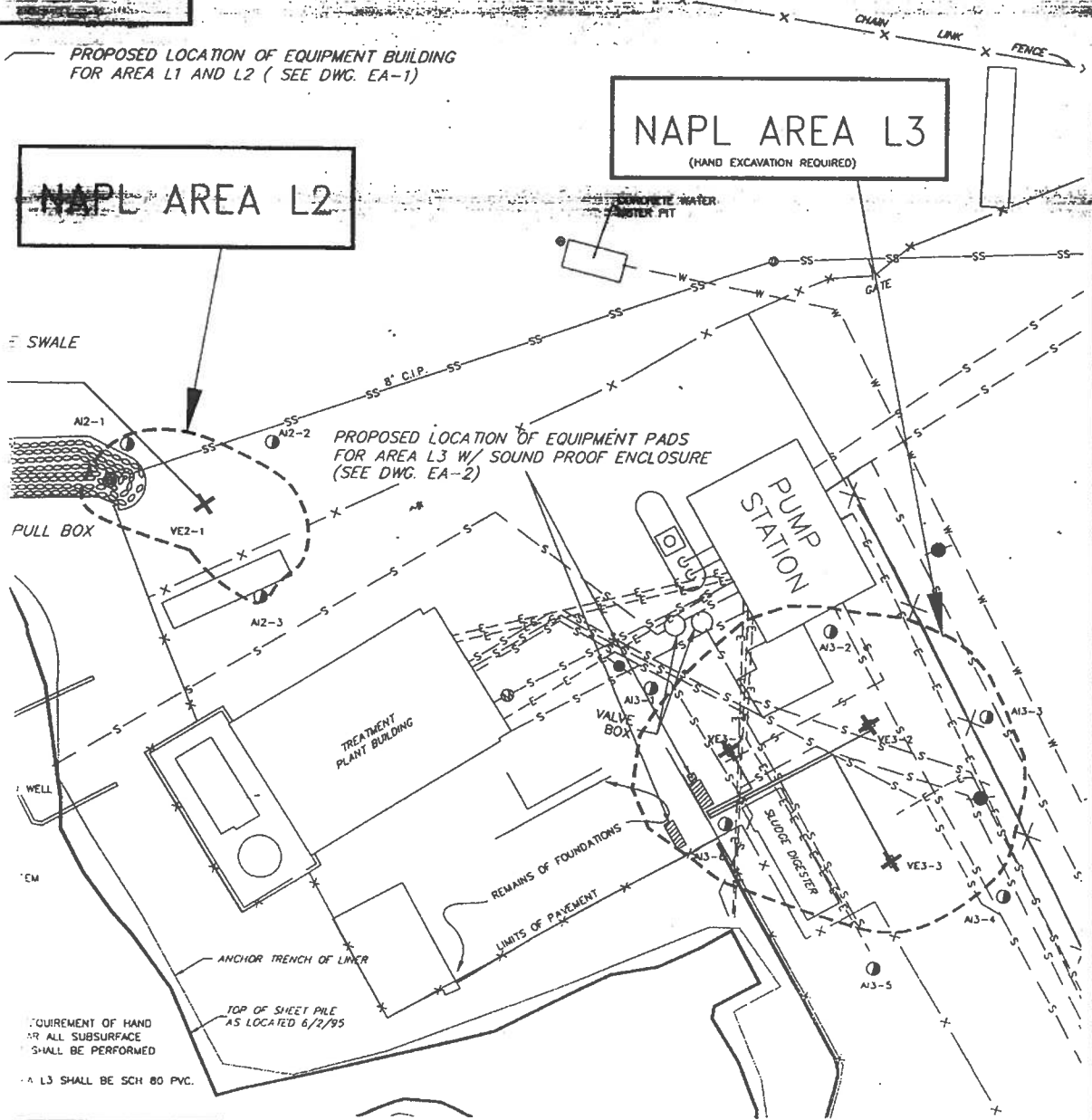


AREA L1

PROPOSED LOCATION OF EQUIPMENT BUILDING FOR AREA L1 AND L2 (SEE DWG. EA-1)

NAPL AREA L2

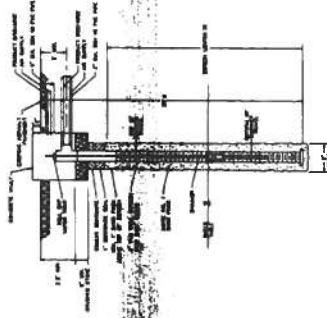
NAPL AREA L3
(HAND EXCAVATION REQUIRED)



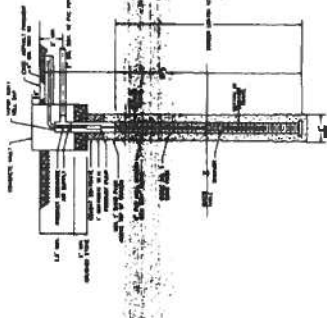
REQUIREMENT OF HAND EXCAVATION FOR ALL SUBSURFACE WORK SHALL BE PERFORMED

AREA L3 SHALL BE SCH 80 PVC.

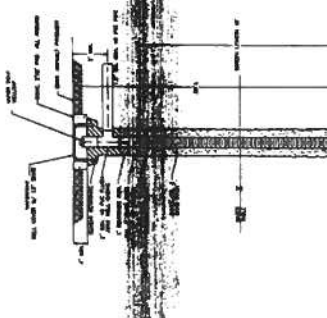
<p>SOIL REMOVAL SYSTEM AT OU-II RAILROAD-HARMON YARD, CROTON, NY</p>	<p>DATE: 6/2/95</p>	<p>DESIGNED BY: A.W.</p> <p>PROJECT ENGINEER: R.S.</p> <p>DRAWN BY: B.P.M.</p>	<p>UNDERGROUND FIELD PIPING LAYOUT NAPL AREAS L1, L2 AND L3</p>	<p>REVISION NO. C-3</p>
--	---------------------	--	---	-------------------------



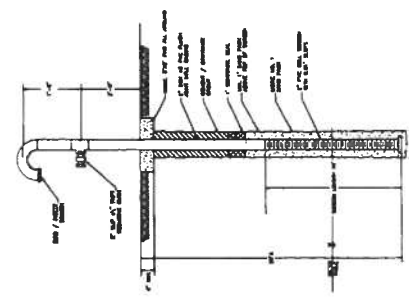
TYPICAL AIR-GAL EXHAUSTION WELL BY
DUSTED WELLS COMPANY (TYPE 200-11)



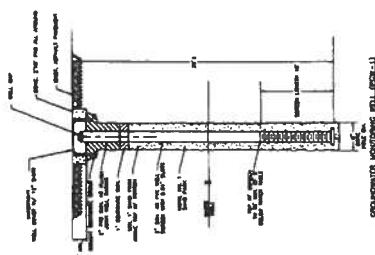
TYPICAL AIR-GAL EXHAUSTION WELL
BY WELLS COMPANY (TYPE 200-11)
FOR WIDE APPLICATION



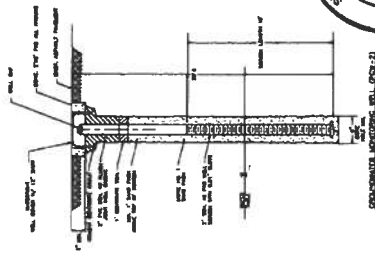
EXHAUSTION WELL (TYPE 200-11)



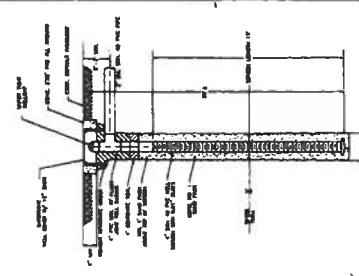
AIR WELLS WELL (TYPE 200-11)



EXHAUSTION WELL (TYPE 200-11)



EXHAUSTION WELL (TYPE 200-11)



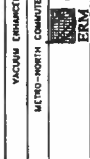
TYPICAL AIR-GAL EXHAUSTION WELL BY
DUSTED WELLS COMPANY (TYPE 200-11)



NOTE: ALL DEPTHS AND SCREEN SETTINGS ARE
APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY.
ASSUME DEPTH FROM SURFACE TO BOTTOM OF WELL IS 20
FEET UNLESS OTHERWISE NOTED. ALL SCREEN SETTINGS WILL
BE DETERMINED IN THE FIELD BY THE ENGINEER.

WELL CROSS-SECTIONS AND SCHEDULES		C-6	
NO.	DESCRIPTION	DATE	BY
1			
2			
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4			
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9			
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30			

VACUUM ENHANCED MAP REMOVAL SYSTEM AT DU-8
METRO-NORTH COMPUTER BUILDING-HARBOUR YARD, BRITAIN, NY

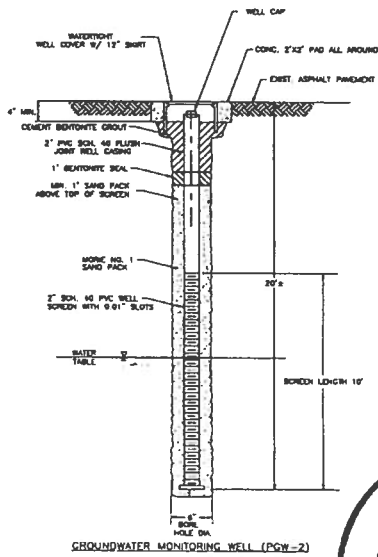


Environmental Remedial Management

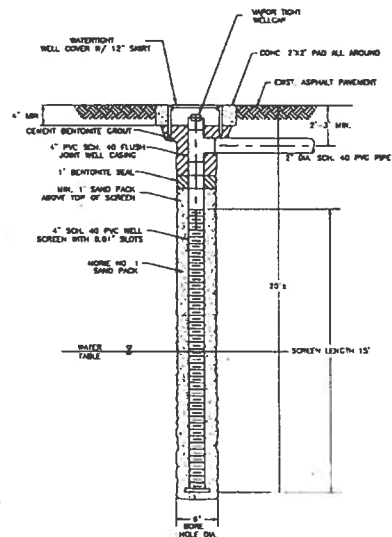


EXTRACTION WELL
COVERY (TYP. AREA L-4)
G C-5, DETAIL A-A
SECTION

TYPICAL SOIL GAS EXTRACTION WELL W/
PASSIVE NAPL RECOVERY (TYP. AREA L1)



GROUNDWATER MONITORING WELL (PGW-2)



TYPICAL SOIL GAS EXTRACTION WELL W/ PASSIVE
NAPL RECOVERY (TYPICAL AREA L2 & L3)

SCREEN SETTINGS ARE
FOR MONITORING PURPOSES ONLY.
SCREEN TO BOTTOM OF WELL IS 20
FEET AND SCREEN SETTINGS WILL
BE DETERMINED BY THE ENGINEER.



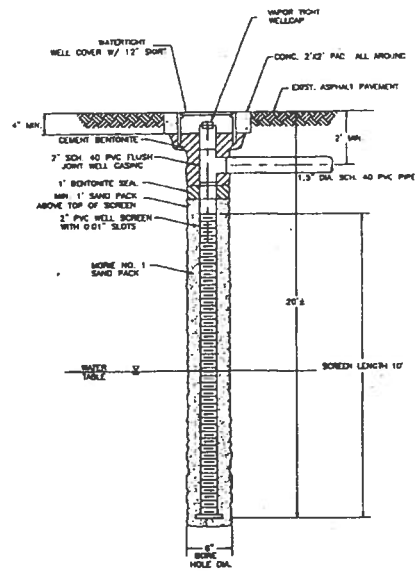
SOIL REMOVAL SYSTEM AT OU-II

RAILROAD-HARMON YARD, CROTON, NY

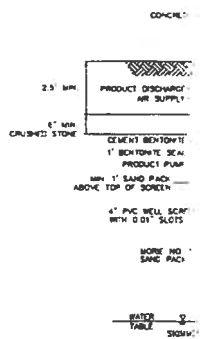
NO.	DATE	BY
1	A.M.	
2	Y.S.	

WELL CROSS-SECTIONS AND
SCHEDULES

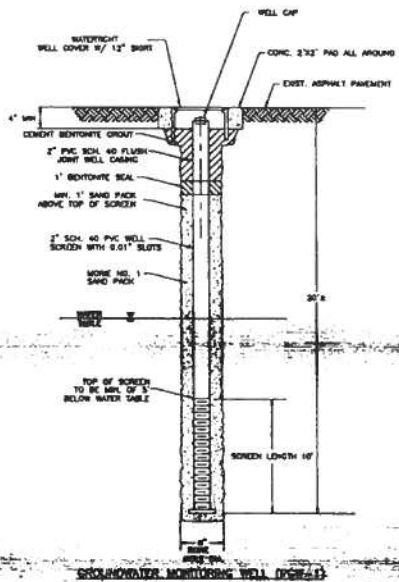
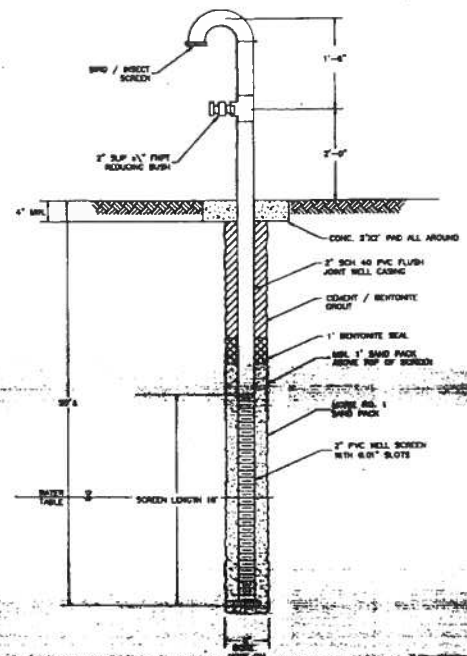
C-6



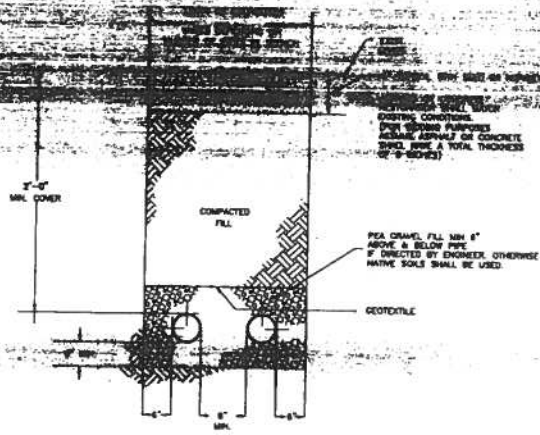
AIR INJECTION WELL (TYP. FOR AREA L4)



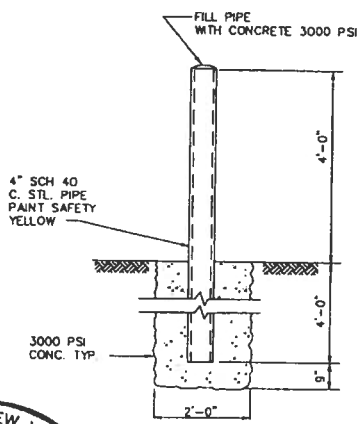
TYPE
W/AC
NO.
FOR



GROUNDWATER MONITORING WELL (DWC-1)



TYPICAL TRENCH DETAIL
NOT TO SCALE



SAFETY BOLLARD DETAIL
(NOT TO SCALE)



SCALE NOT THRU
REDUCED TO FIT

L REMOVAL SYSTEM AT OU-II ROAD-HARMOND YARD, CROTON, NY	SHEET PILING AND MISCELLANEOUS CIVIL DETAILS	C-7
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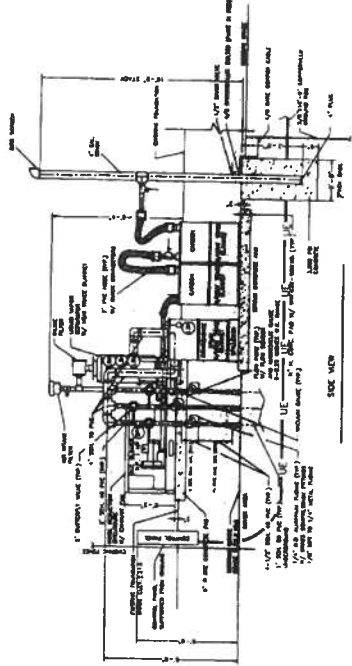
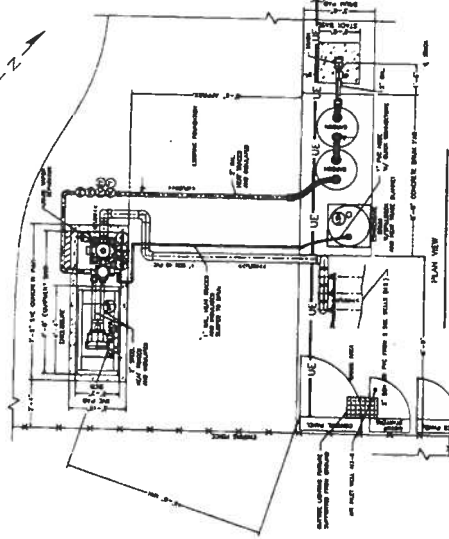
CONSTRUCTION NOTES

1. REFER TO DRAWING NO. 202 FOR LOCATION OF PUMP ROOM AND EQUIPMENT.
2. THE PUMP ROOM SHALL BE CONCRETE SLAB ON GRADE.
3. THE PUMP ROOM SHALL BE 10' x 10' IN SIZE.
4. THE PUMP ROOM SHALL BE 10' x 10' IN SIZE.
5. THE PUMP ROOM SHALL BE 10' x 10' IN SIZE.
6. THE PUMP ROOM SHALL BE 10' x 10' IN SIZE.
7. THE PUMP ROOM SHALL BE 10' x 10' IN SIZE.
8. THE PUMP ROOM SHALL BE 10' x 10' IN SIZE.
9. THE PUMP ROOM SHALL BE 10' x 10' IN SIZE.
10. THE PUMP ROOM SHALL BE 10' x 10' IN SIZE.

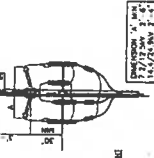
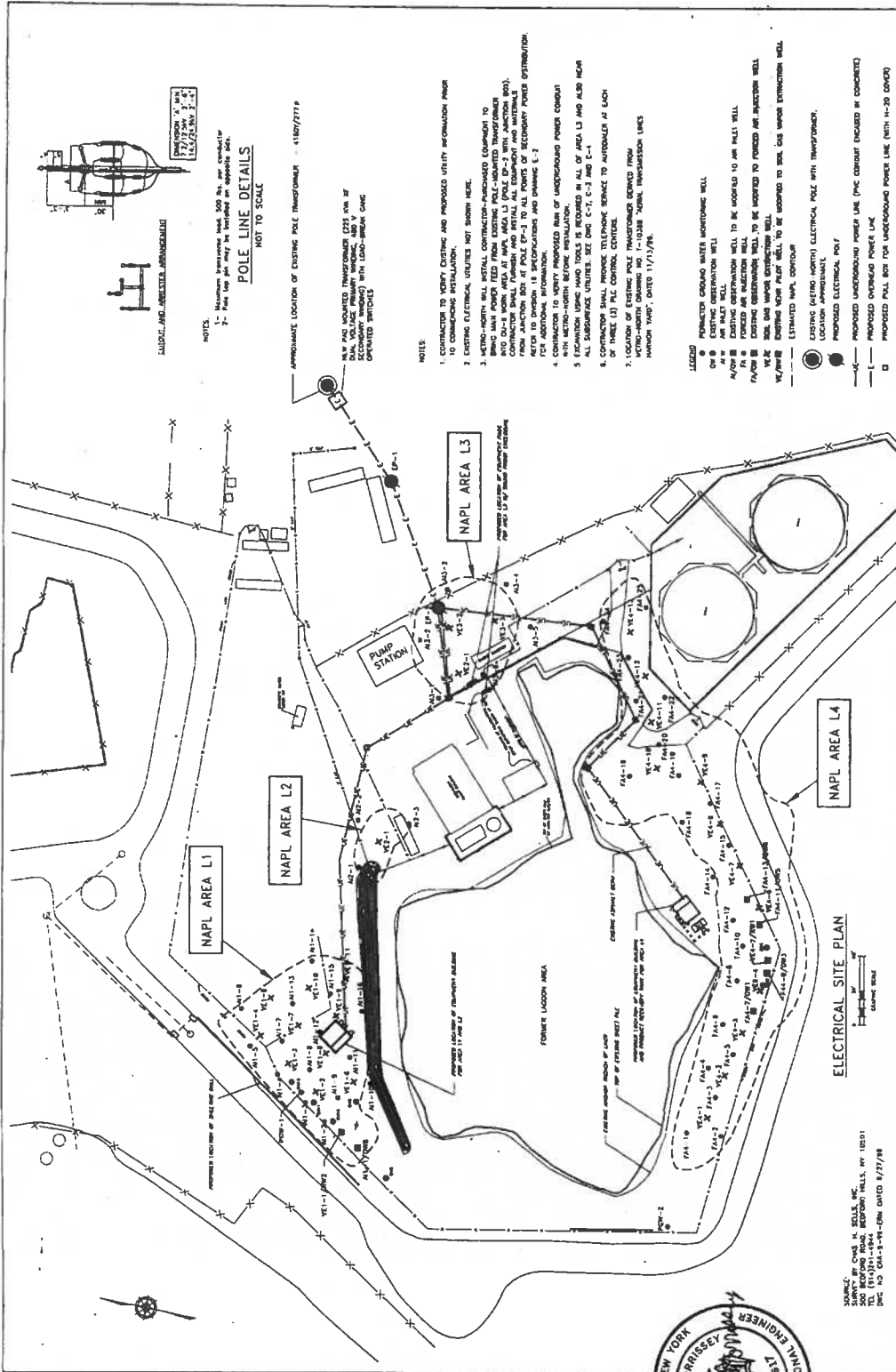


LEGEND
 — UE — UNIFORM EQUIPMENT

SCALE: 1/8" = 1'-0"
REDUCED COPY



VACUUM ENHANCED NAPL REMOVAL SYSTEM AT 60-11 METRO-NORTH COMMUTER RAILROAD-HURON YARD, ORION, NY		SHEET NO. EA-2 TOTAL SHEETS 2	
DRAWN BY: [Name] CHECKED BY: [Name] DATE: [Date]		PROJECT NO. [Number] CONTRACT NO. [Number]	
CLIENT: [Organization] CONTRACT NO.: [Number]		SCALE: 1/8" = 1'-0"	



NOTES

1. CONTRACTOR TO VERIFY EXISTING AND PROPOSED UTILITY INFORMATION PRIOR TO CONSTRUCTION.
2. EXISTING ELECTRICAL UTILITIES NOT SHOWN HERE.
3. EXISTING UTILITIES ARE NOT GUARANTEED. CONTRACTOR TO VERIFY ALL UTILITIES AND LOCATIONS PRIOR TO CONSTRUCTION.
4. ALL SURFACE UTILITIES, SEE DMS C-1, C-2, C-3 AND C-4.
5. CONTRACTOR SHALL PROVIDE TELEPHONE SERVICE TO AUTOMATOR AT EACH OF THREE (3) P.C. CONTROL CENTERS.
6. LOCATION OF EXISTING POLE TRANSFORMER DERIVED FROM METRO-NORTH RECORDS, DATED 11/13/78.

APPROXIMATE LOCATION OF EXISTING POLE TRANSFORMER - 4182/2779

SEE P.C. AND P.O. DRAWINGS FOR EXISTING POLE TRANSFORMER (225' DIA. OF SECONDARY WINDING) WITH LOAD-BREAK CAPACITOR OPERATED BY REMOTE CONTROL.

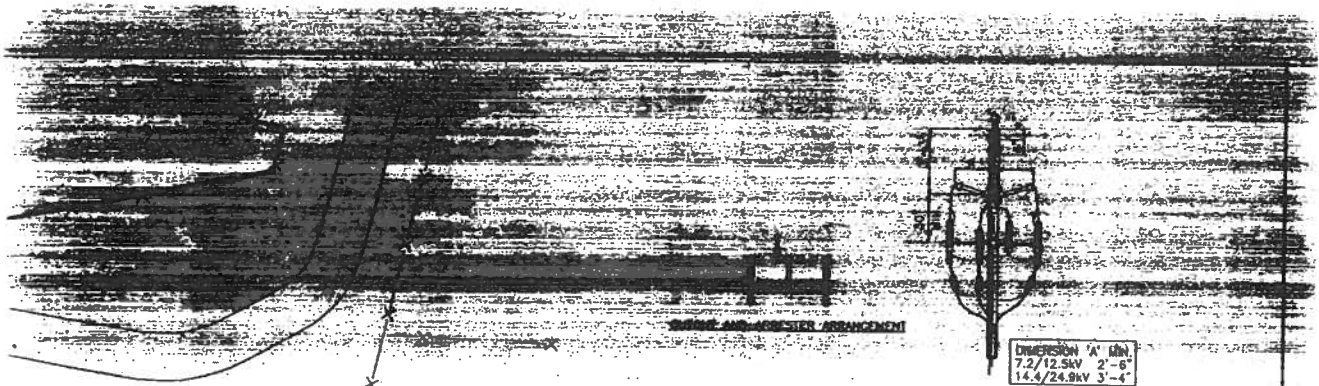
NOTES

1. CONTRACTOR TO VERIFY EXISTING AND PROPOSED UTILITY INFORMATION PRIOR TO CONSTRUCTION.
2. EXISTING ELECTRICAL UTILITIES NOT SHOWN HERE.
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4. ALL SURFACE UTILITIES, SEE DMS C-1, C-2, C-3 AND C-4.
5. CONTRACTOR SHALL PROVIDE TELEPHONE SERVICE TO AUTOMATOR AT EACH OF THREE (3) P.C. CONTROL CENTERS.
6. LOCATION OF EXISTING POLE TRANSFORMER DERIVED FROM METRO-NORTH RECORDS, DATED 11/13/78.

DATE: 8/27/78
BY: [Signature]
PROJECT: VACUUM ENHANCED NAPL REMOVAL SYSTEM AT QU-8
METRO-NORTH COMPUTER ROADWAY-HARMON TARD, CROTON, NY

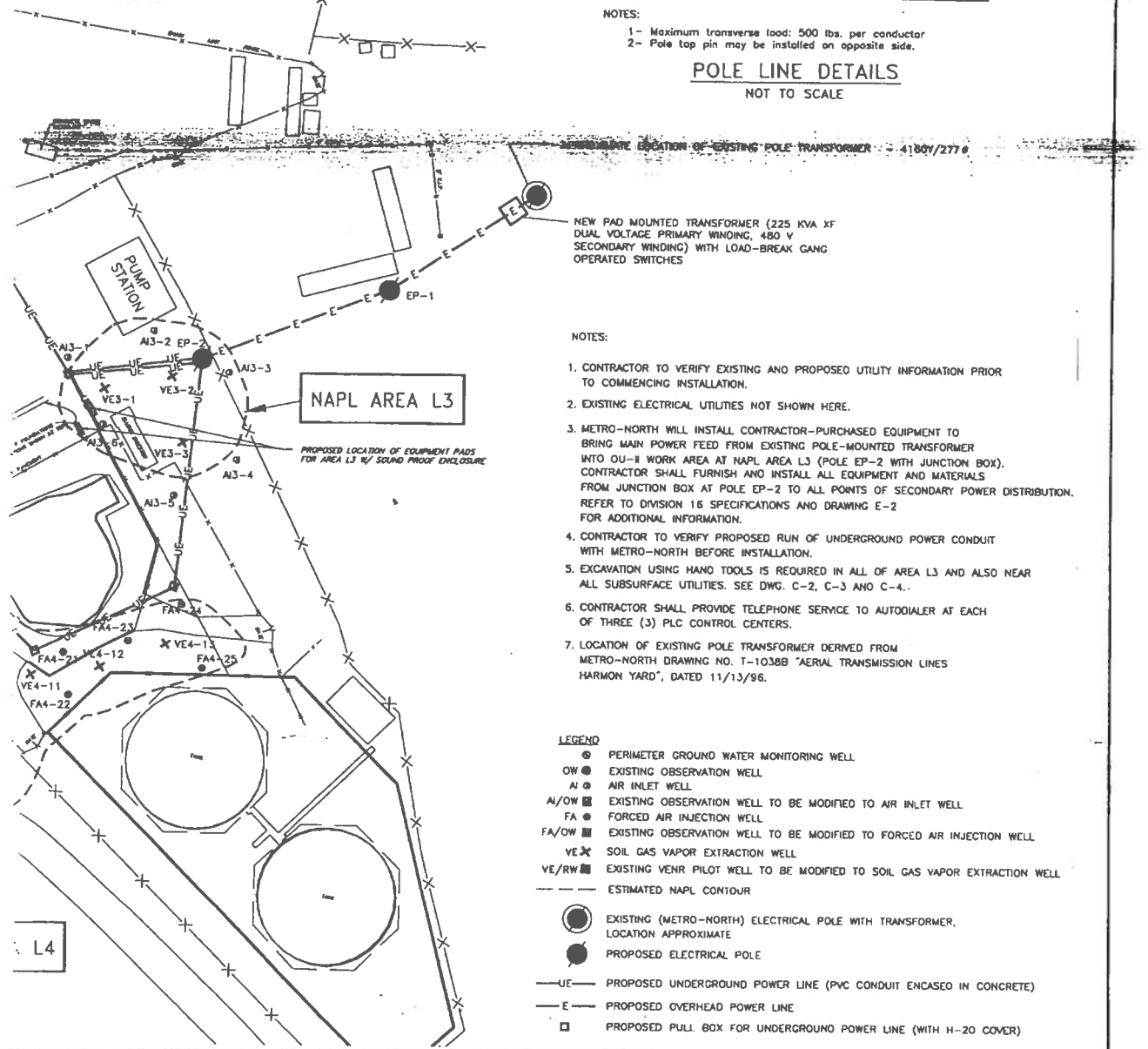


ELECTRICAL SITE PLAN	
DATE	8/27/78
BY	[Signature]
PROJECT	VACUUM ENHANCED NAPL REMOVAL SYSTEM AT QU-8 METRO-NORTH COMPUTER ROADWAY-HARMON TARD, CROTON, NY
SCALE	AS SHOWN
PROJECT NO.	006521
CLIENT	NYSDOT
DESIGNED BY	[Signature]
CHECKED BY	[Signature]
APPROVED BY	[Signature]



- NOTES:
- 1- Maximum transverse load: 500 lbs. per conductor
 - 2- Pole top pin may be installed on opposite side.

POLE LINE DETAILS
NOT TO SCALE

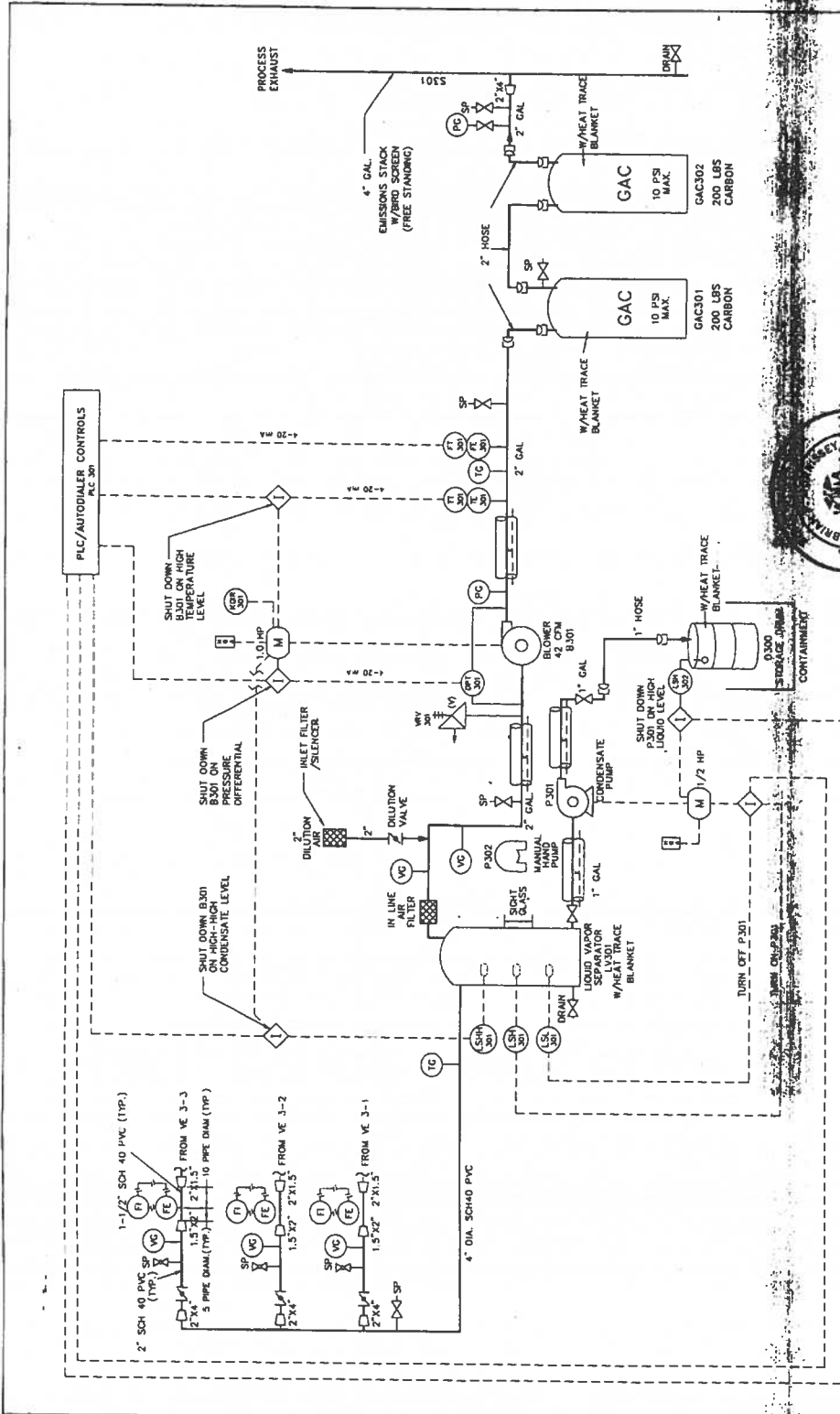


ANCED NAPL REMOVAL SYSTEM AT OU-II
MUTER RAILROAD-HARMON YARD, CROTON, NY

DATE	REV
10/11/99	R.R.
10/11/99	V.S.
10/11/99	B.P.N.

ELECTRICAL SITE PLAN

E-1



NOTES: 1. BLOWER B 301 SHALL BE INSTALLED INSIDE SOUND ATTENUATION ENCLOSURE IN ACCORDANCE WITH THE SPECIFICATIONS.
 2. ALL SEE UNDERGROUND PIPING IN MAP1 AREA L3 SHALL BE SCH 80 PVC

VACUUM ENHANCED MAP REMOVAL SYSTEM	
NO.	DESCRIPTION
1	1-1/2" SCH 40 PVC (1TP)
2	2" SCH 40 PVC SP (1TP)
3	1.5" X 2" 2" X 1.5" FROM VE 3-3
4	1.5" X 2" 2" X 1.5" FROM VE 3-2
5	1.5" X 2" 2" X 1.5" FROM VE 3-1
6	4" DIA. SCH40 PVC
7	4" GAL. EMISSIONS STACK (FREE STANDING)
8	GAC301 200 LBS CARBON
9	GAC302 200 LBS CARBON
10	BLOWER B 301 42 CFM
11	CONDENSATE PUMP P 301 1/2 HP
12	MANUAL HAND PUMP P 302
13	LIQUID VAPOR SEPARATOR LVS 301
14	STORAGE DRUM D 300
15	DILUTION AIR INLET FILTER/SILENCER
16	IN LINE AIR FILTER
17	SHUT DOWN B 301 ON HIGH PRESSURE DIFFERENTIAL
18	SHUT DOWN B 301 ON HIGH LIQUID LEVEL
19	SHUT DOWN B 301 ON HIGH AIR FLOW
20	PT 301
21	PT 302
22	TC 301
23	TC 302
24	FT 301
25	FT 302
26	PC 301
27	W/HEAT TRACE BLANKET
28	W/HEAT TRACE BLANKET
29	W/HEAT TRACE BLANKET
30	W/HEAT TRACE BLANKET
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