

# *HARMON RAILROAD YARD OPERABLE UNIT II STATUS REPORT*

*METRO-NORTH RAILROAD*

*JANUARY 21, 2010*

*Prepared for:*

*METRO-NORTH RAILROAD  
ENVIRONMENTAL SERVICES AND COMPLIANCE DEPARTMENT  
525 NORTH BROADWAY, 2<sup>ND</sup> FLOOR  
WHITE PLAINS, NEW YORK 10603*

*Prepared by:*

*DAY ENGINEERING, P.C.  
274 MADISON AVENUE, SUITE 1104  
NEW YORK, NY 10016  
and  
40 COMMERCIAL STREET  
ROCHESTER, NY 14614*

**DAY REPORT SERIAL NO. 1286**

<b>TABLE OF CONTENTS</b>
--------------------------

<b>EXECUTIVE SUMMARY</b> .....	<b>ES-1</b>
<b>1.0 INTRODUCTION</b> .....	<b>1</b>
1.1 <i>Current Status of the OU-II Site NAPL Removal Remedy</i> .....	<b>1</b>
1.2 <i>Overview of the OU-II Site NAPL Remedy Evaluation</i> .....	<b>2</b>
1.3 <i>Report Outline</i> .....	<b>3</b>
<b>2.0 PROJECT BACKGROUND</b> .....	<b>5</b>
2.1 <i>Former Harmon Yard Wastewater Treatment Lagoon</i> .....	<b>5</b>
2.2 <i>Operable Unit I (OU-I) Remedy</i> .....	<b>6</b>
2.3 <i>Operable Unit II (OU-II) Remedy</i> .....	<b>7</b>
2.3.1 <i>NAPL Areas L1, L2, L3, and L4</i> .....	<b>7</b>
2.3.2 <i>Vacuum Enhanced NAPL Removal System</i> .....	<b>8</b>
2.3.3 <i>Current Status of the OU-II Remedy</i> .....	<b>10</b>
<b>3.0 OU-II SITE REMEDY PERFORMANCE AND STATUS</b> .....	<b>12</b>
3.1 <i>Overview - NAPL Thickness and Removal Data</i> .....	<b>12</b>
3.1.1 <i>NAPL Thickness and Removal - Performance Parameters</i> .....	<b>12</b>
3.1.2 <i>NAPL Thickness and Removal Measurement Methods</i> .....	<b>13</b>
3.1.3 <i>OU-II Site NAPL Thickness Data</i> .....	<b>14</b>
3.1.4 <i>OU-II Site NAPL Removal Data</i> .....	<b>15</b>
3.1.5 <i>Remedy Performance Evaluation and Remedial Goals</i> .....	<b>16</b>
3.2 <i>L1 NAPL Area - Status and Evaluation</i> .....	<b>17</b>
3.2.1 <i>L1 NAPL Area Thickness Data</i> .....	<b>17</b>
3.2.2 <i>L1 NAPL Area Removal Data</i> .....	<b>18</b>
3.3 <i>L2 NAPL Area - Status and Evaluation</i> .....	<b>19</b>
3.3.1 <i>L2 NAPL Area Thickness Data</i> .....	<b>19</b>
3.3.3 <i>L2 NAPL Area Removal Data</i> .....	<b>20</b>

**3.4 L3 NAPL Area – Status and Evaluation .....21**

**3.4.1 L3 NAPL Area Thickness and Removal Data .....21**

**3.4.2 2009 L3 NAPL Area Remedy Evaluation and Modification.....21**

        3.4.2.1 Conclusions – 2009 L3 NAPL Area Remedy Evaluation .....22

        3.4.2.2 Recommendations – 2009 L3 NAPL Area Remedy Evaluation.....23

**3.5 L4 NAPL Area – Status and Evaluation .....24**

**3.5.1 L4 NAPL Area Thickness Data.....24**

**3.5.3 L5 NAPL Area Removal Data .....26**

**4.0 NAPL PCB CONCENTRATIONS.....29**

**5.0 CONCLUSIONS.....30**

**6.0 RECOMMENDATIONS .....34**

**7.0 REFERENCES.....37**

**LIST OF TABLES**

TABLE 1: *Summary of NAPL Thickness and Removal Data, L1 NAPL Area*

TABLE 2: *Summary of NAPL Thickness and Removal Data, L2 NAPL Area*

TABLE 3: *Summary of NAPL Thickness and Removal Data, L3 NAPL Area*

TABLE 4: *Summary of NAPL Thickness and Removal Data, L4 NAPL Area*

TABLE 5: *NAPL PCB Concentrations*

**LIST OF FIGURES**

FIGURE 1: *Site Location Map*

FIGURE 2: *Harmon Yard Location Map*

FIGURE 3: *Operable Unit II Site Plan*

FIGURE 4: *OU-II Site L1 NAPL Area*

FIGURE 5: *OU-II Site L2 NAPL Area*

FIGURE 6: *OU-II Site L3 NAPL Area*

FIGURE 7: *OU-II Site L4 NAPL Area*

FIGURE 8: *Key L4 NAPL Area Wells*

**LIST OF APPENDICES**

APPENDIX A: *OU-II Site NAPL Thickness and Removal Data (2002 - 2009) \**

APPENDIX B: *L3 NAPL Area Remedy Evaluation*

\* Appendix A is presented in electronic form (only) on a compact disc ("CD") included with this OU-II Site Status Report.

*Tables, figures and appendices are provided at the end of this report, except as noted.*

## EXECUTIVE SUMMARY

This document, i.e., the “Operable Unit II Site Remedy Status Report”, i.e., the “Status Report”, was prepared to describe the effectiveness and current status of the Non-Aqueous Phase Liquid (“NAPL”) removal remedy at the Metro-North Railroad (“MNR”) Harmon Railroad Yard Operable Unit II (“OU-II”) Site (i.e., the “Site”). The Site consists of four NAPL areas (i.e., the L1, L2, L3, and L4 NAPL Areas) located around a remediated (former) wastewater lagoon at the MNR Harmon Railroad Yard in Croton-on-Hudson, New York.

NAPL that primarily consists of fuel and lubricating oil and that sometimes contains other chemicals such as Polychlorinated Biphenyls (“PCBs”) was found in these four areas. The NAPL is present in subsurface soil at the water table and is presumed to have migrated from the lagoon before it was remediated. The water table and NAPL are located at depths ranging from 5 to 15 feet below ground surface.

The former lagoon was remediated in accordance with a Record of Decision (“ROD”) issued by the New York State Department of Environmental Conservation (“NYSDEC”) in September 1992 (NYSDEC; 1992). The lagoon remedy, which included the removal and off-site disposal of the sludge that had accumulated at the bottom of the lagoon and some of the soil beneath the sludge, was completed in 1996 and is referred to as Operable Unit I (“OU-I”).

The remedy for the removal of the NAPL that remained in the four areas around the lagoon, referred to as Operable Unit II, was constructed in 2000 and 2001 and began operation in 2002 in accordance with a ROD issued by the NYSDEC in March 1998 (NYSDEC; 1998). The remedial actions to remove NAPL that were selected in the ROD and that were implemented at the Site are referred to in this report as the “Remedy”.

The Remedy has been in operation since 2002. The Remedy, referred to as vacuum enhanced NAPL removal, uses system components that include vertical perforated subsurface piping (wells), connecting piping, blowers and air treatment systems to remove NAPL from subsurface soil. Separate vacuum enhanced NAPL removal systems were installed for: (1) the L1 and L2 NAPL Areas, which were combined into one treatment area; (2) the L3 NAPL Area; and (3) the L4 NAPL Area.

The Remedy is periodically monitored and inspected. Work is usually performed on the system several times per week by MNR staff. NAPL that accumulates in Remedy wells is removed, temporarily stored in drums or above ground storage tanks, tested for disposal purposes, periodically removed (pumped) into permitted vehicles (tanker trucks), and disposed of at permitted off-site disposal facilities.

Overall, the Remedy has removed NAPL to the extent practicable from 3 of the 4 OU-II NAPL areas. However, NAPL continues to accumulate and is removed from some of the wells in the L4 NAPL Area.

The concentrations of PCBs in OU-II NAPL that were the reason that the Site was listed as a NYSDEC Inactive Hazardous Waste Disposal Site have decreased since the start of the Remedy in 2002. PCB concentrations in NAPL removed from the Site are now less than 50 parts per million ("ppm"), which is the level that had characterized this material as a NYSDEC listed hazardous waste. That is, the NAPL that is now removed from the Site contains less than 50 ppm of PCBs and is not a NYSDEC hazardous waste. It is also not subject to U. S. Environmental Protection Agency ("USEPA") Toxic Control Substance Act ("TSCA") regulations for handling or disposal.

The key parameters that describe the current status of the Site that were used to evaluate the performance of the Remedy are: (1) the thickness of the NAPL (feet) in the various wells that were installed and that are used at this Site to monitor and remove NAPL; and (2) the amount of NAPL (gallons) that has been removed from these wells since system operation began in 2002.

### *Current Status of the OU-II Remedy*

The following work has been performed since system start-up began in April 2002.

- Depth to water and depth to NAPL (if any) are periodically measured in the Site vapor extraction and air inlet wells as part of the Remedy.
- Recoverable amounts of accumulated NAPL are physically removed using a portable pump and temporarily stored in drums or above ground storage tanks.
- NAPL is removed from one of the L4 Area wells (well PWW) using an automatic NAPL removal system and is stored in a separate above ground storage tank .
- The NAPL that is temporarily stored in drums and tanks is periodically sampled and analyzed for PCBs and other waste disposal parameters. The NAPL is then transported and disposed of off-site.
- The areas around the OU-II remedial system equipment are kept clear of vegetation, MNR equipment and materials.
- NAPL thickness, NAPL testing, and NAPL disposal records are maintained at the MNR office (trailer) at Harmon Yard located near the former wastewater lagoon area and OU-II Site.

Overall, NAPL has now been removed to the extent practicable from the L1, L2, and L3 NAPL areas. In addition, NAPL has been removed to the extent practicable from most of the L4 Area wells but NAPL thickness levels have remained at relatively elevated levels (i.e., 1 to 2 feet) in some of the L4 NAPL Area wells.

### *OU-II Site Remedy Performance and Status*

Biodegradation, physical NAPL removal, and the removal of NAPL-related vapors (i.e., volatilization) are the three mechanisms through which the Remedy has removed NAPL from subsurface soil at the Site since system operations began in April 2002. However, the carbon dioxide, oxygen, and PID data recorded as part of the Remedy indicate that biodegradation and volatilization have not removed significant amounts of

NAPL from subsurface soil at the Site after the first few years of system operation. As a result, the physical removal of NAPL is now the primary and probably the only method through which NAPL is removed from the Site. Consequently, the performance of the Remedy was evaluated based on the NAPL thickness data and on the amount of NAPL removed from Site wells.

### *OU-II Site NAPL Removal Data*

The amount of NAPL removed from each NAPL area through 2009, and the total amount of NAPL removed by the Remedy, are presented below.

<b>OU-II Site NAPL Area</b>	<b>Amount of NAPL Removed (2002 - 2009)</b>	<b>Percent Of Total</b>
L1 NAPL Area	65 gallons	1.2%
L2 NAPL Area	15 gallons	0.3 %
L3 NAPL Area	39 gallons	0.7 %
L4 NAPL Area	5,280 gallons	97.8 %
<b>Total =</b>	<b>5,399 gallons</b>	

These data show that most of the NAPL removed from the Site has been removed from the L4 NAPL Area. For this and other reasons, future remedial work should focus on the presence and removal of NAPL from the L4 NAPL Area.

### *Remedy Performance Evaluation - Basis*

The three remedial goals for the Remedy listed below were identified in the NYSDEC ROD for the Site.

1. Prevent further migration of OU-II NAPL.
2. Remove OU-II NAPL to the extent practicable.
3. Continue to prevent direct contact with subsurface OU-II NAPL.

A cover of uncontaminated soil that is in place at the Site and access and use restrictions maintained by MNR achieve the last remedial goal listed above (i.e., prevent direct contact).

The evaluation of the distribution of and the change in NAPL thickness observed at the Site presented in this report addresses the ability of the Remedy to achieve the first two remedial goals for the Site: (1) to prevent further NAPL migration; and (2) to remove NAPL to the extent practicable. This report describes the performance of the Remedy and evaluates its effectiveness in achieving these goals .

### *L1 NAPL Area Status and Evaluation*

The wells in this area contain only a limited amount of NAPL. The average NAPL thickness in all wells in the L1 NAPL Area from 2002 to 2009 was 0.24 feet. However, the NAPL in the L1 NAPL Area has degraded to a greater extent than the NAPL in the other three NAPL areas and has attained the consistency of tar. As a result, it is difficult and at times impossible to measure the depth of the L1 area NAPL using an oil/water interface probe. In these cases, NAPL thickness can only be approximated by physically removing the NAPL from the affected wells. It is apparent from the tar-like NAPL that is occasionally removed from this area that there is only a limited amount of this material that accumulates in the L1 NAPL Area wells.

It is unlikely that further biodegradation of this tar-like material is possible and it is also unlikely that the vacuum system has been able to physically move this material toward the VE wells. It also appears that the vacuum system has entrained air into the L1 NAPL, removed the more volatile and mobile components of this petroleum material, and ultimately contributed to the tar-like consistency of the L1 NAPL. For these reasons, the vacuum component of the NAPL removal remedy in the L1 NAPL Area was turned off in 2008. The vacuum component of the NAPL removal system remains off in this area and the NAPL in this area will continue to be periodically monitored to determine: (1) if there is any change to the relatively immobile nature of the tar-like NAPL in this area; and (2) to determine if additional remedial efforts would be feasible and effective in this area.

Approximately 65 gallons of NAPL has been removed from the L1 NAPL Area from 2002 to 2009. The NAPL thickness and removal data for this area show that: (1) a relatively small amount of NAPL has accumulated in this area; and (2) NAPL has been removed from this area to the extent practicable.

### *L2 NAPL Area Status and Evaluation*

This is a relatively small NAPL area consisting of one VE well and three AI wells. Only very low levels of NAPL have accumulated in the wells in this area. In fact, almost no NAPL has accumulated in 3 of the 4 wells in this area and the average NAPL thickness in the one well where NAPL has accumulated is only about 0.4 feet. In addition, no NAPL was observed in this well during the last round of the L2 NAPL Area monitoring. The average NAPL thickness in all wells in the L2 NAPL Area from 2002 to 2009 was 0.37 feet.

The L2 NAPL Area vacuum system is part of the L1 NAPL vacuum system. As described above, this vacuum system was turned off to address the tar-like NAPL material in the L1 NAPL Area. As a result, the vacuum system for the L2 NAPL Area was also turned off. Approximately 15 gallons of NAPL have accumulated in and been removed from the L2 NAPL Area wells from 2002 through 2009. The NAPL thickness and removal data for this area show that: (1) a relatively small amount of NAPL has accumulated in this area; and (2) NAPL has been removed from this area to the extent practicable.



### ***L3 NAPL Area - Status and Evaluation***

The Remedy for the L3 NAPL Area was evaluated in a separate report to determine if that area could be used for a new Harmon Yard facility, i.e., the Harmon Yard Recycling Center. This separate L3 NAPL Area report is included with this document as Appendix A. As described in Appendix A, a limited amount of NAPL has accumulated in this area and the Remedy has effectively removed NAPL from this area to the extent practicable. Approximately 39 gallons of NAPL have been removed from this area and the average NAPL thickness in all wells in the L3 NAPL Area from 2002 to 2009 was 0.35 feet. The NAPL thickness and removal data for this area show that: (1) a relatively small amount of NAPL has accumulated in this area; and (2) NAPL has been removed from this area to the extent practicable. In addition, the report presented in Appendix A concluded that the Remedy could be modified so that the Recycling Center can be constructed in a manner such that NAPL monitoring and removal (if necessary) can continue in this area.

### ***L4 NAPL Area Status and Evaluation***

The L4 NAPL Area is approximately 600 feet long and is the largest of the four OU-II Site NAPL areas. There are 40 wells in this NAPL area. Almost all (98%) of the NAPL removed from the Site from 2002 to 2009 was removed from the L4 NAPL Area. In addition, relatively large amounts of NAPL continue to accumulate in and be removed from some of the wells in this area. As a result, remedial actions at the Site should continue to focus on the presence and removal of NAPL from this area.

A review of recent NAPL level data shows that NAPL thickness levels greater than 1.0 foot now (i.e., since 2007) accumulate in only 4 of the 40 L4 NAPL Area wells: VE 4-5, FA 4-8, FA 4-14, and PWW. The NAPL removed from these 4 wells represents approximately 93% of the NAPL removed from the L4 area from 2002 to 2009. The average NAPL thickness in all wells in the L4 NAPL Area from 2002 to 2009 was 0.53 feet but the average NAPL thickness in the four wells listed above from 2002 to 2009 was 1.56 feet.

Approximately 5,280 gallons of NAPL were removed from the L4 NAPL Area from 2002 to 2009. The source of the NAPL removed from wells in this area is probably the subsurface soil located beneath the remediated former wastewater lagoon.

### ***NAPL PCB Concentrations***

Samples of NAPL have periodically been collected from individual wells and from the NAPL temporarily stored in drums or the above ground storage tanks. These NAPL samples have been analyzed for the presence of PCBs and for other disposal parameters. None of the NAPL samples collected over the last 4 years (i.e., since April 2004) have contained PCBs at concentrations above the RCRA and TSCA threshold level of 50 ppm. As a result, the NAPL removed from this area is not a New York State RCRA hazardous waste or a TSCA PCB-contaminated waste.

## *Conclusions*

The following conclusions regarding the current status and the performance of the Remedy were developed based on the information presented in this status report.

- The Remedy has removed NAPL from the L1, L2, and L3 NAPL Areas to the extent practicable. NAPL continues to accumulate in and is removed from some of the wells in the L4 NAPL Area.
- The physical movement of NAPL toward system wells caused by the vacuum system and the subsequent physical removal of this NAPL is now the primary and probably the only method through which NAPL is removed from the Site. As a result, the current status of the Site and the performance of the Remedy were evaluated based on NAPL thickness and the amount of NAPL removed.
- The data presented in this status report show that the Remedy has achieved the ROD remedial goals for the Site in 3 of the 4 NAPL areas (i.e., the L1, L2, and L3 NAPL Areas).
- The data presented in this status report show that the Remedy has achieved 2 of the 3 ROD remedial goals for the Site (i.e., preventing further NAPL migration and preventing direct contact) in the remaining NAPL area (i.e., the L4 NAPL Area). The ongoing NAPL removal component of the Remedy in the L4 NAPL Area is designed to achieve the remaining remedial goal (i.e., remove NAPL to the extent practicable) in this area.
- The Remedy has removed approximately 5,399 gallons of NAPL from 2002 through 2009. Over 98% of this NAPL was removed from the L4 NAPL Area. NAPL continues to accumulate in and be removed from the wells in the L4 NAPL Area. Remedial actions, then, should continue to focus on the presence and removal of NAPL from this area.
- The source of the NAPL that continues to accumulate in the L4 area wells is probably the subsurface soil located beneath the remediated former wastewater lagoon area.
- None of the NAPL samples collected over the last 4 years (i.e., since April 2004) have contained PCBs at concentrations above 50 ppm. As a result, NAPL removed from the Site is not a New York State RCRA hazardous waste or a TSCA PCB-contaminated waste.

### *Recommendations*

The following recommendations regarding the continued performance of the remedy were developed based on the information presented in this status report.

- The uncontaminated soil cover that is in place over the NAPL at the Site and the current MNR access and use restrictions in effect for this area should be maintained.
  - The recommendations for the L1 and L2 NAPL Areas are as follows:
    1. The vacuum component of the L1/L2 NAPL Area remedy should remain off.
    2. NAPL levels in the L1/L2 wells should continue to be monitored and accumulated NAPL, if any, should be removed.
    3. The equipment related to the vacuum component of the L1/L2 area remedy should be dismantled and removed from the Site if conditions have not changed (i.e., no recoverable accumulations of NAPL in the VE or AI wells) after one year of additional NAPL monitoring.
  - The vacuum component of the NAPL removal remedy at the L3 NAPL Area was dismantled and the equipment has been removed. The wells in which NAPL had occasionally accumulated have been preserved and converted to flush-mounted wells. These wells are used to monitor for the presence of NAPL and to remove NAPL that might accumulate in these wells. Consequently, the recommendation for the L3 NAPL Area is to continue to monitor the wells in this area and to remove accumulated NAPL, if any.
  - Operation of the vacuum component of the L4 NAPL Area should continue. The L4 NAPL Area wells should continue to be monitored and accumulated NAPL, if any, should be removed. The operation of the automatic NAPL recovery system at well PWW in the L4 NAPL Area should continue. In addition, the installation of additional 6-inch diameter wells and automatic NAPL recovery systems similar to that currently in use at the PWW well in the L4 NAPL Area should be evaluated for the affected L4 NAPL Area.
  - The wells located within the remediated wastewater lagoon area (i.e., the OU-I Site) should be monitored for the presence of NAPL. If present in recoverable amounts, NAPL should be removed from these wells.
  - The current NYSDEC Inactive Hazardous Waste Disposal Site Program Class 2 status for the Site should be changed as follows:
    1. Remove the Site from the NYSDEC Inactive Hazardous Waste Disposal Site Program and administer the Site in accordance with the NYSDEC Oil Spill Program requirements.
- Or
- 2. Change the current NYSDEC Inactive Hazardous Waste Disposal Site Program classification of the Site as a Class 2 site (significant threat to public health) to a Class 4 site (site properly closed – requires continued management).

## 1.0 INTRODUCTION

This document, i.e., the “Operable Unit II Site Remedy Status Report”, i.e., the “Status Report”, was prepared to describe the effectiveness and current status of the Non-Aqueous Phase Liquid (“NAPL”) removal remedy at the Metro-North Railroad (“MNR”) Harmon Railroad Yard Operable Unit II (“OU-II”) Site (i.e., the “Site”). The location of the Harmon Railroad Yard is shown on Figure 1. The Operable Unit II Site consists of four NAPL areas (i.e., L1, L2, L3, and L4 NAPL Areas) located around a remediated (former) wastewater lagoon at the MNR Harmon Railroad Yard in Croton-on-Hudson, New York. See Figure 2.

NAPL that primarily consists of fuel oil and lubricating oil that sometimes contains other chemicals such as Polychlorinated Biphenyls (“PCBs”) was found in these four areas. The NAPL is present in subsurface soil at the water table and is presumed to have migrated from the lagoon before it was remediated. The water table and NAPL are located at depths ranging from 5 to 15 feet below ground surface.

The former lagoon was remediated in accordance with a Record of Decision (“ROD”) issued by the New York State Department of Environmental Conservation (“NYSDEC”) in September 1992 (NYSDEC; 1992). The lagoon remedy, which included the removal and off-site disposal of the sludge that had accumulated at the bottom of the lagoon and some of the soil beneath the sludge, was completed in 1996 and is referred to as Operable Unit I (“OU-I”).

The remedy for the removal of the NAPL that remained in the four areas around the lagoon, referred to as Operable Unit II (“OU-II”), was constructed in 2000 and 2001 and began operation in 2002 in accordance with a ROD issued by the NYSDEC in March 1998 (NYSDEC; 1998). The remedial actions to remove NAPL selected in the ROD and that were implemented at the Site are referred to in this report as the “Remedy”.

Section 1.1 describes the current status of the Remedy and Section 1.2 provides an overview of the system performance information and the system evaluation presented in this report. An outline of the contents of this status report is presented in Section 1.3.

### 1.1 *Current Status of the OU-II Site NAPL Removal Remedy*

The Remedy for the Site has been in operation since 2002. The Remedy, referred to as vacuum enhanced NAPL removal, uses system components that include vertical perforated subsurface piping (wells), connecting piping, blowers and air treatment systems to remove NAPL from subsurface soil. Separate vacuum enhanced NAPL removal systems were installed for: (1) the L1 and L2 NAPL Areas, which were combined into one treatment area; (2) the L3 NAPL Area; and (3) the L4 NAPL Area.

The various parts of the Remedy are periodically monitored, inspected, and operated by MNR staff with the assistance of staff from the MNR environmental consultant, Day Engineering, P.C. ("DAY"). As documented in the NAPL thickness and removal measurement tables described later in this report, work is usually performed on the system several times per week. NAPL that accumulates in the wells that are part of the Remedy is automatically (for certain wells) and manually removed and is temporarily stored on-site in drums and above ground storage tanks. The accumulated NAPL is tested for disposal purposes, periodically removed (pumped) into permitted vehicles (tanker trucks), and disposed of at permitted off-site disposal facilities.

Overall, NAPL has been removed to the extent practicable from the L1, L2, and L3 NAPL Areas. In addition, NAPL has been removed to the extent practicable from most of the L4 Area wells but NAPL thickness levels have remained at relatively elevated levels (i.e., 1 to 2 feet) in some of the L4 NAPL Area wells. Possible reasons for this continued accumulation of NAPL in the L4 NAPL Area are discussed in Section 3.5.2.

In addition, the vacuum component of the L3 area NAPL removal system has been dismantled and removed, as discussed in Section 3.4. The wells in that area where small amounts of NAPL have accumulated in the past have been preserved. Manual NAPL removal methods are used to remove the NAPL, if any, that might accumulate in these wells in the future.

The concentrations of PCBs in OU-II NAPL that were the reason the Site was listed as a NYSDEC Inactive Hazardous Waste Disposal Site have decreased. PCB concentrations in the NAPL that is removed from the Site are now less than 50 parts per million ("ppm"), which is the level that had characterized this material as a NYSDEC listed hazardous waste. That is, the NAPL that is now removed from this Site now contains less than 50 ppm of PCBs and is not a NYSDEC hazardous waste. It is also not subject to U. S. Environmental Protection Agency ("USEPA") Toxic Control Substance Act ("TSCA") regulations for handling or disposal.

## 1.2 *Overview of the OU-II Site NAPL Remedy Evaluation*

The key parameters that describe the current status of the Site and that were used to evaluate the performance of the Remedy are: (1) the thickness of the NAPL (feet) in the various wells that were installed and that are used at this Site to monitor and remove NAPL; and (2) the amount of NAPL (gallons) that has been removed from these wells since system operation began in 2002.

The thickness of NAPL and the amount of NAPL removed have been measured and recorded during each of the NAPL monitoring events conducted at the Site since 2002. These NAPL thickness and NAPL removal data are presented in tables and are described and evaluated in Section 3.0.

For example, the decrease in NAPL thickness, the relatively low levels of NAPL in the L1, L2, and L3 NAPL Area wells and the absence of NAPL in most of the L1, L2, and L3 NAPL Area wells is described. NAPL thickness and removal data are used in this report to identify overall system performance and trends over the 7-year operating period of the Remedy. The information presented in this report is the basis for the conclusions and recommendations presented in Sections 5.0 and 6.0 of this report.

In addition, the results of the laboratory analyses of the NAPL removed from the wells at the Site are presented. This information is used to support the recommendation that the regulatory status of the Site should be changed by either: (1) re-classifying the Site as a Class 4 Inactive Hazardous Waste Disposal Site; or (2) administering the Remedy through the NYSDEC petroleum (oil) spill program.

### 1.3 *Report Outline*

The information used to evaluate the performance of the Remedy for the Site and to develop the conclusions and recommendations described in this report is presented as described below.

**Section 2.0: Project Background.** This section contains a description of the following:

- The Former Harmon Yard Wastewater Lagoon
- The Operable Unit I (OU-I) Remedy
- The Operable Unit II (OU-II) Remedy

**Section 3.0: OU-II L1 NAPL Area Remedy Performance and Evaluation.** This section contains the following information:

- An Overview of the NAPL thickness and removal data for each of the four NAPL areas at the Site.
- The basis on which the performance of the Remedy was evaluated.
- A description of the status of and an evaluation of the performance of the Remedy at each of the four NAPL areas at the Site.

**Section 4.0: NAPL PCB Concentrations.** This section presents the results of the laboratory analyses of NAPL for the presence of PCBs

**Section 5.0: Conclusions.** This section presents the conclusions regarding the Remedy at the Site that were developed based on the information presented in this status report.

**Section 6.0: Recommendations.** This section presents the recommended remedial and regulatory actions to be taken with respect to the Remedy and the Site that were developed based on the information presented in this status report.

**Section 7.0: References.** This section identifies the reports and other documents referenced in this status report.

All tables, figures and appendices referenced in this report are provided at the end of Section 7.0.

## 2.0 *PROJECT BACKGROUND*

This section describes the various remedial actions that have been undertaken in the past and the remedial actions that are currently in progress at the Harmon Yard wastewater treatment area. The Harmon Yard wastewater treatment area includes the former wastewater lagoon that was remediated in 1996 (i.e., OU-I) and the four NAPL areas around the former lagoon that are currently being remediated (i.e., OU-II).

This information is presented in the following sections:

Section 2.1: Former Harmon Yard Wastewater Lagoon

Section 2.2: Operable Unit I (OU-I) Remedy

Section 2.3: Operable Unit II (OU-II) Remedy

### 2.1 *Former Harmon Yard Wastewater Treatment Lagoon*

Harmon Yard is an approximately 100-acre area that has been used to repair and maintain passenger railroad equipment (e.g., locomotives, passenger cars, track-mounted and other maintenance equipment) for over 100 years. A lagoon approximately one acre in size had been used to equalize the following: (1) stormwater from various areas within Harmon Yard; and (2) wastewater from maintenance and repair buildings and shops located within Harmon Yard. Wastewater and stormwater flows were equalized in the lagoon prior to treatment in a wastewater treatment facility referred to as the Old Wastewater Treatment Plant. Treated wastewater was discharged to Croton Bay south of Harmon Yard.

PCBs were discovered in the effluent discharge from the Old Wastewater Treatment Plant in 1980. The plant was not designed to remove PCBs and, as a result, PCBs were found in the Old Wastewater Treatment Plant as well as in the wastewater lagoon. The source of the PCBs was identified and discontinued and a New Wastewater Treatment Plant was constructed. The Harmon Railroad Yard was placed on the state registry of Inactive Hazardous Waste Disposal Sites in 1985. Wastewater currently generated at Harmon Yard, which does not contain PCBs, is now pumped to and treated at a Westchester County municipal wastewater treatment plant.

In 1988, the NYSDEC separated the wastewater treatment area, including the wastewater equalization lagoon, the Old Wastewater Treatment Plant, and the NAPL areas around the lagoon, from the Harmon Railroad Yard site. The wastewater treatment area of Harmon Yard maintained its Inactive Hazardous Waste Disposal Site registry listing but the remainder of Harmon Yard, which did not contain PCBs, was assigned to the NYSDEC petroleum spill group for investigation and remediation.



A remedial investigation (Hart; 1989) was conducted and a feasibility study (Hart; 1992) report was prepared for the wastewater treatment area. A ROD for the lagoon and Old Wastewater Treatment Plant was prepared by the NYSDEC using this remedial investigation and feasibility study information. The ROD, which was issued by the NYSDEC in September 1992, separated the wastewater treatment area into two operable units designated OU-I and OU-II. A remedial design was completed for OU-I and the remedial actions for OU-I, described below, were completed in May 1996.

## 2.2 *Operable Unit I (OU-I) Remedy*

The OU-I remedy completed in 1996 consisted of the following remedial actions:

- A sheet pile wall was installed around the wastewater lagoon. This sheet pile wall was left in place after the remedial actions described below were completed. The location of this sheet pile wall, which also depicts the location of the former lagoon area, is shown on Figure 3.
- The wastewater that remained in the lagoon at the start of the remedial actions was removed, treated and discharged.
- The sludge from the bottom of the lagoon that contained PCBs, was removed, transported and disposed of off-site.
- The soil that contained PCBs at concentrations above the 10-ppm NYSDEC subsurface soil cleanup objective for PCBs and that was located beneath the sludge layer was removed, transported and disposed of off-site. Subsurface soil containing petroleum constituents but that did not contain PCBs at concentrations above the PCB subsurface soil cleanup objective was left in place and capped as described below.
- Surface soil around the lagoon that contained PCBs at concentrations above the 0.5-ppm NYSDEC surface soil cleanup objective was removed, transported and disposed of off-site.
- Uncontaminated fill and crushed stone were placed in the excavated lagoon.
- Synthetic liners were placed above and below the fill and stone material described above.
- A layer of crushed stone and an asphalt cover was placed over the remediated lagoon.
- Piping for a contingency soil vapor extraction and air sparging system were installed within the remediated former lagoon area. A series of groundwater monitoring wells and piezometers were installed within and adjacent to the remediated lagoon area.
- The Old Wastewater Treatment Plant was decontaminated and demolished and the resulting demolition debris was disposed of off-site (ERM; 1994).

The remediated and paved former wastewater lagoon area has been used as a MNR material storage area since 1996.

### 2.3 *Operable Unit II (OU-II) Remedy*

The OU-II Site initially consisted of the following environmental media that could have been impacted by discharges from the former wastewater lagoon and treatment plant:

- Groundwater
- Soil in the wastewater treatment area adjacent to the former wastewater discharge line.
- NAPL located in four areas around the former wastewater lagoon
- Sediment and surface water in Croton Bay.

Based on information and data generated by a remedial investigation conducted between November 1994 and May 1996 (ERM; 1998), the NYSDEC eliminated groundwater, soil, sediment and surface water as areas of concern to be addressed as part of the OU-II remedial actions. These environmental media were eliminated because they did not contain hazardous wastes (i.e., PCBs) at concentrations above acceptable levels and were not impacted by discharges from the wastewater lagoon and treatment plant. Some of the soil adjacent to the former wastewater discharge line contained petroleum constituents and has been addressed as part of the overall Harmon Yard petroleum spill remedial action.

As a result of this remedial investigation characterization, the OU-II ROD issued by the NYSDEC in March 1998 (NYSDEC; 1998) identified the four NAPL areas around the former wastewater lagoon as the only OU-II Site environmental media to be addressed by remedial actions.

The remainder of this section describes the four NAPL areas (Section 2.3.1), the remedial systems installed and operated to address these NAPL areas (Section 2.3.2), and the current status of the Remedy (Section 2.3.3).

#### 2.3.1 *NAPL Areas L1, L2, L3, and L4*

The OU-II Feasibility Study (ERM; 1998) describes the NAPL found around the former wastewater lagoon as a separate layer of liquid hydrocarbon resulting from past releases from the lagoon. The NAPL was characterized as a severely biodegraded diesel fuel containing PCBs at concentrations ranging from 4 to 120 ppm, which is less than the concentrations of PCBs that were present in the sludge and petroleum materials removed from the lagoon during the OU-I remedy.

Numerous soil borings and temporary and permanent wells installed during the 1994 to 1996 OU-II remedial investigation delineated the extent of the NAPL areas around the former lagoon. Four separate NAPL areas designated L1, L2, L3, and L4 were identified.

Maximum NAPL thickness levels recorded during the 1994 to 1996 remedial investigation ranged from 1.3 feet in the L3 NAPL Area to 3.7 feet in the L4 NAPL Area. The horizontal extent of the areas to be addressed by remedial actions in these NAPL areas was expanded during the design of the OU-II Remedy to include additional perimeter or buffer areas. The horizontal delineation of these NAPL areas, as determined during the remedial investigation and used in the remedial design, has been reproduced in this report on Figures 3 through 7. Figure 3 presents a plan view of the Site and the horizontal extent of the four OU-II NAPL areas (L1, L2, L3, and L4). Figures 4 through 7 present separate plan views, including the horizontal extent, of each of the four NAPL areas.

As shown on Figure 3, the four NAPL areas are located around the former wastewater equalization lagoon area. The sludge digester, a large above ground tank, is still in place but is no longer in use. A sheet pile wall that was installed around the former wastewater lagoon during the OU-I remedy was left in place after that remedy was completed in 1996. The location of this sheet pile wall is shown on Figure 3 and identifies the extent of the former lagoon area.

The following section describes the vacuum enhanced NAPL removal system (the Remedy) that was installed to remove NAPL from the Site.

### 2.3.2 *Vacuum Enhanced NAPL Removal System*

Site vacuum enhanced NAPL removal systems were installed in the OU-II NAPL areas in 2001 and 2002. Separate vacuum enhanced NAPL removal systems were installed for: (1) the L1 and L2 NAPL Areas, which were combined into one treatment area; (2) the L3 NAPL Area; and (3) the L4 NAPL Area. These systems have been in operation since April 2002. This section describes the system components that have been in operation at the Site since 2002.

The NAPL removal systems consist of a central vapor (soil gas) extraction system connected to several vapor extraction wells. These vapor extraction wells are designated with the "VE" prefix. In addition, there are air inlet wells at each NAPL area that provide ambient (outside) air to subsurface soil and the VE wells. Air inlet wells are designated with the "AI" prefix. 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 ambient (i.e., above ground) air to replenish the air and oxygen in subsurface soil removed by the vacuum systems in each NAPL Area.

In the L4 NAPL Area, a blower is used to push, or force, ambient air into subsurface soil through the 25 wells that were installed for this purpose. These forced air wells in the L4 NAPL area are designated with the "FA" prefix.

In addition, the systems at each NAPL area include the following above ground equipment:

- 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 to the three vapor extraction wells.
- Drums and two above ground tanks (500-gallon and 1,000-gallon) used to temporarily store NAPL prior to testing and off-site disposal.

The vacuum extraction and NAPL removal system was designed to draw the vapors in subsurface soil towards the vapor extraction wells to remove NAPL using biodegradation, physical removal, and volatilization as described below.

1. Biodegradation. The system provides oxygen to subsurface soil containing NAPL, primarily in the unsaturated soil above the NAPL layer, in order to enhance the natural biodegradation of NAPL constituents within this subsurface soil zone.
2. Physical NAPL Removal. The system uses airflow and pressure gradients to accelerate the physical migration of NAPL that has accumulated as a liquid layer on the water table and that has adhered to soil particles in unsaturated soil toward the vapor extraction wells. NAPL that accumulates in Site wells is removed using portable or automatic pumps.
3. Volatilization. The system removes the NAPL vapors in the subsurface soil in this area. This removes the NAPL constituents that are volatile organic compounds.

The location of this system within the Site is shown on Figure 3. Vapor extraction, air inlet and forced air wells are monitored periodically and accumulated NAPL is physically removed. NAPL is removed from these wells using portable and automatic pumps, transferred to drums or above ground storage tanks, tested, and disposed of off-site.

Although the system was not designed to accumulate NAPL in the air inlet (AI) or forced air (FA) wells, NAPL has accumulated in some of these wells over the course of operation. NAPL that accumulates in VE, AI, and FA wells is physically removed using a portable or an automatic pump and temporarily stored on-site prior to testing and off-site disposal.

As described later in this report, very little NAPL now accumulates in the L1, L2, and L3 NAPL Area wells and in most of the L4 NAPL Area wells. The wells are periodically monitored and accumulated NAPL, if any, is removed. The elevated levels of NAPL that accumulate in some of the L4 NAPL Area wells are measured and the NAPL is removed from these wells on a more frequent schedule than are the NAPL levels in the wells in the other parts of the L4 NAPL Area or in the other NAPL areas.

The following section provides a brief description of the current status of the Remedy.

### 2.3.3 *Current Status of the OU-II Remedy*

The system described in Section 2.3.2 (e.g., vapor extraction and air inlet wells, blower/vacuum equipment and air treatment units) was installed in all four Site NAPL Areas. The following work has been performed as part of system operations since April 2002.

- Vapor extraction and air inlet wells are monitored periodically for the presence of NAPL.
- The depth to groundwater is measured in each well. If NAPL is observed in a well, the depth to NAPL and the depth to groundwater are measured using an oil/water interface probe. The NAPL and groundwater depth measurements are recorded and used to calculate NAPL thickness.
- Wells are monitored in this manner periodically, depending on the amount of NAPL that has accumulated in the wells and the frequency at which NAPL has accumulated in the wells as recorded during previous monitoring events.
- Recoverable amounts of accumulated NAPL (i.e., NAPL thickness greater than 0.1 feet) are removed using a portable pump. The NAPL is pumped into a small container. The container is then brought to a drum or to one of the two above ground NAPL storage tanks that were installed for this purpose near the L4 NAPL Area. The NAPL is transferred from the small container to the drums or tanks. The amount of NAPL removed is measured during removal and recorded or calculated based on the thickness of accumulated NAPL measured before removal.

- An automatic NAPL removal system (Spill Buddy) was installed and is used to remove NAPL from one well (i.e., well PWW, also referred to as the DAY well) that was installed in the L4 NAPL Area in 2005. This is a 6" diameter well in which the rate at which NAPL accumulates is sufficient to enable an automatic NAPL recovery system to operate. A separate above ground storage tank with containment system has been installed in this well area to temporarily store the NAPL removed from this well.
- The NAPL that is temporarily stored in drums near the L1 NAPL Area and in the L4 NAPL Area temporary above ground storage tanks is periodically sampled and analyzed for PCBs and other waste disposal parameters. The NAPL is then transported and disposed of off-site.
- The areas around the vapor extraction system are kept clear of MNR equipment and materials. In addition, access to the vapor extraction and air inlet wells in the L1 and L4 NAPL Areas is maintained by periodically cutting the vegetation in these areas.
- NAPL thickness, NAPL testing, and NAPL disposal records are maintained at the MNR office (trailer) at Harmon Yard located near the former wastewater lagoon area and the Site.

NAPL thickness levels have decreased in the wells at the L1, L2, and L3 NAPL areas since system operations began in 2002, as described below in Section 3.0. Overall, the Remedy has removed NAPL to the extent practicable from 3 of the 4 OU-II NAPL areas. However, NAPL continues to accumulate and is removed from some of the wells in the L4 NAPL Area.

The following sections describe and evaluate the performance of the OU-II NAPL Remedy.

### 3.0 *OU-II SITE REMEDY PERFORMANCE AND STATUS*

This section evaluates the effectiveness and the current status of the remedial actions that have been implemented since 2002 to remove NAPL from subsurface soil at the Harmon Yard OU-II Site. This evaluation uses information collected as part of these remedial actions that describes: (1) the thickness of NAPL in the vapor extraction, air inlet and forced air injection wells that are part of the Remedy for this Site; and (2) the amount of NAPL removed from these wells.

As described in Section 2.3.3, these parameters (i.e., NAPL thickness and NAPL removal) are measured and recorded each time system wells are monitored for the presence of NAPL. Section 3.1 describes these parameters, which are used to evaluate the performance of the Remedy and the methods used to collect this information. Sections 3.2 through 3.5 describe the status and evaluate the performance of the Remedy at the L1, L2, L3, and L4 NAPL Areas, respectively.

PCB concentration data are described in the following section (i.e., Section 4.0). Conclusions and recommendations developed based on the information presented in this report are presented in Sections 5.0 and 6.0, respectively.

#### 3.1 *Overview - NAPL Thickness and Removal Data*

This section contains the following information:

- The reasons that an evaluation of the performance of the Remedy can be based on NAPL thickness and removal data (Section 3.1.1) are discussed.
- The manner in which these data have been collected (Section 3.1.2).
- The NAPL thickness measurements (Section 3.1.3) and NAPL removal data (Section 3.1.4) that are used in this report to evaluate Remedy performance are presented.
- The remedial goals defined in the ROD for the Site that are used in conjunction with NAPL thickness and removal data to evaluate the performance of the Remedy are described (Section 3.1.5).

Tables referenced in this section are presented at the end of this report.

##### 3.1.1 *NAPL Thickness and Removal - Performance Parameters*

As discussed in Section 2.3.2, biodegradation, physical NAPL removal, and the removal of NAPL-related vapors (i.e., volatilization) are the three mechanisms through which the Remedy has removed NAPL from subsurface soil at the Site.

The low carbon dioxide levels and the elevated oxygen levels that were recorded in the air extracted by the system within the first year of operation indicate that the NAPL constituents that were amenable to biodegradation were removed by that time. This is because relatively high concentrations of carbon dioxide and high oxygen levels would have been present in extracted air if biodegradation of NAPL were still occurring in subsurface soil. As a result, the low carbon dioxide levels and elevated oxygen concentrations indicate that little biodegradation of NAPL has been occurring in subsurface soil following the first year of the Remedy.

In addition, low Photoionization Detector ("PID") readings measured in air extracted from subsurface soil after the first few years of operation indicate that volatile organics were not present in extracted air. This indicates that most of the NAPL-related volatile constituents in unsaturated soil at the Site had been removed within the first few years of operation.

The carbon dioxide, oxygen, and PID data, then, indicate that biodegradation and volatilization have not removed significant amounts of NAPL from subsurface soil at the Site following the first few years of system operation. As a result, the physical movement of NAPL toward system wells caused by the vacuum system and the subsequent physical removal of the NAPL that has accumulated in these wells is now the primary and probably the only method through which NAPL is removed from the Site.

Since physical NAPL removal is probably the sole mechanism currently removing NAPL at the Site, the performance of the Remedy can be evaluated based on NAPL thickness data and on the amount of NAPL removed from Site wells.

### **3.1.2 NAPL Thickness and Removal Measurement Methods**

As described in Section 2.3.3, the vapor extraction ("VE") wells, the air inlet ("AI") wells, and the forced air injection ("FA") wells at the Site are monitored for the presence of NAPL during periodic NAPL monitoring events. The OU-II Remedial Investigation (HART; 1989) explained that NAPL at the Site is primarily diesel fuel with a specific gravity that is slightly less than that of water (i.e., NAPL specific gravity of approximately 0.8 to 0.9). As a result, Site NAPL generally remains (floats) on the water table.

The vacuum system (blower) is temporarily shut off before each monitoring event so that the vapor-tight well caps can be removed from the VE wells and the wells can be accessed. The depth from the top of the well casing to groundwater is measured during these periodic monitoring events. If NAPL is present, the depth from the top of the well casing to the top of the NAPL layer is also measured in each well. An oil/water interface probe is used to collect these depth measurements.



The difference between these two measurements is the thickness of NAPL that has accumulated in each well. The depth to water (“DTW”) and the depth to NAPL (“DTN”) are measured in the Site wells before the NAPL is removed. NAPL that has accumulated in the wells is removed using a portable pump and transferred to a small container after the DTW and DTN information has been collected. The siphon end of the portable pump tube is carefully lowered into the accumulated NAPL within the well so that little to no groundwater is removed during this process.

Depending on the amount of NAPL that has accumulated in each well and that has been physically removed, the amount of NAPL pumped from each well is measured using a graduated container or it is calculated based on: (1) the NAPL thickness prior to pumping; and (2) the diameter of the well. VE wells are 4-inch diameter wells and AI and FA wells are 2-inch diameter wells. Except for the L4 NAPL Area wells where NAPL removal rates are elevated (see Section 3.5.1), the amount of NAPL removed from Site wells is generally equal to the amount of NAPL that has accumulated in the affected wells prior to removal.

The following sections describe the NAPL thickness and removal data that has been collected at the Site.

### 3.1.3 *OU-II Site NAPL Thickness Data*

NAPL thickness and removal data are presented for the four NAPL areas in Tables 1 through 4. These tables provide the following information:

- **Start Date.** The 2002 to 2009 reporting period start date when NAPL was first removed from each well.
- **End Date.** The last (end) date when NAPL was removed from a well during the 2002 to 2009 reporting period.
- **NAPL Removal Per Well.** The total amount of NAPL removed from each well from 2002 to 2009.
- **Percent NAPL Removal Per Well.** The percent of the total amount of NAPL removed from a NAPL area from each well.
- **Average NAPL Thickness Per Well.** The average NAPL thickness in each well over the 2002 to 2009 reporting period.
- **NAPL Removed Per NAPL Area.** The total amount of NAPL removed from each NAPL area.
- **Average NAPL Thickness Per NAPL Area.** The average NAPL thickness in each of the four NAPL areas over the 2002 to 2009 reporting period.

NAPL thickness measurements and information on the amount of NAPL removed from 2002 to 2009 are presented in this report in Appendix A for all Site wells in Table A-1 through Table A-74. These tables present the following information for each of the Site wells:

- Date of NAPL monitoring event.
- Depth to Water (DTW) and Depth to NAPL (DTN) measurements (feet)
- NAPL Thickness (feet)
- Daily Amount of NAPL Removed (gallons)
- Cumulative Amount of NAPL Removed (gallons)

These NAPL thickness and removal data are described in Sections 3.2 through 3.5 for each of the four NAPL areas.

### 3.1.4 OU-II Site NAPL Removal Data

The amount of NAPL removed (gallons) has been recorded for every NAPL monitoring event conducted in this area since 2002. As described in Section 3.1.2, the amount of NAPL removed is measured using a calibrated container or it is calculated based on the thickness of the NAPL that had accumulated in each well prior to removal.

The total amount of NAPL removed from each well and from each of the four NAPL areas from 2002 to 2009 has been computed as described in the following sections. The total amount of NAPL removed from each NAPL Area as presented in these sections is presented in Tables 1 through 4 and summarized on the chart below.

OU-II Site NAPL Area	Amount of NAPL Removed (2002 - 2009)	Percent Of Total	Table/Appendix No.
L1 NAPL Area	65.0 gallons	1.2%	Table 1
L2 NAPL Area	14.8 gallons	0.3 %	Table 2
L3 NAPL Area	38.6 gallons	0.7 %	Table 3
L4 NAPL Area	5,280.3 gallons	97.8 %	Table 4
<b>Total =</b>	<b>5,398.7 gallons</b>		

These data show that most of the NAPL that has been removed as part of the Remedy is located in the L4 NAPL Area. For this and other reasons, future remedial work should focus on the presence and removal of NAPL from the L4 NAPL Area.

The following section describes the Site remedial goals defined in the ROD that are used in this status report with NAPL thickness and removal data to evaluate the performance of the Remedy.

### **3.1.5 *Remedy Performance Evaluation and Remedial Goals***

The remedy selection process described in 6 New York Codes, Rules and Regulations (NYCRR) Part 375-1.10 requires that remedial goals be established for a site as part of the remedy selection process. The ROD identified the following three remedial goals for the Site:

1. Prevent further migration of OU-II NAPL.
2. Remove OU-II NAPL to the extent practicable.
3. Continue to prevent direct contact with subsurface OU-II NAPL.

The uncontaminated soil cover and the MNR access and use restrictions maintained by MNR discussed below provide the means by which the Remedy achieves the last ROD remedial goal listed above (i.e., prevent direct contact). The Site is located within the boundaries of Harmon Yard, which is an active railroad facility. No subsurface or other work can be conducted at the Site without the knowledge and specific permission of MNR.

NAPL investigation and removal operations are restricted to trained MNR personnel and MNR contractors. No subsurface work, such as excavation, drilling or trenching, other than the remedial investigation work and the installation and maintenance of the Remedy has been performed at the Site since this area was listed as an Inactive Hazardous Waste Disposal Site in 1988. In addition, the NAPL is located 5 to 15 feet beneath a layer of uncontaminated soil.

As a result, there have been no direct contact exposures to the NAPL that is present at the Harmon Yard U-II Site since at least 1988. The soil cover, current access and use restrictions, and the measures used to remove NAPL from subsurface soil (e.g., worker protection, above ground containment of recovered NAPL, and off-site disposal) have achieved the remedial goal of preventing direct contact with OU-II NAPL.

The evaluation of the change in NAPL presence (thickness) observed at the Site as presented in this report addresses the ability of the Remedy to achieve the first two remedial goals for the Site identified in the ROD: (1) to prevent further NAPL migration; and (2) to remove NAPL to the extent practicable. The effectiveness of the Remedy at the Site in achieving these goals is evaluated for each of the four NAPL areas in Sections 3.2 through 3.5. As described above, the soil cover and the MNR access and use restrictions at the Site achieve the remaining remedial goal (i.e., to prevent direct contact with NAPL).

## 3.2 L1 NAPL Area - Status and Evaluation

This section describes the current status and evaluates the performance of the Remedy at the L1 NAPL Area. A plan view of the L1 NAPL Area is presented on Figure 4.

### 3.2.1 L1 NAPL Area Thickness Data

Wells in the L1 NAPL Area are periodically monitored for the presence of NAPL. If recoverable amounts of NAPL are present, the NAPL is removed and stored in drums or in one of the two above ground storage tanks prior to testing and off-site disposal. The depth to water and the depth to NAPL are recorded during each of these monitoring events. The location of the L1 NAPL Area wells is shown on Figure 4.

The data collected as part of this work are used to calculate the thickness of NAPL observed during each monitoring event. The average 2002-2009 NAPL thickness in each L1 NAPL Area well is presented in Table 1. As shown in Table 1, the average NAPL thickness in all L1 area wells from 2002 to 2009 was 0.24 feet. NAPL thickness data for each of the 27 L1 NAPL Area wells is presented in this report for each of the L1 NAPL Area wells in Appendix A in Table A-2 through Table A-28, as described below.

- **L1 NAPL Area VE Wells.** The depth to water (DTW) and depth to NAPL (DTN) measurements recorded during each monitoring event are presented in this report for the 11 L1 NAPL Area VE wells in Table A-2 through Table A-12.
- **L1 NAPL Area AI Wells.** The DTW and DTN measurements recorded during each monitoring event are presented in this report for the 16 L1 NAPL Area AI wells in Table A-13 through Table A-28. As shown on these tables, little to no NAPL is present in the AI wells, which are generally located on the perimeter of the L1 NAPL Area.

The NAPL in the L1 NAPL Area has degraded to a greater extent than the NAPL in the other three NAPL areas and has attained the consistency of tar. As a result, it is difficult and at times impossible to measure the depth of the L1 area NAPL using an oil/water interface probe. In these cases, NAPL thickness can only be approximated by physically removing the NAPL from the affected wells.

It is apparent from the tar-like NAPL that is occasionally removed from this area that there is only a limited amount of this material that accumulates in the L1 NAPL Area wells. Because of the physical difficulties in removing and handling this material, NAPL removal methods are not frequently implemented in the L1 NAPL Area.

As shown in Table A-2 through Table A-28, there is little to no NAPL in the L1 area AI wells located near the perimeter of this area. This indicates that the tar-like NAPL material in the L1 NAPL Area is, as expected, relatively immobile and has not migrated to areas beyond the initial boundaries of the L1 NAPL Area.

As discussed in Section 3.1.1, low carbon dioxide levels, elevated oxygen concentrations, and low PID readings were measured in the vented air from this area following the first few years of operation. These data indicate that biodegradation and volatilization have not removed significant amounts of NAPL from subsurface soil at the Site following the first few years of system operation. As a result, it appears unlikely that further biodegradation or volatilization of the NAPL in the L1 area is possible.

Because of its tar-like consistency, it is also unlikely that the vacuum system is able to physically move this material toward the VE wells. It appears that the vacuum system has entrained air into the L1 NAPL, removed the more volatile and mobile components of this petroleum material, and ultimately contributed to the tar-like consistency of the L1 NAPL.

For these reasons, the vacuum component of the NAPL removal remedy in the L1 NAPL Area was turned off in 2008. The vacuum component of the NAPL removal system remains off in this area and the NAPL in this area will continue to be periodically monitored to determine: (1) if there is any change to the relatively immobile nature of the tar-like NAPL in this area; and (2) to determine if additional remedial efforts would be feasible and effective in this area.

### **3.2.2 L1 NAPL Area Removal Data**

As shown in Table 1, approximately 65.0 gallons of NAPL have been removed from all of the wells in the L1 NAPL Area from 2002 through 2009. The table shows that almost 80% of the NAPL removed from this area was removed from two of the 11 L1 NAPL Area VE wells (i.e., wells VE 1-1 and VE 1-3).

Little to no NAPL has accumulated in and been removed from the L1 NAPL Area AI wells, which are generally located on the perimeter of the L1 NAPL Area.

A summary of the amount of NAPL removed per well for the L1 NAPL Area as shown in Table 1 is presented below.

L1 NAPL Area Well No.	Amount of NAPL Removed, 2002 - 2009 (gallons)	Percent Of Total (approximate)
VE 1-1	30.6	47.0%
VE 1-2	4.5	6.8%
VE 1-3	19.6	30.2%
VE 1-4	2.4	3.6%
VE 1-5	3.2	4.9%
VE 1-6	3.6	5.5%
VE 1-9	1.0	1.5%
All Other L1 Wells	0.25	0.4%
<b>Total (approximately) =</b>	<b>65.0</b>	

These data show that there is a relatively small amount of NAPL that has accumulated in and that has been removed from the L1 NAPL Area wells over the approximately 7 year operating period. As described in Section 3.2.1 and as shown in Table 1, NAPL thickness levels in this NAPL area are very low.

### 3.3 L2 NAPL Area - Status and Evaluation

This section describes the current status and evaluates the performance of the Remedy at the L2 NAPL Area. A plan view of the L2 NAPL Area is presented on Figure 5.

#### 3.3.1 L2 NAPL Area Thickness Data

Wells in the L2 NAPL Area are periodically monitored for the presence of NAPL. If recoverable amounts of NAPL are present, the NAPL is removed and stored in drums or in one of the two above ground storage tank prior to testing and off-site disposal. The depth to water and the depth to NAPL are recorded during each monitoring event. The location of the four L2 NAPL Area wells is shown on Figure 5.

The data collected as part of this work are used to calculate the thickness of NAPL observed during each monitoring event. The average 2002-2009 NAPL thickness in each L2 NAPL Area well is presented in Table 2. As shown in Table 2, the average NAPL thickness in all L2 area wells from 2002 to 2009 was 0.37 feet. NAPL thickness data for each of the L2 wells is presented in this report in Appendix A in Table A-30 through Table A-33, as described below.

- **L2 NAPL Area VE Wells.** The DTW and DTN measurements recorded during each monitoring event are presented in this report for the single VE well in the L2 NAPL Area in Table 30. As shown on this table, little to no NAPL as accumulated in this L2 area VE well.
- **L2 NAPL Area AI Wells.** The DTW and DTN measurements recorded during each monitoring event are presented in this report for the 3 L2 NAPL Area AI wells in Table A-31 through Table A-33. As shown on these tables, little to no NAPL has accumulated in 2 of the 3 AI wells. As shown on Figure 5, the AI wells are generally located on the perimeter of the L2 NAPL Area.

This is a relatively small NAPL area. There is only one VE well (VE 2-1) and three AI wells (AI 2-1 through AI 2-3). Only very low levels of NAPL have accumulated in the wells in this area. In fact, almost no NAPL has accumulated in 3 of the 4 wells in this area (i.e., wells VE 2-1, AI 2-1, and AI 2-2).

The L2 NAPL Area vacuum system is part of the L1 NAPL Area vacuum system. As described in Section 3.2.1, this vacuum system was turned off to address the tar-like NAPL material in the L1 NAPL Area. As a result, the vacuum system for the L2 NAPL Area was also turned off in 2008. The wells in this area continue to be monitored for the presence of NAPL and NAPL is removed from the affected wells if recoverable amounts of NAPL are present.

### 3.3.3 L2 NAPL Area Removal Data

As shown in Table 2, approximately 15 gallons of NAPL have accumulated in and have been removed from the L2 NAPL Area wells from 2002 through 2009. The table shows that over 98% of the NAPL removed from this area was removed from one well (i.e., AI 2-3). A summary of the amount of NAPL removed per well for the L2 NAPL Area as shown in Table 2 is presented below.

L2 NAPL Area Well No.	Amount of NAPL Removed, 2002 - 2009 (gallons)	Percent Of Total
VE 2-1	0.25	1.7%
AI 2-1	0.00	0.0%
AI 2-2	0.00	0.0%
AI 2-3	14.58	98.3%
<b>Total (approximately) =</b>	<b>14.83</b>	

These data show that there is a relatively small amount of NAPL that has accumulated in and that has been removed from the L2 NAPL Area wells over the approximately 7 year operating period. As described in Section 3.3.1 and as shown in Table 2, NAPL thickness levels are very low in this NAPL area.

### 3.4 L3 NAPL Area - Status and Evaluation

This section describes the current status and evaluates the performance of the Remedy at the L3 NAPL Area. A plan view of the L3 NAPL Area is presented on Figure 6.

#### 3.4.1 L3 NAPL Area Thickness and Removal Data

The average thickness of NAPL in each L3 NAPL Area well and the amount of NAPL removal for each of these wells during the 2002 to 2009 reporting period is shown in Table 3. As shown in this table, the average NAPL thickness in all of the L3 NAPL Area wells from 2002 to 2009 was 0.35 feet. The table also lists a total of approximately 39 gallons of NAPL that have been removed from the L3 NAPL Area wells during this period. A summary of the amount of NAPL removed per well for the L3 NAPL Area as shown in Table 3 is presented below.

L2 NAPL Area Well No.	Amount of NAPL Removed, 2002 - 2009 (gallons)	Percent Of Total
VE 3-1	15.6	40.4%
VE 3-2	7.5	19.4%
VE 3-3	6.5	16.8%
AI 3-4	2.7	7.1%
AI 3-5	2.0	5.1%
AI 3-6	3.6	9.2%
All Other L3 Wells	0.8	2.1%
<b>Total (approximately) =</b>	<b>38.6</b>	

These data show that there is a relatively small amount of NAPL that has accumulated in and that has been removed from the L3 NAPL Area wells over the approximately 7 year operating period. As shown in Table 3, NAPL thickness levels and removal rates are very low in this NAPL area.

As described in the following sections of this report, the performance of the Remedy in this NAPL area was evaluated in 2009 in a separate report. This separate report was prepared to determine if the components of the Remedy in this area could be modified in a manner that would enable MNR to use this area for a planned recycling center.

#### 3.4.2 2009 L3 NAPL Area Remedy Evaluation and Modification

The Remedy for the L3 NAPL Area was evaluated in a separate report included with this document as Appendix B. The L3 NAPL Area remedy evaluation report



was prepared to determine if the area could be used for a new Harmon Yard facility, i.e., the Harmon Yard Recycling Center. A major capital construction project is currently underway at the MNR Harmon Yard. New locomotive and car maintenance and repair buildings, wheel truing equipment, car wash operations and other facilities have been designed and are currently under construction at Harmon Yard.

A new facility to temporarily store waste prior to transportation and off-site disposal and to stage materials that are to be recycled is planned for Harmon Yard. This new facility, referred to as the Harmon Yard Recycling Center, is being designed and will be constructed as part of the Harmon Yard capital construction project.

Space at Harmon Yard is limited during this capital construction project because of the need to keep existing facilities in operation at the same time that new facilities are under construction. Because of these space limitations, MNR staff and consultants responsible for the design and construction of the Harmon Yard Recycling Center have identified the mostly vacant L3 NAPL Area as the proposed location of the Recycling Center. The separate vacuum enhanced NAPL removal system at the L3 NAPL Area covers an area of approximately 8,000 square feet.

This 8,000-square foot area is central to most of the operation and maintenance functions at Harmon Yard. The use of this centrally located area within Harmon Yard as a Recycling Center would reduce the movement of waste and recyclable material from various Harmon Yard operations to the Recycling Center for temporary storage and staging. In response to this proposed plan, the Remedy that has been in operation at the L3 NAPL Area was evaluated in this report to determine if the L3 NAPL Area can be modified so that this area could be used for the Harmon Yard Recycling Center.

As described in the 2009 L3 NAPL Area Remedy evaluation report included with this status report as Appendix B, the Remedy had removed NAPL from the L3 NAPL Area to the extent practicable. In addition, it was concluded that the Remedy could be modified so that the Recycling Center can be constructed and monitoring and removal of NAPL that might accumulate in this area in the future can continue. The conclusions and recommendations regarding the L3 NAPL Area presented in Appendix B are summarized below.

#### *3.4.2.1 Conclusions – 2009 L3 NAPL Area Remedy Evaluation (Appendix B)*

The following conclusions were presented in the L3 NAPL Area evaluation report included as Appendix B.

- NAPL thickness levels have decreased significantly in this area. No NAPL was observed in seven of the nine L3 NAPL Area wells during the most recent round of NAPL thickness measurements and the remaining two system wells (i.e., wells AI 3-4 and AI 3-6) contained less than 0.1 feet of NAPL.
- Approximately 39 gallons of NAPL had accumulated in the wells in the L3 NAPL Area and have been removed by the vacuum enhanced NAPL removal system.
- Almost all (i.e., approximately 98%, or approximately 38 gallons) of the 39 gallons of NAPL that had accumulated in and been removed from the L3 NAPL Area wells by the vacuum enhanced NAPL removal system was removed during the first four years of system operation (i.e., 2002 through 2006).
- Less than 1 gallon of NAPL has accumulated in and been removed from the L3 NAPL Area wells since 2006.
- The very small amount of NAPL (i.e., less than 1 gallon) that has accumulated in and been removed from the L3 NAPL Area since 2006 demonstrates that the vacuum enhanced NAPL removal system has effectively removed NAPL from this area to the extent practicable.
- It is very unlikely that the very low levels of NAPL (i.e., less than 0.05 feet) remaining in some of the L3 NAPL Area wells (i.e., wells AI 3-4 and 3-6) could migrate beyond the boundary of the L3 NAPL Area in the future.
- The NAPL thickness and removal data demonstrate that the Remedy, in conjunction with the soil cover and the access and use restrictions maintained by MNR throughout the Site, has achieved the remedial goals for the Site discussed in Section 3.1.5.

#### *3.4.2.2 Recommendations – 2009 L3 NAPL Area Remedy Evaluation (Appendix B)*

The following recommendations were presented in the L3 NAPL Area evaluation report included as Appendix B.

- Operation of the vapor extraction component of the vacuum enhanced NAPL removal system at the L3 NAPL Area should be discontinued.
- At least three of the nine system wells should be converted to flush-mounted wells. These are the L3 NAPL Area wells in which NAPL has accumulated in the past. The wells that should be converted to flush-mounted wells are wells VE 3-1, AI 3-4 and AI 3-6. These wells should be converted to flush-mounted wells to monitor future conditions and to accommodate the proposed Harmon Yard Recycling Center. Although not necessary, the remaining six L3 NAPL Area wells could also be converted to flush-mounted wells.

- The vacuum enhanced NAPL removal system has achieved the ROD remedial goals in the L3 NAPL Area. As a result, the above ground vapor extraction equipment in the L3 NAPL Area should be decommissioned, removed from the Site and disposed of off-site.
- The L3 NAPL Area wells that are to be converted to flush-mounted wells as described above should periodically be monitored for the presence of NAPL. If recoverable amounts of NAPL are observed to have accumulated in any of these wells, the NAPL should be removed, tested and disposed of off-site.

The vacuum component of the NAPL removal remedy at the L3 NAPL Area was dismantled and the equipment has been removed. The wells in which NAPL had occasionally accumulated have been preserved and converted to flush-mounted wells. These wells are used to monitor for the presence of NAPL and to remove NAPL that might accumulate in these wells.

### 3.5 *L4 NAPL Area - Status and Evaluation*

This section describes the current status and evaluates the performance of the Remedy at the L4 NAPL Area. A plan view of the L4 NAPL Area is presented on Figure 7.

The L4 NAPL Area is the largest of the four Site NAPL areas. There are 40 wells in this NAPL area:

- 13 vapor extraction (VE) wells (VE 4-1 through VE 4-13).
- 25 forced air injection (FA) wells (FA 4-1 through FA 4-25).
- 2 product monitoring/removal wells (PWW and PGW-2).

This NAPL area covers a section of Harmon Yard approximately 600 feet long located on the southern boundary of the former wastewater lagoon (OU-I), as shown on Figure 7. As described in Section 3.1.4, almost all (98%) of the NAPL removed from the Site from 2002 to 2009 was removed from the L4 NAPL Area. In addition, NAPL continues to accumulate in and be removed from some of the wells in this area.

#### 3.5.1 *L4 NAPL Area Thickness Data*

Wells in the L4 NAPL Area are periodically monitored for the presence of NAPL. If recoverable amounts of NAPL are present, the NAPL is removed and stored in one of the two above ground storage tanks prior to testing and off-site disposal. The depth to water and the depth to NAPL are recorded during each of these monitoring events. These data are used to calculate the thickness of NAPL observed during each monitoring event. The location of the 40 L4 NAPL area wells is shown on Figure 7.

Two of the L4 NAPL Area wells (PWW and PGW-2) were not initially installed as part of the L4 area Remedy in 2001. Additional information on these wells is provided below.

**Well PWW.** Well PWW, also referred to as the DAY well, is a 6-inch diameter well that was installed in May 2005. This NAPL monitoring and removal well was installed near well VE 4-5 because significant amounts (i.e., greater than 1 to 2 feet) of product have consistently accumulated in and been removed from well VE 4-5 from 2002 to 2009. Well PWW was equipped with an automatic product removal system. Product that is automatically removed from this well by this system is pumped to and stored in a separate 1,000-gallon above ground storage tank installed near this well in the L4 NAPL Area for this purpose.

**Well PGW-2.** Well PGW-2 is a 2-inch diameter well that had been installed as a groundwater monitoring well. NAPL accumulated in this well after it was installed in July 2001. A project was implemented on behalf of MNR by the OU-II remedial design consultant (ERM) to investigate the presence of NAPL in this well. This well is located near but outside of the L4 NAPL Area limits that were determined by the remedial investigation and Remedy data, as shown on Figure 7. Soil borings were advanced and temporary monitoring wells were installed in a 10 to 15 foot area around the PGW-2 well. No NAPL was encountered in these borings and wells. As a result, it was concluded that the NAPL in well PGW-2 is limited to a small area located immediately adjacent to this well and that this NAPL would be addressed by periodic NAPL monitoring and removal. In order to facilitate record keeping, NAPL thickness and removal data for this well are reported with the data for the L4 NAPL Area wells.

The average 2002 to 2009 NAPL thickness in each L4 NAPL Area well is presented in Table 4. As shown in Table 4, the average NAPL thickness in all L4 NAPL Area wells during the 2002 to 2009 reporting period was 0.53 feet.

Although Table 4 lists 8 wells in the L4 NAPL Area in which the average NAPL thickness from 2002 to 2009 was greater than 1.0 feet, a review of recent (i.e., since 2007) NAPL thickness levels listed in the tables presented in Appendix A shows that NAPL levels greater than 1.0 foot were measured in only 3 of these 8 wells since 2007: VE 4-5, FA 4-8, and FA 4-14.

In addition, a review of recent (i.e., since 2008) NAPL thickness data shows that average NAPL thickness levels in well PWW, which uses an automated NAPL recovery system, are now greater than 1.0 foot. The average 2002 - 2009 NAPL thickness in these 4 wells (i.e., VE 4-5, FA 4-8, FA 4-14, and PWW) is 1.56 feet.

NAPL thickness data for each of the L4 NAPL Area wells is presented in this report in Appendix A in Tables A-35 through A-74, as described below.

- **L4 NAPL Area VE Wells.** The depth to water (DTW) and depth to NAPL (DTN) measurements recorded during each monitoring event are presented in this report for the 13 L4 NAPL Area VE wells in Table A-35 through Table A-47.
- **L4 NAPL Area FA Wells.** The DTW and DTN measurements recorded during each monitoring event are presented in this report for the 25 L4 NAPL Area FA wells in Table A-48 through Table A-74.
- **L4 NAPL Area Monitoring and Removal Wells.** The DTW and DTN measurements recorded during each monitoring event are presented in this report for well PGW- 2 in Table A-73 and for well PWW in Table A-74.

The amount of NAPL that accumulates in the L4 NAPL Area wells varies from very small amounts (i.e., 0 to less than 0.5 feet) to large amounts (i.e., greater than 1.0 foot) of NAPL. As discussed above, a review of recent NAPL levels shows that significant amounts (i.e., greater than 1.0 feet) now accumulate in only 4 of the 40 L4 NAPL Area wells: VE 4-5, FA 4-8, FA 4-14, and PWW. The location of these 4 wells within the L4 NAPL Area is shown on Figure 8.

As described in the following section, the NAPL that accumulates in and is removed from these 4 wells represents 93% of the NAPL removed from the L4 area from 2002 to 2009. Although large amounts of NAPL had accumulated in and been removed from another well (i.e., well FA 4-10) during the early years of the 2002 to 2009 reporting period, only relatively small amounts of NAPL have been accumulating in that well over the past several years.

Although NAPL had accumulated in and had been removed from other wells during the early years of the 2002 to 2009 reporting period, NAPL has essentially ceased to accumulate in these other wells over the last 3 to 4 years. As a result, the four wells listed above as shown on Figure 8 now define the L4 NAPL Area. Although monitoring of the other L4 NAPL Area wells will continue, future remedial actions in this area should focus on the removal of NAPL from these four wells. Possible reasons for the continued accumulation of NAPL in these four wells are discussed with respect to NAPL removal rates in the following section.

### 3.5.2 *L4 NAPL Area Removal Data*

As shown in Table 4, approximately 5,280 gallons of NAPL have accumulated in and been removed from the L2 NAPL Area wells from 2002 through 2009. This represents almost 98% of all of the NAPL removed from the Site from 2002 to

2009. Refer to Section 3.1.4. A summary of the amount of NAPL removed per well for the L4 NAPL Area as shown in Table 4 is presented below.

L4 NAPL Area Well No.	Amount of NAPL Removed, 2002 - 2009 (gallons)	Percent of Total
VE 4-5	1,833.5	34.7%
FA 4-8	901.1	17.1%
FA 4-14	439.8	8.3%
PWW	1,737.3	32.9%
4-Well Subtotal =	4,911.7	93.0%
FA 4-10 *	236.3	4.5%
All Other L4 Wells =	132.3	2.5%
<b>Total =</b>	<b>5,280.3</b>	

\* See discussion regarding well FA 4-10 below.

Although the NAPL removed from well FA 4-10 represents almost 5% of the total amount of NAPL removed from the L4 area, most of this NAPL accumulated in and was removed from this well prior to 2008. Very little NAPL now accumulates in this well. The NAPL removed from the remaining 4 wells listed on the chart shown above (i.e., approximately 4,910 gallons) represents almost 93% of all of the NAPL removed from the L4 NAPL Area. Of this total, the 2 wells VE 4-5 and PWW have produced over two-thirds of all of the NAPL removed from the Site. The percentage of the NAPL removed from the Site generated by these 2 wells has increased in recent years.

The PWW well was installed in 2005 approximately 10 feet from well VE 4-5 in an attempt to take advantage of the amount of NAPL that appeared to be present in that area. However, NAPL has not accumulated to a great extent in the wells located near (i.e., east and west of) VE 4-5 and PWW, such as wells VE 4-4 and VE 4-6. On the other hand, large amounts of NAPL have accumulated in the wells located between VE 4-5 and the remediated former lagoon area (OU-I). Refer to Figure 8.

This information indicates that the source of the NAPL that continues to accumulate in these wells may be the subsurface soil located beneath the remediated former wastewater lagoon area. As described in Section 2.2, wastewater treatment sludge containing PCBs and the soil beneath the sludge that also contained PCBs at concentrations above the 10-ppm cleanup objective was removed as part of the OU-I remedy. The subsurface soil beneath this material in the former lagoon area that did not contain PCBs but that did contain

relatively high concentrations of petroleum constituents was left in place. The material was capped with uncontaminated fill, synthetic liner material, crushed stone, and an asphalt cap installed to fill the excavated lagoon area and to complete the OU-I remedy.

The OU-I remedy was developed by the NYSDEC in consultation with MNR in response to community objections to the remedy initially selected by the NYSDEC for this Site (i.e., on-site incineration). The OU-I and OU-II Sites have been overseen by the NYSDEC under the terms of the Inactive Hazardous Waste Disposal Site Program because of the presence of PCBs at concentrations over 50 ppm.

Soil, sludge, and solid waste material containing PCBs at concentrations over 50 ppm are listed RCRA hazardous wastes in New York State (i.e., waste codes B001 through B007). The OU-I remedy, then, was primarily designed to address the presence of the PCB contaminated material and to provide a containment remedy for the petroleum-contaminated media located beneath the PCB sludge and soil.

The subsurface soil containing petroleum constituents that was capped by the OU-I remedy components contained a relatively high concentration of organic material (peat). The paved OU-I area has experienced some subsidence over the past 10 years as evidenced by the drop in surface elevation of the asphalt pavement. The material used to fill the excavated wastewater lagoon was primarily compacted granular fill and crushed stone. As a result, the subsidence that has occurred in this area is probably an indication that the subsurface soil and peat material containing petroleum constituents that was left in place beneath the remediated lagoon area has compressed, causing the petroleum in this material to migrate to some degree.

It is likely, then, that this is the source of the NAPL that continues to accumulate in and be removed from the L4 NAPL Area wells VE 4-5, FA 4-8, FA 4-14, and PWW. Continued monitoring of these and adjacent L4 NAPL Area wells and the continued removal of accumulated NAPL from these wells will address this condition now and in the future.

Overall, most (98%) of the NAPL removed from the Site has been removed from the L4 NAPL Area. In addition, most of the NAPL removed from this area has been removed from 4 of the L4 NAPL Area wells (i.e., wells VE 4-5, FA 4-8, FA 4-14, and PWW). As a result, future OU-II Site remedial work should focus on the presence and removal of NAPL from the L4 NAPL Area.

#### 4.0 NAPL PCB CONCENTRATIONS

Samples of NAPL have periodically been collected from individual wells and from the accumulated NAPL temporarily stored in the above ground 500-gallon and 1,000-gallon L4 NAPL Area storage tanks. These NAPL samples have been analyzed for the presence of PCBs and for other disposal parameters. The results of the PCB analyses are presented in Table 5.

As shown in Table 5, none of the NAPL samples collected over the last 4 years (i.e., since April 2004) have contained PCBs at concentrations above the RCRA and TSCA threshold level of 50 ppm. As a result, the NAPL that is present in wells sampled during this 5-year period and the accumulated NAPL that has been temporarily stored in the above ground storage tanks and drums ARE not New York State RCRA hazardous wastes or a TSCA PCB-contaminated wastes.

Although two of the individual well NAPL samples collected in 2004 (i.e., well AI 3-5 and well FA 4-19) contained PCBs at concentrations above 50 ppm, none of the accumulated NAPL that had been stored in drums or in the above ground NAPL storage tanks have contained PCBs at concentrations above 50 ppm since March 2002.

It is likely that the NAPL that had migrated to the Site from the former lagoon area prior to the OU-I remedial action that contained PCBs at concentrations above 50 ppm has now been removed. The NAPL that has migrated to the Site since the OU-I remedial action was completed and that has been present at the Site since 2004 does not contain PCBs at concentrations above 50 ppm and is not a listed RCRA hazardous waste or a TSCA regulated waste.

This information was used to develop the recommendation presented in Section 6.0 that the regulatory status of the OU-II Site be changed.



## 5.0 CONCLUSIONS

Conclusions regarding the current status and the performance of the Remedy that were developed based on the information presented in this status report are described below.

### Overall Remedy Performance

Overall, the Remedy has removed NAPL from 3 of the 4 NAPL areas to the extent practicable. In addition, NAPL has been removed to the extent practicable from most of the L4 Area wells but NAPL thickness levels have remained at relatively elevated levels (i.e., 1 to 2 feet) in some of the L4 NAPL Area wells.

### Evaluation Parameters

The key parameters that describe the current status of the Site and the performance of the Remedy are: (1) the thickness of the NAPL (feet) that has accumulated in the various wells that were installed and that are used at this Site to monitor and remove NAPL; and (2) the amount of NAPL (gallons) that has been removed from these wells since system operation began in 2002.

### NAPL Thickness Levels

NAPL thickness levels have decreased in the wells at the L1, L2, and L3 NAPL areas since system operations began in 2002. However, NAPL thickness levels have remained relatively constant in some of the wells at the L4 NAPL Area. NAPL has been removed and has not accumulated in some of the L4 NAPL Area wells but has remained at relatively high levels in some of the L4 NAPL Area wells.

### NAPL Removal Methods

Biodegradation, physical NAPL removal, and the removal of NAPL-related vapors (i.e., volatilization) are the three mechanisms through which the Remedy has removed NAPL from subsurface soil at the Site since April 2002. The carbon dioxide, oxygen and PID data recorded as part of the Remedy indicate that biodegradation and volatilization have not removed significant amounts of NAPL from subsurface soil at the Site following the first few years of system operation. As a result, the physical movement of NAPL toward system wells caused by the vacuum system and the subsequent Physical removal of the NAPL that has accumulated in these wells is now the primary and probably the only method through which NAPL is removed from the Site.

### Remedy Evaluation Basis

Since physical NAPL removal is probably the sole method currently removing NAPL at the Site, the performance of the Remedy can be evaluated based on the NAPL thickness data and the record of the amount of NAPL removed from the various Site wells.

### Amount of NAPL Removed

The total amount of NAPL removed from each NAPL Area as presented in this report is summarized on the chart below.

<b>OU-II Site NAPL Area</b>	<b>Amount of NAPL Removed (2002 - 2009)</b>	<b>Percent Of Total</b>
L1 NAPL Area	65 gallons	1.2%
L2 NAPL Area	15 gallons	0.3 %
L3 NAPL Area	39 gallons	0.7 %
L4 NAPL Area	5,280 gallons	97.8 %
<b>Total =</b>	<b>5,399 gallons</b>	

These data show that most of the NAPL removed from the Site has been removed from the L4 NAPL Area. For this and other reasons, future remedial work should focus on the presence and removal of NAPL from the L4 NAPL Area.

### Remedial Goals and Remedy Performance

The ROD for the Site identified the following remedial goals for the Site: (1) prevent further migration of OU-II NAPL; (2) remove OU-II NAPL to the extent practicable; and (3) continue to prevent direct contact with subsurface OU-II NAPL. A cover of uncontaminated soil that is in place at the Site and access and use restrictions maintained by MNR achieve the last remedial goal listed above (i.e., prevent direct contact). The evaluation of the change in NAPL presence (thickness) observed at the Site presented in this report addresses the ability of the Remedy to achieve the first two remedial goals for the Site identified in the ROD: (1) to prevent further NAPL migration; and (2) to remove NAPL to the extent practicable.

### **L1 NAPL Area Remedy Performance**

The NAPL in the L1 NAPL Area has degraded to a greater extent than the NAPL in the other three NAPL areas and has attained the consistency of tar. As a result, it is difficult and at times impossible to measure the depth of the L1 area NAPL using an oil/water interface probe. In these cases, NAPL thickness can only be approximated by physically removing the NAPL from the affected wells. It is apparent from the tar-like NAPL that is occasionally removed from this area that there is only a limited amount of this material that accumulates in the L1 NAPL Area wells. These data show that there is a relatively small amount of NAPL that has accumulated in and that has been removed from the L1 NAPL Area wells over the approximately 7 year operating period. The average NAPL thickness in this area was 0.24 feet and approximately 65 gallons of NAPL have been removed from this area over the approximately 7 year operating period. In general, NAPL thickness levels are very low in the L1 NAPL Area and the Remedy has removed NAPL from this area to the extent practicable.

### **L2 NAPL Area Remedy Performance**

The L2 NAPL Area is a relatively small NAPL area. There is only one VE well and three AI wells. Only very low levels of NAPL have accumulated in the wells in this area. In fact, almost no NAPL has accumulated in 3 of the 4 L2 NAPL Area wells. The average NAPL thickness in this area was 0.37 feet and approximately 15 gallons of NAPL have been removed from this area over the approximately 7 year operating period. In general, NAPL thickness levels are very low in the L2 NAPL Area and the Remedy has removed NAPL from this area to the extent practicable.

### **L3 NAPL Area Remedy Performance**

The Remedy for the L3 NAPL Area was evaluated in a separate report included with this document as Appendix B. The L3 NAPL Area remedy evaluation report was prepared to determine if that area could be used for a new Harmon Yard facility, i.e., the Harmon Yard Recycling Center. As described in Appendix B, approximately 98% of the NAPL removed from this area was removed during the first four years of operation. In addition, the report concluded that the Remedy could be modified so that the Recycling Center can be constructed and monitoring and removal of NAPL that might accumulate in this area in the future can continue. The average NAPL thickness in this area was 0.35 feet and approximately 39 gallons of NAPL have been removed from this area over the approximately 7 year operating period. In general, NAPL thickness levels are very low in the L3 NAPL Area and the Remedy has removed NAPL from this area to the extent practicable.

### **L4 NAPL Area Remedy Performance**

The L4 NAPL Area is the largest of the four Site NAPL Areas. It covers a section of Harmon Yard approximately 600 feet along the southern boundary of the former waster lagoon (OU-I). Most (over 90%) of the NAPL removed from the Site from 2002 to 2009 was removed from four of the wells in the L4 NAPL Area (i.e., wells VE 4-5, FA 4-8, FA 4-14, and PWW) and relatively large amounts of NAPL continue to accumulate in and be removed from these four wells. Overall, most (98%) of the NAPL removed from the Site has been removed from the L4 NAPL Area. In addition, most of the NAPL removed from this area has been removed from four of the L4 NAPL Area wells (i.e., wells VE 4-5, FA 4-8, FA 4-14, and PWW). As a result, future OU-II Site remedial work should focus on the presence and removal of NAPL from the L4 NAPL Area. The average NAPL thickness in this area was 0.53 feet and approximately 5,280 gallons of NAPL have been removed from this area over the approximately 7 year operating period. The average NAPL thickness during the operating period for the four wells listed above was 1.56 feet.

### **Possible NAPL Source**

Information presented in this status report indicates that the source of the NAPL that continues to accumulate in the L4 NAPL Area wells may be the subsurface soil containing petroleum constituents that was left in place beneath the remediated lagoon area. The subsidence that has occurred in this area is probably an indication that this subsurface soil has compressed, causing the petroleum in this material to migrate to some degree and to continue to accumulate in and be removed from the L4 NAPL Area wells VE 4-5, FA 4-8, FA 4-14, and PWW.

### **NAPL PCB Concentrations (Non-Hazardous and Non-TSCA)**

None of the NAPL samples collected over the last 4 years (i.e., since April 2004) have contained PCBs at concentrations above the RCRA and TSCA threshold level of 50 ppm. As a result, the NAPL that is present in wells sampled during this 5-year period and the accumulated NAPL that has been temporarily stored in the above ground storage tanks and drums are not New York State RCRA hazardous wastes or a TSCA PCB-contaminated wastes.

## 6.0 **RECOMMENDATIONS**

Recommendations regarding the continued performance of the Remedy that were developed based on the information presented in this status report are described below.

### **Access and Use Restrictions**

The uncontaminated soil cover that is in place over the NAPL at the Site and the current MNR access and use restrictions in effect for this area should be maintained.

### **L1 NAPL Area Recommendations**

The NAPL thickness and removal data for the L1 NAPL Area show that there is a relatively small amount of NAPL that has accumulated in and that has been removed from the wells in this area over the approximately 7 year operating period. NAPL thickness levels and removal rates are very low in this area and, as described below, the Remedy has removed NAPL in this area to the extent practicable.

The vacuum component of the L1 NAPL Area remedy, which is part of the L2 NAPL Area remedy, was turned off in 2008. The NAPL in the L1 area is now a tar-like relatively immobile substance. As a result, it is not feasible to remove this material from the few wells in which it has accumulated. The low levels of NAPL in this area, the tar-like and relatively immobile characteristics of this material, and the absence of NAPL in the L1 AI wells located on the perimeter of this NAPL area indicate that the L1/L2 NAPL Area remedial system has achieved the ROD remedial goals (i.e., to prevent further NAPL migration and to remove NAPL to the extent practicable). Consequently, the recommendations for the L1 NAPL Area are as follows:

1. The vacuum component of the L1 NAPL Area remedy should remain off.
2. NAPL levels in the L1 wells should continue to be monitored and accumulated NAPL, if any, should be removed.
3. The equipment related to the vacuum component of the L1/L2 area remedy should be dismantled and removed from the Site if conditions have not changed (i.e., no significant accumulations of NAPL in the VE or AI wells) after one year of additional NAPL monitoring.

### **L2 NAPL Area Recommendations**

The NAPL thickness and removal data for the L2 NAPL Area show that there is a relatively small amount of NAPL that has accumulated in and that has been removed from the wells in this area over the approximately 7-year operating period. The data also show that NAPL thickness levels and removal rates are very low in this area and that the Remedy has removed NAPL in this area to the extent practicable.

**L2 NAPL Area Recommendations (continued)**

These data indicate that the Remedy in this area has achieved the ROD remedial goals (i.e., to prevent further NAPL migration and to remove NAPL to the extent practicable). Consequently, the recommendations for the L2 NAPL Area are as follows:

1. The vacuum component of the L2 NAPL Area remedy should remain off.
2. NAPL levels in the L2 wells should continue to be monitored and accumulated NAPL, if any, should be removed.
3. The equipment related to the vacuum component of the L1/L2 area remedy should be dismantled and removed from the Site if conditions have not changed (i.e., no significant accumulations of NAPL in the VE or AI wells) after one year of additional NAPL monitoring.

**L3 NAPL Area Recommendations**

The L3 NAPL Area Remedy was evaluated in a separate report (Appendix B) to determine if the components of the remedy could be modified in such a manner that would enable MNR to use this area for a planned recycling center. The NAPL thickness and removal data for the L3 NAPL Area that were evaluated in the report show that there is a relatively small amount of NAPL that has accumulated in and that has been removed from the wells in this area over the approximately 7-year operating period. The data also show that NAPL thickness levels and removal rates are very low in this area and that the Remedy has removed NAPL in this area to the extent practicable. Based on the conclusions presented in the L3 NAPL Area remedy evaluation report (Appendix B), the vacuum component of the NAPL removal remedy at the L3 NAPL Area was dismantled and the equipment has been removed. The wells in which NAPL had occasionally accumulated have been preserved and converted to flush-mounted wells. These wells are used to monitor for the presence of NAPL and to remove NAPL that might accumulate in these wells. Consequently, the recommendation for the L3 NAPL Area is as follows:

1. The L3 NAPL Area wells should continue to be monitored and accumulated NAPL, if any, should be removed.

**L4 NAPL Area Recommendations**

This NAPL area covers a section of Harmon Yard approximately 600 feet long located on the southern boundary of the former wastewater lagoon (OU-I). Almost all (98%) of the NAPL removed from the Site from 2002 to 2009 was removed from the L4 NAPL Area. In addition, NAPL continues to accumulate in and be removed from four of the wells in this area (i.e., wells VE 4-5, FA 4-8, FA 4-14, and PWW).

**L4 NAPL Area Recommendations (continued)**

Although NAPL had accumulated in and had been removed from other wells during the early years of the 2002 to 2009 reporting period, NAPL has essentially ceased to accumulate in these other wells over the last 3 to 4 years. As a result, the four wells listed above now define the L4 NAPL Area. Although monitoring of the other L4 NAPL Area wells will continue, future remedial actions in this area should focus on the removal of NAPL from these four wells.

Overall, operation of the vacuum component of the L4 NAPL Area should continue. The L4 NAPL Area wells should continue to be monitored and accumulated NAPL, if any, should be removed. The operation of the automatic NAPL recovery system at well PWW in the L4 NAPL Area should continue. In addition, the installation of additional 6-inch diameter wells and automatic NAPL recovery systems similar to that currently in use at the PWW well in the L4 NAPL Area should be evaluated for the affected L4 NAPL Area (i.e., near wells VE 4-5, FA 4-8, FA 4-14, and PWW).

**OU-I Well Monitoring**

The wells located within the remediated wastewater lagoon area (i.e., the OU-I Site) should be monitored for the presence of NAPL. NAPL recovery methods should be used to remove NAPL if significant quantities of NAPL (i.e., greater than 0.5 feet) are found in these OU-I lagoon wells.

**Site Regulatory Status**

The current NYSDEC Inactive Hazardous Waste Disposal Site Program Class 2 status for the Site should be changed based on: (1) the investigative and remedial work performed; (2) the current status of the Site (e.g., soil cover, restricted access and active remediation); and (3) the absence of PCBs in OU-II NAPL at concentrations above 50 ppm. Site regulatory status should be changed as follows:

1. Remove the Site from the NYSDEC Inactive Hazardous Waste Disposal Site Program and administer the Site in accordance with the NYSDEC Oil Spill Program requirements

Or

2. Change the current NYSDEC Inactive Hazardous Waste Disposal Site Program classification of the Site as a Class 2 site (significant threat to public health) to a Class 4 site (site properly closed - requires continued management).

## 7.0 REFERENCES

- ERM; 1994. *Decommissioning and Demolition Plan for the Old Wastewater Treatment Plan, Harmon Railroad Yard and Lagoon, Croton-on-Hudson, New York*; ERM-Northeast; February 25, 1994.
- ERM; 1998. *Remedial Investigation and Feasibility Study Report, Harmon Railroad Yard Wastewater Treatment Area Operable Unit II*; ERM-Northeast; January 14, 1998.
- Hart; 1989. *Remedial Investigation Report, Harmon Lagoon, Croton-on-Hudson, New York*; Fred C. Hart Associates; November 27, 1989.
- Hart; 1992. *Revised Feasibility Study Report, Harmon Lagoon, Croton-on-Hudson, New York*; McLaren/Hart Environmental Engineering Company; February 1992.
- NYSDEC; 1992. *Record of Decision for the Harmon Railroad Yard Wastewater Treatment Area; (Operable Unit I)*; NYSDEC Site Number 3-60-010; September 1992.
- NYSDEC, 1994. *NYSDEC Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels*; HWR-90-4046; NYSDEC; January 24, 1994.
- NYSDEC; 1998. *Record of Decision for the Harmon Railroad Yard Site Operable Unit II*; NYSDEC Site Number 3-60-010; March 1998.



# ***TABLES***

***METRO-NORTH RAILROAD  
HARMON RAILROAD YARD OPERABLE UNIT II  
STATUS REPORT***

**Table 1: Summary of NAPL Thickness and Removal Data, L1 NAPL Area  
Harmon Yard OU-II Site**

<b>L1 Area Well No.</b>	<b>Reporting Period Start Date</b>	<b>Reporting Period End Date</b>	<b>Amount of NAPL Removed (gallons)</b>	<b>Percent of NAPL Removed From L4 Area</b>	<b>Average NAPL Thickness (feet)</b>
VE 1-1	04/16/02	08/28/08	30.58	47.0%	1.29
VE 1-2	04/16/02	08/28/08	4.45	6.8%	0.79
VE 1-3	04/16/02	08/28/08	19.63	30.2%	0.81
VE 1-4	04/16/02	08/28/08	2.35	3.6%	0.19
VE 1-5	05/17/02	08/28/08	3.20	4.9%	0.76
VE 1-6	06/26/02	08/28/08	3.60	5.5%	0.34
VE 1-8	04/16/02	08/28/08	0.00	0.0%	0.24
VE 1-9	04/16/02	08/28/08	0.95	1.5%	0.21
VE 1-10	07/26/02	08/28/08	0.00	0.0%	0.29
VE 1-11	04/16/02	08/28/08	0.00	0.0%	0.25
AI 1-1	09/18/03	08/28/08	0.00	0.0%	0.00
AI 1-2	10/09/02	08/28/08	0.00	0.0%	0.00
AI 1-3	04/16/02	08/28/08	0.00	0.0%	0.02
AI 1-4	09/18/03	08/28/08	0.00	0.0%	0.14
AI 1-5	04/16/02	08/28/08	0.00	0.0%	0.15
AI 1-6	04/16/02	08/28/08	0.25	0.4%	0.14
AI 1-7	04/16/02	08/28/08	0.00	0.0%	0.08
AI 1-8	04/16/02	08/28/08	0.00	0.0%	0.02
AI 1-9	09/18/03	08/28/08	0.00	0.0%	0.00
AI 1-10	04/16/02	08/28/08	0.00	0.0%	0.00
AI 1-11	04/16/02	08/28/08	0.00	0.0%	0.11
AI 1-12	04/16/02	08/28/08	0.00	0.0%	0.16
AI 1-13	04/16/02	08/28/08	0.00	0.0%	0.07
AI 1-14	04/16/02	08/28/08	0.00	0.0%	0.00
AI 1-15	04/16/02	08/28/08	0.00	0.0%	0.15
AI 1-16	04/16/02	08/28/08	0.00	0.0%	0.08
<b>Total NAPL Removed, L1 Area =</b>			<b>65.0</b>	<b>gallons</b>	
<b>Average NAPL Thickness (feet), All L1 Area wells =</b>					<b>0.24</b>

**Table 2: Summary of NAPL Thickness and Removal Data, L2 NAPL Area  
Harmon Yard OU-II Site**

<b>L2 Area Well No.</b>	<b>Reporting Period Start Date</b>	<b>Reporting Period End Date</b>	<b>Amount of NAPL Removed (gallons)</b>	<b>Percent of NAPL Removed From L2 Area</b>	<b>Average NAPL Thickness (feet)</b>
VE2-1	04/16/02	08/28/08	0.25	1.7%	0.02
AI 2-1	09/16/03	08/28/08	0.00	0.0%	0.00
AI 2-2	06/26/02	08/28/08	0.00	0.0%	0.19
AI 2-3	06/26/02	08/19/08	14.58	98.3%	1.26
<b>Total NAPL Removed, L2 Area =</b>			<b>14.83</b>	<b>gallons</b>	
<b>Average NAPL Thickness (feet), All L1 Area wells =</b>					<b>0.37</b>

**Table 3: Summary of NAPL Thickness and Removal Data, L3 NAPL Area  
Harmon Yard OU-II Site**

<b>L3 Area Well No.</b>	<b>Reporting Period Start Date</b>	<b>Reporting Period End Date</b>	<b>Amount of NAPL Removed (gallons)</b>	<b>Percent of NAPL Removed From L3 Area</b>	<b>Average NAPL Thickness (feet)</b>
VE 3-1	04/08/02	02/19/09	15.57	40.4%	0.69
VE 3-2	04/08/02	02/19/09	7.47	19.4%	0.25
VE 3-3	01/13/00	02/19/09	6.46	16.8%	0.43
AI 3-1	04/15/02	02/19/09	0.23	0.6%	0.11
AI 3-2	04/15/02	02/19/09	0.58	1.5%	0.14
AI 3-3	04/15/02	08/19/08	0.00	0.0%	0.00
AI 3-4	04/15/02	02/19/09	2.73	7.1%	0.45
AI 3-5	04/08/02	02/19/09	1.97	5.1%	0.40
AI 3-6	04/08/02	02/19/09	3.55	9.2%	0.66
<b>Total NAPL Removed, L3 Area = 38.56 gallons</b>					
<b>Average NAPL Thickness (feet), All L1 Area wells =</b>					<b>0.35</b>

**Table 4: Summary of NAPL Thickness and Removal Data, L4 NAPL Area  
Harmon Yard OU-II Site**

<b>L4 Area Well No.</b>	<b>Reporting Period Start Date</b>	<b>Reporting Period End Date</b>	<b>Amount of NAPL Removed (gallons)</b>	<b>Percent of NAPL Removed From L4 Area</b>	<b>Average NAPL Thickness (feet)</b>
VE 4-1	10/09/02	08/27/08	4.2	0.1%	0.33
VE 4-2	01/07/03	08/27/08	0.0	0.0%	0.00
VE 4-3	05/10/02	08/27/08	0.0	0.0%	0.00
VE 4-4	05/10/02	08/27/08	0.0	0.0%	0.00
VE 4-5	05/10/02	07/30/09	1,833.5	34.7%	2.44
VE 4-6	05/10/02	08/27/08	13.2	0.3%	1.15
VE 4-7	02/04/03	08/27/08	9.1	0.2%	0.57
VE 4-8	05/10/02	08/27/08	4.8	0.1%	0.38
VE 4-9	05/10/02	08/27/08	7.0	0.1%	0.56
VE 4-10	05/10/02	08/27/08	6.3	0.1%	0.43
VE 4-11	05/10/02	08/27/08	0.0	0.0%	0.04
VE 4-12	05/10/02	08/27/08	4.3	0.1%	0.29
VE 4-13	11/15/01 *	08/27/08	0.0	0.0%	0.07
FA 4-1	09/17/03	08/27/08	0.0	0.0%	0.00
FA 4-2	06/26/02	08/27/08	0.0	0.0%	0.00
FA 4-3	09/25/02	08/27/08	0.0	0.0%	0.16
FA 4-4	09/17/03	08/27/08	0.0	0.0%	0.00
FA 4-5	09/17/03	08/27/08	0.0	0.0%	0.00
FA 4-6	09/17/03	08/27/08	0.0	0.0%	0.00
FA 4-7	09/17/03	08/27/08	0.0	0.0%	0.00
FA 4-8	09/25/02	12/17/08	901.1	17.1%	2.13
FA 4-9	09/25/02	08/27/08	7.3	0.1%	1.27
FA 4-10	09/17/03	12/17/08	236.3	4.5%	1.10
FA 4-11	09/25/02	08/27/08	4.6	0.1%	0.93
FA 4-12	07/14/04	08/27/08	3.7	0.1%	1.03
FA 4-13	09/25/02	08/27/08	7.0	0.1%	0.97
FA 4-14	09/25/02	12/17/08	439.8	8.3%	1.51
FA 4-15	09/25/02	08/27/08	11.8	0.2%	0.73
FA 4-16	09/25/02	08/27/08	3.5	0.1%	0.69
FA 4-17	09/25/02	08/27/08	0.0	0.0%	0.10
FA 4-18	09/25/02	08/27/08	5.7	0.1%	0.55
FA 4-19	09/25/02	05/31/06	6.6	0.1%	0.69
FA 4-20	09/25/02	05/13/08	0.3	0.0%	0.21
FA 4-21	09/17/03	08/27/08	0.8	0.0%	0.25
FA 4-22	09/17/03	08/27/08	0.0	0.0%	0.00
FA 4-23	09/17/03	08/27/08	4.3	0.1%	0.38

**Table 4: Summary of NAPL Thickness and Removal Data, L4 NAPL Area  
Harmon Yard OU-II Site**

<b>L4 Area Well No.</b>	<b>Reporting Period Start Date</b>	<b>Reporting Period End Date</b>	<b>Amount of NAPL Removed (gallons)</b>	<b>Percent of NAPL Removed From L4 Area</b>	<b>Average NAPL Thickness (feet)</b>
FA 4-24	03/02/04	08/27/08	0.0	0.0%	0.00
FA 4-25	09/17/03	08/27/08	0.0	0.0%	0.00
PGW-2	06/26/02	08/27/08	27.9	0.5%	1.59
PWW <sup>(1)</sup>	05/02/05	08/27/08	1,737.3	32.9%	0.68
<b>Total NAPL Removed, L4 Area =</b>			<b>5,280.3</b>	<b>gallons</b>	
<b>Average NAPL Thickness (feet), All L1 Area wells =</b>					<b>0.53</b>
<b>Average NAPL Thickness (feet), L1 Area wells &gt; 1.0'<sup>(2)</sup> =</b>					<b>1.56</b>

**Notes:**

1. This well (PWW) uses an automatic product recovery system (Spill Buddy). Product is continuously recovered and, as a result, the amount recovered is greater than the daily amounts recovered listed on the table. In addition, daily product removal is not recorded in some cases because of the automatic recovery of product using the Spill Buddy system.
2. This is the average NAPL thickness in the four wells in which the average thickness of NAPL was greater than 1.0 foot.

Table 5: NAPL PCB Concentrations, Harmon Yard OU-II Site

Date	Source Material <sup>(1)</sup>	Total PCB Concentration <sup>(2)</sup>
05/17/02	Accumulated NAPL, L4 Area 500 gallon Recovery Tank	119
08/28/02	Accumulated NAPL, L4 Area 500 gallon Recovery Tank	103
11/14/02	Well VE 4-5	12.1
11/14/02	Well PGW-2	11.0
03/13/03	Accumulated NAPL, L1/L2 Area Drum	< 1.0
03/13/03	Accumulated NAPL, L3 Area Drum	< 1.0
12/01/03	Accumulated NAPL, L4 Area 500 gallon Recovery Tank	10.2
04/22/04	VE 1-1	10.7
04/22/04	VE 1-3	< 1.0
04/22/04	VE 1-4	< 1.0
04/22/04	VE 1-6	< 1.0
04/22/04	VE 1-8	< 1.0
04/22/04	AI 1-4	< 1.0
04/22/04	AI 1-5	< 1.0
04/22/04	AI 1-16	< 1.0
04/22/04	AI 2-3	< 1.0
04/22/04	VE 3-1	< 1.0
04/22/04	VE 3-2	< 1.0
04/22/04	VE 3-3	< 1.0
04/22/04	AI 3-4	< 1.0
04/22/04	AI 3-5	93.7
04/22/04	AI 3-6	40.2
04/22/04	VE 4-1	26.3
04/22/04	VE 4-5	13.3
04/22/04	VE 4-6	4.62
04/22/04	VE 4-7	19.8
04/22/04	VE 4-12	8.76
04/22/04	FA 4-8	4.7
04/22/04	FA 4-9	17.8
04/22/04	FA 4-10	9.16
04/22/04	FA 4-11	3.1
04/22/04	FA 4-12	3.26
04/22/04	FA 4-13	2.42
04/22/04	FA 4-14	22.9
04/22/04	FA 4-18	29.1

Date	Source Material <sup>(1)</sup>	Total PCB Concentration <sup>(2)</sup>
04/22/04	FA 4-19	97
04/22/04	FA 4-21	16.5
04/22/04	PGW-2	5.32
10/08/04	Accumulated NAPL, Drum 1	14.0
10/08/04	Accumulated NAPL, Drum 2	13.5
10/08/04	Accumulated NAPL, L4 Area 500 gallon Recovery Tank	10.9
07/06/05	Accumulated NAPL, L4 Area 500 gallon Recovery Tank	17.0
01/30/06	Accumulated NAPL, L4 Area 500 gallon Recovery Tank	14.5
01/30/06	Accumulated NAPL, Drum West	11.8
01/30/06	Accumulated NAPL, Drum East	14.1
09/21/06	Accumulated NAPL, L4 Area 500 gallon Recovery Tank	17.7
09/21/06	Accumulated NAPL, L4 Area 1,000 gallon Recovery Tank (PWW)	21.6
11/11/08	AI 3-4	2.8
07/14/09	Accumulated NAPL, L4 Area 500 gallon Recovery Tank	8.45
07/14/09	Accumulated NAPL, L4 Area 1,000 gallon Recovery Tank (PWW)	9.25
12/03/09	Accumulated NAPL, L4 Area 500 gallon Recovery Tank	33.2
12/03/09	Accumulated NAPL, L4 Area 1,000 gallon Recovery Tank (PWW)	34.0

**Notes:**

1. Non-Aqueous Phase Liquid ("NAPL") from the Harmon Yard Operable Unit II Site.
2. All concentrations are in parts per million ("ppm")>



# *FIGURES*

*METRO-NORTH RAILROAD  
HARMON RAILROAD YARD OPERABLE UNIT II  
STATUS REPORT*



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 550 ft Scale: 1: 19,200 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  
**1-8-2010**

DRAWN BY  
**RJM**

SCALE  
**1" = 2000'**

**day**  
**DAY ENGINEERING, P.C.**  
ENVIRONMENTAL ENGINEERING CONSULTANTS  
ROCHESTER, NEW YORK 14614-1008  
NEW YORK, NEW YORK 10165-1617

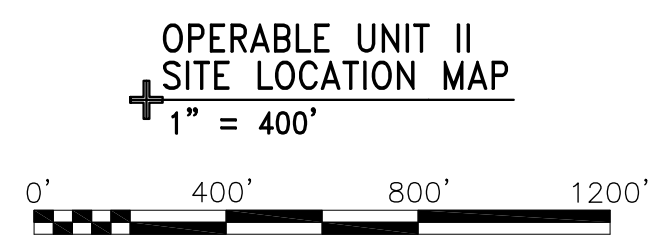
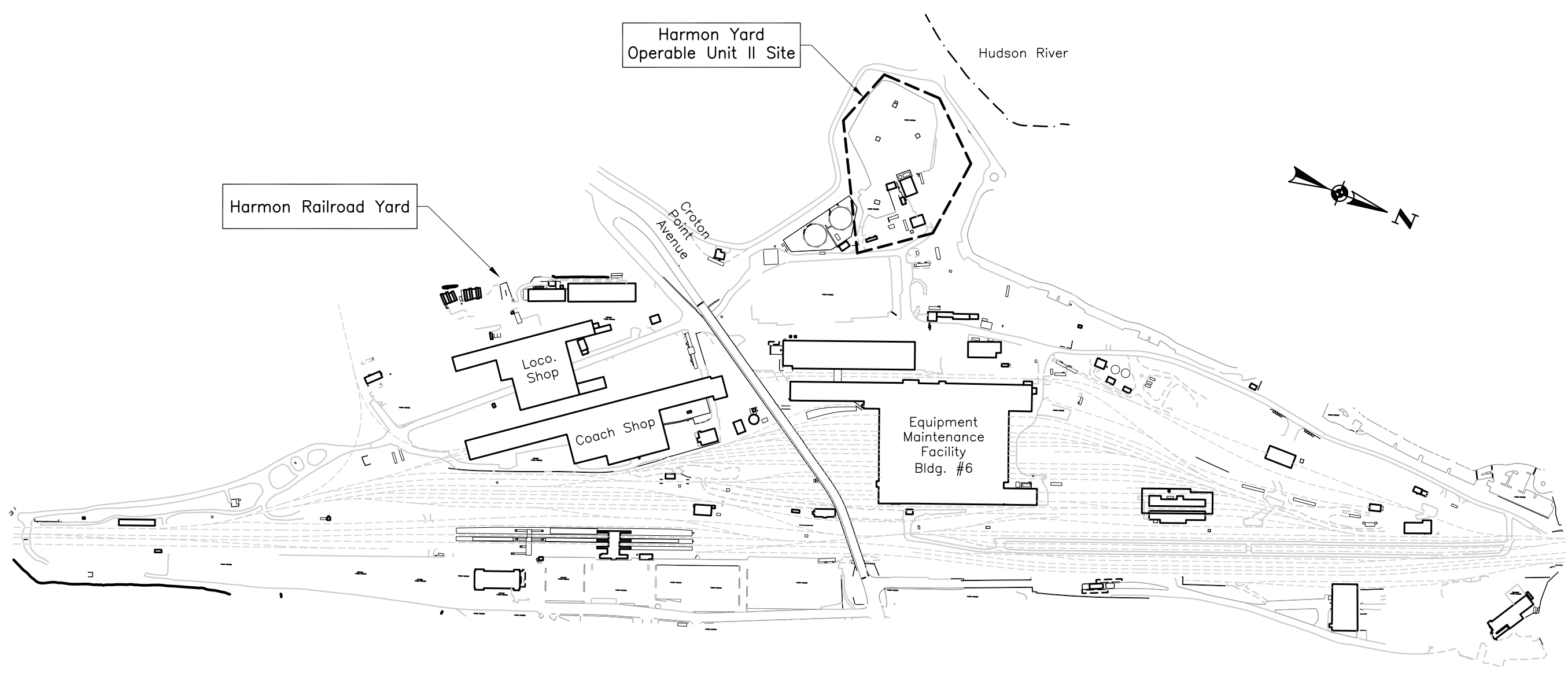
PROJECT TITLE  
**METRO-NORTH RAILROAD  
HARMON RIALROAD YARD  
OPERABLE UNIT II (OU-II) SITE**

**OU-II STATUS REPORT**



DRAWING TITLE  
**SITE LOCATION MAP**

PROJECT NO.  
**10-3231M**

**FIGURE 1**



**LEGEND:**

	Approximate Boundary Of Operable Unit II Site
	Railroad Tracks

FIELD VERIFIED BY	JAI	DATE	1-2010
DRAWN BY	RJM	DATE DRAWN	1-8-2010
SCALE	As Noted	DATE ISSUED	1-8-2010

**day**  
**DAY ENGINEERING, P.C.**  
 ENVIRONMENTAL ENGINEERING CONSULTANTS  
 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**

DRAWING TITLE  
**OU-II STATUS REPORT  
 Harmon Yard Location Map**

PROJECT NO.  
**10-3231M (46)**

**FIGURE 2**

Ref1: Xerox432AnsiB-2; 11 x 17  
 Ref2: Layout Name: Layout2  
 Ref3: Pen Setting File: 800psHalfScaleColor.ctb

Time Plotted: Monday, January 11, 2010 10:48:00 AM  
 File Name: P:\Drawings\Metro\Harmon\Remediation-46\Treatment Plant Wells.dwg



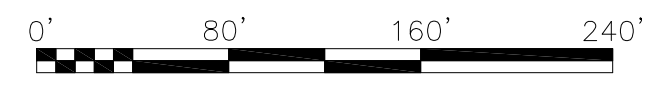
**SITE PLAN**  
**OU-II NAPL AREAS**  
 1" = 80'

**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 CONROL" 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 Area
- Approximate Fence And Harmon Yard Property Line Location
- - - - - Approximate Location Of Sheet Pile Wall Around Remediated Former Lagoon Area (OU-I)



PROJECT MANAGER	JJI
DRAWN BY	RJM
DATE	10-2009
DATE DRAWN	11-5-2009
DATE ISSUED	1-11-2010
SCALE	1" = 80'

**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  
**Operable Unit II Site Plan**

PROJECT NO.  
 10-3231M (46)  
**FIGURE 3**

Pen Setting File: 800psFullcolor.ctb  
 Layout: Layout1  
 File Name: P:\Drawings\Metro\Harmon\Remediation-46\OU-II Site Plan.dwg  
 Ref3:  
 Ref2:  
 Ref1:  
 Time Plotted: Monday, January 11, 2010 10:41:24 AM

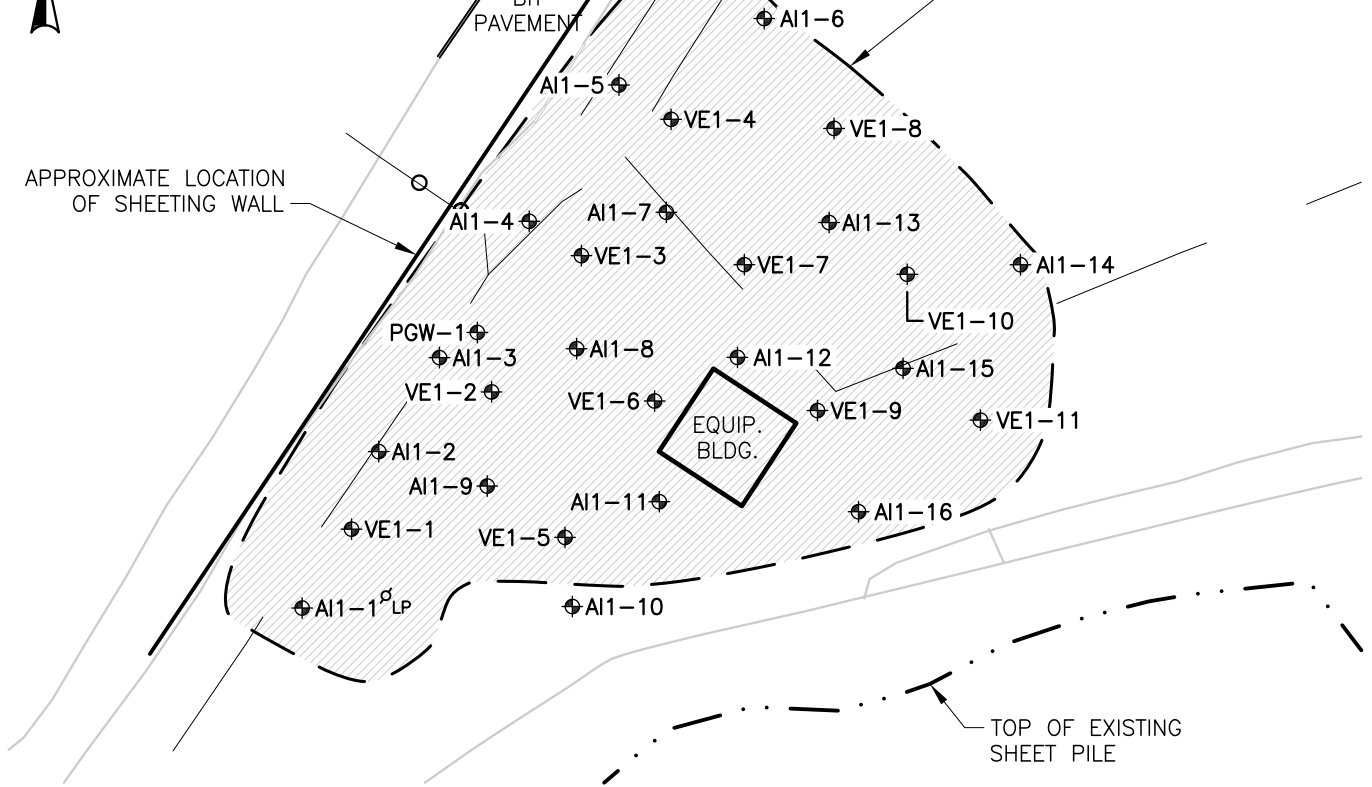


APPROXIMATE LOCATION OF SHEETING WALL

BIT PAVEMENT

8' CLF

NAPL AREA L1

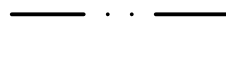


**LEGEND:**

- ◆VE1-2 Existing OU-II Remedy Vapor Extraction Well Location
- ◆AI1-2 Existing OU-II Remedy (Passive) Air Inlet Well Location
- ◆PGW-1 Existing OU-II Remedy Perimeter Groundwater Monitoring Well Location



Approximate NAPL Area

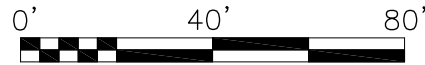


Approximate Location Of Sheet Pile Wall Around Remediated Former Lagoon Area (OU-I)


**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 CONROL" 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 an area where non-aqueous phase liquids (NAPL) has been detected, and is identified as NAPL Area L1. NAPL Areas L2, L3 and L4 are not shown on this figure.
3. Operable Unit II (OU-II) remedy well locations were determined from coordinate values listed on the ERM drawings identified in note No. 1.

**PARTIAL PLAN  
 L1 NAPL AREA**  
 +  
 1" = 40'



DATE	1-11-2010
DRAWN BY	RJM
SCALE	1 = 40'

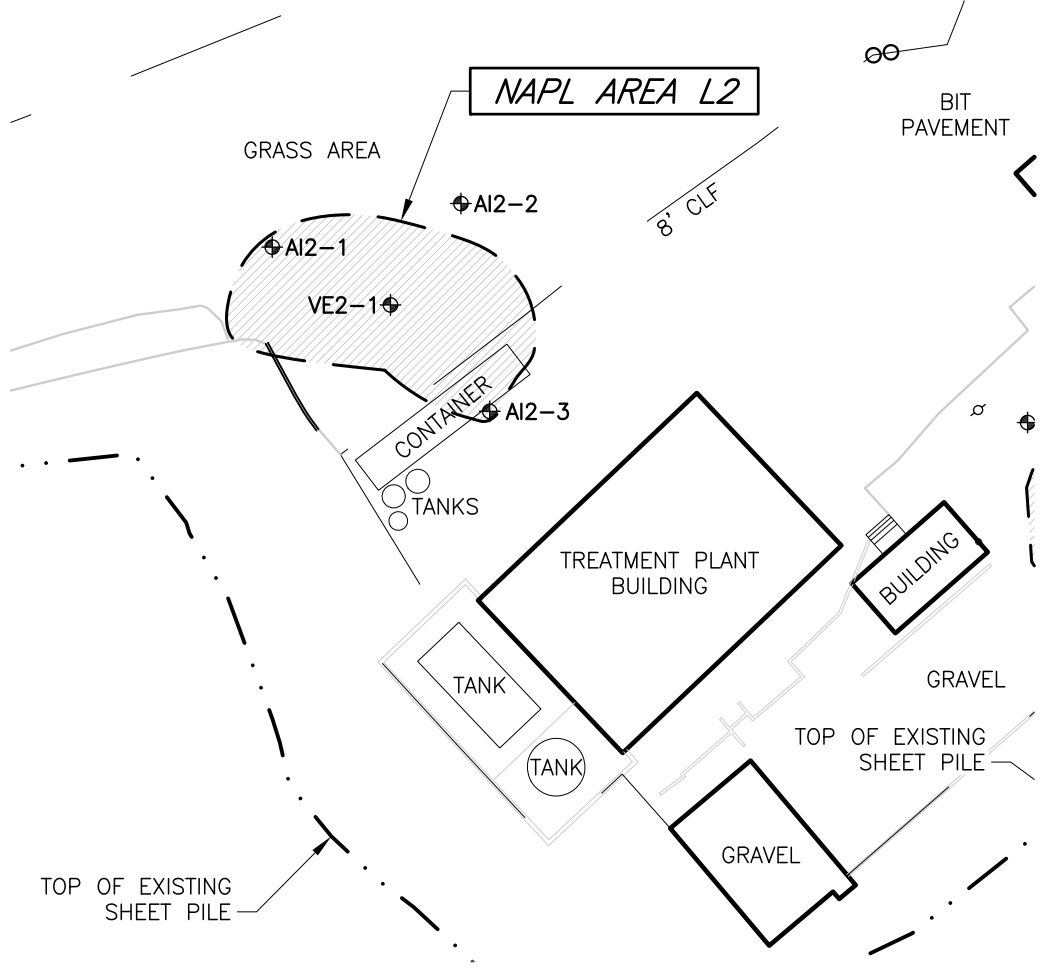


**DAY ENGINEERING, P.C.**  
 ENVIRONMENTAL ENGINEERING CONSULTANTS  
 ROCHESTER, NEW YORK 14614-1008  
 NEW YORK, NEW YORK 10016-0710

PROJECT TITLE	METRO-NORTH RAILROAD HARMON YARD OPERABLE UNIT II (OU-II) CROTON-ON-HUDSON, NEW YORK
DRAWING TITLE	OU-II STATUS REPORT  OU-II Site L1 NAPL Area

PROJECT NO.	10-3231M
<b>FIGURE 4</b>	

Pen Setting File: 800psFullcolor.ctb  
 Layout: Layout2  
 File Name: P:\Drawings\Metro\Harmon\Remediation-46\OU-II Site Plan.dwg  
 Ref3:  
 Ref2:  
 Ref1:  
 Time Plotted: Monday, January 11, 2010 10:43:16 AM



**LEGEND:**


- 
**VE2-1** Existing OU-II Remedy Vapor Extraction Well Location
- 
**AI2-1** Existing OU-II Remedy (Passive) Air Inlet Well Location
- 
 Approximate NAPL Area
- 
 Approximate Location Of Sheet Pile Wall Around Remediated Former Lagoon Area (OU-I)

**NOTES:**

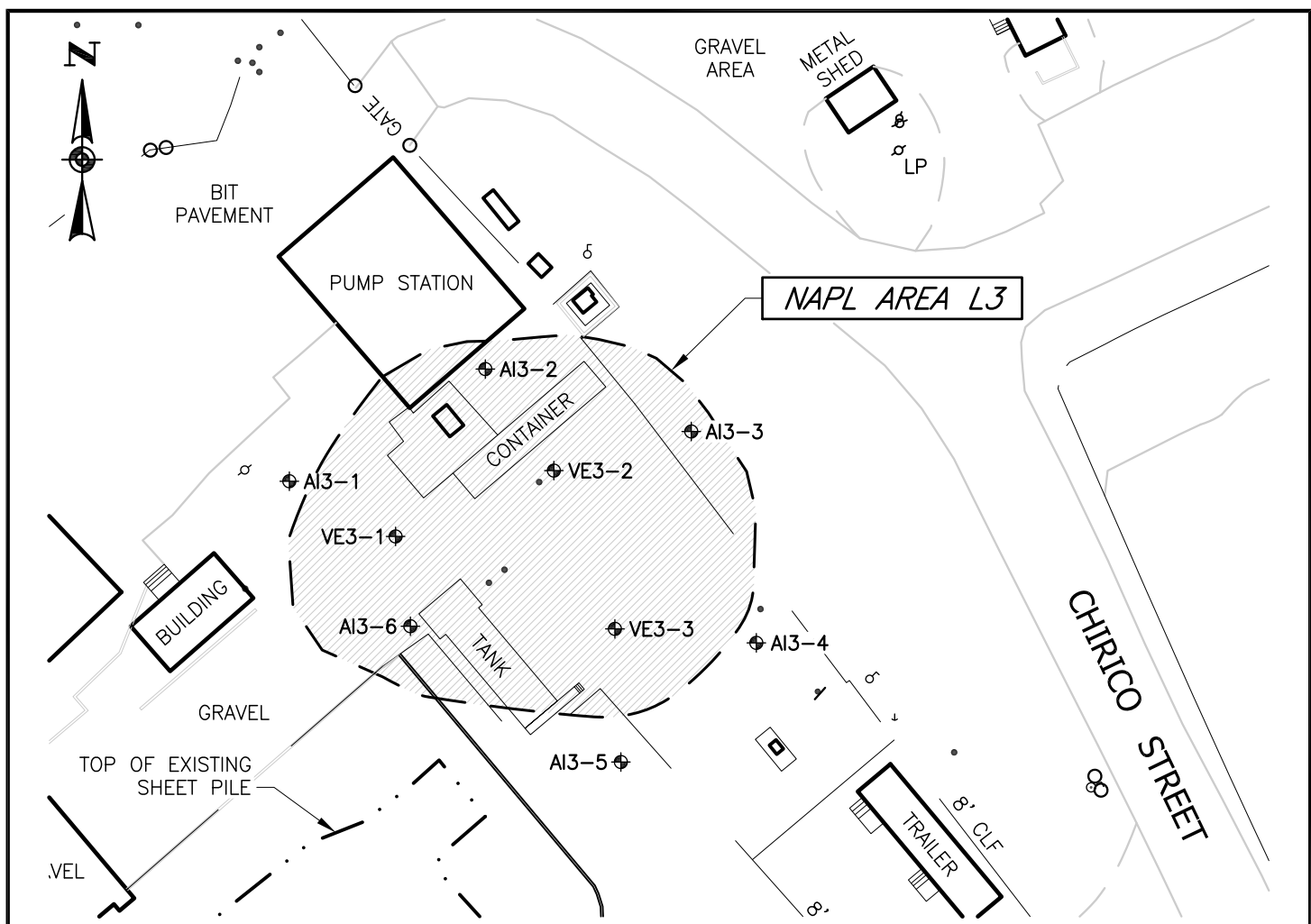
1. This drawing was prepared from a CAD base file provided by others, from a drawing by ERM, entitled "EXISTING SITE PLAN AND SURVEY CONROL" sheet No. C-1 dated 7/31/00 and from a drawing by ERM, "SITE PLAN WITH LOCATIONS OF PROPOSED WELLS AND SHEET PILING", sheet No. C-2, dated 7/31/00.
2. This figure shows an area where non-aqueous phase liquids (NAPL) has been detected, and is identified as NAPL Area L2. NAPL Areas L1, L3 and L4 are not shown on this figure.
3. Operable Unit II (OU-II) remedy well locations were determined from coordinate values listed on the ERM drawings identified in note No. 1.

**PARTIAL PLAN  
 L2 NAPL AREA**  
 +  
 1" = 40'



DATE <b>1-11-2010</b>	 <b>DAY ENGINEERING, P.C.</b> ENVIRONMENTAL ENGINEERING CONSULTANTS ROCHESTER, NEW YORK 14614-1008 NEW YORK, NEW YORK 10016-0710	PROJECT TITLE <b>METRO-NORTH RAILROAD          HARMON YARD OPERABLE UNIT II (OU-II)          CROTON-ON-HUDSON, NEW YORK</b>	PROJECT NO. <b>10-3231M</b>
DRAWN BY <b>RJM</b>		OU-II STATUS REPORT	<b>FIGURE 5</b>
SCALE <b>1" = 40'</b>		DRAWING TITLE <b>OU-II Site L2 NAPL Area</b>	

Pen Setting File: 800psFullcolor.ctb  
 Layout: Layout3  
 File Name: P:\Drawings\Metro\Harmon\Remediation-46\OU-II Site Plan.dwg  
 Ref3:  
 Ref2:  
 Time Plotted: Monday, January 11, 2010 10:44:14 AM  
 Ref1:



**LEGEND:**


- ◆ VE3-1 Existing OU-II Remedy Vapor Extraction Well Location
- ◆ AI3-1 Existing OU-II Remedy (Passive) Air Inlet Well Location
-  Approximate NAPL Area
-  Approximate Location Of Sheet Pile Wall Around Remediated Former Lagoon Area (OU-I)

**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 CONROL" 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 an area where non-aqueous phase liquids (NAPL) has been detected, and is identified as NAPL Area L3. NAPL Areas L1, L2 and L4 are not shown on this figure.
3. Operable Unit II (OU-II) remedy well locations were determined from coordinate values listed on the ERM drawings identified in note No. 1.

**PARTIAL PLAN  
 L3 NAPL AREA**  
 +  
 1" = 40'

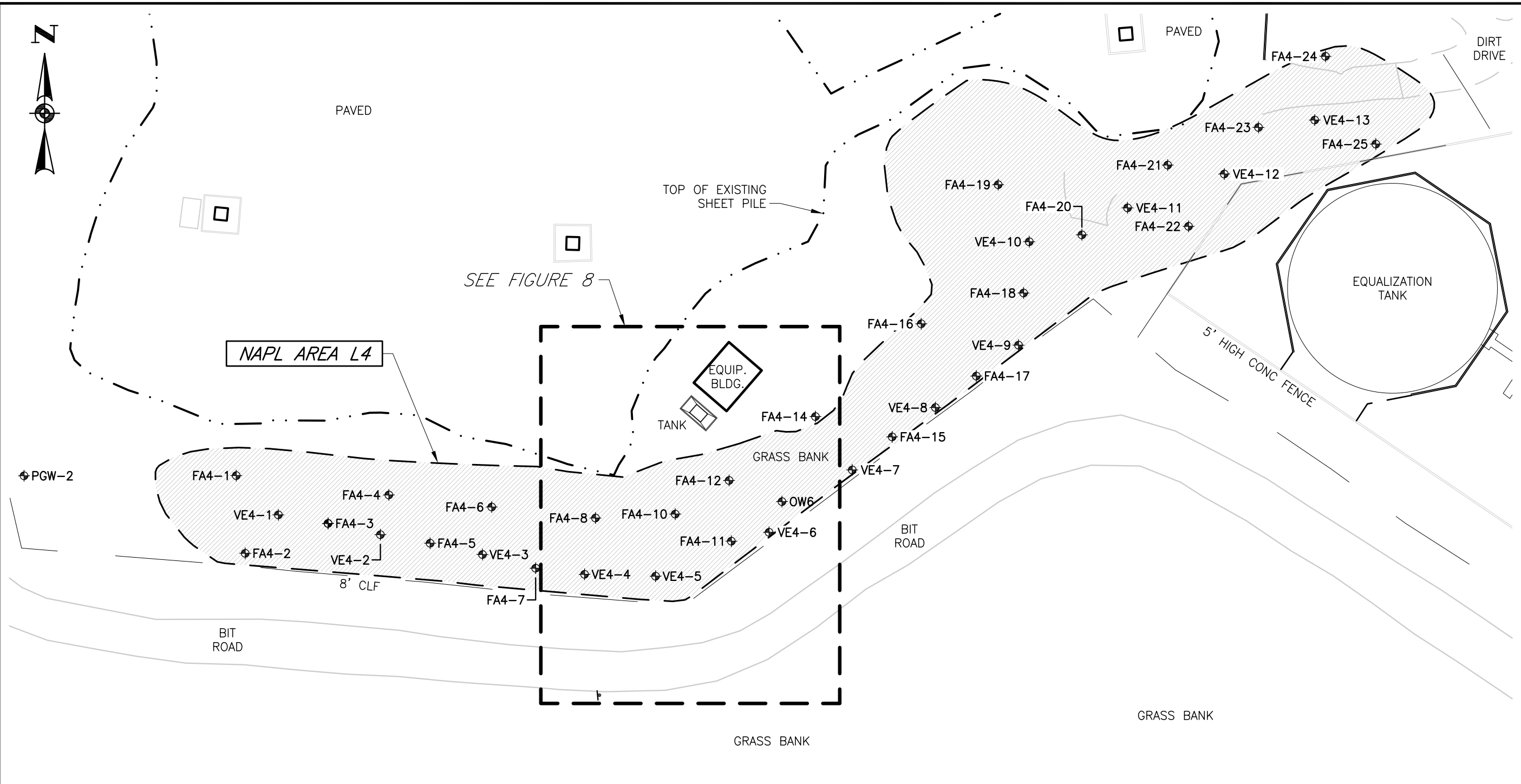


<p>DATE 1-11-2010</p> <p>DRAWN BY RJM</p> <p>SCALE 1 = 40'</p>	 <p><b>DAY ENGINEERING, P.C.</b>          ENVIRONMENTAL ENGINEERING CONSULTANTS          ROCHESTER, NEW YORK 14614-1008          NEW YORK, NEW YORK 10016-0710</p>	<p>PROJECT TITLE          METRO-NORTH RAILROAD          HARMON YARD OPERABLE UNIT II (OU-II)          CROTON-ON-HUDSON, NEW YORK</p> <p>OU-II STATUS REPORT</p> <p>DRAWING TITLE          OU-II Site L3 NAPL Area</p>	<p>PROJECT NO. 10-3231M</p> <p><b>FIGURE 6</b></p>
--	---	---	--

Ref1:  
Ref2:  
Ref3:

Xerox432AnsiB-2; 11 x 17  
Layout Name: Layout4  
Pen Setting File: 800psFullcolor.ctb

Time Plotted: Monday, January 11, 2010 10:45:47 AM  
File Name: P:\Drawings\Metro\Harmon\Remediation-46\OU-II Site Plan.dwg



**LEGEND:**

- ◆ VE4-1 Existing OU-II Remedy Vapor Extraction Well Location
- ◆ FA4-1 Existing OU-II Remedy Forced Air Injection Well Location
- ◆ PGW-2 Existing OU-II Remedy Perimeter Groundwater Monitoring Well Location
- Approximate NAPL Area
- Approximate Fence And Harmon Yard Property Line Location
- Approximate Location Of Sheet Pile Wall Around Remediated Former Lagoon Area (OU-I)

**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 an area where non-aqueous phase liquids (NAPL) has been detected, and is identified as NAPL Area L4. NAPL Areas L1, L2 and L3 are not shown on this figure.
3. Operable Unit II (OU-II) remedy well locations were determined from coordinate values listed on the ERM drawings identified in note No. 1.

**PARTIAL PLAN  
L4 NAPL AREA**  
1" = 40'

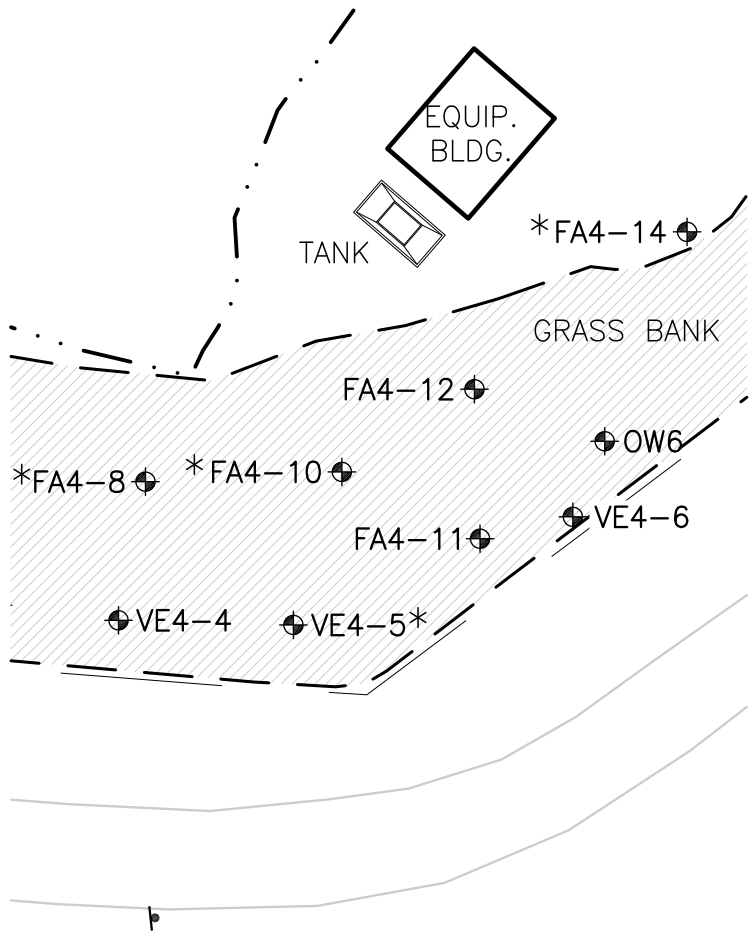


PROJECT MANAGER	JJI
DATE	10-2009
DRAWN BY	RJM
DATE DRAWN	11-5-2009
SCALE	1" = 40'
DATE ISSUED	1-11-2010

**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-HUDSON, NEW YORK
DRAWING TITLE	OU-II STATUS REPORT
PROJECT NO.	10-3231M (46)
DRAWING TITLE	OU-II Site L4 NAPL Area
<b>FIGURE 7</b>	





**LEGEND:**

- ◆ VE1-2 Existing OU-II Remedy Vapor Extraction Well Location
- ◆ AI1-2 Existing OU-II Remedy (Passive) Air Inlet Well Location
- Approximate NAPL Area
- Approximate Fence And Harmon Yard Property Line Location
- Approximate Location Of Sheet Pile Wall Around Remediated Former Lagoon Area (OU-I)

**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 CONROL" 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 an area where non-aqueous phase liquids (NAPL) has been detected, and is identified as NAPL Area L4. NAPL Areas L1, L2 and L3 are not shown on this figure.
3. \* Approximaely 98% of the NAPL removed from the L4 Area and 96% of the NAPL from the OU-II Site from 2002 through 2009 was removed from these wells.
4. Operable Unit II (OU-II) remedy well locations were determined from coordinate values listed on the ERM drawings identified in note No. 1.

**KEY L4 NAPL AREA WELLS**  
 +  
 1" = 30'



DATE	1-11-2010
DRAWN BY	RJM
SCALE	1 = 30'

**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-HUDSON, NEW YORK
DRAWING TITLE	OU-II STATUS REPORT  Key L4 NAPL Area Wells

PROJECT NO.	10-3231M
<b>FIGURE 8</b>	

***APPENDIX A***  
***HARMON YARD OU-II SITE***  
***NAPL THICKNESS AND***  
***REMOVAL DATA (2002-2009)***

*Appendix A is presented in electronic form (only) on the compact disc  
("CD") included with this OU-II Site Status Action Report.*

*A list of the data tables included on the enclosed CD is attached.*

*L1 NAPL Area:*

*TABLE A- 1: Summary of NAPL Removal, L1 NAPL Area*

*TABLE A- 2: NAPL Thickness and Removal Measurements – Well VE 1-1*

*TABLE A- 3: NAPL Thickness and Removal Measurements – Well VE 1-2*

*TABLE A- 4: NAPL Thickness and Removal Measurements – Well VE 1-3*

*TABLE A- 5: NAPL Thickness and Removal Measurements – Well VE 1-4*

*TABLE A- 6: NAPL Thickness and Removal Measurements – Well VE 1-5*

*TABLE A- 7: NAPL Thickness and Removal Measurements – Well VE 1-6*

*TABLE A- 8: NAPL Thickness and Removal Measurements – Well VE 1-7*

*TABLE A- 9: NAPL Thickness and Removal Measurements – Well VE 1-8*

*TABLE A- 10: NAPL Thickness and Removal Measurements – Well VE 1-9*

*TABLE A- 11: NAPL Thickness and Removal Measurements – Well VE 1-10*

*TABLE A- 12: NAPL Thickness and Removal Measurements – Well VE 1-11*

*TABLE A- 13: NAPL Thickness and Removal Measurements – Well AI 1-1*

*TABLE A- 14: NAPL Thickness and Removal Measurements – Well AI 1-2*

*TABLE A- 15: NAPL Thickness and Removal Measurements – Well AI 1-3*

*TABLE A- 16: NAPL Thickness and Removal Measurements – Well AI 1-4*

*TABLE A- 17: NAPL Thickness and Removal Measurements – Well AI 1-5*

*TABLE A- 18: NAPL Thickness and Removal Measurements – Well AI 1-6*

*TABLE A- 19: NAPL Thickness and Removal Measurements – Well AI 1-7*

*TABLE A- 20: NAPL Thickness and Removal Measurements – Well AI 1-8*

*TABLE A- 21: NAPL Thickness and Removal Measurements – Well AI 1-9*

*TABLE A- 22: NAPL Thickness and Removal Measurements – Well AI 1-10*

*TABLE A- 23: NAPL Thickness and Removal Measurements – Well AI 1-11*

*TABLE A- 24: NAPL Thickness and Removal Measurements – Well AI 1-12*

*TABLE A- 25: NAPL Thickness and Removal Measurements – Well AI 1-13*

*TABLE A- 26: NAPL Thickness and Removal Measurements – Well AI 1-14*

*TABLE A- 27: NAPL Thickness and Removal Measurements – Well AI 1-15*

*TABLE A- 28: NAPL Thickness and Removal Measurements – Well AI 1-16*

*L2 NAPL Area:*

*TABLE A- 29: Summary of NAPL Removal, L2 NAPL Area*

*TABLE A- 30: NAPL Thickness and Removal Measurements – Well VE 2-1*

*TABLE A- 31: NAPL Thickness and Removal Measurements – Well AI 2-1*

*TABLE A- 32: NAPL Thickness and Removal Measurements – Well AI 2-2*

*TABLE A- 33: NAPL Thickness and Removal Measurements – Well AI 2-3*

*L4 NAPL Area:*

*TABLE A- 34: Summary of NAPL Removal, L4 NAPL Area*

*TABLE A- 35: NAPL Thickness and Removal Measurements – Well VE 4-1*

*TABLE A- 36: NAPL Thickness and Removal Measurements – Well VE 4-2*

*TABLE A- 37: NAPL Thickness and Removal Measurements – Well VE 4-3*

*TABLE A- 38: NAPL Thickness and Removal Measurements – Well VE 4-4*

*TABLE A- 39: NAPL Thickness and Removal Measurements – Well VE 4-5*

*TABLE A- 40: NAPL Thickness and Removal Measurements – Well VE 4-6*

*TABLE A- 41: NAPL Thickness and Removal Measurements – Well VE 4-7*

*TABLE A- 42: NAPL Thickness and Removal Measurements – Well VE 4-8*

*TABLE A- 43: NAPL Thickness and Removal Measurements – Well VE 4-9*

*TABLE A- 44: NAPL Thickness and Removal Measurements – Well VE 4-10*

*TABLE A- 45: NAPL Thickness and Removal Measurements – Well VE 4-11*

*TABLE A- 46: NAPL Thickness and Removal Measurements – Well VE 4-12*

*TABLE A- 47: NAPL Thickness and Removal Measurements – Well VE 4-13*

*TABLE A- 48: NAPL Thickness and Removal Measurements – Well FA 4-1*

*TABLE A- 49: NAPL Thickness and Removal Measurements – Well FA 4-2*

*TABLE A- 50: NAPL Thickness and Removal Measurements – Well FA 4-3*

*TABLE A- 51: NAPL Thickness and Removal Measurements – Well FA 4-4*

*TABLE A- 52: NAPL Thickness and Removal Measurements – Well FA 4-5*

*TABLE A- 53: NAPL Thickness and Removal Measurements – Well FA 4-6*

*TABLE A- 54: NAPL Thickness and Removal Measurements – Well FA 4-7*

*L4 NAPL Area (continued):*

*TABLE A- 55: NAPL Thickness and Removal Measurements – Well FA 4-8*  
*TABLE A- 56: NAPL Thickness and Removal Measurements – Well FA 4-9*  
*TABLE A- 57: NAPL Thickness and Removal Measurements – Well FA 4-10*  
*TABLE A- 58: NAPL Thickness and Removal Measurements – Well FA 4-11*  
*TABLE A- 59: NAPL Thickness and Removal Measurements – Well FA 4-12*  
*TABLE A- 60: NAPL Thickness and Removal Measurements – Well FA 4-13*  
*TABLE A- 61: NAPL Thickness and Removal Measurements – Well FA 4-14*  
*TABLE A- 62: NAPL Thickness and Removal Measurements – Well FA 4-15*  
*TABLE A- 63: NAPL Thickness and Removal Measurements – Well FA 4-16*  
*TABLE A- 64: NAPL Thickness and Removal Measurements – Well FA 4-17*  
*TABLE A- 65: NAPL Thickness and Removal Measurements – Well FA 4-18*  
*TABLE A- 66: NAPL Thickness and Removal Measurements – Well FA 4-19*  
*TABLE A- 67: NAPL Thickness and Removal Measurements – Well FA 4-20*  
*TABLE A- 68: NAPL Thickness and Removal Measurements – Well FA 4-21*  
*TABLE A- 69: NAPL Thickness and Removal Measurements – Well FA 4-22*  
*TABLE A- 70: NAPL Thickness and Removal Measurements – Well FA 4-23*  
*TABLE A- 71: NAPL Thickness and Removal Measurements – Well FA 4-24*  
*TABLE A- 72: NAPL Thickness and Removal Measurements – Well FA 4-25*  
*TABLE A- 73: NAPL Thickness and Removal Measurements – Well PGW-2*  
*TABLE A- 74: NAPL Thickness and Removal Measurements – Well PWW*

*Note: NAPL thickness and removal data tables for the L3 NAPL Area are presented in Appendix B.*

**Table A-1: Summary of NAPL Thickness and Removal Data, L1 NAPL Area  
Harmon Yard OU-II Site**

<b>L1 Area Well No.</b>	<b>Reporting Period Start Date</b>	<b>Reporting Period End Date</b>	<b>Amount of NAPL Removed (gallons)</b>	<b>Percent of NAPL Removed From L4 Area</b>	<b>Average NAPL Thickness (feet)</b>
VE 1-1	04/16/02	08/28/08	30.58	47.0%	1.29
VE 1-2	04/16/02	08/28/08	4.45	6.8%	0.79
VE 1-3	04/16/02	08/28/08	19.63	30.2%	0.81
VE 1-4	04/16/02	08/28/08	2.35	3.6%	0.19
VE 1-5	05/17/02	08/28/08	3.20	4.9%	0.76
VE 1-6	06/26/02	08/28/08	3.60	5.5%	0.34
VE 1-8	04/16/02	08/28/08	0.00	0.0%	0.24
VE 1-9	04/16/02	08/28/08	0.95	1.5%	0.21
VE 1-10	07/26/02	08/28/08	0.00	0.0%	0.29
VE 1-11	04/16/02	08/28/08	0.00	0.0%	0.25
AI 1-1	09/18/03	08/28/08	0.00	0.0%	0.00
AI 1-2	10/09/02	08/28/08	0.00	0.0%	0.00
AI 1-3	04/16/02	08/28/08	0.00	0.0%	0.02
AI 1-4	09/18/03	08/28/08	0.00	0.0%	0.14
AI 1-5	04/16/02	08/28/08	0.00	0.0%	0.15
AI 1-6	04/16/02	08/28/08	0.25	0.4%	0.14
AI 1-7	04/16/02	08/28/08	0.00	0.0%	0.08
AI 1-8	04/16/02	08/28/08	0.00	0.0%	0.02
AI 1-9	09/18/03	08/28/08	0.00	0.0%	0.00
AI 1-10	04/16/02	08/28/08	0.00	0.0%	0.00
AI 1-11	04/16/02	08/28/08	0.00	0.0%	0.11
AI 1-12	04/16/02	08/28/08	0.00	0.0%	0.16
AI 1-13	04/16/02	08/28/08	0.00	0.0%	0.07
AI 1-14	04/16/02	08/28/08	0.00	0.0%	0.00
AI 1-15	04/16/02	08/28/08	0.00	0.0%	0.15
AI 1-16	04/16/02	08/28/08	0.00	0.0%	0.08
<b>Total NAPL Removed, L1 Area =</b>			<b>65.0</b>	<b>gallons</b>	
<b>Average NAPL Thickness (feet), All L1 Area wells =</b>					<b>0.24</b>

**Table A-2: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-Ii Site L1 NAPL Area (2002 - 2009)**  
**Well VE 1-1 (Well Diameter = 4 inches)**

es]

Date	Well VE 1-1				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 1-1 (gallons)	
				Per Day	To-Date
11/15/01*	NM	8.31	NM	0.00	0.00
01/11/02 *	NM	8.56	NM	0.00	0.00
04/08/02 *	NM	8.14	NM	0.00	0.00
04/16/02	NM	8.21	NM	0.00	0.00
05/17/02	NM	NM	NM	0.00	0.00
06/26/02	NM	NM	NM	0.00	0.00
07/26/02	NM	7.68	NM	0.00	0.00
08/15/02	NM	7.66	NM	1.00	1.00
09/09/02	NM	7.75	NM	0.25	1.25
10/09/02	10.15	7.52	2.63	1.00	2.25
11/05/02	10.02	7.45	2.57	0.10	2.35
12/17/02	9.88	6.78	3.10	1.00	3.35
01/07/03	9.45	6.24	3.21	0.10	3.45
02/03/03	10.59	7.58	3.01	1.00	4.45
03/12/03	8.35	6.7	1.65	0.00	4.45
09/18/03	7.13	7.13	0.00	0.00	4.45
03/02/04	7.84	7.84	0.00	0.00	4.45
04/27/04	7.45	7.45	0.00	0.00	4.45
05/25/04	7.19	7.19	0.00	0.00	4.45
05/26/04	7.90	7.18	0.72	0.00	4.45
06/01/04	8.65	6.88	1.77	1.00	5.45
06/02/04	7.54	6.98	0.56	0.50	5.95
06/08/04	8.25	7.03	1.22	0.50	6.45
06/10/04	7.75	7.13	0.62	0.38	6.83
06/17/04	8.50	7.33	1.17	0.50	7.33
06/23/04	8.47	7.30	1.17	0.75	8.08
07/01/04	8.45	7.35	1.10	0.88	8.95
07/07/04	8.35	7.55	0.80	0.63	9.58
07/08/04	7.80	7.58	0.22	0.25	9.83
07/14/04	7.88	7.28	0.60	0.44	10.26
08/11/04	8.07	6.50	1.57	1.25	11.51
08/24/04	8.75	5.60	3.15	1.63	13.14
09/21/04	8.10	5.24	2.86	2.25	15.39
10/08/04	6.30	5.60	0.70	0.50	15.89
10/20/04	6.02	6.00	0.02	0.00	15.89
11/09/04	NM	NM	NM	1.00	16.89
11/10/04	NM	NM	NM	0.19	17.08
02/15/05	NM	NM	NM	3.00	20.08
03/31/05	NM	NM	NM	2.00	22.08
04/26/05	NM	NM	NM	1.25	23.33
11/01/05	5.85	5.45	0.40	1.25	24.58
01/10/06	NM	NM	NM	3.00	27.58
05/31/06	NM	NM	NM	3.00	30.58
08/28/08	NM	9.01	NM	0.00	30.58

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-3: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well VE 1-2 (Diameter = 4 inches)**

Date	Well VE 1-2				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 1-2 (gallons)	
				Per Day	To-Date
11/15/01 *	NM	9.14	NM	0.00	0.00
01/11/02 *	NM	9.35	NM	0.00	0.00
04/8/02 *	NM	9.02	NM	0.00	0.00
04/16/02	NM	8.98	NM	0.25	0.25
05/17/02	NM	NM	NM	0.00	0.25
06/26/02	NM	NM	NM	0.00	0.25
07/26/02	NM	8.78	NM	1.00	1.25
08/15/02	NM	8.74	NM	1.00	2.25
09/09/02	NM	8.45	NM	0.50	2.75
10/09/02	10.15	7.52	2.63	1.00	3.75
11/05/02	12.56	8.16	4.4	0.10	3.85
12/17/02	NM	5.76	NM	0.00	3.85
01/07/03	9.40	8.38	1.02	0.50	4.35
02/03/03	11.20	8.47	2.73	0.00	4.35
03/12/03	7.90	7.80	0.10	0.10	4.45
09/18/03	5.97	5.97	0.00	0.00	4.45
03/02/04	9.00	9.00	0.00	0.00	4.45
04/27/04	7.45	7.45	0.00	0.00	4.45
09/21/04	5.41	5.18	0.23	0.00	4.45
10/08/04	6.15	6.15	0.00	0.00	4.45
10/12/04	5.91	5.90	0.01	0.00	4.45
04/26/05	7.44	7.44	0.00	0.00	4.45
11/01/05	6.32	6.32	0.00	0.00	4.45
01/10/06	7.08	7.08	0.00	0.00	4.45
08/28/08	NM	10.11	NM	0.00	4.45

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.



**Table A-4: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well VE 1-3 (Diameter = 4 inches)**

Date	Well VE 1-3				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 1-3 (gallons)	
				Per Day	To-Date
11/15/01 *	NR	8.29	NM	0.00	0.00
01/11/02 *	NR	8.49	NM	0.00	0.00
04/08/02 *	NR	8.02	NM	0.00	0.00
04/16/02	NR	8.01	NM	1.00	1.00
05/17/02	NM	NM	NM	0.00	1.00
06/26/02	NR	8.00	NM	1.00	2.00
07/26/02	NR	7.78	NM	1.00	3.00
08/15/03	NR	7.78	NM	1.00	4.00
09/09/02	NR	7.82	NM	1.00	5.00
10/09/02	10.38	7.57	2.81	1.00	6.00
11/05/02	9.05	8.90	0.15	0.50	6.50
12/17/02	6.82	6.70	0.12	1.00	7.50
01/07/03	8.95	8.50	0.45	0.00	7.50
02/03/03	NR	7.54	0.00	0.00	7.50
03/12/03	8.50	7.02	1.48	0.00	7.50
05/25/04	7.44	7.12	0.32	0.00	7.50
05/26/04	NM	7.20	0.00	0.00	7.50
06/01/04	7.18	7.05	0.13	0.00	7.50
06/08/04	7.35	7.18	0.17	0.00	7.50
06/10/04	7.88	7.00	0.88	0.13	7.63
06/17/04	NM	8.53	0.00	0.13	7.75
06/23/04	8.30	7.30	1.00	0.25	8.00
07/01/04	8.43	7.50	0.93	0.25	8.25
07/07/04	8.00	7.54	0.46	0.50	8.75
07/08/04	7.58	7.58	0.00	0.00	8.75
07/14/04	7.50	7.30	0.20	0.25	9.00
08/11/04	8.15	6.64	1.51	1.50	10.50
08/24/04	8.40	6.30	2.10	1.13	11.63
09/21/04	5.31	NM	NM	2.00	13.63
10/08/04	9.47	5.98	3.49	1.13	14.75
10/12/04	7.84	6.20	1.64	1.00	15.75
10/20/04	6.43	6.40	0.03	0.00	15.75
11/09/04	NM	NM	NM	1.00	16.75
11/01/05	NM	NM	NM	1.25	18.00
01/10/06	NM	NM	NM	1.00	19.00
05/31/06	NM	NM	NM	0.63	19.63
08/28/08	NM	9.21	NM	0.00	19.63

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-5: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well VE 1-4 (Diameter = 4 inches)**

Date	Well VE 1-4				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 1-4 (gallons)	
				Per Day	To-Date
11/15/01 *	9.95	9.93	0.02	0.00	0.00
01/11/02 *	NM	10.19	NM	0.00	0.00
04/8/02 *	9.68	9.68	0.00	0.00	0.00
04/16/02	9.71	9.71	0.00	0.00	0.00
05/17/02	NM	NM	NM	0.00	0.00
06/26/02	NM	NM	NM	0.00	0.00
07/26/02	NM	9.18	NM	0.00	0.00
08/15/02	NM	9.19	NM	0.00	0.00
09/09/02	NM	9.21	NM	1.00	1.00
10/09/02	9.45	9.17	0.28	0.50	1.50
11/05/02	9.05	8.90	0.15	0.10	1.60
12/17/02	8.87	8.36	0.51	0.00	1.60
01/07/03	7.69	7.60	0.09	0.50	2.10
02/03/03	11.35	9.16	2.19	0.00	2.10
03/12/03	8.40	8.35	0.05	0.00	2.10
09/18/03	8.53	8.53	0.00	0.00	2.10
04/27/04	8.62	8.62	0.00	0.00	2.10
05/25/04	8.65	8.65	0.00	0.00	2.10
05/26/04	8.60	8.60	0.00	0.00	2.10
06/01/04	8.42	8.42	0.00	0.00	2.10
06/08/04	8.44	8.44	0.00	0.00	2.10
06/17/04	8.80	8.73	0.07	0.00	2.10
07/01/04	8.85	8.83	0.02	0.00	2.10
09/21/04	6.98	6.81	0.17	0.00	2.10
10/08/04	7.60	7.30	0.30	0.25	2.35
10/12/04	7.64	7.63	0.01	0.00	2.35
10/20/04	9.95	9.92	0.03	0.00	2.35
11/09/04	10.69	10.59	0.10	0.00	2.35
04/26/05	9.96	9.96	0.00	0.00	2.35
11/01/05	6.70	6.70	0.00	0.00	2.35
01/10/06	NM	NM	NM	0.00	2.35
08/28/08	NM	10.84	NM	0.00	2.35

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-6: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well VE 1-5 (Diameter = 4 inches)**

Date	Well VE 1.5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 1.5 (gallons)	
				Per Day	To-Date
11/15/01 *	14.73	14.71	0.02	0.00	0.00
01/11/02 *	NM	14.96	NM	0.00	0.00
04/8/02 *	14.45	-	-	0.00	0.00
04/16/02 *	14.46	-	-	0.00	0.00
05/17/02	NM	NM	NM	0.00	0.00
06/26/02	NM	NM	NM	0.00	0.00
07/26/02	NM	13.92	NM	0.00	0.00
08/15/02	NM	13.90	NM	0.00	0.00
09/09/02	14.15	14.00	0.15	1.00	1.00
10/09/02	14.05	9.00	5.05	0.10	1.10
11/05/02	15.70	13.49	2.21	1.00	2.10
12/17/02	13.80	13.09	0.71	1.00	3.10
01/07/03	12.65	11.70	0.95	0.10	3.20
02/03/03	NM	10.23	NM	0.00	3.20
03/12/03	13.10	13.00	0.10	0.00	3.20
09/18/03	13.10	13.10	0.00	0.00	3.20
03/02/04	14.18	14.18	0.00	0.00	3.20
04/27/04	13.20	13.20	0.00	0.00	3.20
04/26/05	12.78	12.78	0.00	0.00	3.20
11/01/05	11.68	11.68	0.00	0.00	3.20
01/10/06	12.28	12.28	0.00	0.00	3.20
08/28/08	NM	15.51	NM	0.00	3.20

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-7: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well VE 1-6 (Diameter = 4 inches)**

Date	Well VE 1-6				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 1-6 (gallons)	
				Per Day	To-Date
11/15/01 *	NM	13.45	NM	0.00	0.00
01/11/02 *	NM	13.68	NM	0.00	0.00
04/08/02 *	NM	13.74	NM	0.00	0.00
04/16/02 *	NM	13.78	NM	0.25	0.25
6/26/2002	NR	11.00	NM	1.00	1.25
7/26/2002	13.29	13.02	0.27	0.10	1.35
8/15/2002	13.17	12.99	0.18	0.00	1.35
9/9/2002	13.09	12.86	0.23	0.00	1.35
10/9/2002	14.06	11.08	2.98	0.00	1.35
11/5/2002	13.78	12.56	1.22	0.50	1.85
12/17/2002	12.1	11.97	0.13	0.75	2.60
1/7/2003	11.35	10.50	0.85	0.90	3.50
2/3/2003	13.90	12.84	1.06	0.10	3.60
3/12/2003	12.20	12.00	0.20	0.00	3.60
9/18/2003	12.50	12.50	0.00	0.00	3.60
3/2/2004	13.05	13.04	0.01	0.00	3.60
4/27/2004	12.45	12.45	0.00	0.00	3.60
5/25/2004	12.50	12.50	0.00	0.00	3.60
5/26/2004	12.43	12.43	0.00	0.00	3.60
6/1/2004	12.25	12.25	0.00	0.00	3.60
6/8/2004	12.38	12.38	0.00	0.00	3.60
6/17/2004	12.74	12.74	0.00	0.00	3.60
7/1/2004	12.68	12.68	0.00	0.00	3.60
4/26/2005	11.93	11.93	0.00	0.00	3.60
11/1/2005	10.70	10.70	0.00	0.00	3.60
1/10/2006	11.40	11.40	0.00	0.00	3.60
08/28/08	NM	14.35	NM	0.00	3.60

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-8: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well VE 1-7 (Diameter = 4 inches)**

Date	Well VE 1-7				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 1-7 (gallons)	
				Per Day	To-Date
11/15/01 *	NM	12.34	NM	0.00	0.00
01/11/02 *	NM	12.58	NM	0.00	0.00
01/29/02 *	NM	12.59	NM	0.00	0.00
04/08/02 *	NM	12.86	NM	1.00	1.00
4/16/2002	NM	12.85	NM	0.50	1.50
5/17/2002	NM	NM	NM	0.00	1.50
6/26/2002	NM	11.19	NM	0.00	1.50
7/26/2002	NM	12.28	NM	1.00	2.50
8/15/2002	NM	12.23	NM	1.00	3.50
9/9/2002	12.75	12.36	0.39	1.00	4.50
10/9/2002	12.35	11.84	0.51	0.10	4.60
11/5/2002	11.93	11.46	0.47	0.00	4.60
12/17/2002	11.22	11.06	0.16	1.00	5.60
1/7/2003	11.19	10.05	1.14	0.00	5.60
2/3/2003	NM	11.74	NM	0.00	5.60
3/12/2003	10.72	10.62	0.10	0.00	5.60
9/18/2003	11.65	11.30	0.35	0.00	5.60
3/2/2004	11.25	11.25	0.00	0.00	5.60
4/27/2004	11.21	11.20	0.01	0.00	5.60
8/11/2004	10.73	10.70	0.03	0.00	5.60
4/26/2005	10.65	10.65	0.00	0.00	5.60
11/1/2005	9.95	9.95	0.00	0.00	5.60
1/10/2006	10.30	10.30	0.00	0.00	5.60
08/28/08	NM	13.46	NM	0.00	5.60

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-9: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well VE 1-8 (Diameter = 4 inches)**

Date	Well VE 1-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 1-8 (gallons)	
				Per Day	To-Date
11/15/01 *	NM	12.06	NM	0.00	0.00
01/11/02 *	NM	12.29	NM	0.00	0.00
01/29/02 *	NM	12.32	NM	0.00	0.00
04/08/02 *	11.90	11.90	0.00	0.00	0.00
4/16/2002	11.91	11.91	0.00	0.00	0.00
5/17/2002	NM	NM	NM	0.00	0.00
6/26/2002	NM	NM	NM	0.00	0.00
7/26/2002	NM	11.15	NM	0.00	0.00
8/15/2002	NM	11.11	NM	0.00	0.00
9/9/2002	11.86	11.41	0.45	0.00	0.00
10/9/2002	11.67	11.41	0.26	0.00	0.00
11/5/2002	11.54	11.19	0.35	0.00	0.00
12/17/2002	10.81	10.54	0.27	0.00	0.00
1/7/2003	12.96	12.84	0.12	0.00	0.00
2/3/2003	13.66	11.41	2.25	0.00	0.00
3/12/2003	10.55	10.3	0.25	0.00	0.00
9/18/2003	11.00	11.00	0.00	0.00	0.00
3/2/2004	11.65	11.65	0.00	0.00	0.00
4/27/2004	11.07	11.07	0.00	0.00	0.00
5/25/2004	11.09	11.09	0.00	0.00	0.00
5/26/2004	10.99	10.97	0.02	0.00	0.00
6/1/2004	10.90	10.90	0.00	0.00	0.00
6/8/2004	11.00	10.98	0.02	0.00	0.00
6/17/2004	11.06	11.05	0.01	0.00	0.00
7/1/2004	11.16	11.10	0.06	0.00	0.00
4/26/2005	10.54	10.54	0.00	0.00	0.00
11/1/2005	9.63	9.63	0.00	0.00	0.00
1/10/2006	10.20	10.20	0.00	0.00	0.00
08/28/08	NM	13.23	NM	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-10: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well VE 1-9 (Diameter = 4 inches)**

Date	Well VE 1-9				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 1-9 (gallons)	
				Per Day	To-Date
11/15/01 *	NM	15.01	NM	0.00	0.00
01/11/02 *	NM	15.25	NM	0.00	0.00
01/29/02 *	NM	15.22	NM	0.00	0.00
04/08/02 *	NM	15.48	NM	0.10	0.10
04/16/02	NM	15.51	NM	0.25	0.35
05/17/02	NM	NM	NM	0.00	0.35
06/26/02	NM	10.00	NM	0.50	0.85
07/26/02	15.31	15.02	0.29	0.10	0.95
08/15/02	15.22	15.01	0.21	0.00	0.95
09/09/02	NM	14.29	NM	0.00	0.95
10/09/02	14.58	14.25	0.33	0.00	0.95
11/05/02	14.32	14.00	0.32	0.00	0.95
12/17/02	13.98	13.42	0.56	0.00	0.95
01/07/03	12.96	12.84	0.12	0.00	0.95
02/03/03	16.34	14.25	2.09	0.00	0.95
03/12/03	13.32	13.20	0.12	0.00	0.95
09/18/03	13.42	13.42	0.00	0.00	0.95
03/02/04	14.40	14.40	0.00	0.00	0.95
04/27/04	13.52	13.52	0.00	0.00	0.95
04/26/05	12.93	12.93	0.00	0.00	0.95
11/01/05	11.95	11.95	0.00	0.00	0.95
01/10/06	12.55	12.55	0.00	0.00	0.95
08/28/08	NM	15.75	NM	0.00	0.95

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-11: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well VE 1-10 (Diameter = 4 inches)**

Date	Well VE 1-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 1-10 (gallons)	
				Per Day	To-Date
11/15/01 *	NM	13.98	NM	0.00	0.00
01/11/02 *	NM	14.23	NM	0.00	0.00
01/29/02 *	NM	14.21	NM	0.00	0.00
04/8/02 *	13.88	13.85	0.03	0.00	0.00
04/16/02 *	13.84	13.84	0.00	0.00	0.00
07/26/02	13.36	13.36	0.00	0.00	0.00
08/15/02	13.29	13.29	0.00	0.00	0.00
09/09/02	13.29	13.25	0.04	0.00	0.00
10/09/02	13.26	13.25	0.01	0.00	0.00
11/05/02	13.05	13.04	0.01	0.00	0.00
12/17/02	12.12	11.90	0.22	0.00	0.00
01/07/03	11.82	11.64	0.18	0.00	0.00
02/03/03	13.25	12.44	0.81	0.00	0.00
03/12/03	12.21	11.79	0.42	0.00	0.00
09/18/03	12.82	12.54	0.28	0.00	0.00
03/02/04	13.41	13.40	0.01	0.00	0.00
04/27/04	12.80	12.80	0.00	0.00	0.00
04/26/05	12.18	12.18	0.00	0.00	0.00
11/01/05	11.08	11.08	0.00	0.00	0.00
01/10/06	10.90	10.90	0.00	0.00	0.00
08/28/08	NM	15.25	NM	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.



**Table A-12: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well VE 1-11 (Diameter = 4 inches)**

Date	Well VE 1-11				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 1-11 (gallons)	
				Per Day	To-Date
11/15/01 *	14.62	NM	NM	0.00	0.00
01/11/02 *	NM	14.87	NM	0.00	0.00
01/29/02 *	NM	14.86	NM	0.00	0.00
04/08/ 02*	15.45	15.43	0.02	0.00	0.00
04/16/02	15.44	15.44	0.00	0.00	0.00
05/17/02	NM	NM	NM	0.00	0.00
06/26/02	NM	NM	NM	0.00	0.00
07/26/02	13.97	13.92	0.05	0.00	0.00
08/15/02	13.94	13.90	0.04	0.00	0.00
09/09/02	14.04	14.04	0.00	0.00	0.00
10/09/02	14.00	14.00	0.00	0.00	0.00
11/05/02	13.78	13.78	0.00	0.00	0.00
12/17/02	13.15	13.10	0.05	0.00	0.00
01/07/03	11.19	10.05	1.14	0.00	0.00
02/03/03	10.46	10.04	0.42	0.00	0.00
03/12/03	12.96	12.84	0.12	0.00	0.00
09/18/03	13.85	13.35	0.50	0.00	0.00
03/02/04	13.90	12.31	1.59	0.00	0.00
04/27/04	13.18	13.18	0.00	0.00	0.00
04/26/05	12.87	12.85	0.02	0.00	0.00
11/01/05	11.94	11.94	0.00	0.00	0.00
01/10/06	12.50	12.50	0.00	0.00	0.00
08/28/08	NM	15.54	NM	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-13: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-1 (Diameter = 2 inches)**

Date	Well AI 1-1				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1-1 (gallons)	
				Per Day	To-Date
04/08/02 *	12.02	12.02	0.00	0.00	0.00
09/18/03	11.12	11.12	0.00	0.00	0.00
03/02/04	11.23	11.23	0.00	0.00	0.00
04/27/04	10.95	10.95	0.00	0.00	0.00
04/26/05	10.63	10.63	0.00	0.00	0.00
01/10/06	10.24	10.24	0.00	0.00	0.00
08/28/08	11.56	11.54	0.02	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-14: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-2 (Diameter = 2 inches)**

Date	Well AI 1-2				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1-2 (gallons)	
				Per Day	To-Date
01/11/02 *	13.58	13.51	0.07	0.00	0.00
04/08/02 *	13.40	13.40	0.00	0.00	0.00
10/09/02	8.97	8.97	0.00	0.00	0.00
11/05/02	8.69	8.68	0.01	0.00	0.00
12/17/02	7.98	7.98	0.00	0.00	0.00
01/07/03	7.75	7.73	0.02	0.00	0.00
02/03/03	9.23	9.23	0.00	0.00	0.00
03/12/03	8.15	8.15	0.00	0.00	0.00
09/18/03	12.17	12.17	0.00	0.00	0.00
03/02/04	12.98	12.98	0.00	0.00	0.00
04/27/04	12.08	12.08	0.00	0.00	0.00
04/26/05	11.53	11.53	0.00	0.00	0.00
11/01/05	9.81	9.81	0.00	0.00	0.00
01/10/06	11.03	11.03	0.00	0.00	0.00
08/28/08	12.56	12.56	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

0.00 = average NAPL thickness

**Table A-15: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-3 (Diameter = 2 inches)**

Date	Well AI 1-3				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1-3 (gallons)	
				Per Day	To-Date
01/11/02 *	NM	12.37	NM	0.00	0.00
04/08/02 *	NM	12.32	NM	0.00	0.00
04/16/02	NM	12.29	NM	0.00	0.00
09/25/02	9.14	9.14	0.00	0.00	0.00
09/18/03	11.35	11.20	0.15	0.00	0.00
03/02/04	11.88	11.88	0.00	0.00	0.00
04/27/04	11.25	11.25	0.00	0.00	0.00
04/26/05	10.72	10.72	0.00	0.00	0.00
11/01/05	10.47	10.47	0.00	0.00	0.00
01/10/06	10.30	10.30	0.00	0.00	0.00
08/28/08	11.02	11.02	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-16: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-4 (Diameter = 2 inches)**

Date	Well AI 1-4				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1-4 (gallons)	
				Per Day	To-Date
01/11/02 *	NR	11.78	NR	0.00	0.00
04/08/02 *	NR	11.72	NR	0.00	0.00
04/16/02 *	NR	11.74	NR	0.00	0.00
09/18/03	11.25	10.65	0.60	0.00	0.00
03/02/04	11.26	11.26	0.00	0.00	0.00
04/27/04	10.74	10.43	0.31	0.00	0.00
05/25/04	10.70	10.70	0.00	0.00	0.00
05/26/04	10.70	10.70	0.00	0.00	0.00
06/01/04	10.52	10.47	0.05	0.00	0.00
06/08/04	10.81	10.59	0.22	0.00	0.00
06/10/04	10.67	10.65	0.02	0.00	0.00
06/17/04	10.93	10.85	0.08	0.00	0.00
07/01/04	11.21	10.90	0.31	0.00	0.00
07/08/04	10.98	10.95	0.03	0.00	0.00
07/14/04	10.76	10.76	0.00	0.00	0.00
08/11/04	10.24	10.15	0.09	0.00	0.00
08/24/04	9.87	9.78	0.09	0.00	0.00
09/21/04	9.98	8.81	1.17	0.00	0.00
10/08/04	9.40	9.35	0.05	0.00	0.00
10/12/04	9.62	9.61	0.01	0.00	0.00
10/20/04	9.95	9.92	0.03	0.00	0.00
11/09/04	10.69	10.59	0.10	0.00	0.00
11/01/05	9.65	9.65	0.00	0.00	0.00
01/10/05	9.78	9.78	0.00	0.00	0.00
08/28/08	10.77	10.77	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-17: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-5 (Diameter = 2 inches)**

Date	Well AI 1-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1-5 (gallons)	
				Per Day	To-Date
01/11/02 *	NR	12.91	NR	0.00	0.00
04/08/02 *	NR	13.94	NR	0.00	0.00
04/16/02	NR	13.94	NR	0.00	0.00
09/18/03	13.52	12.74	0.78	0.00	0.00
03/02/04	13.33	13.33	0.00	0.00	0.00
04/27/04	13.06	12.73	0.33	0.00	0.00
05/25/04	12.77	12.75	0.02	0.00	0.00
05/26/04	12.75	12.65	0.10	0.00	0.00
06/01/04	12.59	12.48	0.11	0.00	0.00
06/08/04	13.21	12.65	0.56	0.00	0.00
06/10/04	13.15	12.38	0.77	0.00	0.00
06/17/04	12.97	12.92	0.05	0.00	0.00
06/23/04	13.05	12.86	0.19	0.00	0.00
07/01/04	13.00	12.96	0.04	0.00	0.00
07/14/04	12.81	12.80	0.01	0.00	0.00
08/11/04	12.53	12.20	0.33	0.00	0.00
08/24/04	11.93	11.80	0.13	0.00	0.00
09/21/04	10.91	10.90	0.01	0.00	0.00
10/08/04	11.50	11.50	0.00	0.00	0.00
10/12/04	11.72	11.72	0.00	0.00	0.00
10/20/04	12.00	11.94	0.06	0.00	0.00
11/09/04	12.70	12.65	0.05	0.00	0.00
04/26/05	10.22	10.22	0.00	0.00	0.00
11/01/05	9.13	9.13	0.00	0.00	0.00
01/10/06	11.85	11.85	0.00	0.00	0.00
08/28/08	13.12	13.12	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-18: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-6 (Diameter = 2 inches)**

Date	Well AI 1-6				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1-6 (gallons)	
				Per Day	To-Date
01/11/02 *	NM	14.23	NM	0.00	0.00
04/08/02 *	NM	14.11	NM	0.00	0.00
04/16/02	NM	14.12	NM	0.00	0.00
09/18/03	13.60	13.14	0.46	0.00	0.00
03/02/04	13.96	13.78	0.18	0.00	0.00
04/27/04	13.10	13.10	0.00	0.00	0.00
05/25/04	13.20	13.13	0.07	0.00	0.00
05/26/04	13.08	13.08	0.00	0.00	0.00
06/01/04	13.10	12.90	0.20	0.00	0.00
06/08/04	13.30	13.08	0.22	0.00	0.00
06/10/04	13.41	13.10	0.31	0.13	0.13
06/17/04	13.59	13.32	0.27	0.13	0.25
06/23/04	13.80	13.25	0.55	0.00	0.25
07/01/04	13.60	13.37	0.23	0.00	0.25
07/14/04	13.20	13.19	0.01	0.00	0.25
08/11/04	12.93	12.58	0.35	0.00	0.25
08/24/04	12.30	12.25	0.05	0.00	0.25
09/21/04	11.47	11.33	0.14	0.00	0.25
10/08/04	11.91	11.89	0.02	0.00	0.25
12/12/04	12.15	12.14	0.01	0.00	0.25
10/20/04	12.40	12.30	0.10	0.00	0.25
11/09/04	13.20	13.10	0.10	0.00	0.25
04/26/05	12.65	12.65	0.00	0.00	0.25
11/01/05	11.21	11.21	0.00	0.00	0.25
01/10/06	12.25	12.25	0.00	0.00	0.25
08/28/08	12.81	12.81	0.00	0.00	0.25

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-19: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-7 (Diameter = 2 inches)**

Date	Well AI 1-7				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1-7 (gallons)	
				Per Day	To-Date
01/11/02 *	NM	14.92	NM	0.00	0.00
04/08/02 *	NM	14.85	NM	0.00	0.00
4/16/2002	NM	14.82	NM	0.00	0.00
9/18/2003	14.30	13.76	0.54	0.00	0.00
3/2/2004	14.35	14.35	0.00	0.00	0.00
4/27/2004	13.83	13.83	0.00	0.00	0.00
4/26/2005	13.25	13.25	0.00	0.00	0.00
11/1/2005	12.00	12.00	0.00	0.00	0.00
1/10/2006	12.91	12.91	0.00	0.00	0.00
08/28/08	14.00	14.00	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.



**Table A-20: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-8 (Diameter = 2 inches)**

Date	Well AI 1-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1-8 (gallons)	
				Per Day	To-Date
01/11/02 *	NM	14.78	NM	0.00	0.00
04/08/02 *	NM	14.77	NM	0.00	0.00
04/16/02	NM	14.81	NM	0.00	0.00
09/18/03	13.70	13.70	0.00	0.00	0.00
03/02/04	14.35	14.35	0.00	0.00	0.00
04/27/04	13.74	13.74	0.00	0.00	0.00
11/01/05	12.26	12.26	0.00	0.00	0.00
01/10/06	12.96	12.82	0.14	0.00	0.00
08/28/08	13.80	13.80	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-21: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-9 (Diameter = 2 inches)**

Date	Well AI 1.9				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1.9 (gallons)	
				Per Day	To-Date
01/11/02 *	NM	14.38	NM	0.00	0.00
04/08/02 *	15.51	15.51	0.00	0.00	0.00
09/18/03	14.40	14.40	0.00	0.00	0.00
03/02/04	15.17	15.17	0.00	0.00	0.00
04/27/04	14.32	14.32	0.00	0.00	0.00
04/26/05	13.72	13.72	0.00	0.00	0.00
11/01/05	12.08	12.08	0.00	0.00	0.00
01/10/06	13.23	13.23	0.00	0.00	0.00
08/28/08	14.66	14.66	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-22: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-10 (Diameter = 2 inches)**

Date	Well AI 1.10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1.10 (gallons)	
				Per Day	To-Date
01/11/02 *	NR	18.92	NR	0.00	0.00
04/08/02 *	NR	18.84	NR	0.00	0.00
04/16/02	NR	18.86	NR	0.00	0.00
09/18/03	17.55	17.55	0.00	0.00	0.00
03/02/04	18.43	18.43	0.00	0.00	0.00
04/27/04	17.35	17.35	0.00	0.00	0.00
04/26/05	17.10	17.10	0.00	0.00	0.00
11/01/05	16.00	16.00	0.00	0.00	0.00
01/10/06	16.60	16.60	0.00	0.00	0.00
08/28/08	17.88	17.88	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-23: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-11 (Diameter = 2 inches)**

Date	Well AI 1-11				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1-11 (gallons)	
				Per Day	To-Date
01/11/02 *	NR	18.71	NR	0.00	0.00
04/08/02 *	NR	18.68	NR	0.00	0.00
04/16/02	NR	18.70	NR	0.00	0.00
09/18/03	18.07	17.50	0.57	0.00	0.00
03/02/04	18.35	18.20	0.15	0.00	0.00
04/27/04	17.38	17.38	0.00	0.00	0.00
04/26/05	16.98	16.98	0.00	0.00	0.00
11/01/05	15.80	15.80	0.00	0.00	0.00
01/10/06	16.50	16.50	0.00	0.00	0.00
08/28/08	17.80	17.75	0.05	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-24: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-12 (Diameter = 2 inches)**

Date	Well AI 1-12				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1-12 (gallons)	
				Per Day	To-Date
01/11/02 *	NM	18.47	NM	0.00	0.00
04/08/02 *	NM	18.31	NM	0.00	0.00
04/16/02	NM	18.32	NM	0.00	0.00
09/18/03	17.90	17.30	0.60	0.00	0.00
03/02/04	17.95	17.93	0.02	0.00	0.00
04/27/04	17.29	17.29	0.00	0.00	0.00
04/26/05	16.95	16.78	0.17	0.00	0.00
11/01/05	15.80	15.80	0.00	0.00	0.00
01/10/06	16.76	16.45	0.31	0.00	0.00
08/28/08	17.55	17.55	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-25: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-13 (Diameter = 2 inches)**

Date	Well AI 1-13				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1-13 (gallons)	
				Per Day	To-Date
01/11/02 *	NM	17.62	NM	0.00	0.00
04/08/02 *	NM	17.69	NM	0.00	0.00
04/16/02	NM	17.68	NM	0.00	0.00
09/18/03	16.78	16.55	0.23	0.00	0.00
03/02/04	17.28	17.15	0.13	0.00	0.00
04/27/04	16.45	16.41	0.04	0.00	0.00
11/01/05	15.05	15.05	0.00	0.00	0.00
01/10/06	15.68	15.68	0.00	0.00	0.00
08/28/08	16.61	16.61	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-26: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-14 (Diameter = 2 inches)**

Date	Well AI 1-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1-14 (gallons)	
				Per Day	To-Date
01/11/02 *	NM	18.48	NM	0.00	0.00
04/08/02 *	NM	18.39	NM	0.00	0.00
04/16/02	NM	18.41	NM	0.00	0.00
09/18/03	17.05	17.05	0.00	0.00	0.00
03/02/04	17.63	17.63	0.00	0.00	0.00
04/27/04	17.14	17.14	0.00	0.00	0.00
04/26/05	16.6	16.6	0.00	0.00	0.00
11/01/05	15.88	15.88	0.00	0.00	0.00
01/10/06	16.28	16.28	0.00	0.00	0.00
08/28/08	17.39	17.39	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-27: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-15 (Diameter = 2 inches)**

Date	Well AI 1-15				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1-15 (gallons)	
				Per Day	To-Date
01/11/02 *	NM	19.92	NM	0.00	0.00
04/08/02 *	NM	19.81	NM	0.00	0.00
04/16/02	NM	19.82	NM	0.00	0.00
09/18/03	19.34	18.74	0.60	0.00	0.00
03/02/04	19.47	19.42	0.05	0.00	0.00
04/27/04	18.80	18.80	0.00	0.00	0.00
04/26/05	18.22	18.22	0.00	0.00	0.00
11/01/05	17.20	17.20	0.00	0.00	0.00
01/10/06	17.95	17.95	0.00	0.00	0.00
08/28/08	19.50	19.10	0.40	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.



**Table A-28: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L1 NAPL Area (2002 - 2009)**  
**Well AI 1-16 (Diameter = 2 inches)**

Date	Well AI 1-16				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 1-16 (gallons)	
				Per Day	To-Date
01/11/02 *	NM	19.14	NM	0.00	0.00
04/08/02 *	NM	19.12	NM	0.00	0.00
04/16/02	NM	19.17	NM	0.00	0.00
09/18/03	17.34	17.34	0.00	0.00	0.00
03/02/04	18.75	18.75	0.00	0.00	0.00
04/27/04	17.02	17.02	0.00	0.00	0.00
04/26/05	17.25	17.25	0.00	0.00	0.00
11/01/05	16.36	16.36	0.00	0.00	0.00
01/10/06	16.83	16.30	0.53	0.00	0.00
08/28/08	14.51	14.51	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-29: Summary of NAPL Thickness and Removal Data, L2 NAPL Area  
Harmon Yard OU-II Site**

<b>L2 Area Well No.</b>	<b>Reporting Period Start Date</b>	<b>Reporting Period End Date</b>	<b>Amount of NAPL Removed (gallons)</b>	<b>Percent of NAPL Removed From L2 Area</b>	<b>Average NAPL Thickness (feet)</b>
VE2-1	04/16/02	08/28/08	0.25	1.7%	0.02
AI 2-1	09/16/03	08/28/08	0.00	0.0%	0.00
AI 2-2	06/26/02	08/28/08	0.00	0.0%	0.19
AI 2-3	06/26/02	08/19/08	14.58	98.3%	1.26
<b>Total NAPL Removed, L2 Area =</b>			<b>14.83</b>	<b>gallons</b>	
<b>Average NAPL Thickness (feet), All L1 Area wells =</b>					<b>0.37</b>

**Table A-30: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L2 NAPL Area (2002 - 2009)**  
**Well VE 2-1 (Diameter = 4 inches)**

Date	Well VE 2-1				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 2-1 (gallons)	
				Per Day	To-Date
01/7/02 *	12.41	12.35	0.06	0.00	0.00
01/29/02 *	12.38	12.29	0.09	0.25	0.25
04/08/02 *	12.31	12.31	0.00	0.00	0.25
04/16/02	12.44	12.44	0.00	0.00	0.25
05/17/02	12.24	12.24	0.00	0.00	0.25
06/26/02	11.00	11.00	0.00	0.00	0.25
07/26/02	12.40	12.40	0.00	0.00	0.25
08/15/02	12.39	12.39	0.00	0.00	0.25
09/09/02	11.93	11.93	0.00	0.00	0.25
10/09/02	11.77	11.77	0.00	0.00	0.25
11/05/02	12.29	12.28	0.01	0.00	0.25
12/17/02	10.71	10.70	0.01	0.00	0.25
01/07/03	10.33	10.33	0.00	0.00	0.25
02/03/03	11.34	11.09	0.25	0.00	0.25
03/12/03	10.56	10.56	0.00	0.00	0.25
09/16/03	11.08	11.08	0.00	0.00	0.25
03/02/04	10.90	10.90	0.00	0.00	0.25
04/27/04	10.82	10.78	0.04	0.00	0.25
08/28/08	11.31	11.31	0.00	0.00	0.25

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL).

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-31: NAPL Thickness and Removal Measurements**  
**Harmon Yaard OU-II Site L2 NAPL Area (2002 - 2009)**  
**Well AI 2-1 (Diameter = 2 inches)**

Date	Well AI 2-1				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 2-1 (gallons)	
				Per Day	To-Date
01/07/02 *	16.11	16.02	0.09	0.00	0.00
04/16/02 *	15.96	15.96	0.00	0.00	0.00
09/16/03	14.72	14.72	0.00	0.00	0.00
03/02/04	14.80	14.80	0.00	0.00	0.00
04/27/04	12.54	12.54	0.00	0.00	0.00
11/01/05	13.51	13.51	0.00	0.00	0.00
08/28/08	15.20	15.20	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL).

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-32: NAPL thickness and Removal Measurements**  
**Harmon Yard OU-II Site L2 NAPL Area (2002 - 2009)**  
**Well AI 2-2 (Diameter = 2 inches)**

Date	Well AI 2-2				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 2-2 (gallons)	
				Per Day	To-Date
01/07/02 *	16.08	15.99	0.09	0.00	0.00
04/16/02 *	15.92	15.92	0.00	0.00	0.00
06/26/02	NM	NM	NM	0.00	0.00
09/25/02	NM	NM	NM	0.00	0.00
09/16/03	14.62	14.57	0.05	0.00	0.00
03/02/04	14.88	14.81	0.07	0.00	0.00
04/27/04	14.54	14.5	0.04	0.00	0.00
11/01/05	13.44	13.44	0.00	0.00	0.00
08/28/08	15.72	14.91	0.81	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL).

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-33: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L2 NAPL Area (2002 - 200X)**  
**Well AI 2-3 (Well Diameter = 2 inches)**

Date	Well AI 2-3				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 2-3 (gallons)	
				Per Day	To-Date
01/11/02 *	19.15	16.53	2.62	0.43	0.43
04/16/02 *	19.09	16.54	2.55	0.42	0.84
06/26/02	NM	NM	NM	0.00	0.84
09/25/02	14.93	13.69	1.24	0.20	1.05
10/09/02	14.66	12.56	2.10	0.34	1.39
11/05/02	NR	11.30	NR	0.00	1.39
12/17/02	12.23	11.70	0.53	0.09	1.48
01/07/03	11.62	11.42	0.20	0.03	1.51
02/03/03	13.50	12.10	1.40	0.23	1.74
03/12/03	12.45	11.05	1.40	0.23	1.96
09/16/03	16.98	16.36	0.62	0.10	2.07
03/02/04	15.55	11.31	4.24	0.69	2.76
04/27/04	16.50	15.33	1.17	0.19	2.95
06/10/04	16.73	15.34	1.39	1.00	3.95
06/17/04	16.82	15.44	1.38	0.25	4.20
06/23/04	16.94	15.44	1.50	0.63	4.82
07/01/04	17.13	15.50	1.63	0.88	5.70
07/07/04	16.10	15.85	0.25	1.00	6.70
07/14/04	17.28	15.50	1.78	1.00	7.70
08/11/04	15.84	14.93	0.91	0.75	8.45
08/24/04	15.50	14.68	0.82	0.25	8.70
09/21/04	14.03	14.02	0.01	0.00	8.70
10/06/04	14.95	14.14	0.81	0.13	8.83
10/12/04	15.80	14.32	1.48	0.75	9.58
12/20/04	16.10	14.60	1.50	0.63	10.20
11/09/04	16.81	15.11	1.70	0.75	10.95
02/15/05	16.25	14.99	1.26	1.00	11.95
03/31/05	15.88	14.98	0.90	0.50	12.45
04/26/05	16.16	15.02	1.14	0.63	13.08
11/01/05	14.83	14.26	0.57	0.50	13.58
01/10/06	15.48	14.55	0.93	0.25	13.83
05/31/06	16.83	15.33	1.50	0.75	14.58
08/19/08	17.89	15.81	2.08	0.00	14.58

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL).

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

Table A-34: Summary of NAPL Thickness and Removal Data, L4 NAPL Area  
Harmon Yard OU-II Site

L4 Area Well No.	Reporting Period Start Date	Reporting Period End Date	Amount of NAPL Removed (gallons)	Percent of NAPL Removed From L4 Area	Average NAPL Thickness (feet)
VE 4-1	10/09/02	08/27/08	4.2	0.1%	0.33
VE 4-2	01/07/03	08/27/08	0.0	0.0%	0.00
VE 4-3	05/10/02	08/27/08	0.0	0.0%	0.00
VE 4-4	05/10/02	08/27/08	0.0	0.0%	0.00
VE 4-5	05/10/02	07/30/09	1,833.5	34.7%	2.44
VE 4-6	05/10/02	08/27/08	13.2	0.3%	1.15
VE 4-7	02/04/03	08/27/08	9.1	0.2%	0.57
VE 4-8	05/10/02	08/27/08	4.8	0.1%	0.38
VE 4-9	05/10/02	08/27/08	7.0	0.1%	0.56
VE 4-10	05/10/02	08/27/08	6.3	0.1%	0.43
VE 4-11	05/10/02	08/27/08	0.0	0.0%	0.04
VE 4-12	05/10/02	08/27/08	4.3	0.1%	0.29
VE 4-13	11/15/01 *	08/27/08	0.0	0.0%	0.07
FA 4-1	09/17/03	08/27/08	0.0	0.0%	0.00
FA 4-2	06/26/02	08/27/08	0.0	0.0%	0.00
FA 4-3	09/25/02	08/27/08	0.0	0.0%	0.16
FA 4-4	09/17/03	08/27/08	0.0	0.0%	0.00
FA 4-5	09/17/03	08/27/08	0.0	0.0%	0.00
FA 4-6	09/17/03	08/27/08	0.0	0.0%	0.00
FA 4-7	09/17/03	08/27/08	0.0	0.0%	0.00
FA 4-8	09/25/02	12/17/08	901.1	17.1%	2.13
FA 4-9	09/25/02	08/27/08	7.3	0.1%	1.27
FA 4-10	09/17/03	12/17/08	236.3	4.5%	1.10
FA 4-11	09/25/02	08/27/08	4.6	0.1%	0.93
FA 4-12	07/14/04	08/27/08	3.7	0.1%	1.03
FA 4-13	09/25/02	08/27/08	7.0	0.1%	0.97
FA 4-14	09/25/02	12/17/08	439.8	8.3%	1.51
FA 4-15	09/25/02	08/27/08	11.8	0.2%	0.73
FA 4-16	09/25/02	08/27/08	3.5	0.1%	0.69
FA 4-17	09/25/02	08/27/08	0.0	0.0%	0.10
FA 4-18	09/25/02	08/27/08	5.7	0.1%	0.55
FA 4-19	09/25/02	05/31/06	6.6	0.1%	0.69
FA 4-20	09/25/02	05/13/08	0.3	0.0%	0.21
FA 4-21	09/17/03	08/27/08	0.8	0.0%	0.25
FA 4-22	09/17/03	08/27/08	0.0	0.0%	0.00
FA 4-23	09/17/03	08/27/08	4.3	0.1%	0.38

Table A-34: Summary of NAPL Thickness and Removal Data, L4 NAPL Area  
Harmon Yard OU-II Site

L4 Area Well No.	Reporting Period Start Date	Reporting Period End Date	Amount of NAPL Removed (gallons)	Percent of NAPL Removed From L4 Area	Average NAPL Thickness (feet)
FA 4-24	03/02/04	08/27/08	0.0	0.0%	0.00
FA 4-25	09/17/03	08/27/08	0.0	0.0%	0.00
PGW-2	06/26/02	08/27/08	27.9	0.5%	1.59
PWW <sup>(1)</sup>	05/02/05	08/27/08	1,737.3	32.9%	0.67
<b>Total NAPL Removed, L4 Area =</b>			<b>5,280.3</b>	<b>gallons</b>	
<b>Average NAPL Thickness (feet), All L1 Area wells =</b>					<b>0.53</b>
<b>Average NAPL Thickness (feet), L1 Area wells &gt; 1.0'<sup>(2)</sup> =</b>					<b>1.56</b>

**Notes:**

1. This well (PWW) uses an automatic product recovery system (Spill Buddy). Product is continuously recovered and, as a result, the amount recovered is greater than the daily amounts recovered listed on the table. In addition, daily product removal is not recorded in some cases because of the automatic recovery of product using the Spill Buddy system.
2. This is the average NAPL thickness in the four wells in which the average thickness of NAPL was greater than 1.0 foot.



**Table A-35: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well VE 4-1 (Well Diameter = 4 inches)**

Date	Well VE 4-1				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-1 (gallons)	
				Per Day	To-Date
11/15/01 *	8.39	8.39	0.00	0.00	0.00
01/09/02 *	9.51	8.70	0.81	0.00	0.00
04/08/02 *	9.02	8.03	0.99	0.00	0.00
04/16/02 *	8.98	8.07	0.91	0.00	0.00
05/10/02	8.74	7.82	0.92	0.60	0.60
06/26/02	8.35	7.26	1.09	0.71	1.31
07/26/02	8.66	8.12	0.54	0.35	1.66
08/15/02	8.63	8.21	0.42	0.27	1.94
09/09/02	8.55	8.29	0.26	0.17	2.11
10/09/02	8.03	8.03	0.00	0.00	2.11
11/26/02	6.89	6.77	0.12	0.08	2.19
12/18/02	6.89	6.80	0.09	0.06	2.25
01/07/03	6.13	5.92	0.21	0.14	2.38
02/04/03	7.42	7.00	0.42	0.27	2.66
03/12/03	6.15	5.80	0.35	0.23	2.89
03/31/03	5.85	5.25	0.60	0.39	3.28
05/27/03	6.65	6.40	0.25	0.16	3.44
09/17/03	6.65	6.00	0.65	0.42	3.86
11/04/03	6.35	5.88	0.47	0.20	4.06
03/02/04	7.32	7.32	0.00	0.00	4.06
04/27/04	6.02	5.95	0.07	0.05	4.11
02/15/05	6.00	5.70	0.30	0.13	4.23
04/26/05	6.34	6.12	0.22	0.00	4.23
07/13/05	7.68	7.65	0.03	0.00	4.23
11/01/05	4.33	4.33	0.00	0.00	4.23
05/13/08	6.81	6.24	0.57	0.00	4.23
08/27/08	7.68	7.68	0.00	0.00	4.23

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

0.33 = average NAPL thickness

**Table A-36: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well VE 4-2 (Well Diameter = 4 inches)**

Date	Well VE 4-2				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-2 (gallons)	
				Per Day	To-Date
11/15/01 *	7.51	7.51	0.00	0.00	0.00
01/09/02 *	7.69	7.58	0.11	0.00	0.00
04/08/02	6.28	6.28	0.00	0.00	0.00
04/16/02	6.29	6.29	0.00	0.00	0.00
05/10/02	5.84	5.84	0.00	0.00	0.00
06/26/02	5.99	5.99	0.00	0.00	0.00
07/26/02	6.28	6.28	0.00	0.00	0.00
08/15/02	6.32	6.32	0.00	0.00	0.00
09/09/02	6.87	6.87	0.00	0.00	0.00
10/09/02	6.82	6.82	0.00	0.00	0.00
11/26/02	5.62	5.62	0.00	0.00	0.00
12/18/02	5.48	5.48	0.00	0.00	0.00
01/07/03	4.70	4.70	0.00	0.00	0.00
02/04/03	5.90	5.90	0.00	0.00	0.00
03/12/03	4.30	4.30	0.00	0.00	0.00
03/31/03	3.40	3.40	0.00	0.00	0.00
05/27/03	4.08	4.08	0.00	0.00	0.00
09/17/03	5.00	5.00	0.00	0.00	0.00
11/04/03	4.70	4.70	0.00	0.00	0.00
03/02/04	5.82	5.82	0.00	0.00	0.00
04/27/04	3.86	3.86	0.00	0.00	0.00
02/15/05	3.8	3.80	0.00	0.00	0.00
03/31/05	4.20	4.20	0.00	0.00	0.00
04/26/05	4.95	4.95	0.00	0.00	0.00
07/13/05	6.5	6.5	0.00	0.00	0.00
11/01/05	3.35	3.35	0.00	0.00	0.00
05/13/08	5.13	5.13	0.00	0.00	0.00
08/27/08	6.70	6.70	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-37: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well VE 4-3 (Well Diameter = 4 inches)**

Date	Well VE 4-3				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-3 (gallons)	
				Per Day	To-Date
11/15/01 *	8.55	8.55	0.00	0.00	0.00
01/09/02 *	8.73	8.73	0.00	0.00	0.00
04/08/02 *	7.91	7.91	0.00	0.00	0.00
04/16/02 *	7.96	7.96	0.00	0.00	0.00
05/10/02	7.14	7.14	0.00	0.00	0.00
06/26/02	7.21	7.21	0.00	0.00	0.00
07/26/02	7.64	7.64	0.00	0.00	0.00
08/15/02	7.65	7.65	0.00	0.00	0.00
09/09/02	8.08	8.08	0.00	0.00	0.00
10/09/02	8.4	8.40	0.00	0.00	0.00
11/26/02	6.89	6.89	0.00	0.00	0.00
12/18/02	6.42	6.42	0.00	0.00	0.00
01/07/03	5.75	5.75	0.00	0.00	0.00
02/04/03	7.25	7.25	0.00	0.00	0.00
03/12/03	6.02	6.02	0.00	0.00	0.00
03/31/03	4.95	4.95	0.00	0.00	0.00
05/27/03	3.93	3.93	0.00	0.00	0.00
09/17/03	6.10	6.10	0.00	0.00	0.00
11/04/03	5.04	5.04	0.00	0.00	0.00
03/02/04	6.64	6.64	0.00	0.00	0.00
04/27/04	4.95	4.95	0.00	0.00	0.00
02/15/05	5.1	5.10	0.00	0.00	0.00
03/31/05	5.90	5.90	0.00	0.00	0.00
04/26/05	5.95	5.95	0.00	0.00	0.00
07/13/05	7.48	7.48	0.00	0.00	0.00
11/01/05	4.58	4.58	0.00	0.00	0.00
05/13/08	6.26	6.26	0.00	0.00	0.00
08/27/08	7.66	7.66	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-38: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well VE 4-4 (Well Diameter = 4 inches)**

Date	Well VE 4.4				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-4 (gallons)	
				Per Day	To-Date
11/15/01 *	7.45	7.45	0.00	0.00	0.00
01/09/02 *	7.69	7.64	0.05	0.00	0.00
04/08/02 *	6.80	6.80	0.00	0.00	0.00
04/16/02 *	6.81	6.81	0.00	0.00	0.00
05/10/02	6.01	6.01	0.00	0.00	0.00
06/26/02	6.34	6.34	0.00	0.00	0.00
07/26/02	6.34	6.34	0.00	0.00	0.00
08/15/02	6.39	6.39	0.00	0.00	0.00
09/09/02	7.01	7.01	0.00	0.00	0.00
10/09/02	7.20	7.20	0.00	0.00	0.00
11/26/02	5.92	5.92	0.00	0.00	0.00
12/18/02	5.59	5.58	0.01	0.00	0.00
01/07/03	5.65	5.65	0.00	0.00	0.00
02/04/03	6.20	6.20	0.00	0.00	0.00
03/12/03	5.92	5.92	0.00	0.00	0.00
03/31/03	3.06	3.06	0.00	0.00	0.00
05/27/03	2.10	2.10	0.00	0.00	0.00
09/17/03	4.84	4.84	0.00	0.00	0.00
11/04/03	4.41	4.41	0.00	0.00	0.00
03/02/04	5.67	5.67	0.00	0.00	0.00
04/27/04	3.15	3.15	0.00	0.00	0.00
02/15/05	2.28	2.28	0.00	0.00	0.00
03/31/05	3.64	3.64	0.00	0.00	0.00
04/26/05	5.25	5.25	0.00	0.00	0.00
07/13/05	6.18	6.18	0.00	0.00	0.00
11/01/05	1.91	1.91	0.00	0.00	0.00
05/13/08	4.83	4.83	0.00	0.00	0.00
08/27/08	6.81	6.81	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
11/15/01 *	11.65	8.16	3.49	0.00	0.00
04/08/02 *	12.15	7.83	4.32	0.00	0.00
04/16/02 *	12.23	7.82	4.41	0.00	0.00
05/10/02	12.58	7.54	5.04	0.00	0.00
07/26/02	11.68	7.67	4.01	0.00	0.00
08/15/02	11.78	7.83	3.95	0.00	0.00
09/06/02	12.52	7.68	4.84	5.30	5.30
09/09/02	12.39	7.78	4.61	0.00	5.30
09/11/02	12.18	7.80	4.38	4.30	9.60
09/12/02	12.21	7.92	4.29	3.60	13.20
09/18/02	12.27	7.82	4.45	3.90	17.10
09/24/02	12.40	7.82	4.58	4.10	21.20
09/30/02	12.22	7.84	4.38	3.80	25.00
10/03/02	12.02	7.87	4.15	3.60	28.60
10/09/02	12.21	7.72	4.49	0.00	28.60
10/15/02	11.62	7.53	4.09	4.00	32.60
10/22/02	11.35	7.43	3.92	3.50	36.10
10/23/02	11.24	7.42	3.82	3.00	39.10
10/30/02	11.52	7.48	4.04	3.40	42.50
11/05/02	11.50	7.52	3.98	3.00	45.50
11/05/02	9.72	7.83	1.89	1.70	47.20
11/07/02	11.83	7.43	4.40	3.40	50.60
11/21/02	9.42	7.02	2.40	1.20	51.80
12/11/02	9.69	7.36	2.33	2.00	53.80
12/12/02	9.05	7.34	1.71	1.40	55.20
12/17/02	8.82	7.03	1.79	1.20	56.40
12/18/02	8.48	7.02	1.46	1.40	57.80
01/07/03	11.53	6.64	4.89	3.80	61.60
01/09/03	9.25	6.56	2.69	2.00	63.60
01/10/03	8.62	6.75	1.87	1.50	65.10
01/13/03	8.77	6.73	2.04	1.70	66.80
01/17/03	8.90	6.88	2.02	2.00	68.80
01/20/03	9.00	6.99	2.01	1.70	70.50
01/22/03	9.20	7.16	2.04	1.70	72.20
01/28/03	11.88	6.78	5.10	3.70	75.90
01/30/03	11.98	6.81	5.17	4.00	79.90
02/06/03	10.87	7.32	3.55	3.20	83.10
02/11/03	10.80	7.56	3.24	2.70	85.80
02/19/03	10.54	7.54	3.00	3.00	88.80
02/27/03	9.90	7.35	2.55	2.00	90.80
03/10/03	12.38	6.48	5.90	4.00	94.80
03/20/03	9.43	6.40	3.03	2.20	97.00
03/26/03	8.95	6.53	2.42	2.00	99.00
03/28/03	7.90	6.58	1.32	1.70	100.70
04/02/03	9.89	6.36	3.53	2.50	103.20
04/21/03	9.97	6.78	3.19	2.50	105.70
04/23/03	11.90	6.50	5.40	5.00	110.70

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
04/25/03	NM	NM	NM	4.20	114.90
04/28/03	9.03	7.06	1.97	2.00	116.90
04/30/03	10.25	7.25	3.00	2.00	118.90
05/02/03	10.58	6.85	3.73	2.70	121.60
05/05/03	11.40	6.75	4.65	3.20	124.80
05/07/03	10.68	7.10	3.58	2.70	127.50
05/12/03	10.93	7.00	3.93	3.00	130.50
05/14/03	13.10	7.15	5.95	4.00	134.50
05/19/03	10.04	7.44	2.60	2.20	136.70
05/22/03	9.85	7.45	2.40	2.00	138.70
05/27/03	9.65	7.10	2.55	2.00	140.70
06/02/03	8.68	6.30	2.38	1.50	142.20
06/05/03	10.68	5.25	5.43	3.50	145.70
06/12/03	11.45	5.54	5.91	3.70	149.40
06/16/03	11.36	5.10	6.26	4.00	153.40
06/19/03	11.08	5.24	5.84	3.70	157.10
06/23/03	11.87	5.35	6.52	4.30	161.40
06/26/03	9.13	6.00	3.13	2.00	163.40
06/30/03	8.54	5.72	2.82	2.00	165.40
07/07/03	8.43	6.40	2.03	1.50	166.90
07/10/03	13.18	5.63	7.55	6.70	173.60
07/11/03	12.55	5.83	6.72	5.00	178.60
07/14/03	13.64	6.00	7.64	6.00	184.60
07/16/03	12.58	7.00	5.58	5.00	189.60
07/18/03	11.55	6.55	5.00	4.00	193.60
07/21/03	11.90	6.68	5.22	4.20	197.80
07/25/03	11.18	6.30	4.88	3.50	201.30
07/28/03	11.53	6.35	5.18	4.00	205.30
07/30/03	11.50	6.45	5.05	3.70	209.00
08/04/03	10.15	6.58	3.57	3.00	212.00
08/06/03	9.93	6.35	3.58	2.50	214.50
08/08/03	10.00	6.15	3.85	3.00	217.50
08/11/03	8.50	7.07	1.43	1.50	219.00
08/18/03	8.65	6.35	2.30	2.50	221.50
08/26/03	11.20	6.65	4.55	3.50	225.00
09/08/03	10.60	6.55	4.05	3.50	228.50
09/10/03	11.10	6.70	4.40	3.00	231.50
09/12/03	11.20	6.85	4.35	3.00	234.50
09/15/03	11.32	6.65	4.67	3.00	237.50
09/17/03	10.50	7.00	3.50	3.00	240.50
09/23/03	11.08	6.45	4.63	3.20	243.70
09/26/03	10.35	6.64	3.71	3.20	246.90
09/29/03	10.68	6.60	4.08	3.00	249.90
10/01/03	10.30	6.40	3.90	3.00	252.90
10/03/03	10.83	6.65	4.18	3.00	255.90
10/06/03	11.65	6.55	5.10	3.00	258.90
10/08/03	10.90	6.75	4.15	3.00	261.90

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
10/09/03	10.90	6.65	4.25	3.00	264.90
10/11/03	10.85	6.55	4.30	3.00	267.90
10/13/03	10.70	6.34	4.36	3.50	271.40
10/14/03	11.05	6.65	4.40	3.00	274.40
10/15/03	10.83	6.55	4.28	3.00	277.40
10/16/03	10.75	6.55	4.20	3.20	280.60
10/17/03	11.05	6.65	4.40	3.20	283.80
10/20/03	11.56	6.78	4.78	3.50	287.30
10/21/03	11.15	6.90	4.25	3.00	290.30
10/22/03	11.00	6.70	4.30	3.00	293.30
10/23/03	10.75	6.80	3.95	3.00	296.30
10/24/03	11.25	7.05	4.20	3.20	299.50
10/27/03	10.46	7.17	3.29	2.80	302.30
10/28/03	10.05	6.75	3.30	3.00	305.30
10/29/03	9.65	6.65	3.00	2.20	307.50
10/30/03	10.00	6.60	3.40	2.50	310.00
10/31/03	9.80	6.55	3.25	2.50	312.50
11/03/03	11.75	6.52	5.23	3.00	315.50
11/04/03	10.30	6.22	4.08	2.70	318.20
11/04/03	9.15	6.95	2.20	1.70	319.90
11/05/03	9.20	6.35	2.85	2.00	321.90
11/06/03	10.10	6.55	3.55	2.50	324.40
11/07/03	10.15	6.60	3.55	2.50	326.90
11/10/03	10.95	6.48	4.47	3.20	330.10
11/11/03	10.45	6.50	3.95	2.50	332.60
11/12/03	10.40	6.60	3.80	2.70	335.30
11/13/03	10.05	6.51	3.54	2.70	338.00
11/14/13	10.75	6.80	3.95	3.00	341.00
11/17/03	11.15	6.50	4.65	3.50	344.50
11/18/03	10.65	6.58	4.07	3.00	347.50
11/19/03	10.40	6.75	3.65	2.70	350.20
11/20/03	10.20	6.53	3.67	2.50	352.70
11/21/03	10.00	6.55	3.45	2.70	355.40
11/24/03	10.75	6.35	4.40	3.20	358.60
11/25/03	10.10	6.35	3.75	2.70	361.30
11/26/03	10.10	6.35	3.75	2.50	363.80
11/28/03	10.75	6.60	4.15	3.00	366.80
12/01/03	10.90	6.54	4.36	3.00	369.80
12/02/03	9.83	6.40	3.43	2.70	372.50
12/03/03	10.35	6.20	4.15	2.70	375.20
12/04/03	10.15	6.75	3.40	2.50	377.70
12/05/03	9.90	6.45	3.45	2.50	380.20
12/08/03	10.95	6.50	4.45	3.20	383.40
12/09/03	10.50	6.45	4.05	3.00	386.40
12/10/03	10.70	6.72	3.98	2.70	389.10
12/11/03	10.40	8.45	1.95	2.70	391.80
12/12/03	10.45	6.25	4.20	3.00	394.80

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
12/15/03	10.00	6.25	3.75	2.70	397.50
12/16/03	9.85	6.30	3.55	2.20	399.70
12/17/03	9.75	6.20	3.55	2.20	401.90
12/18/03	9.20	6.05	3.15	2.00	403.90
12/19/03	8.95	5.95	3.00	2.00	405.90
12/22/03	10.68	5.93	4.75	3.20	409.10
12/23/03	9.65	6.10	3.55	2.50	411.60
12/29/03	10.55	6.15	4.40	3.00	414.60
12/30/03	8.55	6.35	2.20	1.70	416.30
01/02/03	10.50	5.95	4.55	3.00	419.30
01/05/03	10.55	6.00	4.55	3.00	422.30
01/06/03	9.65	5.90	3.75	2.50	424.80
01/09/03	6.70	6.50	0.20	0.00	424.80
01/12/03	11.00	6.00	5.00	3.20	428.00
01/13/03	9.55	6.50	3.05	2.20	430.20
01/15/03	11.00	5.32	5.68	3.30	433.50
01/19/03	11.86	6.25	5.61	3.00	436.50
01/20/03	10.95	6.15	4.80	3.50	440.00
01/21/03	12.10	6.25	5.85	3.50	443.50
01/22/03	9.68	6.13	3.55	3.00	446.50
01/26/03	11.15	6.70	4.45	3.50	450.00
01/27/03	10.00	6.85	3.15	2.70	452.70
01/28/03	9.75	6.90	2.85	2.70	455.40
01/29/03	8.89	7.00	1.89	2.50	457.90
01/30/03	9.70	6.80	2.90	3.00	460.90
02/02/03	10.84	6.70	4.14	3.50	464.40
02/03/03	10.55	6.68	3.87	3.00	467.40
02/04/03	10.63	6.95	3.68	3.00	470.40
02/05/03	10.58	6.70	3.88	3.00	473.40
02/06/03	10.60	6.90	3.70	2.70	476.10
02/09/03	10.93	6.75	4.18	3.20	479.30
02/10/03	10.39	6.85	3.54	2.70	482.00
02/11/03	8.95	6.65	2.30	2.20	484.20
02/12/03	10.08	6.65	3.43	2.20	486.40
02/13/03	9.98	6.70	3.28	2.50	488.90
02/17/03	10.84	6.60	4.24	3.20	492.10
02/18/03	9.90	6.83	3.07	2.50	494.60
02/19/03	10.00	6.94	3.06	2.50	497.10
02/20/03	8.93	6.97	1.96	2.20	499.30
02/23/03	10.55	7.05	3.50	3.00	502.30
02/24/03	10.25	7.05	3.20	2.70	505.00
02/25/03	10.05	7.08	2.97	2.50	507.50
02/26/03	10.10	7.10	3.00	2.50	510.00
02/27/03	10.10	7.15	2.95	2.50	512.50
03/01/03	10.78	7.08	3.70	3.00	515.50
03/02/04	10.44	7.48	2.96	2.50	518.00
03/03/03	10.28	7.40	2.88	2.50	520.50



## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
03/04/03	9.14	7.00	2.14	2.00	522.50
03/05/03	10.15	7.04	3.11	2.50	525.00
03/08/03	10.73	6.94	3.79	3.00	528.00
03/09/03	10.15	7.02	3.13	2.50	530.50
03/10/03	9.95	6.15	3.80	2.50	533.00
03/11/03	9.60	6.95	2.65	2.20	535.20
03/22/03	11.13	6.85	4.28	3.20	538.40
03/23/03	10.00	6.98	3.02	2.70	541.10
03/24/03	9.73	7.04	2.69	2.20	543.30
03/25/03	10.04	7.23	2.81	2.20	545.50
03/26/03	9.83	7.00	2.83	2.20	547.70
03/29/03	10.55	6.98	3.57	3.00	550.70
03/30/03	10.10	6.95	3.15	2.50	553.20
03/31/03	9.95	6.87	3.08	2.20	555.40
04/01/03	9.95	6.80	3.15	2.20	557.60
04/02/03	9.65	6.85	2.80	2.20	559.80
04/05/03	10.28	6.85	3.43	3.00	562.80
04/06/04	10.02	6.92	3.10	2.50	565.30
04/07/04	9.65	6.90	2.75	2.50	567.80
04/08/04	9.68	7.00	2.68	2.00	569.80
04/12/04	10.75	6.85	3.90	3.00	572.80
04/13/04	10.00	6.75	3.25	2.70	575.50
04/14/04	9.33	6.80	2.53	2.20	577.70
04/15/04	9.82	6.88	2.94	2.00	579.70
04/16/04	9.75	6.85	2.90	2.00	581.70
04/19/04	10.50	6.72	3.78	3.00	584.70
04/20/04	9.40	6.90	2.50	2.00	586.70
04/21/04	9.50	7.05	2.45	2.00	588.70
04/22/04	9.25	7.15	2.10	1.70	590.40
04/23/04	9.15	7.15	2.00	1.80	592.20
04/26/04	10.15	6.92	3.23	2.50	594.70
04/27/04	9.35	6.90	2.45	2.00	596.70
04/27/04	8.00	6.93	1.07	0.00	596.70
04/28/04	9.25	6.92	2.33	1.70	598.40
04/29/04	9.20	6.90	2.30	2.00	600.40
04/30/04	9.17	6.89	2.28	2.00	602.40
05/03/04	10.20	6.90	3.30	2.70	605.10
05/04/04	9.60	6.95	2.65	2.20	607.30
05/05/04	9.63	7.10	2.53	2.00	609.30
05/06/04	9.55	7.10	2.45	2.20	611.50
05/07/04	9.55	7.05	2.50	2.00	613.50
05/10/04	10.30	6.90	3.40	2.50	616.00
05/11/04	10.25	6.90	3.35	2.70	618.70
05/14/04	9.70	6.92	2.78	2.50	621.20
05/17/04	10.45	6.95	3.50	2.70	623.90
05/18/04	9.85	6.95	2.90	2.20	626.10
05/20/04	9.80	7.05	2.75	2.50	628.60

Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
05/21/04	9.50	7.10	2.40	2.50	631.10
05/25/04	10.50	7.25	3.25	2.70	633.80
05/26/04	9.53	6.95	2.58	2.00	635.80
05/27/04	9.65	7.00	2.65	2.20	638.00
05/28/04	9.46	6.90	2.56	2.00	640.00
06/01/04	10.20	6.84	3.36	2.50	642.50
06/02/04	9.20	6.90	2.30	2.20	644.70
06/03/04	9.68	7.00	2.68	2.00	646.70
06/04/04	9.53	7.00	2.53	2.20	648.90
06/07/04	10.20	6.88	3.32	2.70	651.60
06/08/04	9.73	6.95	2.78	2.20	653.80
06/09/04	9.20	7.00	2.20	2.00	655.80
06/10/04	9.50	6.98	2.52	2.00	657.80
06/11/04	9.25	7.02	2.23	2.00	659.80
06/14/04	10.43	7.05	3.38	2.70	662.50
06/15/04	9.85	7.20	2.65	2.20	664.70
06/16/04	9.40	6.70	2.70	2.50	667.20
06/17/04	10.35	6.70	3.65	2.70	669.90
06/18/04	8.55	6.73	1.82	1.00	670.90
06/21/04	8.25	7.55	0.70	0.50	671.40
06/22/04	8.15	7.50	0.65	0.50	671.90
06/23/04	8.25	7.55	0.70	0.50	672.40
06/24/04	8.35	7.52	0.83	0.50	672.90
06/25/04	9.25	7.20	2.05	1.70	674.60
06/28/04	10.22	7.25	2.97	2.50	677.10
06/29/04	10.00	7.28	2.72	2.20	679.30
06/30/04	10.00	7.30	2.70	2.20	681.50
07/01/04	10.18	7.20	2.98	2.50	684.00
07/02/04	8.70	7.50	1.20	1.20	685.20
07/07/04	9.18	7.55	1.63	1.50	686.70
07/08/04	9.00	7.62	1.38	1.00	687.70
07/13/04	NM	NM	NM	2.70	690.40
07/14/04	10.40	7.12	3.28	2.50	692.90
07/15/04	NM	NM	NM	2.70	695.60
07/16/04	NM	NM	NM	2.70	698.30
07/19/04	NM	NM	NM	3.20	701.50
07/20/04	NM	NM	NM	2.70	704.20
07/21/04	NM	NM	NM	2.70	706.90
07/22/04	NM	NM	NM	2.70	709.60
07/23/04	NM	NM	NM	2.50	712.10
07/26/04	NM	NM	NM	2.50	714.60
07/27/04	NM	NM	NM	2.50	717.10
07/28/04	NM	NM	NM	2.00	719.10
07/29/04	NM	NM	NM	2.00	721.10
07/30/04	NM	NM	NM	2.00	723.10
08/02/04	NM	NM	NM	2.50	725.60
08/03/04	NM	NM	NM	2.00	727.60

Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
08/04/04	NM	NM	NM	2.00	729.60
08/05/04	NM	NM	NM	2.00	731.60
08/06/04	NM	NM	NM	2.00	733.60
08/09/04	NM	NM	NM	2.70	736.30
08/10/04	NM	NM	NM	2.00	738.30
08/11/04	NM	NM	NM	2.00	740.30
08/12/04	NM	NM	NM	2.00	742.30
08/13/04	NM	NM	NM	2.00	744.30
08/16/04	NM	NM	NM	3.00	747.30
08/17/04	NM	NM	NM	2.20	749.50
08/18/04	NM	NM	NM	2.20	751.70
08/19/04	NM	NM	NM	2.10	753.80
08/20/04	NM	NM	NM	2.20	756.00
08/23/04	NM	NM	NM	2.50	758.50
08/24/04	NM	NM	NM	2.20	760.70
08/25/04	NM	NM	NM	2.00	762.70
08/26/04	NM	NM	NM	2.00	764.70
08/27/04	NM	NM	NM	1.70	766.40
08/30/04	10.00	6.50	3.50	1.00	767.40
08/31/04	9.82	6.53	3.29	2.50	769.90
09/01/04	9.65	6.67	2.98	2.00	771.90
09/02/04	9.58	6.65	2.93	2.20	774.10
09/03/04	9.65	6.70	2.95	2.00	776.10
09/07/04	10.15	6.55	3.60	3.00	779.10
09/08/04	9.95	6.75	3.20	2.50	781.60
09/10/04	9.20	6.10	3.10	2.50	784.10
09/13/04	9.82	6.13	3.69	2.50	786.60
09/14/04	9.10	6.28	2.82	2.00	788.60
09/15/04	8.90	6.25	2.65	2.00	790.60
09/16/04	9.02	6.02	3.00	2.00	792.60
09/17/04	8.90	6.25	2.65	2.00	794.60
09/20/04	8.65	5.75	2.90	2.50	797.10
09/21/04	7.95	5.95	2.00	2.00	799.10
09/22/04	6.75	6.05	0.70	0.70	799.80
09/23/04	6.55	6.15	0.40	0.00	799.80
09/24/04	6.70	5.75	0.95	0.50	800.30
09/27/04	7.40	5.75	1.65	1.20	801.50
09/28/04	7.00	5.80	1.20	0.70	802.20
09/30/04	7.38	5.55	1.83	1.00	803.20
10/01/04	6.60	5.85	0.75	0.50	803.70
10/04/04	7.80	5.70	2.10	1.20	804.90
10/05/04	7.30	5.92	1.38	0.50	805.40
10/06/04	6.85	6.10	0.75	0.50	805.90
10/07/04	6.40	5.90	0.50	0.50	806.40
10/08/04	7.20	5.85	1.35	0.50	806.90
10/11/04	9.40	5.65	3.75	2.00	808.90
10/11/04	8.78	5.80	2.98	2.00	810.90

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
10/13/04	7.90	6.28	1.62	2.00	812.90
10/14/04	8.80	5.85	2.95	2.00	814.90
10/15/04	9.15	6.30	2.85	2.00	816.90
10/18/04	10.50	5.90	4.60	3.00	819.90
10/19/04	9.65	5.85	3.80	2.50	822.40
10/20/04	9.35	6.00	3.35	2.20	824.60
10/21/04	9.35	5.89	3.46	2.20	826.80
10/22/04	9.35	6.10	3.25	2.20	829.00
10/25/04	7.90	6.40	1.50	1.20	830.20
10/26/04	8.80	6.18	2.62	2.00	832.20
10/27/04	9.25	6.10	3.15	2.00	834.20
10/28/04	9.35	6.20	3.15	2.00	836.20
10/29/04	9.70	6.15	3.55	2.50	838.70
11/01/04	10.50	6.15	4.35	3.00	841.70
11/02/04	10.20	6.33	3.87	3.00	844.70
11/03/04	9.95	6.60	3.35	2.50	847.20
11/04/04	10.75	6.25	4.50	2.70	849.90
11/05/04	9.70	6.68	3.02	2.20	852.10
11/09/04	10.90	6.30	4.60	3.50	855.60
11/10/04	9.30	6.35	2.95	2.20	857.80
11/15/04	10.80	6.55	4.25	3.20	861.00
11/16/04	10.00	6.48	3.52	2.70	863.70
11/17/04	9.73	6.45	3.28	2.50	866.20
11/18/04	9.60	6.40	3.20	2.50	868.70
11/22/04	10.55	6.25	4.30	3.20	871.90
11/29/04	11.13	6.62	4.51	3.50	875.40
12/01/04	9.55	6.25	3.30	2.50	877.90
12/02/04	9.83	6.45	3.38	2.50	880.40
12/06/04	10.75	6.45	4.30	3.20	883.60
12/07/04	10.35	6.65	3.70	3.00	886.60
12/08/04	10.25	6.40	3.85	2.70	889.30
12/09/04	9.50	6.60	2.90	2.20	891.50
12/10/04	8.90	6.25	2.65	2.20	893.70
12/13/04	9.80	6.00	3.80	3.00	896.70
12/14/04	9.30	6.30	3.00	2.00	898.70
12/15/04	9.20	6.20	3.00	2.00	900.70
12/17/04	9.85	6.40	3.45	2.00	902.70
12/21/04	9.80	6.50	3.30	2.20	904.90
12/22/04	7.65	6.62	1.03	2.50	907.40
12/23/04	7.60	6.58	1.02	2.00	909.40
12/27/04	12.32	8.20	4.12	2.70	912.10
12/28/04	9.00	6.50	2.50	2.50	914.60
12/29/04	8.20	6.45	1.75	1.70	916.30
12/30/04	8.90	6.65	2.25	1.70	918.00
01/04/05	10.35	6.40	3.95	3.00	921.00
01/05/05	9.40	6.75	2.65	2.00	923.00
01/06/05	8.80	6.20	2.60	1.70	924.70

Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
01/10/05	9.60	5.98	3.62	2.50	927.20
01/11/05	8.98	6.48	2.50	1.70	928.90
01/12/05	8.45	6.10	2.35	1.70	930.60
01/13/05	8.45	6.10	2.35	1.70	932.30
01/14/05	8.50	6.00	2.50	1.70	934.00
01/17/05	10.20	5.70	4.50	3.00	937.00
01/18/05	8.75	6.40	2.35	1.70	938.70
01/19/05	7.80	5.90	1.90	1.00	939.70
01/20/05	6.80	6.30	0.50	0.50	940.20
01/21/05	6.70	6.50	0.20	0.00	940.20
01/24/05	8.30	6.34	1.96	1.00	941.20
01/25/05	6.30	6.25	0.05	0.00	941.20
01/26/05	7.35	6.15	1.20	0.70	941.90
01/27/05	7.50	6.61	0.89	0.50	942.40
01/28/05	7.82	6.80	1.02	0.50	942.90
01/31/05	8.50	6.70	1.80	1.00	943.90
02/01/05	8.03	6.45	1.58	0.50	944.40
02/02/05	8.72	6.55	2.17	1.50	945.90
02/03/05	8.98	6.48	2.50	1.70	947.60
02/04/05	9.00	6.38	2.62	2.00	949.60
02/07/05	10.70	6.33	4.37	3.00	952.60
02/08/05	9.59	6.54	3.05	2.20	954.80
02/09/05	9.30	6.45	2.85	2.00	956.80
02/10/05	8.83	6.25	2.58	2.00	958.80
02/11/05	8.55	6.35	2.20	1.50	960.30
02/14/05	10.00	6.33	3.67	2.50	962.80
02/15/05	8.85	6.70	2.15	2.00	964.80
02/16/05	8.00	6.25	1.75	1.50	966.30
02/17/05	8.23	6.65	1.58	1.00	967.30
02/18/05	8.15	6.96	1.19	1.00	968.30
02/22/05	9.02	6.45	2.57	2.00	970.30
02/23/05	8.32	6.55	1.77	1.20	971.50
02/24/05	8.45	6.50	1.95	1.00	972.50
02/25/05	8.13	6.73	1.40	1.00	973.50
02/28/05	9.05	6.70	2.35	2.20	975.70
03/01/05	8.40	6.82	1.58	1.50	977.20
03/02/05	8.40	6.70	1.70	1.70	978.90
03/04/05	8.65	6.75	1.90	1.50	980.40
03/07/05	9.25	6.65	2.60	2.20	982.60
03/08/05	8.55	6.50	2.05	1.50	984.10
03/09/05	8.40	6.85	1.55	1.00	985.10
03/10/05	8.30	6.70	1.60	1.50	986.60
03/11/05	8.35	6.80	1.55	1.20	987.80
03/14/05	9.55	6.75	2.80	1.50	989.30
03/15/05	8.70	6.90	1.80	1.50	990.80
03/16/05	8.61	6.90	1.71	1.20	992.00
03/17/05	8.60	6.78	1.82	1.50	993.50

Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
03/18/05	8.70	7.05	1.65	1.00	994.50
03/21/05	9.98	6.90	3.08	2.50	997.00
03/22/05	8.83	6.73	2.10	1.70	998.70
03/23/05	8.55	6.75	1.80	1.50	1,000.20
03/24/05	8.75	6.90	1.85	1.50	1,001.70
03/28/05	8.52	7.05	1.47	1.00	1,002.70
03/29/05	7.70	6.95	0.75	1.00	1,003.70
03/30/05	7.55	6.94	0.61	0.50	1,004.20
03/31/05	7.38	6.90	0.48	0.20	1,004.40
04/01/05	7.13	6.85	0.28	0.20	1,004.60
04/04/05	7.05	6.07	0.98	0.20	1,004.80
04/05/05	6.62	6.44	0.18	0.00	1,004.80
04/06/05	6.70	6.38	0.32	0.00	1,004.80
04/07/05	6.70	6.35	0.35	0.00	1,004.80
04/08/05	6.95	6.55	0.40	0.00	1,004.80
04/11/05	7.23	6.50	0.73	0.50	1,005.30
04/12/05	6.75	6.55	0.20	0.00	1,005.30
04/13/05	7.05	6.53	0.52	0.00	1,005.30
04/14/05	7.13	6.68	0.45	0.00	1,005.30
04/15/05	7.33	5.64	1.69	0.50	1,005.80
04/18/05	7.31	6.67	0.64	0.00	1,005.80
04/19/05	7.45	6.67	0.78	0.00	1,005.80
04/20/05	7.60	6.66	0.94	0.70	1,006.50
04/21/05	7.41	6.85	0.56	0.00	1,006.50
04/22/05	7.51	6.85	0.66	0.00	1,006.50
04/26/05	8.23	6.93	1.30	1.20	1,007.70
04/27/05	7.77	6.90	0.87	0.00	1,007.70
04/28/05	8.03	6.95	1.08	0.70	1,008.40
04/29/05	7.70	7.00	0.70	0.00	1,008.40
05/02/05	8.30	6.90	1.40	1.20	1,009.60
05/09/05	8.90	7.04	1.86	1.50	1,011.10
05/10/05	8.20	7.15	1.05	0.00	1,011.10
05/11/05	8.48	7.10	1.38	1.00	1,012.10
05/12/05	8.20	7.20	1.00	1.00	1,013.10
05/13/05	8.10	7.22	0.88	0.00	1,013.10
05/16/05	8.80	7.14	1.66	1.50	1,014.60
05/17/05	8.28	7.20	1.08	0.70	1,015.30
05/18/05	8.13	7.30	0.83	0.00	1,015.30
05/19/05	8.42	7.15	1.27	1.00	1,016.30
05/20/05	8.20	7.19	1.01	1.00	1,017.30
05/23/05	8.75	7.20	1.55	1.20	1,018.50
05/24/05	8.35	7.33	1.02	1.00	1,019.50
05/26/05	8.70	7.31	1.39	1.00	1,020.50
05/27/05	8.05	7.45	0.60	0.00	1,020.50
05/31/05	9.25	7.20	2.05	2.00	1,022.50
06/01/05	8.50	7.32	1.18	1.00	1,023.50
06/02/05	8.38	7.32	1.06	1.00	1,024.50

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
06/03/05	8.30	7.40	0.90	0.80	1,025.30
06/06/05	9.15	7.35	1.80	1.50	1,026.80
06/07/05	8.53	7.43	1.10	0.70	1,027.50
06/08/05	8.65	7.50	1.15	1.00	1,028.50
06/09/05	8.90	7.50	1.40	1.00	1,029.50
06/10/05	8.54	7.53	1.01	0.70	1,030.20
06/13/05	9.52	7.45	2.07	1.50	1,031.70
06/14/05	8.61	7.42	1.19	1.00	1,032.70
06/15/05	8.55	7.45	1.10	1.00	1,033.70
06/16/05	8.50	7.41	1.09	1.00	1,034.70
06/17/05	8.50	7.46	1.04	1.00	1,035.70
06/20/05	9.25	7.42	1.83	1.70	1,037.40
06/21/05	8.73	7.50	1.23	1.00	1,038.40
06/22/05	8.72	7.52	1.20	1.00	1,039.40
06/23/05	8.75	7.58	1.17	1.00	1,040.40
06/24/05	8.75	7.57	1.18	1.00	1,041.40
06/27/05	9.48	7.48	2.00	1.90	1,043.30
06/28/05	8.77	7.50	1.27	1.00	1,044.30
06/29/05	8.70	7.51	1.19	1.00	1,045.30
06/30/05	8.80	7.40	1.40	1.00	1,046.30
07/01/05	9.01	7.15	1.86	1.80	1,048.10
07/05/05	11.95	8.95	3.00	3.00	1,051.10
07/06/05	9.48	7.30	2.18	2.00	1,053.10
07/07/05	9.25	7.33	1.92	1.70	1,054.80
07/08/05	9.05	7.30	1.75	2.00	1,056.80
07/11/05	10.38	7.30	3.08	2.70	1,059.50
07/12/05	9.26	7.63	1.63	2.00	1,061.50
07/13/05	9.37	7.38	1.99	1.50	1,063.00
07/14/05	9.82	7.53	2.29	1.20	1,064.20
07/15/05	9.22	7.28	1.94	2.00	1,066.20
07/20/05	10.60	7.00	3.60	3.00	1,069.20
07/21/05	9.85	7.40	2.45	2.20	1,071.40
07/22/05	8.90	7.50	1.40	1.50	1,072.90
07/25/05	9.95	7.20	2.75	3.00	1,075.90
07/26/05	9.30	7.30	2.00	2.00	1,077.90
07/27/05	9.23	7.21	2.02	2.00	1,079.90
07/28/05	9.13	7.13	2.00	1.80	1,081.70
07/29/05	9.43	7.28	2.15	1.70	1,083.40
08/01/05	10.45	7.30	3.15	3.00	1,086.40
08/02/05	9.30	7.13	2.17	1.70	1,088.10
08/03/05	9.55	7.18	2.37	2.20	1,090.30
08/04/05	9.30	7.62	1.68	2.00	1,092.30
08/05/05	9.24	7.22	2.02	2.00	1,094.30
08/08/05	10.28	7.30	2.98	3.00	1,097.30
08/09/05	9.55	7.40	2.15	2.00	1,099.30
08/10/05	10.90	8.90	2.00	2.00	1,101.30
08/11/05	10.97	8.93	2.04	1.70	1,103.00

Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
08/12/05	10.20	9.05	1.15	1.00	1,104.00
08/15/05	11.60	8.76	2.84	2.50	1,106.50
08/16/05	11.04	8.83	2.21	2.00	1,108.50
08/17/05	10.73	8.76	1.97	1.80	1,110.30
08/18/05	10.95	8.87	2.08	2.00	1,112.30
08/19/05	10.85	8.82	2.03	1.80	1,114.10
08/22/05	11.70	8.68	3.02	3.00	1,117.10
08/23/05	11.25	9.00	2.25	2.00	1,119.10
08/24/05	10.64	8.78	1.86	2.00	1,121.10
08/25/05	10.87	8.87	2.00	2.00	1,123.10
08/26/05	10.56	9.15	1.41	1.20	1,124.30
08/29/05	11.81	8.95	2.86	3.00	1,127.30
08/30/05	11.10	8.90	2.20	2.00	1,129.30
08/31/05	11.20	8.93	2.27	2.00	1,131.30
09/02/05	11.90	8.96	2.94	2.50	1,133.80
09/06/05	12.00	9.10	2.90	3.00	1,136.80
09/07/05	11.45	8.95	2.50	2.00	1,138.80
09/08/05	11.02	8.80	2.22	2.00	1,140.80
09/09/05	11.60	8.65	2.95	2.50	1,143.30
09/12/05	12.83	8.65	4.18	3.50	1,146.80
09/13/05	12.00	8.75	3.25	3.00	1,149.80
09/15/05	12.80	8.96	3.84	3.70	1,153.50
09/16/05	12.25	8.70	3.55	3.00	1,156.50
09/19/05	12.98	9.05	3.93	3.50	1,160.00
09/20/05	12.22	9.08	3.14	2.70	1,162.70
09/21/05	12.08	9.10	2.98	2.70	1,165.40
09/23/05	12.45	8.25	4.20	3.50	1,168.90
09/26/05	12.95	8.60	4.35	3.70	1,172.60
09/27/05	12.14	8.40	3.74	3.00	1,175.60
09/28/05	11.85	8.30	3.55	3.00	1,178.60
09/29/05	11.74	8.35	3.39	3.00	1,181.60
09/30/05	12.14	8.82	3.32	3.00	1,184.60
10/03/05	18.25	8.95	9.30	4.00	1,188.60
10/04/05	12.64	8.92	3.72	3.00	1,191.60
10/05/05	11.98	8.90	3.08	3.00	1,194.60
10/06/05	11.95	8.50	3.45	3.00	1,197.60
10/07/05	11.90	8.65	3.25	3.00	1,200.60
10/10/05	10.15	9.00	1.15	0.00	1,200.60
10/11/05	11.28	8.10	3.18	2.90	1,203.50
10/12/05	10.95	8.20	2.75	2.00	1,205.50
10/13/05	10.20	7.34	2.86	2.50	1,208.00
10/14/05	10.68	7.70	2.98	2.00	1,210.00
10/17/05	10.54	7.65	2.89	2.00	1,212.00
10/18/05	9.04	7.23	1.81	1.00	1,213.00
10/19/05	8.50	8.40	0.10	0.00	1,213.00
10/20/05	8.58	7.30	1.28	0.70	1,213.70
10/21/05	9.20	7.65	1.55	0.70	1,214.40



## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
10/21/05	10.07	7.70	2.37	1.50	1,215.90
10/26/05	9.85	6.63	3.22	1.50	1,217.40
10/27/05	8.60	6.84	1.76	1.00	1,218.40
10/28/05	8.80	6.95	1.85	1.00	1,219.40
10/31/05	9.40	7.45	1.95	1.50	1,220.90
11/01/05	9.15	7.78	1.37	1.00	1,221.90
11/02/05	7.78	7.60	0.18	1.00	1,222.90
11/03/05	8.28	7.68	0.60	0.00	1,222.90
11/04/05	8.90	7.55	1.35	0.50	1,223.40
11/07/05	8.70	7.73	0.97	1.00	1,224.40
11/08/05	9.20	8.10	1.10	0.50	1,224.90
11/09/05	9.10	7.83	1.27	0.50	1,225.40
11/10/05	9.10	8.00	1.10	0.50	1,225.90
11/14/05	12.00	7.75	4.25	2.00	1,227.90
11/15/05	10.30	8.00	2.30	0.00	1,227.90
11/16/05	10.60	7.80	2.80	2.00	1,229.90
11/17/05	10.12	8.20	1.92	1.00	1,230.90
11/18/05	10.11	8.18	1.93	1.00	1,231.90
11/21/05	11.10	7.89	3.21	1.50	1,233.40
11/22/05	9.85	7.65	2.20	1.00	1,234.40
11/23/05	10.70	7.90	2.80	1.00	1,235.40
11/25/09	10.65	7.82	2.83	0.50	1,235.90
11/28/05	11.55	7.75	3.80	0.00	1,235.90
11/29/05	11.45	7.71	3.74	2.00	1,237.90
11/30/05	9.78	7.90	1.88	0.70	1,238.60
12/01/05	10.12	7.88	2.24	0.50	1,239.10
12/05/05	11.05	7.95	3.10	1.70	1,240.80
12/12/05	12.08	7.48	4.60	3.00	1,243.80
12/14/05	10.94	8.25	2.69	1.70	1,245.50
12/19/05	11.20	7.88	3.32	2.50	1,248.00
12/21/05	10.19	8.18	2.01	1.50	1,249.50
12/27/05	12.20	7.55	4.65	3.00	1,252.50
01/03/06	11.90	7.65	4.25	3.00	1,255.50
01/06/06	10.25	7.62	2.63	2.00	1,257.50
01/09/06	10.02	7.70	2.32	1.50	1,259.00
01/13/06	9.63	7.80	1.83	1.20	1,260.20
01/16/06	9.40	7.50	1.90	1.00	1,261.20
01/19/06	9.14	7.20	1.94	1.00	1,262.20
01/23/06	10.30	7.63	2.67	1.70	1,263.90
01/27/06	9.43	7.62	1.81	1.00	1,264.90
01/30/06	9.68	7.77	1.91	1.00	1,265.90
02/01/06	9.10	7.53	1.57	1.00	1,266.90
02/03/06	9.08	7.68	1.40	1.00	1,267.90
02/06/06	9.28	7.63	1.65	1.00	1,268.90
02/13/06	10.10	7.97	2.13	0.50	1,269.40
02/17/06	10.82	7.77	3.05	1.70	1,271.10
02/21/06	10.83	7.90	2.93	0.00	1,271.10

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
02/23/06	11.08	7.92	3.16	2.00	1,273.10
02/27/06	11.43	8.10	3.33	1.70	1,274.80
03/02/06	10.02	8.24	1.78	1.00	1,275.80
03/13/06	12.88	8.08	4.80	3.20	1,279.00
03/14/06	11.05	8.21	2.84	1.20	1,280.20
03/15/06	10.82	8.45	2.37	1.50	1,281.70
03/16/06	8.56	8.56	0.00	1.50	1,283.20
03/17/06	11.05	8.56	2.49	1.20	1,284.40
03/20/06	11.10	8.45	2.65	2.00	1,286.40
03/21/06	10.95	8.53	2.42	1.50	1,287.90
03/22/06	11.00	8.51	2.49	2.00	1,289.90
03/23/06	10.98	8.58	2.40	1.00	1,290.90
03/24/06	10.90	8.50	2.40	1.00	1,291.90
03/29/06	13.35	8.40	4.95	0.00	1,291.90
03/30/06	11.75	8.58	3.17	2.50	1,294.40
03/31/06	10.40	8.79	1.61	0.70	1,295.10
04/03/06	11.02	8.58	2.44	1.70	1,296.80
04/04/06	10.32	8.60	1.72	1.00	1,297.80
04/05/06	9.90	8.60	1.30	0.70	1,298.50
04/06/06	9.95	8.85	1.10	0.00	1,298.50
04/07/06	10.25	8.58	1.67	1.00	1,299.50
04/10/06	10.65	8.48	2.17	1.70	1,301.20
04/11/06	10.06	8.68	1.38	1.00	1,302.20
04/12/06	9.85	8.75	1.10	0.50	1,302.70
04/13/06	9.63	8.68	0.95	0.00	1,302.70
04/17/06	11.88	8.48	3.40	2.50	1,305.20
04/18/06	11.04	8.64	2.40	1.50	1,306.70
04/19/06	10.60	8.68	1.92	1.00	1,307.70
04/20/06	9.60	8.78	0.82	0.00	1,307.70
04/21/06	10.22	8.74	1.48	1.00	1,308.70
04/24/06	10.58	8.48	2.10	1.50	1,310.20
04/25/06	9.86	8.48	1.38	0.00	1,310.20
04/26/06	10.28	8.04	2.24	1.50	1,311.70
04/27/06	9.75	8.47	1.28	0.00	1,311.70
04/28/06	10.15	8.13	2.02	1.00	1,312.70
05/01/06	10.20	8.46	1.74	1.00	1,313.70
05/02/06	9.59	8.46	1.13	0.00	1,313.70
05/03/06	10.10	8.07	2.03	1.10	1,314.80
05/04/06	9.70	8.45	1.25	1.10	1,315.90
05/05/06	8.45	8.25	0.20	0.50	1,316.40
05/08/06	10.25	8.65	1.60	1.10	1,317.50
05/09/06	9.65	8.20	1.45	1.00	1,318.50
05/10/06	9.52	8.68	0.84	0.00	1,318.50
05/11/06	10.01	8.40	1.61	1.00	1,319.50
05/12/06	10.00	8.45	1.55	1.00	1,320.50
05/15/06	11.03	8.58	2.45	2.00	1,322.50
05/16/06	9.63	8.16	1.47	0.20	1,322.70

Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
05/17/06	9.60	8.42	1.18	0.00	1,322.70
05/18/06	10.16	8.11	2.05	1.20	1,323.90
05/19/06	9.59	8.48	1.11	0.00	1,323.90
05/22/06	10.34	7.79	2.55	2.00	1,325.90
05/23/06	9.90	8.48	1.42	0.00	1,325.90
05/24/06	10.20	8.38	1.82	1.50	1,327.40
05/25/06	9.70	8.63	1.07	0.00	1,327.40
05/26/06	10.13	8.58	1.55	1.00	1,328.40
05/30/06	10.98	8.60	2.38	2.00	1,330.40
05/31/06	9.98	8.73	1.25	0.00	1,330.40
06/01/06	10.28	8.64	1.64	1.10	1,331.50
06/02/06	9.55	8.04	1.51	0.00	1,331.50
06/05/06	11.37	8.19	3.18	2.10	1,333.60
06/06/06	10.03	8.30	1.73	1.00	1,334.60
06/09/06	10.43	7.37	3.06	2.00	1,336.60
06/12/06	10.92	7.98	2.94	2.00	1,338.60
06/13/06	9.72	7.72	2.00	1.00	1,339.60
06/14/06	9.35	8.25	1.10	0.00	1,339.60
06/15/06	10.00	8.18	1.82	1.00	1,340.60
06/16/06	9.72	7.48	2.24	1.00	1,341.60
06/19/06	10.50	7.66	2.84	0.00	1,341.60
06/20/06	11.10	8.00	3.10	2.50	1,344.10
06/22/06	9.40	7.89	1.51	0.70	1,344.80
06/23/06	9.46	7.80	1.66	0.00	1,344.80
06/27/06	11.15	7.50	3.65	2.70	1,347.50
06/30/06	9.65	7.60	2.05	0.00	1,347.50
07/03/06	11.51	7.80	3.71	2.00	1,349.50
07/05/06	10.34	7.90	2.44	2.00	1,351.50
07/06/06	9.70	7.75	1.95	0.00	1,351.50
07/07/06	10.30	7.85	2.45	1.70	1,353.20
07/10/06	10.65	7.93	2.72	2.00	1,355.20
07/13/06	11.17	8.14	3.03	2.50	1,357.70
07/14/06	10.20	7.95	2.25	1.00	1,358.70
07/17/06	10.00	8.35	1.65	1.00	1,359.70
07/18/06	9.71	8.15	1.56	0.00	1,359.70
07/20/06	10.45	8.32	2.13	1.50	1,361.20
07/21/06	9.85	8.00	1.85	0.00	1,361.20
07/24/06	11.20	7.95	3.25	4.00	1,365.20
07/25/06	11.18	8.00	3.18	2.50	1,367.70
07/26/06	10.60	8.52	2.08	2.00	1,369.70
07/27/06	9.85	8.50	1.35	0.00	1,369.70
07/31/06	11.03	8.55	2.48	2.00	1,371.70
08/02/06	11.20	7.92	3.28	2.70	1,374.40
08/03/06	10.21	7.96	2.25	1.50	1,375.90
08/04/06	10.25	8.00	2.25	1.50	1,377.40
08/07/06	11.93	7.70	4.23	3.00	1,380.40
08/08/06	10.90	8.55	2.35	2.00	1,382.40

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
08/10/06	10.75	7.95	2.80	2.00	1,384.40
08/14/06	12.27	8.35	3.92	3.10	1,387.50
08/16/06	12.10	8.35	3.75	3.00	1,390.50
08/17/06	12.15	8.37	3.78	2.50	1,393.00
08/18/06	11.61	8.26	3.35	2.50	1,395.50
08/21/06	12.00	8.15	3.85	3.00	1,398.50
08/22/06	10.75	8.35	2.40	2.00	1,400.50
08/23/06	10.70	8.50	2.20	2.10	1,402.60
08/24/06	10.20	8.10	2.10	2.00	1,404.60
09/05/06	10.60	7.30	3.30	3.00	1,407.60
09/06/06	10.44	7.92	2.52	2.00	1,409.60
09/07/06	10.45	8.00	2.45	2.00	1,411.60
09/08/06	9.59	8.21	1.38	1.50	1,413.10
09/11/06	10.38	7.95	2.43	2.00	1,415.10
09/12/06	10.40	7.90	2.50	1.50	1,416.60
09/13/06	9.77	7.81	1.96	1.00	1,417.60
09/18/06	10.73	7.91	2.82	1.50	1,419.10
09/19/06	9.82	7.87	1.95	0.00	1,419.10
09/20/06	9.98	8.01	1.97	2.00	1,421.10
09/21/06	9.92	8.30	1.62	1.70	1,422.80
09/22/06	10.26	8.79	1.47	1.00	1,423.80
09/25/06	11.46	8.44	3.02	2.70	1,426.50
09/26/06	10.58	8.25	2.33	0.70	1,427.20
09/27/06	10.41	8.01	2.40	2.20	1,429.40
09/28/06	9.85	8.33	1.52	1.20	1,430.60
09/29/06	9.80	8.00	1.80	1.50	1,432.10
10/02/06	11.21	8.03	3.18	3.10	1,435.20
10/03/06	10.33	8.32	2.01	1.70	1,436.90
10/04/06	10.14	8.31	1.83	1.50	1,438.40
10/05/06	10.41	8.14	2.27	2.00	1,440.40
10/06/06	10.51	8.31	2.20	1.70	1,442.10
10/09/06	11.48	8.20	3.28	2.50	1,444.60
10/10/06	10.38	8.40	1.98	2.70	1,447.30
10/11/06	10.03	8.56	1.47	2.00	1,449.30
10/13/06	10.47	8.35	2.12	2.00	1,451.30
10/16/06	10.90	8.34	2.56	3.00	1,454.30
10/17/06	10.81	8.41	2.40	2.70	1,457.00
10/18/06	10.43	8.32	2.11	0.00	1,457.00
10/23/06	10.46	8.23	2.23	1.50	1,458.50
10/24/06	14.28	7.92	6.36	4.70	1,463.20
10/25/06	10.69	8.61	2.08	0.00	1,463.20
10/26/06	9.71	8.78	0.93	1.00	1,464.20
10/27/06	10.38	7.01	3.37	0.00	1,464.20
10/30/06	10.15	7.74	2.41	1.50	1,465.70
11/01/06	10.96	7.61	3.35	2.00	1,467.70
11/03/06	9.59	8.10	1.49	1.00	1,468.70
11/06/06	11.25	7.53	3.72	2.00	1,470.70

Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
11/07/06	9.48	7.38	2.10	2.00	1,472.70
11/13/06	9.91	7.04	2.87	2.50	1,475.20
11/04/06	9.77	6.76	3.01	2.00	1,477.20
11/15/06	9.55	8.01	1.54	1.00	1,478.20
11/16/06	8.70	8.10	0.60	0.00	1,478.20
11/20/06	10.21	6.98	3.23	2.00	1,480.20
11/21/06	9.73	7.31	2.42	1.20	1,481.40
11/22/06	9.77	7.65	2.12	0.00	1,481.40
11/24/06	10.30	7.33	2.97	0.00	1,481.40
11/27/06	10.52	7.95	2.57	0.00	1,481.40
11/28/06	11.38	7.48	3.90	2.50	1,483.90
11/29/06	9.10	7.00	2.10	0.00	1,483.90
11/30/06	9.26	7.13	2.13	2.20	1,486.10
12/01/06	9.24	7.58	1.66	1.20	1,487.30
12/05/06	9.72	7.45	2.27	2.20	1,489.50
12/06/06	9.21	7.86	1.35	0.60	1,490.10
12/07/06	8.90	8.04	0.86	1.00	1,491.10
12/08/06	10.44	8.20	2.24	2.00	1,493.10
12/11/06	9.72	7.74	1.98	1.50	1,494.60
12/13/06	10.25	8.15	2.10	0.50	1,495.10
12/14/06	9.61	7.83	1.78	1.00	1,496.10
12/15/06	9.68	7.98	1.70	1.00	1,497.10
12/18/06	11.09	7.81	3.28	2.00	1,499.10
12/19/06	10.28	7.50	2.78	1.50	1,500.60
12/20/06	10.41	8.27	2.14	1.50	1,502.10
12/21/06	10.58	8.68	1.90	1.50	1,503.60
12/28/06	11.55	7.60	3.95	2.50	1,506.10
12/29/06	11.03	8.46	2.57	0.00	1,506.10
01/02/07	10.28	7.89	2.39	1.00	1,507.10
01/08/07	10.08	6.99	3.09	1.00	1,508.10
01/09/07	10.21	7.36	2.85	1.50	1,509.60
01/10/07	9.77	7.75	2.02	1.50	1,511.10
01/11/07	8.44	7.55	0.89	2.00	1,513.10
01/12/07	9.92	8.20	1.72	2.00	1,515.10
01/15/07	8.53	7.87	0.66	2.00	1,517.10
01/16/07	10.15	8.17	1.98	1.20	1,518.30
01/17/07	10.62	8.25	2.37	1.00	1,519.30
01/22/07	9.99	7.96	2.03	0.10	1,519.40
01/23/07	10.35	8.32	2.03	1.80	1,521.20
01/30/07	10.31	7.90	2.41	2.00	1,523.20
01/31/07	10.48	8.03	2.45	2.00	1,525.20
02/01/07	10.13	7.87	2.26	1.00	1,526.20
02/02/07	10.42	8.33	2.09	1.00	1,527.20
02/09/07	12.74	7.71	5.03	3.70	1,530.90
02/22/07	NM	NM	NM	3.50	1,534.40
02/26/07	NM	NM	NM	4.00	1,538.40
02/27/07	NM	NM	NM	2.00	1,540.40

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
02/28/07	NM	NM	NM	2.00	1,542.40
03/01/07	NM	NM	NM	1.00	1,543.40
03/05/07	NM	NM	NM	2.00	1,545.40
03/08/07	NM	NM	NM	2.00	1,547.40
03/13/07	12.80	7.74	5.06	2.00	1,549.40
03/14/07	NM	NM	NM	1.50	1,550.90
03/15/07	9.91	7.74	2.17	1.00	1,551.90
03/16/07	10.05	8.54	1.51	1.00	1,552.90
03/20/07	NM	NM	NM	2.00	1,554.90
03/21/07	NM	NM	NM	1.00	1,555.90
03/22/07	NM	NM	NM	1.50	1,557.40
03/23/07	NM	NM	NM	1.20	1,558.60
03/26/07	10.98	7.85	3.13	2.50	1,561.10
03/27/07	10.11	7.65	2.46	1.00	1,562.10
03/28/07	10.95	8.15	2.80	0.20	1,562.30
03/29/07	10.15	8.12	2.03	0.50	1,562.80
03/30/07	11.35	8.15	3.20	2.00	1,564.80
04/02/07	10.85	9.85	1.00	1.70	1,566.50
04/03/07	10.75	10.25	0.50	1.70	1,568.20
04/04/07	9.75	7.69	2.06	0.20	1,568.40
04/05/07	9.92	7.55	2.37	2.50	1,570.90
04/09/07	10.75	7.89	2.86	1.00	1,571.90
04/13/07	10.89	7.85	3.04	2.00	1,573.90
04/17/07	9.18	7.53	1.65	1.00	1,574.90
04/20/07	7.82	7.49	0.33	0.50	1,575.40
04/23/07	7.51	6.78	0.73	0.00	1,575.40
04/24/07	8.59	7.73	0.86	0.00	1,575.40
04/26/07	8.68	7.22	1.46	0.00	1,575.40
05/01/07	8.23	7.11	1.12	0.70	1,576.10
05/04/07	8.99	7.84	1.15	2.50	1,578.60
05/07/07	9.06	7.06	2.00	0.30	1,578.90
05/08/07	9.63	8.05	1.58	1.00	1,579.90
05/10/07	9.21	7.32	1.89	1.20	1,581.10
05/11/07	9.30	8.09	1.21	0.50	1,581.60
05/14/07	8.75	7.73	1.02	1.00	1,582.60
05/16/07	8.46	7.81	0.65	0.50	1,583.10
05/17/07	8.69	7.71	0.98	0.50	1,583.60
05/21/07	10.51	7.37	3.14	0.00	1,583.60
05/22/07	10.33	7.51	2.82	1.00	1,584.60
05/23/07	10.05	7.38	2.67	0.70	1,585.30
05/25/07	10.51	7.36	3.15	1.00	1,586.30
05/29/07	9.44	8.71	0.73	0.50	1,586.80
05/31/07	11.54	7.81	3.73	0.00	1,586.80
06/01/07	10.11	7.64	2.47	0.00	1,586.80
06/06/07	11.41	7.57	3.84	3.00	1,589.80
06/08/07	9.68	8.76	0.92	1.50	1,591.30
06/12/07	10.08	8.81	1.27	1.50	1,592.80

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
06/13/07	9.83	8.82	1.01	0.30	1,593.10
06/22/07	10.04	8.96	1.08	0.70	1,593.80
06/25/07	10.73	8.84	1.89	0.70	1,594.50
06/27/07	11.36	7.95	3.41	2.00	1,596.50
06/28/07	10.76	7.91	2.85	1.00	1,597.50
07/02/07	10.41	8.31	2.10	2.20	1,599.70
07/03/07	10.64	7.86	2.78	1.70	1,601.40
07/06/07	9.44	8.96	0.48	1.70	1,603.10
07/09/07	9.43	8.20	1.23	1.00	1,604.10
07/13/07	12.41	7.62	4.79	3.00	1,607.10
07/19/07	13.25	7.68	5.57	3.70	1,610.80
07/20/07	10.63	9.18	1.45	1.70	1,612.50
07/23/07	12.45	7.93	4.52	3.00	1,615.50
07/24/07	11.36	7.86	3.50	1.80	1,617.30
07/25/07	11.06	8.31	2.75	1.50	1,618.80
07/26/07	10.94	8.00	2.94	1.20	1,620.00
07/27/07	11.01	8.11	2.90	1.20	1,621.20
07/30/07	12.89	7.83	5.06	1.70	1,622.90
08/06/07	13.00	7.66	5.34	3.00	1,625.90
08/08/07	12.72	7.86	4.86	2.00	1,627.90
08/09/07	12.80	7.85	4.95	2.00	1,629.90
08/13/07	13.68	7.88	5.80	5.00	1,634.90
08/14/07	11.52	8.94	2.58	2.50	1,637.40
08/15/07	10.11	8.90	1.21	1.20	1,638.60
08/16/07	12.37	8.55	3.82	4.50	1,643.10
08/17/07	10.82	7.95	2.87	2.00	1,645.10
08/20/07	12.61	7.51	5.10	5.00	1,650.10
08/21/07	11.72	8.36	3.36	0.00	1,650.10
08/22/07	12.85	8.05	4.80	3.00	1,653.10
08/23/07	11.52	8.16	3.36	5.00	1,658.10
08/24/07	12.00	8.91	3.09	2.50	1,660.60
08/29/07	14.08	8.81	5.27	4.00	1,664.60
08/30/07	11.52	7.25	4.27	4.00	1,668.60
08/31/07	11.08	8.75	2.33	5.00	1,673.60
09/04/07	13.18	7.55	5.63	0.00	1,673.60
09/05/07	13.73	6.96	6.77	6.00	1,679.60
09/06/07	13.15	7.23	5.92	4.00	1,683.60
09/07/07	10.33	9.35	0.98	1.00	1,684.60
09/12/07	14.16	7.01	7.15	4.20	1,688.80
09/13/07	12.43	9.26	3.17	3.00	1,691.80
09/14/07	12.40	9.24	3.16	3.00	1,694.80
09/17/07	NM	NM	NM	2.00	1,696.80
09/19/07	10.40	9.42	0.98	2.00	1,698.80
09/20/07	10.18	9.04	1.14	3.00	1,701.80
09/24/07	11.26	9.41	1.85	2.00	1,703.80
09/25/07	10.77	9.51	1.26	1.70	1,705.50
09/26/07	10.70	9.51	1.19	1.70	1,707.20

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
09/27/07	10.61	9.52	1.09	1.50	1,708.70
09/28/07	11.06	9.46	1.60	2.00	1,710.70
10/01/07	11.41	9.46	1.95	1.20	1,711.90
10/02/07	10.82	9.52	1.30	1.20	1,713.10
10/03/07	10.65	9.52	1.13	1.00	1,714.10
10/04/07	10.66	9.54	1.12	1.50	1,715.60
10/05/07	10.60	9.55	1.05	1.40	1,717.00
10/08/07	11.46	9.51	1.95	2.10	1,719.10
10/10/07	11.11	9.54	1.57	1.50	1,720.60
10/11/07	10.81	9.54	1.27	1.90	1,722.50
10/15/07	11.74	9.57	2.17	1.70	1,724.20
10/16/07	11.12	9.66	1.46	2.00	1,726.20
10/17/07	11.11	9.67	1.44	2.00	1,728.20
10/19/07	11.09	9.61	1.48	2.00	1,730.20
10/22/07	11.01	9.50	1.51	1.00	1,731.20
10/23/07	11.14	9.64	1.50	1.00	1,732.20
10/24/07	11.24	9.58	1.66	1.50	1,733.70
10/26/07	11.59	9.65	1.94	0.70	1,734.40
11/01/07	11.41	9.44	1.97	3.00	1,737.40
11/02/07	11.54	9.48	2.06	0.00	1,737.40
11/05/07	11.57	9.52	2.05	0.00	1,737.40
11/07/07	11.11	9.54	1.57	0.00	1,737.40
11/08/07	11.56	9.47	2.09	0.00	1,737.40
11/12/07	11.97	9.54	2.43	2.00	1,739.40
11/13/07	10.82	9.66	1.16	0.00	1,739.40
11/29/07	12.25	9.43	2.82	3.00	1,742.40
11/30/07	11.56	9.55	2.01	2.00	1,744.40
12/03/07	11.61	9.56	2.05	2.00	1,746.40
12/04/07	11.46	9.42	2.04	1.50	1,747.90
12/19/07	11.58	9.63	1.95	2.00	1,749.90
12/20/07	10.75	9.46	1.29	1.00	1,750.90
12/21/07	10.74	9.48	1.26	0.70	1,751.60
12/26/07	10.61	9.15	1.46	1.00	1,752.60
01/08/08	10.35	8.72	1.63	1.20	1,753.80
01/09/08	9.79	8.75	1.04	0.70	1,754.50
01/10/08	9.65	8.93	0.72	0.00	1,754.50
01/14/08	9.93	8.71	1.22	1.00	1,755.50
01/16/08	9.45	8.08	1.37	1.00	1,756.50
01/17/08	9.62	8.79	0.83	0.50	1,757.00
01/21/08	9.71	8.90	0.81	0.20	1,757.20
01/22/08	9.70	8.93	0.77	0.30	1,757.50
01/23/08	9.85	8.88	0.97	1.00	1,758.50
01/24/08	9.87	8.93	0.94	0.50	1,759.00
01/29/08	10.23	9.05	1.18	0.70	1,759.70
01/30/08	10.00	9.13	0.87	0.00	1,759.70
02/06/08	10.11	8.66	1.45	0.00	1,759.70
02/08/08	10.94	8.63	2.31	1.50	1,761.20



## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
02/14/08	10.32	8.68	1.64	0.50	1,761.70
02/19/08	10.35	8.60	1.75	0.50	1,762.20
02/25/08	9.65	8.52	1.13	0.50	1,762.70
02/26/08	9.43	8.51	0.92	0.70	1,763.40
02/27/08	9.56	8.43	1.13	0.00	1,763.40
03/03/08	9.77	8.34	1.43	1.20	1,764.60
03/07/08	9.34	8.23	1.11	1.20	1,765.80
03/10/08	8.74	8.05	0.69	0.20	1,766.00
03/20/08	8.88	8.11	0.77	1.00	1,767.00
03/21/08	8.99	8.57	0.42	0.00	1,767.00
03/24/08	9.43	8.33	1.10	1.70	1,768.70
03/26/08	8.84	8.34	0.50	0.50	1,769.20
03/27/08	9.43	8.92	0.51	0.00	1,769.20
03/28/08	9.16	8.33	0.83	0.00	1,769.20
04/01/08	9.15	8.40	0.75	0.00	1,769.20
04/03/08	9.76	8.54	1.22	1.00	1,770.20
04/08/08	9.61	8.57	1.04	0.70	1,770.90
04/10/08	9.86	8.59	1.27	0.50	1,771.40
04/14/08	9.61	8.51	1.10	0.10	1,771.50
04/15/08	9.61	8.65	0.96	0.70	1,772.20
04/16/08	9.61	8.74	0.87	0.40	1,772.60
04/17/08	9.56	8.79	0.77	0.70	1,773.30
04/24/08	9.66	8.86	0.80	1.00	1,774.30
04/22/08	9.61	8.86	0.75	0.50	1,774.80
04/21/08	9.86	8.79	1.07	1.00	1,775.80
04/18/08	9.05	8.63	0.42	0.00	1,775.80
04/23/08	9.71	8.88	0.83	0.00	1,775.80
04/25/08	10.24	8.98	1.26	0.70	1,776.50
04/28/08	9.91	8.82	1.09	0.70	1,777.20
04/29/08	9.31	8.98	0.33	0.00	1,777.20
04/30/08	9.62	8.86	0.76	1.50	1,778.70
05/02/08	9.66	8.82	0.84	1.00	1,779.70
05/06/08	10.09	8.97	1.12	1.20	1,780.90
05/07/08	9.89	8.99	0.90	0.60	1,781.50
05/08/08	9.71	8.99	0.72	0.40	1,781.90
05/14/08	10.57	8.91	1.66	0.90	1,782.80
05/15/08	9.75	9.04	0.71	0.50	1,783.30
05/16/08	9.66	8.98	0.68	0.00	1,783.30
05/20/08	10.03	9.05	0.98	0.50	1,783.80
05/21/08	9.94	8.94	1.00	0.00	1,783.80
05/22/08	9.87	8.94	0.93	1.00	1,784.80
05/23/08	9.55	9.04	0.51	0.00	1,784.80
05/27/08	10.23	9.02	1.21	1.40	1,786.20
05/28/08	9.68	9.06	0.62	0.50	1,786.70
05/29/08	9.66	8.92	0.74	0.70	1,787.40
05/30/08	9.33	8.96	0.37	0.00	1,787.40
06/02/08	9.76	8.96	0.80	1.00	1,788.40

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
06/03/08	9.69	9.04	0.65	0.70	1,789.10
06/04/08	9.46	8.94	0.52	0.50	1,789.60
06/05/08	9.53	9.12	0.41	1.50	1,791.10
06/06/08	9.43	9.04	0.39	0.00	1,791.10
06/09/08	10.03	9.09	0.94	0.50	1,791.60
06/10/08	9.82	9.09	0.73	1.20	1,792.80
06/13/08	10.02	9.01	1.01	0.50	1,793.30
06/16/08	10.17	9.07	1.10	1.00	1,794.30
06/17/08	9.50	9.10	0.40	0.60	1,794.90
06/18/08	9.82	9.19	0.63	1.50	1,796.40
06/19/08	9.25	9.07	0.18	0.40	1,796.80
06/20/08	9.35	9.09	0.26	0.50	1,797.30
06/23/08	10.08	9.17	0.91	0.20	1,797.50
06/24/08	10.04	9.02	1.02	1.30	1,798.80
06/25/08	10.05	9.19	0.86	2.20	1,801.00
06/26/08	10.01	9.15	0.86	0.70	1,801.70
06/28/08	10.60	9.12	1.48	1.50	1,803.20
06/30/08	10.25	9.20	1.05	1.00	1,804.20
07/01/08	10.35	10.01	0.34	1.50	1,805.70
07/02/08	10.50	9.23	1.27	2.00	1,807.70
07/07/08	10.76	9.00	1.76	1.00	1,808.70
07/08/08	9.57	9.02	0.55	0.60	1,809.30
07/09/08	9.42	9.04	0.38	0.70	1,810.00
07/10/08	9.46	9.04	0.42	0.50	1,810.50
07/11/08	9.51	9.06	0.45	0.20	1,810.70
07/14/08	9.62	9.04	0.58	1.00	1,811.70
07/15/08	9.61	9.18	0.43	0.40	1,812.10
07/17/08	10.24	9.20	1.04	0.50	1,812.60
07/22/08	10.84	9.17	1.67	1.00	1,813.60
07/24/08	10.21	9.21	1.00	0.20	1,813.80
07/25/08	10.18	9.21	0.97	1.20	1,815.00
07/28/08	9.94	9.11	0.83	1.00	1,816.00
07/29/08	9.68	9.12	0.56	0.50	1,816.50
07/31/08	9.74	9.12	0.62	0.50	1,817.00
08/04/08	10.18	9.09	1.09	1.00	1,818.00
08/05/08	10.25	9.05	1.20	0.50	1,818.50
08/08/08	9.82	9.00	0.82	0.50	1,819.00
08/11/08	10.88	9.51	1.37	1.00	1,820.00
08/15/08	10.53	9.09	1.44	0.40	1,820.40
08/20/08	10.65	9.05	1.60	1.50	1,821.90
09/20/08	11.29	8.93	2.36	0.70	1,822.60
10/21/08	11.57	9.33	2.24	1.50	1,824.10
10/22/08	10.48	9.53	0.95	0.50	1,824.60
10/23/08	10.15	9.52	0.63	0.20	1,824.80
11/01/08	11.41	9.36	2.05	1.50	1,826.30
11/04/08	10.63	9.32	1.31	1.20	1,827.50
11/12/08	11.13	9.33	1.80	1.50	1,829.00

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well VE 4-5 (Well Diameter = 4 inches)

Date	Well VE 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
11/19/08	10.48	9.18	1.30	1.00	1,830.00
12/04/08	10.80	9.04	1.76	1.60	1,831.60
12/09/08	10.40	9.15	1.25	1.00	1,832.60
12/17/08	9.87	8.66	1.21	0.00	1,832.60
01/27/09	10.83	9.03	1.80	0.00	1,832.60
02/19/09	10.74	8.86	1.88	0.00	1,832.60
04/07/09	11.00	9.03	1.97	0.00	1,832.60
05/12/09	10.98	8.97	2.01	0.90	1,833.50
07/30/09	11.05	9.01	2.04	0.00	1,833.50

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-40: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well VE 4-6 (Well Diameter = 4 inches)**

Date	Well VE 4-6				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-6 (gallons)	
				Per Day	To-Date
11/15/01 *	10.41	6.99	3.42	0.00	0.00
01/09/02 *	10.70	7.21	3.49	0.00	0.00
05/10/02	10.25	6.72	3.53	2.30	2.30
07/26/02	9.70	6.97	2.73	1.78	1.78
08/15/02	9.21	6.99	2.22	1.45	3.23
08/22/02	10.30	6.50	3.80	2.48	5.71
09/09/02	10.13	7.02	3.11	2.03	7.74
10/09/02	9.25	6.25	3.00	1.96	9.70
12/18/02	7.92	5.74	2.18	1.42	9.16
01/07/03	5.87	5.45	0.42	0.27	9.44
02/04/03	5.70	5.70	0.00	0.00	9.44
03/12/03	6.50	5.97	0.53	0.35	9.78
03/31/03	4.90	4.89	0.01	0.01	9.79
05/27/03	4.60	4.60	0.00	0.00	9.79
09/17/03	8.95	6.05	2.90	1.89	11.68
11/04/03	6.30	5.63	0.67	0.44	12.12
03/02/04	6.15	6.15	0.00	0.00	12.12
04/27/04	6.05	6.05	0.00	0.00	12.12
02/15/05	5.50	5.50	0.00	0.00	12.12
03/31/05	4.92	4.90	0.02	0.00	12.12
04/26/05	5.44	5.10	0.34	0.00	12.12
07/13/05	6.42	6.40	0.02	0.00	12.12
11/01/05	3.99	3.55	0.44	0.38	12.50
05/13/08	6.13	5.75	0.38	0.38	12.87
08/27/08	6.87	6.74	0.13	0.38	13.25

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-41: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well VE 4-7 (Well Diameter = 4 inches)**

Date	Well VE 4-7				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-7 (gallons)	
				Per Day	To-Date
11/15/01 *	6.75	6.75	0.00	0.00	0.00
01/09/02 *	7.21	6.93	0.28	0.00	0.00
04/08/02 *	6.44	6.04	0.40	0.00	0.00
04/16/02 *	6.39	6.04	0.35	0.00	0.00
05/10/02	5.98	5.78	0.20	0.00	0.00
07/26/02	6.18	5.93	0.25	0.00	0.00
08/15/02	6.53	6.39	0.14	0.00	0.00
09/09/02	6.92	5.91	1.01	0.66	0.66
10/09/02	8.25	5.83	2.42	1.58	2.24
11/26/02	5.13	5.12	0.01	0.00	2.24
12/18/02	5.75	4.90	0.85	0.55	2.79
01/07/03	5.00	4.25	0.75	0.49	3.28
02/04/03	5.90	4.92	0.98	0.64	3.92
03/31/03	3.40	2.90	0.50	0.33	4.25
05/27/03	2.85	2.85	0.00	0.00	4.25
09/17/03	5.37	5.37	0.00	0.00	4.25
11/04/03	5.11	5.11	0.00	0.00	4.25
03/02/04	6.25	6.00	0.25	0.25	4.50
04/27/04	5.05	4.90	0.15	0.00	4.50
02/15/05	6.33	3.04	3.29	2.00	6.50
03/31/05	4.42	4.38	0.04	0.00	6.50
04/26/05	5.31	5.10	0.21	0.00	6.50
07/13/05	6.15	5.95	0.20	0.00	6.50
11/01/05	3.70	2.45	1.25	0.88	7.37
05/13/08	5.65	5.65	0.00	0.88	8.25
08/27/08	7.68	7.68	0.00	0.88	9.12

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-42: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well VE 4-8 (Well Diameter = 4 inches)**

Date	Well VE 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-8 (gallons)	
				Per Day	To-Date
11/15/01 *	7.04	7.04	0.00	0.00	0.00
01/07/02 *	7.39	7.27	0.12	0.00	0.00
04/08/02 *	5.61	5.61	0.00	0.00	0.00
04/16/02 *	5.71	5.71	0.00	0.00	0.00
05/10/02	6.90	6.90	0.00	0.00	0.00
07/26/02	5.88	5.71	0.17	0.00	0.00
08/15/02	6.02	5.94	0.08	0.00	0.00
09/09/02	8.05	6.90	1.15	0.75	0.75
10/09/02	8.42	6.00	2.42	1.58	2.33
11/26/02	8.72	4.91	3.81	2.49	4.82
12/18/02	5.26	5.18	0.08	0.00	4.82
01/07/03	4.85	4.82	0.03	0.00	4.82
02/04/03	5.62	5.59	0.03	0.00	4.82
03/31/03	3.20	3.20	0.00	0.00	4.82
05/27/03	3.45	3.45	0.00	0.00	4.82
09/17/03	4.58	0.00	0.00	0.00	4.82
11/04/03	4.30	4.30	0.00	0.00	4.82
03/02/04	5.85	5.85	0.00	0.00	4.82
04/27/04	3.83	3.83	0.00	0.00	4.82
02/15/05	3.9	3.9	0.00	0.00	4.82
03/31/05	4.83	4.83	0.00	0.00	4.82
04/26/05	5.20	5.20	0.00	0.00	4.82
07/13/05	5.73	5.72	0.01	0.00	4.82
11/01/05	3.4	3.18	0.22	0.00	4.82
08/27/08	5.96	5.96	0.00	0.00	4.82

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-43: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well VE 4-9 (Well Diameter = 4 inches)**

Date	Well VE 4-9				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-9 (gallons)	
				Per Day	To-Date
11/15/01 *	8.42	7.19	1.23	0.00	0.00
01/07/02 *	9.55	7.38	2.17	0.00	0.00
05/10/02	8.27	6.81	1.46	0.95	0.95
07/26/02	8.38	7.45	0.93	0.61	1.56
08/15/02	8.13	7.51	0.62	0.40	1.96
09/09/02	8.39	6.02	2.37	1.55	3.51
10/09/02	8.45	6.14	2.31	1.51	5.02
11/26/02	5.85	5.73	0.12	0.08	5.10
12/18/02	6.25	5.64	0.61	0.40	5.50
01/07/03	9.35	9.20	0.15	0.10	5.59
02/04/03	7.35	6.02	1.33	0.87	6.46
03/12/03	5.68	5.68	0.00	0.00	6.46
03/31/03	5.10	5.09	0.01	0.00	6.46
05/27/03	5.32	5.30	0.02	0.00	6.46
09/17/03	5.60	5.21	0.39	0.00	6.46
11/04/03	6.44	5.71	0.73	0.50	6.96
03/02/04	5.90	5.90	0.00	0.00	6.96
04/27/04	3.40	3.40	0.00	0.00	6.96
02/15/05	3.42	3.42	0.00	0.00	6.96
03/31/05	4.48	4.48	0.00	0.00	6.96
04/26/05	5.60	5.02	0.58	0.00	6.96
07/13/05	6.24	6.10	0.14	0.00	6.96
11/01/05	3.20	3.00	0.20	0.00	6.96
05/13/08	6.84	6.29	0.55	0.00	6.96
08/27/08	6.93	6.63	0.30	0.00	6.96

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-44: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well VE 4-10 (Well Diameter = 4 inches)**

Date	Well VE 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-10 (gallons)	
				Per Day	To-Date
11/15/01 *	13.39	11.18	2.21	0.00	0.00
01/07/02 *	13.83	11.44	2.39	0.00	0.00
04/08/02 *	11.74	10.44	1.30	0.00	0.00
04/16/02 *	11.72	10.38	1.34	0.00	0.00
05/10/02	12.48	10.75	1.73	1.13	1.13
07/26/02	11.35	10.88	0.47	0.31	1.44
08/15/02	12.51	11.14	1.37	0.89	2.33
08/22/02	11.70	11.51	0.19	0.12	2.45
09/09/02	12.47	10.52	1.95	1.27	3.73
10/09/02	12.62	10.98	1.64	1.07	4.80
12/18/02	10.33	10.23	0.10	0.07	4.86
01/07/03	9.35	9.20	0.15	0.10	4.96
02/04/03	10.50	10.49	0.01	0.01	4.97
03/12/03	9.80	9.75	0.05	0.03	5.00
03/31/03	9.25	9.22	0.03	0.02	5.02
05/27/03	10.35	10.35	0.00	0.00	5.02
09/17/03	11.12	10.15	0.97	0.63	5.65
11/04/03	10.52	9.60	0.92	0.60	6.25
03/02/04	10.60	10.51	0.09	0.06	6.31
04/27/04	10.27	10.24	0.03	0.02	6.33
02/15/05	9.80	9.80	0.00	0.00	6.33
03/31/05	9.83	9.83	0.00	0.00	6.33
04/22/05	9.55	9.55	0.00	0.00	6.33
04/26/05	9.63	9.63	0.00	0.00	6.33
07/13/05	10.55	10.55	0.00	0.00	6.33
11/01/05	8.70	8.70	0.00	0.00	6.33
05/13/08	10.88	10.36	0.52	0.00	6.33
08/27/08	10.60	10.60	0.00	0.00	6.33

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.



**Table A-45: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well VE 4-11 (Well Diameter = 4 inches)**

Date	Well VE 4-11				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-11 (gallons)	
				Per Day	To-Date
11/15/01 *	15.62	13.51	2.11	0.00	0.00
01/07/02 *	17.46	13.67	3.79	0.00	0.00
05/10/02	12.81	12.74	0.07	0.00	0.00
07/26/02	12.75	12.75	0.00	0.00	0.00
08/15/02	12.84	12.81	0.03	0.00	0.00
09/09/02	13.65	13.59	0.06	0.00	0.00
10/09/02	14.15	13.55	0.60	0.00	0.00
11/26/02	10.42	10.36	0.06	0.00	0.00
12/18/02	10.45	10.38	0.07	0.00	0.00
01/07/03	10.03	9.93	0.10	0.00	0.00
02/04/03	11.76	11.74	0.02	0.00	0.00
03/12/03	10.49	10.49	0.00	0.00	0.00
03/31/03	10.02	10.02	0.00	0.00	0.00
05/27/03	10.95	10.95	0.00	0.00	0.00
09/17/03	10.77	10.77	0.00	0.00	0.00
11/04/03	10.20	10.20	0.00	0.00	0.00
03/02/04	11.05	11.05	0.00	0.00	0.00
04/27/04	10.55	10.55	0.00	0.00	0.00
02/15/05	10.75	10.75	0.00	0.00	0.00
03/31/05	10.44	10.44	0.00	0.00	0.00
04/22/05	10.55	10.55	0.00	0.00	0.00
04/26/05	10.70	10.70	0.00	0.00	0.00
07/13/05	11.40	11.40	0.00	0.00	0.00
11/01/05	10.08	10.08	0.00	0.00	0.00
05/13/08	11.00	11.00	0.00	0.00	0.00
08/27/08	11.35	11.35	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-46: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well VE 4-12 (Well Diameter = 4 inches)**

Date	Well VE 4-12				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-12 (gallons)	
				Per Day	To-Date
11/15/01 *	12.68	12.68	0.00	0.00	0.00
01/07/02 *	12.94	12.91	0.03	0.00	0.00
04/08/02 *	11.63	11.63	0.00	0.00	0.00
04/16/02 *	11.71	11.71	0.00	0.00	0.00
05/10/02	12.23	12.23	0.00	0.00	0.00
07/26/02	12.92	12.67	0.25	0.00	0.00
08/15/02	12.71	12.54	0.17	0.11	0.11
09/09/02	12.79	12.43	0.36	0.23	0.35
10/09/02	12.7	12.43	0.27	0.18	0.52
11/26/02	11.15	11.15	0.00	0.00	0.52
12/18/02	11.34	11.34	0.00	0.00	0.52
01/07/03	10.85	10.80	0.05	0.03	0.55
02/04/03	13.40	11.03	2.37	1.55	2.10
03/12/03	11.15	10.98	0.17	0.11	2.21
03/31/03	11.00	10.90	0.10	0.07	2.28
05/27/03	11.40	10.40	1.00	0.65	2.93
09/17/03	11.75	11.22	0.53	0.35	3.28
11/04/03	11.30	11.25	0.05	0.10	3.38
03/02/04	12.20	12.00	0.20	0.60	3.98
04/27/04	12.94	12.65	0.29	0.19	4.17
02/15/05	11.00	11.00	0.00	0.00	4.17
03/31/05	11.12	11.00	0.12	0.00	4.17
04/22/05	11.05	10.98	0.07	0.00	4.17
07/13/05	12.00	11.71	0.29	0.13	4.29
11/01/05	10.61	10.38	0.23	0.00	4.29
05/13/08	11.87	11.74	0.13	0.00	4.29
08/27/08	11.95	11.95	0.00	0.00	4.29

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-47: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well VE 4-13 (Well Diameter = 4 inches)**

Date	Well VE 4-13				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-13 (gallons)	
				Per Day	To-Date
11/15/01 *	11.66	11.66	0.00	0.00	0.00
01/07/02 *	11.97	11.91	0.06	0.00	0.00
04/08/02 *	11.74	11.74	0.00	0.00	0.00
04/16/02 *	11.78	11.78	0.00	0.00	0.00
05/10/02	11.52	11.52	0.00	0.00	0.00
07/26/02	11.29	11.29	0.00	0.00	0.00
08/15/02	11.40	11.40	0.00	0.00	0.00
09/09/02	10.85	10.85	0.00	0.00	0.00
10/09/02	10.90	10.90	0.00	0.00	0.00
11/26/02	10.21	10.21	0.00	0.00	0.00
12/18/02	10.34	10.33	0.01	0.00	0.00
01/07/03	9.88	9.88	0.00	0.00	0.00
02/04/03	10.55	10.55	0.00	0.00	0.00
03/12/03	10.03	10.03	0.00	0.00	0.00
03/31/03	9.20	9.20	0.00	0.00	0.00
05/27/03	10.15	10.15	0.00	0.00	0.00
09/17/03	9.71	9.71	0.00	0.00	0.00
11/04/03	9.55	9.55	0.00	0.00	0.00
03/02/04	10.75	10.75	0.00	0.00	0.00
04/27/04	10.50	10.50	0.00	0.00	0.00
02/15/05	9.93	9.93	0.00	0.00	0.00
02/16/05	4.85	3.60	1.25	0.00	0.00
04/22/05	10.00	9.50	0.50	0.00	0.00
04/26/05	10.08	10.08	0.00	0.00	0.00
07/13/05	10.70	10.70	0.00	0.00	0.00
11/01/05	9.30	9.30	0.00	0.00	0.00
05/13/08	9.84	9.84	0.00	0.00	0.00
08/27/08	10.94	10.94	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-48: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-1 (Well Diameter = 2 inches)**

Date	Well FA 4-1				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-1 (gallons)	
				Per Day	To-Date
01/09/02 *	15.18	15.10	0.08	0.00	0.00
04/15/02 *	14.89	14.89	0.00	0.00	0.00
09/17/03	13.35	13.35	0.00	0.00	0.00
03/02/04	13.45	13.45	0.00	0.00	0.00
04/27/04	12.92	12.92	0.00	0.00	0.00
10/12/04	12.40	12.4	0.00	0.00	0.00
02/15/05	12.45	12.45	0.00	0.00	0.00
03/31/05	11.93	11.93	0.00	0.00	0.00
04/26/05	12.34	12.34	0.00	0.00	0.00
11/01/05	12.16	12.16	0.00	0.00	0.00
05/13/08	12.62	12.62	0.00	0.00	0.00
08/27/08	13.83	13.83	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-49: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-2 (Well Diameter = 2 inches)**

Date	Well FA 4-2				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-2 (gallons)	
				Per Day	To-Date
01/09/02 *	7.18	7.12	0.06	0.00	0.00
04/15/02 *	6.59	6.59	0.00	0.00	0.00
06/26/02	5.93	5.93	0.00	0.00	0.00
09/17/03	5.08	5.08	0.00	0.00	0.00
03/02/04	5.65	5.65	0.00	0.00	0.00
04/27/04	4.54	4.54	0.00	0.00	0.00
10/12/04	4.70	4.70	0.00	0.00	0.00
02/15/05	4.10	4.10	0.00	0.00	0.00
03/31/05	3.40	3.40	0.00	0.00	0.00
04/26/05	4.14	4.14	0.00	0.00	0.00
11/01/05	3.63	3.63	0.00	0.00	0.00
05/13/08	4.46	4.46	0.00	0.00	0.00
08/27/08	6.01	6.01	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-50: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-3 (Well Diameter = 2 inches)**

Date	Well FA 4-3				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-3 (gallons)	
				Per Day	To-Date
01/09/02 *	12.21	10.97	1.24	0.00	0.00
04/15/02 *	14.50	10.19	4.31	0.00	0.00
09/25/02	10.90	10.90	0.00	0.00	0.00
10/09/02	10.98	10.98	0.00	0.00	0.00
12/18/02	9.54	8.84	0.70	0.00	0.00
02/04/03	10.50	9.21	1.29	0.00	0.00
03/31/03	7.60	7.34	0.26	0.00	0.00
09/17/03	9.31	9.31	0.00	0.00	0.00
03/02/04	9.24	9.21	0.03	0.00	0.00
04/27/04	8.85	8.85	0.00	0.00	0.00
02/15/05	8.45	8.45	0.00	0.00	0.00
03/31/05	7.08	7.08	0.00	0.00	0.00
04/26/05	7.91	7.91	0.00	0.00	0.00
11/01/05	8.23	8.23	0.00	0.00	0.00
05/13/08	11.10	11.10	0.00	0.00	0.00
08/27/08	9.76	9.76	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-51: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-4 (Well Diameter = 2 inches)**

Date	Well FA 4-4				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-4 (gallons)	
				Per Day	To-Date
01/09/02 *	14.21	14.15	0.06	0.00	0.00
09/17/03	12.17	12.17	0.00	0.00	0.00
03/02/04	11.95	11.95	0.00	0.00	0.00
04/27/04	11.05	11.05	0.00	0.00	0.00
02/15/05	10.30	10.30	0.00	0.00	0.00
03/31/05	10.19	10.15	0.04	0.00	0.00
04/26/05	10.98	10.98	0.00	0.00	0.00
11/01/05	10.74	10.74	0.00	0.00	0.00
05/13/08	11.7	11.7	0.00	0.00	0.00
08/27/08	12.97	12.97	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-52: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-5 (Well Diameter = 2 inches)**

Date	Well FA 4-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-5 (gallons)	
				Per Day	To-Date
01/09/02 *	9.25	9.17	0.08	0.00	0.00
09/17/03	7.53	7.53	0.00	0.00	0.00
03/02/04	7.35	7.35	0.00	0.00	0.00
04/27/04	7.20	7.20	0.00	0.00	0.00
02/15/05	5.97	5.97	0.00	0.00	0.00
03/31/05	5.35	5.35	0.00	0.00	0.00
04/26/05	6.25	6.25	0.00	0.00	0.00
11/01/05	5.40	5.40	0.00	0.00	0.00
08/27/08	8.03	8.03	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.



**Table A-53: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-6 (Well Diameter = 2 inches)**

Date	Well FA 4-6				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-6 (gallons)	
				Per Day	To-Date
01/09/02 *	14.60	14.54	0.06	0.00	0.00
09/17/03	12.50	12.50	0.00	0.00	0.00
03/02/04	12.23	12.23	0.00	0.00	0.00
04/27/04	11.98	11.98	0.00	0.00	0.00
02/15/05	11.58	11.58	0.00	0.00	0.00
03/31/05	10.50	10.50	0.00	0.00	0.00
04/26/05	10.98	10.98	0.00	0.00	0.00
11/01/05	10.55	10.55	0.00	0.00	0.00
05/13/08	11.70	11.70	0.00	0.00	0.00
08/27/08	13.11	13.11	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-54: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-7 (Well Diameter = 2 inches)**

Date	Well FA 4-7				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-7 (gallons)	
				Per Day	To-Date
04/15/02 *	8.53	8.51	0.02	0.00	0.00
9/17/2003	7.50	7.50	0.00	0.00	0.00
3/2/2004	6.97	6.97	0.00	0.00	0.00
4/27/2004	6.78	6.78	0.00	0.00	0.00
02/15/05	5.02	5.02	0.00	0.00	0.00
03/31/05	4.80	4.8	0.00	0.00	0.00
04/26/05	6.15	6.15	0.00	0.00	0.00
11/01/05	4.88	4.88	0.00	0.00	0.00
05/13/08	5.52	5.52	0.00	0.00	0.00
08/27/08	8.00	8.00	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
01/9/02 *	16.05	14.44	1.61	0.00	0.00
04/15/02 *	15.56	14.20	1.36	0.00	0.00
09/25/02	15.75	14.27	1.48	0.00	0.00
10/09/02	14.98	14.19	0.79	0.00	0.00
12/18/02	15.13	12.87	2.26	0.00	0.00
02/04/03	15.52	13.18	2.34	0.00	0.00
03/31/03	14.00	12.40	1.60	0.00	0.00
09/17/03	15.05	13.01	2.04	0.00	0.00
03/02/04	15.87	13.33	2.54	0.00	0.00
04/27/04	15.40	13.30	2.10	0.00	0.00
04/28/04	15.96	13.30	2.66	0.00	0.00
04/28/04	14.45	14.05	0.40	4.00	4.00
04/29/04	16.03	13.29	2.74	3.00	7.00
04/29/04	13.84	13.64	0.20	0.00	7.00
04/30/04	15.98	13.27	2.71	2.25	9.25
05/03/04	15.95	13.28	2.67	1.00	10.25
05/04/04	15.10	13.30	1.80	0.50	10.75
05/05/04	15.80	13.48	2.32	0.50	11.25
05/06/04	15.15	13.40	1.75	0.38	11.63
05/07/04	15.65	13.36	2.29	0.50	12.13
05/08/04	15.55	13.35	2.20	0.38	12.50
05/11/04	15.02	13.23	1.79	0.44	12.94
05/14/04	15.64	13.30	2.34	0.50	13.44
05/17/04	15.05	13.35	1.70	0.38	13.81
05/18/04	15.73	13.47	2.26	0.50	14.31
05/20/04	15.75	13.63	2.12	0.50	14.81
05/21/04	15.68	13.47	2.21	0.75	15.56
05/25/04	14.90	13.28	1.62	0.38	15.94
05/26/04	15.78	13.43	2.35	0.50	16.44
05/27/04	14.95	13.20	1.75	0.38	16.81
06/01/04	15.18	13.07	2.11	0.50	17.31
06/02/04	15.55	13.30	2.25	0.50	17.81
06/03/04	15.64	13.37	2.27	1.25	19.06
06/04/04	15.53	13.52	2.01	1.25	20.31
06/07/04	15.55	13.43	2.12	1.25	21.56
06/08/04	15.73	13.43	2.30	1.13	22.69
06/09/04	15.72	13.40	2.32	1.00	23.69
06/10/04	15.65	13.32	2.33	1.38	25.06
06/11/04	15.73	13.47	2.26	1.25	26.31
06/14/04	15.30	13.45	1.85	1.50	27.81
06/15/04	15.68	13.55	2.13	1.25	29.06
06/16/04	15.75	13.57	2.18	1.25	30.31
06/17/04	15.70	13.62	2.08	1.25	31.56
06/18/04	14.93	13.01	1.92	0.88	32.44
06/21/04	15.70	13.20	2.50	1.25	33.69
06/22/04	15.70	13.15	2.55	1.13	34.81
06/23/04	15.45	13.12	2.33	1.13	35.94

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
06/24/04	15.67	13.23	2.44	1.25	37.19
06/25/04	15.67	13.44	2.23	1.00	38.19
06/28/04	15.70	13.55	2.15	0.88	39.06
06/29/04	15.05	13.52	1.53	0.50	39.56
06/30/04	14.78	13.53	1.25	0.88	40.44
07/01/04	15.63	13.65	1.98	1.00	41.44
07/02/04	15.70	13.35	2.35	1.25	42.69
07/07/04	15.40	13.33	2.07	1.00	43.69
07/08/04	15.74	13.35	2.39	1.00	44.69
07/13/04	NM	NM	NM	0.63	45.31
07/14/04	15.58	13.55	2.03	1.25	46.56
07/15/04	NM	NM	NM	0.75	47.31
07/16/04	NM	NM	NM	0.75	48.06
07/19/04	NM	NM	NM	1.13	49.19
07/20/04	NM	NM	NM	1.13	50.31
07/21/04	NM	NM	NM	1.25	51.56
07/22/04	NM	NM	NM	1.00	52.56
07/23/04	NM	NM	NM	1.25	53.81
07/26/04	NM	NM	NM	1.50	55.31
07/27/04	NM	NM	NM	1.38	56.69
07/28/04	NM	NM	NM	1.25	57.94
07/29/04	NM	NM	NM	1.06	59.00
07/30/04	NM	NM	NM	1.06	60.06
08/02/04	NM	NM	NM	1.75	61.81
08/03/04	NM	NM	NM	1.50	63.31
08/04/04	NM	NM	NM	1.13	64.44
08/05/04	NM	NM	NM	1.38	65.81
08/06/04	NM	NM	NM	1.38	67.19
08/09/04	NM	NM	NM	1.63	68.81
08/10/04	NM	NM	NM	1.00	69.81
08/11/04	NM	NM	NM	1.38	71.19
08/12/04	NM	NM	NM	1.00	72.19
08/13/04	NM	NM	NM	1.25	73.44
08/16/04	NM	NM	NM	1.13	74.56
08/17/04	NM	NM	NM	1.63	76.19
08/18/04	NM	NM	NM	1.38	77.56
08/19/04	NM	NM	NM	1.25	78.81
08/20/04	NM	NM	NM	1.25	80.06
08/23/04	NM	NM	NM	1.50	81.56
08/24/04	NM	NM	NM	1.25	82.81
08/25/04	NM	NM	NM	1.25	84.06
08/26/04	NM	NM	NM	1.50	85.56
08/27/04	NM	NM	NM	1.50	87.06
08/30/04	15.40	13.03	2.37	1.50	88.56
08/31/04	NM	NM	NM	1.50	90.06
09/01/04	15.62	12.93	2.69	1.63	91.69
09/02/04	15.50	13.10	2.40	1.63	93.31

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
09/03/04	15.50	13.10	2.40	1.63	94.94
09/07/04	15.60	13.05	2.55	1.50	96.44
09/08/04	15.70	13.25	2.45	1.00	97.44
09/10/04	14.70	12.60	2.10	1.50	98.94
09/13/04	15.20	12.75	2.45	1.50	100.44
09/14/04	15.59	12.93	2.66	1.25	101.69
09/15/04	15.40	12.85	2.55	0.88	102.56
09/16/04	NM	NM	NM	0.00	102.56
09/21/04	14.90	12.28	2.62	1.50	104.06
09/22/04	12.70	12.47	0.23	0.00	104.06
09/23/04	13.95	12.45	1.50	0.88	104.94
09/24/04	13.93	12.43	1.50	0.75	105.69
09/27/04	12.10	12.48	-0.38	1.25	106.94
09/28/04	14.42	12.27	2.15	1.00	107.94
09/30/04	13.15	11.90	1.25	1.00	108.94
10/01/04	14.31	12.30	2.01	0.88	109.81
10/04/04	14.65	12.35	2.30	1.00	110.81
10/05/04	14.89	12.28	2.61	1.38	112.19
10/06/04	14.80	12.35	2.45	1.00	113.19
10/07/04	13.30	12.13	1.17	0.50	113.69
10/08/04	15.00	12.45	2.55	1.13	114.81
10/11/04	15.20	12.65	2.55	1.25	116.06
10/12/04	15.20	12.60	2.60	1.00	117.06
10/13/04	14.68	12.70	1.98	1.00	118.06
10/14/04	14.88	12.72	2.16	1.00	119.06
10/15/04	14.53	12.70	1.83	0.88	119.94
10/18/04	14.77	12.15	2.62	1.00	120.94
10/14/04	13.90	12.64	1.26	0.75	121.69
10/20/04	14.70	12.85	1.85	1.00	122.69
10/21/04	15.05	12.90	2.15	0.88	123.56
10/22/04	15.15	12.90	2.25	0.88	124.44
10/24/04	14.90	12.60	2.30	1.00	125.44
10/26/04	15.35	12.80	2.55	1.00	126.44
10/27/04	15.08	13.01	2.07	0.88	127.31
10/28/04	15.10	13.10	2.00	0.88	128.19
10/29/04	14.35	13.05	1.30	0.75	128.94
11/01/04	14.95	12.17	2.78	0.75	129.69
11/02/04	14.12	13.46	0.66	0.88	130.56
11/03/04	14.50	13.22	1.28	0.50	131.06
11/04/04	14.80	13.20	1.60	0.63	131.69
11/05/04	14.13	12.90	1.23	0.50	132.19
11/09/04	14.65	13.22	1.43	0.63	132.81
11/10/04	14.85	13.15	1.70	0.63	133.44
11/15/04	14.90	12.80	2.10	1.25	134.69
11/16/04	15.50	13.35	2.15	1.38	136.06
11/17/04	15.50	13.35	2.15	1.38	137.44
11/18/04	15.55	13.25	2.30	1.38	138.81

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
11/22/04	15.01	13.00	2.01	1.25	140.06
11/29/04	14.70	13.15	1.55	1.00	141.06
12/01/04	14.90	12.83	2.07	0.88	141.94
12/02/04	16.70	12.95	3.75	0.88	142.81
12/06/04	14.45	13.50	0.95	1.50	144.31
12/07/04	15.30	13.40	1.90	0.88	145.19
12/08/04	15.10	12.60	2.50	1.01	146.20
12/09/04	15.40	13.00	2.40	1.25	147.45
12/10/04	15.00	12.68	2.32	1.13	148.58
12/13/04	15.35	12.72	2.63	0.88	149.45
12/13/04	15.10	13.10	2.00	1.00	150.45
12/14/04	15.50	13.15	2.35	0.88	151.33
12/15/04	15.75	13.15	2.60	1.25	152.58
12/17/04	15.45	13.05	2.40	1.00	153.58
12/21/04	15.78	13.45	2.33	1.25	154.83
12/22/04	15.70	13.40	2.30	1.00	155.83
12/23/04	15.45	13.10	2.35	1.63	157.45
12/29/04	15.40	13.20	2.20	1.13	158.58
12/30/04	15.45	13.10	2.35	1.00	159.58
01/04/05	15.30	12.96	2.34	1.00	160.58
01/05/05	15.50	12.95	2.55	1.00	161.58
01/06/05	15.53	12.75	2.78	1.25	162.83
01/10/05	15.45	12.90	2.55	1.00	163.83
01/11/05	15.50	12.85	2.65	1.00	164.83
01/12/05	15.55	12.78	2.77	1.00	165.83
01/13/05	15.40	12.80	2.60	1.13	166.95
01/14/02	15.20	12.55	2.65	1.50	168.45
01/17/05	15.45	12.70	2.75	1.13	169.58
01/18/05	15.47	12.50	2.97	1.13	170.70
01/19/05	15.25	12.55	2.70	1.50	172.20
01/20/05	15.45	12.55	2.90	1.38	173.58
01/21/05	15.50	12.50	3.00	1.25	174.83
01/25/05	15.50	12.70	2.80	1.00	175.83
01/26/05	15.45	12.60	2.85	1.63	177.45
01/27/05	15.40	12.82	2.58	0.00	177.45
01/28/05	15.50	12.95	2.55	0.75	178.20
01/31/05	15.50	12.90	2.60	1.00	179.20
02/01/05	15.50	12.75	2.75	1.25	180.45
02/02/05	15.50	13.03	2.47	1.13	181.58
02/03/05	15.40	12.90	2.50	1.38	182.95
02/07/05	15.70	13.27	2.43	1.13	184.08
05/08/05	15.54	13.04	2.50	1.00	185.08
02/09/05	15.48	13.03	2.45	0.00	185.08
02/10/05	15.40	12.90	2.50	1.00	186.08
02/11/05	15.53	13.00	2.53	1.13	187.20
02/14/05	15.50	13.10	2.40	1.00	188.20
02/15/05	15.50	12.96	2.54	1.00	189.20

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
02/15/05	14.73	12.95	1.78	1.13	190.33
02/16/05	15.84	12.95	2.89	1.50	191.83
02/17/05	15.51	12.85	2.66	1.25	193.08
02/18/05	15.55	12.70	2.85	2.00	195.08
02/22/05	15.60	12.85	2.75	1.75	196.83
02/23/05	15.52	12.87	2.65	1.63	198.45
02/24/05	15.55	12.98	2.57	1.50	199.95
02/25/05	10.50	12.95	-2.45	1.50	201.45
02/28/05	15.60	13.03	2.57	1.50	202.95
03/01/05	15.52	12.80	2.72	1.75	204.70
03/03/05	15.60	13.05	2.55	1.25	205.95
03/04/05	15.60	13.10	2.50	1.25	207.20
03/07/05	15.55	12.95	2.60	1.25	208.45
03/08/05	15.90	13.15	2.75	1.13	209.58
03/09/05	15.60	13.20	2.40	1.13	210.70
03/10/05	15.63	13.25	2.38	1.00	211.70
03/11/05	15.70	13.10	2.60	1.50	213.20
03/14/05	15.95	13.55	2.40	1.25	214.45
03/15/05	15.65	13.25	2.40	1.00	215.45
03/16/05	15.62	13.02	2.60	1.13	216.58
03/17/05	15.62	13.15	2.47	1.25	217.83
03/18/05	15.55	13.08	2.47	1.13	218.95
03/21/05	15.45	12.95	2.50	1.25	220.20
03/22/05	15.65	13.21	2.44	1.00	221.20
03/23/05	15.64	13.23	2.41	1.63	222.83
03/24/05	16.64	13.18	3.46	1.13	223.95
03/28/05	15.45	12.72	2.73	1.00	224.95
03/29/05	14.87	12.55	2.32	1.75	226.70
03/30/05	15.50	12.68	2.82	1.25	227.95
03/31/05	15.37	12.58	2.79	1.18	229.13
04/01/05	15.35	12.52	2.83	1.88	231.00
04/04/05	12.38	12.15	0.23	0.00	231.00
04/05/05	12.30	12.26	0.04	0.00	231.00
04/06/05	13.02	12.19	0.83	0.00	231.00
04/07/05	14.20	12.05	2.15	1.13	232.13
04/08/05	14.78	13.23	1.55	1.00	233.13
04/11/05	15.68	12.14	3.54	2.50	235.63
04/12/05	15.10	12.12	2.98	2.00	237.63
04/13/05	15.65	12.10	3.55	2.00	239.63
04/14/05	15.80	12.20	3.60	2.00	241.63
04/13/05	15.64	12.22	3.42	1.63	243.25
04/18/05	15.65	12.25	3.40	2.25	245.50
04/19/05	15.66	12.27	3.39	2.00	247.50
04/20/05	15.65	12.30	3.35	1.75	249.25
04/21/05	15.68	12.05	3.63	1.50	250.75
04/22/05	15.68	12.50	3.18	1.75	252.50
04/25/05	15.70	12.50	3.20	1.75	254.25

Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
04/26/05	15.68	12.61	3.07	1.75	256.00
04/27/05	15.50	12.40	3.10	1.75	257.75
04/28/05	15.60	12.48	3.12	1.75	259.50
04/29/05	15.70	12.61	3.09	1.50	261.00
05/02/05	15.80	12.60	3.20	1.50	262.50
05/09/05	15.68	12.80	2.88	2.25	264.75
05/10/05	15.70	12.82	2.88	0.00	264.75
05/11/05	15.68	12.80	2.88	1.50	266.25
05/12/05	15.68	12.88	2.80	1.25	267.50
05/13/05	15.68	12.88	2.80	1.25	268.75
05/16/05	15.70	12.88	2.82	1.38	270.13
05/17/05	15.68	12.90	2.78	1.75	271.88
05/18/05	15.65	12.92	2.73	1.25	273.13
05/19/05	15.68	12.89	2.79	1.25	274.38
05/20/05	15.68	12.88	2.80	1.25	275.63
05/23/05	15.70	12.92	2.78	1.75	277.38
05/24/05	15.70	13.03	2.67	1.75	279.13
05/26/05	15.72	13.02	2.70	1.25	280.38
05/27/05	15.70	13.10	2.60	2.25	282.63
05/31/05	15.03	12.90	2.13	1.50	284.13
06/01/05	15.73	13.04	2.69	1.38	285.50
06/02/05	15.73	13.05	2.68	1.25	286.75
06/03/05	15.63	13.05	2.58	1.25	288.00
06/06/05	15.95	13.15	2.80	1.50	289.50
06/07/05	15.70	13.18	2.52	1.38	290.88
06/08/05	15.90	13.22	2.68	1.50	292.38
06/09/05	15.60	13.22	2.38	1.63	294.00
06/10/05	15.80	13.25	2.55	1.75	295.75
06/13/05	15.84	13.20	2.64	1.88	297.63
06/14/05	15.84	13.15	2.69	1.50	299.13
06/15/05	15.82	13.18	2.64	1.63	300.75
06/16/05	15.84	13.12	2.72	1.63	302.38
06/17/05	15.85	13.20	2.65	1.75	304.13
06/20/05	15.84	13.25	2.59	1.75	305.88
06/21/05	15.83	13.25	2.58	1.63	307.50
06/22/05	15.83	13.28	2.55	1.50	309.00
06/23/05	15.84	13.34	2.50	1.50	310.50
06/24/05	15.84	13.32	2.52	1.50	312.00
06/27/05	15.86	13.31	2.55	1.63	313.63
06/28/05	15.85	13.24	2.61	1.50	315.13
06/29/05	15.85	13.27	2.58	1.50	316.63
06/30/05	14.91	13.24	1.67	1.50	318.13
07/01/05	15.83	13.43	2.40	1.50	319.63
07/05/05	15.80	13.30	2.50	2.00	321.63
07/06/05	15.34	13.45	1.89	1.50	323.13
07/07/05	15.80	13.51	2.29	1.50	324.63
07/08/05	15.85	13.50	2.35	1.25	325.88



## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
07/11/08	14.95	13.20	1.75	1.38	327.25
07/12/08	15.80	13.50	2.30	1.63	328.88
07/13/05	15.82	13.45	2.37	1.50	330.38
07/14/05	15.80	13.45	2.35	1.38	331.75
07/15/05	16.05	13.88	2.17	1.63	333.38
07/20/05	15.10	13.35	1.75	1.50	334.88
07/21/05	15.80	13.55	2.25	1.38	336.25
07/22/05	15.74	13.50	2.24	1.50	337.75
07/25/05	15.80	13.43	2.37	1.50	339.25
07/26/05	15.83	13.46	2.37	1.50	340.75
07/27/05	15.80	13.36	2.44	1.50	342.25
07/28/05	15.82	13.14	2.68	1.50	343.75
07/29/05	15.85	13.44	2.41	1.50	345.25
08/01/05	15.83	13.50	2.33	1.50	346.75
08/02/05	15.78	13.49	2.29	1.50	348.25
08/03/05	15.79	13.54	2.25	1.50	349.75
08/04/05	15.84	13.58	2.26	1.50	351.25
08/05/05	15.85	13.55	2.30	1.50	352.75
08/08/05	15.85	13.62	2.23	1.50	354.25
08/09/05	15.87	13.57	2.30	1.50	355.75
08/10/05	15.85	13.55	2.30	1.50	357.25
08/11/05	15.88	13.58	2.30	1.50	358.75
08/12/05	15.85	13.55	2.30	1.38	360.13
08/15/05	15.62	13.25	2.37	1.38	361.50
08/16/05	15.85	13.52	2.33	1.75	363.25
08/17/05	15.44	13.50	1.94	1.75	365.00
08/18/05	15.38	13.58	1.80	1.13	366.13
08/19/05	15.81	13.58	2.23	1.38	367.50
08/22/05	15.85	13.52	2.33	1.50	369.00
08/23/05	15.85	13.55	2.30	1.50	370.50
08/24/05	15.85	13.58	2.27	1.50	372.00
08/25/05	15.85	13.63	2.22	1.50	373.50
08/26/05	15.38	13.48	1.90	1.50	375.00
08/29/05	15.50	13.40	2.10	1.50	376.50
08/30/05	15.45	13.60	1.85	1.50	378.00
08/31/05	15.53	13.45	2.08	1.50	379.50
09/02/05	15.40	13.50	1.90	1.50	381.00
09/06/05	15.85	13.75	2.10	1.38	382.38
09/07/05	15.85	13.74	2.11	1.38	383.75
09/08/05	15.85	13.65	2.20	1.38	385.13
09/09/05	15.45	13.93	1.52	1.25	386.38
09/12/05	15.85	13.95	1.90	1.25	387.63
09/13/05	15.85	14.26	1.59	1.38	389.00
09/15/05	14.50	13.50	1.00	1.25	390.25
09/16/05	15.45	14.07	1.38	1.38	391.63
09/16/05	15.45	14.11	1.34	1.25	392.88
09/20/05	15.64	14.00	1.64	1.38	394.25

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
09/21/05	15.85	14.70	1.15	1.25	395.50
09/23/05	15.50	14.15	1.35	1.25	396.75
09/26/05	15.45	14.00	1.45	1.25	398.00
09/27/05	15.85	13.90	1.95	1.25	399.25
09/28/05	15.50	14.10	1.40	1.25	400.50
09/29/05	15.55	14.08	1.47	1.25	401.75
09/30/05	15.50	14.08	1.42	1.25	403.00
10/03/05	15.55	14.07	1.48	1.13	404.13
10/04/05	15.85	14.22	1.63	0.75	404.88
10/05/05	15.55	14.24	1.31	0.88	405.75
10/06/05	15.55	14.22	1.33	1.13	406.88
10/07/05	15.55	14.65	0.90	0.80	407.68
10/10/05	15.55	13.45	2.10	2.25	409.93
10/11/05	15.45	13.60	1.85	2.25	412.18
10/12/05	15.40	13.38	2.02	1.25	413.43
10/13/05	14.40	13.40	1.00	1.25	414.68
10/14/05	14.90	12.70	2.20	2.25	416.93
10/17/05	14.95	12.71	2.24	2.20	419.13
10/18/05	15.30	12.92	2.38	2.13	421.25
10/19/05	14.08	12.75	1.33	0.00	421.25
10/20/05	15.58	12.95	2.63	1.50	422.75
10/21/05	15.44	12.98	2.46	1.63	424.38
10/24/05	14.75	12.48	2.27	2.00	426.38
10/26/05	14.15	12.25	1.90	1.50	427.88
10/27/05	15.40	12.85	2.55	1.63	429.50
10/28/05	14.10	12.68	1.42	1.63	431.13
10/31/05	15.45	12.73	2.72	1.75	432.88
11/01/05	9.15	7.78	1.37	1.75	434.63
11/02/05	15.38	12.73	2.65	1.50	436.13
11/03/05	15.45	12.70	2.75	1.63	437.75
11/04/05	15.40	12.80	2.60	1.50	439.25
11/07/05	15.25	12.72	2.53	1.50	440.75
11/08/05	15.40	12.75	2.65	1.63	442.38
11/09/05	15.23	12.80	2.43	1.63	444.00
11/10/05	14.45	12.45	2.00	1.75	445.75
11/14/05	15.40	12.90	2.50	1.75	447.50
11/15/05	15.41	12.90	2.51	2.00	449.50
11/16/05	15.43	12.90	2.53	1.88	451.38
11/17/05	14.45	12.68	1.77	1.75	453.13
11/18/05	15.44	12.75	2.69	1.50	454.63
11/21/05	15.40	12.68	2.72	1.50	456.13
11/22/05	14.75	12.25	2.50	1.75	457.88
11/23/05	14.55	12.48	2.07	1.50	459.38
11/25/05	14.50	12.45	2.05	1.50	460.88
11/28/05	15.45	12.62	2.83	1.88	462.75
11/29/05	15.45	12.60	2.85	1.75	464.50
11/30/05	14.90	12.20	2.70	1.75	466.25

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
12/01/05	15.50	12.60	2.90	1.75	468.00
12/02/05	15.45	12.50	2.95	1.75	469.75
12/05/05	15.75	12.70	3.05	2.50	472.25
12/06/05	14.24	12.62	1.62	1.75	474.00
12/07/05	15.24	12.62	2.62	1.75	475.75
12/09/05	17.93	15.20	2.73	1.25	477.00
12/12/05	17.98	15.45	2.53	1.50	478.50
12/13/05	15.45	13.03	2.42	1.00	479.50
12/14/05	14.98	12.92	2.06	1.75	481.25
12/15/05	17.23	15.41	1.82	1.63	482.88
12/16/05	17.18	15.38	1.80	1.50	484.38
12/19/05	15.48	12.62	2.86	1.75	486.13
12/20/05	14.93	12.65	2.28	0.00	486.13
12/21/05	14.86	12.60	2.26	1.25	487.38
12/22/05	15.70	13.02	2.68	1.25	488.63
12/23/05	15.45	12.80	2.65	2.00	490.63
12/27/05	15.00	12.85	2.15	1.75	492.38
12/28/05	15.50	12.75	2.75	1.75	494.13
12/29/05	15.50	12.65	2.85	1.75	495.88
12/30/05	15.05	12.55	2.50	1.75	497.63
01/03/06	14.25	12.40	1.85	1.50	499.13
01/04/06	15.25	12.40	2.85	1.25	500.38
01/05/06	15.50	12.25	3.25	2.13	502.50
01/06/06	15.02	12.58	2.44	0.75	503.25
01/09/06	14.93	12.25	2.68	1.63	504.88
01/10/06	15.70	12.90	2.80	1.63	506.50
01/11/06	14.00	12.20	1.80	1.38	507.88
01/12/06	14.98	12.56	2.42	1.75	509.63
01/13/06	15.63	12.80	2.83	1.75	511.38
01/16/06	17.40	14.88	2.52	2.25	513.63
01/17/06	15.32	12.55	2.77	1.50	515.13
01/18/06	18.00	14.73	3.27	0.00	515.13
01/19/06	15.40	12.30	3.10	1.25	516.38
01/20/06	15.50	12.22	3.28	1.50	517.88
01/23/06	14.85	11.55	3.30	1.75	519.63
01/24/06	14.80	12.90	1.90	1.63	521.25
01/25/06	15.20	12.18	3.02	2.25	523.50
01/26/06	15.65	12.50	3.15	1.50	525.00
01/27/06	15.35	12.28	3.07	1.75	526.75
01/30/06	15.80	12.42	3.38	1.75	528.50
01/31/06	15.60	12.48	3.12	2.13	530.63
02/01/06	15.65	12.68	2.97	2.13	532.75
02/02/06	15.68	12.55	3.13	1.88	534.63
02/03/06	14.92	12.36	2.56	2.13	536.75
02/06/06	15.10	12.38	2.72	1.75	538.50
02/07/06	15.56	12.55	3.01	1.63	540.13
02/08/06	15.41	12.56	2.85	1.50	541.63

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
02/09/06	15.40	12.40	3.00	2.00	543.63
02/10/06	15.55	12.68	2.87	1.75	545.38
02/13/06	15.70	12.70	3.00	1.75	547.13
02/14/06	15.20	12.65	2.55	1.50	548.63
02/15/06	15.63	12.88	2.75	1.50	550.13
02/16/06	15.72	12.88	2.84	1.50	551.63
02/17/06	15.70	12.71	2.99	1.50	553.13
02/21/06	15.48	12.72	2.76	1.50	554.63
02/22/06	15.72	12.90	2.82	1.50	556.13
02/23/06	15.52	12.79	2.73	1.50	557.63
02/24/06	15.73	13.18	2.55	1.50	559.13
02/27/06	15.71	13.07	2.64	1.38	560.50
02/28/06	15.68	13.10	2.58	1.25	561.75
03/01/06	15.63	12.82	2.81	1.00	562.75
03/02/06	15.65	12.91	2.74	1.50	564.25
03/13/06	15.65	12.92	2.73	1.63	565.88
03/14/06	15.70	12.88	2.82	1.50	567.38
03/15/06	15.64	12.98	2.66	1.50	568.88
03/16/06	15.70	13.06	2.64	1.50	570.38
03/17/06	15.70	13.06	2.64	1.50	571.88
03/20/06	15.65	13.04	2.61	1.50	573.38
03/21/06	15.65	13.02	2.63	1.50	574.88
03/22/06	15.65	13.37	2.28	1.50	576.38
03/23/06	15.65	13.40	2.25	1.13	577.50
03/24/06	15.70	13.31	2.39	1.13	578.63
03/27/06	15.65	13.43	2.22	1.63	580.25
03/28/06	15.40	13.38	2.02	1.38	581.63
03/29/06	15.65	13.56	2.09	1.50	583.13
03/30/06	15.65	13.40	2.25	1.25	584.38
03/31/06	15.70	13.54	2.16	1.38	585.75
04/03/06	15.70	13.49	2.21	1.38	587.13
04/04/06	15.25	13.23	2.02	1.38	588.50
04/05/06	15.70	13.42	2.28	1.38	589.88
04/06/06	15.68	13.60	2.08	1.25	591.13
04/07/06	15.60	13.48	2.12	1.38	592.50
04/10/06	14.25	13.10	1.15	1.25	593.75
04/11/06	15.65	13.57	2.08	0.75	594.50
04/12/06	15.70	13.50	2.20	1.13	595.63
04/13/06	15.72	13.49	2.23	1.38	597.00
04/17/06	14.75	13.36	1.39	1.38	598.38
04/18/06	15.70	13.54	2.16	1.00	599.38
04/19/06	15.70	13.50	2.20	1.13	600.50
04/20/06	15.70	13.50	2.20	1.25	601.75
04/21/06	15.70	13.60	2.10	1.13	602.88
04/24/06	15.70	13.10	2.60	1.75	604.63
04/25/06	15.66	13.05	2.61	1.38	606.00
04/26/06	15.70	13.15	2.55	1.50	607.50

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
04/27/06	15.70	13.09	2.61	1.00	608.50
04/28/06	15.70	13.41	2.29	1.38	609.88
05/01/06	15.70	13.30	2.40	1.50	611.38
05/02/06	15.70	13.24	2.46	1.38	612.75
05/03/06	15.55	12.90	2.65	1.50	614.25
05/04/06	15.50	13.10	2.40	1.25	615.50
05/05/06	15.50	13.20	2.30	1.25	616.75
05/08/06	15.65	12.95	2.70	1.25	618.00
05/09/06	15.75	13.05	2.70	1.50	619.50
05/10/06	15.50	13.35	2.15	1.25	620.75
05/11/06	15.45	13.43	2.02	1.38	622.13
05/12/06	15.47	13.45	2.02	1.25	623.38
05/15/06	15.70	13.41	2.29	1.25	624.63
05/16/06	15.45	12.98	2.47	1.00	625.63
05/17/06	15.45	12.90	2.55	1.38	627.00
05/18/06	15.45	13.20	2.25	1.00	628.00
05/19/06	14.70	12.95	1.75	1.00	629.00
05/22/06	15.63	13.25	2.38	1.00	630.00
05/23/06	15.45	13.20	2.25	0.50	630.50
05/24/06	15.60	13.65	1.95	1.00	631.50
05/25/06	15.68	13.39	2.29	1.13	632.63
05/26/06	15.70	13.38	2.32	1.13	633.75
05/30/06	15.70	13.54	2.16	1.13	634.88
05/31/06	15.70	13.51	2.19	1.13	636.00
06/01/06	15.70	13.38	2.32	1.38	637.38
06/02/06	14.54	12.80	1.74	1.13	638.50
06/05/06	14.78	13.14	1.64	1.25	639.75
06/06/06	15.22	13.22	2.00	1.13	640.88
06/07/06	14.78	13.14	1.64	1.00	641.88
06/08/06	14.81	12.81	2.00	1.25	643.13
06/09/06	15.70	13.17	2.53	1.25	644.38
06/12/06	15.25	12.93	2.32	1.50	645.88
06/13/06	15.50	13.10	2.40	1.75	647.63
06/14/06	15.35	12.95	2.40	1.25	648.88
06/15/06	15.25	13.00	2.25	1.25	650.13
06/16/06	15.55	13.10	2.45	0.38	650.50
06/19/06	15.45	12.90	2.55	0.00	650.50
06/20/06	15.50	12.90	2.60	1.13	651.63
06/22/06	15.75	13.10	2.65	1.25	652.88
06/23/06	15.75	13.35	2.40	1.38	654.25
06/27/06	15.40	12.85	2.55	1.50	655.75
06/30/06	15.52	12.82	2.70	1.50	657.25
07/03/06	15.75	13.26	2.49	1.75	659.00
07/05/06	15.75	13.24	2.51	1.00	660.00
07/06/06	15.75	13.00	2.75	1.13	661.13
07/07/06	15.55	13.10	2.45	1.25	662.38
07/10/06	15.50	13.14	2.36	1.00	663.38

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
07/11/06	15.45	13.20	2.25	1.13	664.50
07/12/06	15.30	13.15	2.15	1.25	665.75
07/13/06	15.00	12.95	2.05	1.25	667.00
07/14/06	15.35	13.15	2.20	1.00	668.00
07/17/06	15.55	13.10	2.45	1.25	669.25
07/18/06	15.45	13.20	2.25	1.00	670.25
07/19/06	15.40	13.20	2.20	1.00	671.25
07/20/06	15.45	13.25	2.20	1.00	672.25
07/21/06	15.45	13.18	2.27	0.88	673.13
07/24/06	14.80	13.50	1.30	1.00	674.13
07/25/06	14.80	13.50	1.30	1.00	675.13
07/26/06	15.35	13.42	1.93	1.00	676.13
07/27/06	15.25	13.25	2.00	1.13	677.25
07/28/06	15.25	13.20	2.05	1.13	678.38
07/31/06	15.35	13.51	1.84	1.00	679.38
08/01/06	15.35	13.28	2.07	1.00	680.38
08/02/06	15.45	13.65	1.80	1.25	681.63
08/03/06	15.50	13.35	2.15	1.00	682.63
08/04/06	15.45	13.30	2.15	1.00	683.63
08/07/06	15.50	13.45	2.05	1.00	684.63
08/08/06	15.35	13.62	1.73	1.25	685.88
08/09/06	15.35	13.58	1.77	1.00	686.88
08/10/06	15.80	13.85	1.95	1.00	687.88
08/14/06	15.25	13.42	1.83	1.00	688.88
08/16/06	15.35	13.43	1.92	1.00	689.88
08/17/06	15.35	13.45	1.90	1.13	691.00
08/18/06	15.60	13.55	2.05	1.00	692.00
08/21/06	15.35	13.55	1.80	1.00	693.00
08/22/06	15.55	13.92	1.63	1.00	694.00
08/23/06	15.35	13.65	1.70	1.00	695.00
08/24/06	15.35	13.60	1.75	1.00	696.00
09/05/06	14.31	12.70	1.61	1.50	697.50
09/06/06	15.28	12.82	2.46	1.13	698.63
09/07/06	15.30	12.80	2.50	1.50	700.13
09/08/06	15.45	12.95	2.50	1.00	701.13
09/01/06	15.50	13.02	2.48	1.25	702.38
09/12/06	15.40	12.91	2.49	1.00	703.38
09/13/06	15.40	13.10	2.30	0.75	704.13
09/15/06	14.46	12.74	1.72	1.00	705.13
09/18/06	14.61	12.59	2.02	1.25	706.38
09/19/06	15.55	12.95	2.60	1.25	707.63
09/20/06	15.36	12.85	2.51	1.13	708.75
09/21/06	15.42	13.11	2.31	1.00	709.75
09/22/06	15.34	13.02	2.32	0.75	710.50
09/25/06	15.07	13.45	1.62	1.38	711.88
09/26/06	15.65	13.23	2.42	0.75	712.63
09/27/06	15.41	13.15	2.26	0.75	713.38

Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
09/28/06	15.44	12.76	2.68	1.13	714.50
09/29/06	15.45	12.70	2.75	1.50	716.00
10/02/06	14.25	13.72	0.53	1.00	717.00
10/03/06	15.30	12.91	2.39	1.00	718.00
10/04/06	15.51	13.38	2.13	1.00	719.00
10/05/06	14.82	13.15	1.67	1.13	720.13
10/06/06	14.81	13.21	1.60	1.00	721.13
10/09/06	15.54	13.41	2.13	0.75	721.88
10/10/06	15.54	13.48	2.06	0.75	722.63
10/13/06	14.87	12.93	1.94	0.75	723.38
10/16/06	15.10	13.14	1.96	0.88	724.25
10/17/06	15.09	13.01	2.08	1.00	725.25
10/18/06	14.45	13.21	1.24	1.00	726.25
10/23/06	14.52	13.29	1.23	1.25	727.50
10/24/06	14.46	12.85	1.61	1.63	729.13
10/25/06	14.55	13.08	1.47	0.00	729.13
10/26/06	15.40	13.24	2.16	0.75	729.88
10/27/06	15.54	13.05	2.49	1.00	730.88
10/30/06	14.87	12.85	2.02	1.00	731.88
11/01/06	12.93	NM	NM	1.50	733.38
11/03/06	14.40	12.46	1.94	0.75	734.13
11/06/06	13.14	NM	NM	1.00	735.13
11/07/06	15.48	12.85	2.63	1.00	736.13
11/13/06	13.35	12.31	1.04	0.50	736.63
11/14/06	13.66	12.50	1.16	0.50	737.13
11/15/06	13.67	12.73	0.94	0.50	737.63
11/16/06	13.51	12.48	1.03	0.38	738.00
11/20/06	13.60	12.43	1.17	0.63	738.63
11/21/06	13.55	12.91	0.64	0.25	738.88
11/22/06	13.55	12.96	0.59	0.38	739.25
11/24/06	13.55	12.33	1.22	0.38	739.63
11/27/06	13.60	12.88	0.72	0.50	740.13
11/28/06	13.55	12.76	0.79	0.50	740.63
11/30/06	13.55	12.69	0.86	0.75	741.38
12/01/06	13.55	12.58	0.97	1.25	742.63
12/05/06	13.06	11.91	1.15	0.50	743.13
12/06/06	13.55	12.93	0.62	0.63	743.75
12/07/06	13.55	12.41	1.14	0.63	744.38
12/08/06	12.75	12.55	0.20	0.50	744.88
12/11/06	13.60	12.72	0.88	0.50	745.38
12/13/06	13.60	12.76	0.84	0.50	745.88
12/14/06	13.60	12.74	0.86	0.50	746.38
12/15/06	13.60	12.67	0.93	0.50	746.88
12/18/06	13.55	12.72	0.83	0.50	747.38
12/19/06	13.60	12.77	0.83	0.50	747.88
12/20/06	13.55	12.95	0.60	0.38	748.25
12/21/06	13.55	12.94	0.61	0.25	748.50

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
12/28/06	13.55	12.86	0.69	0.25	748.75
12/29/06	13.55	12.92	0.63	0.25	749.00
01/08/07	13.60	12.41	1.19	0.38	749.38
01/09/07	13.60	12.61	0.99	0.38	749.75
01/10/07	13.60	12.56	1.04	0.50	750.25
01/11/07	13.60	12.78	0.82	0.25	750.50
01/12/07	13.55	12.17	1.38	0.50	751.00
01/15/07	13.60	12.42	1.18	0.50	751.50
01/16/07	13.60	12.79	0.81	0.50	752.00
01/17/07	13.60	12.87	0.73	0.50	752.50
01/22/07	13.55	12.60	0.95	0.50	753.00
01/23/07	13.60	12.90	0.70	0.25	753.25
01/30/07	13.60	13.12	0.48	0.25	753.50
01/31/07	13.60	13.24	0.36	0.00	753.50
02/01/07	13.60	13.28	0.32	0.25	753.75
02/02/07	13.60	13.27	0.33	0.25	754.00
02/09/07	13.55	13.42	0.13	0.00	754.00
02/26/07	NM	NM	NM	0.25	754.25
03/05/07	NM	NM	NM	0.25	754.50
03/13/07	13.60	13.03	0.57	1.25	755.75
03/15/07	15.45	13.03	2.42	0.00	755.75
03/22/07	NM	12.89	NM	1.50	757.25
03/26/07	15.41	12.83	2.58	1.13	758.38
03/27/07	15.41	12.75	2.66	1.50	759.88
03/29/07	NM	12.75	NM	0.00	759.88
03/30/07	15.19	12.45	2.74	1.50	761.38
04/02/07	NM	10.85	NM	1.50	762.88
04/03/07	NM	12.85	NM	0.00	762.88
04/04/07	NM	12.79	NM	1.00	763.88
04/05/07	NM	12.45	NM	0.50	764.38
04/09/07	NM	12.85	NM	0.75	765.13
04/13/07	15.25	12.35	2.90	1.00	766.13
04/17/07	NM	11.74	NM	0.00	766.13
04/20/07	12.85	12.45	0.40	0.00	766.13
04/23/07	14.11	12.36	1.75	0.75	766.88
05/01/07	14.95	12.03	2.92	1.00	767.88
05/04/07	15.50	12.45	3.05	1.50	769.38
05/07/07	15.50	12.63	2.87	1.00	770.38
05/10/07	15.05	12.56	2.49	0.00	770.38
05/17/07	14.72	12.41	2.31	0.00	770.38
05/21/07	15.00	12.88	2.12	1.25	771.63
05/29/07	15.01	12.86	2.15	1.00	772.63
06/06/07	15.00	12.81	2.19	1.50	774.13
06/12/07	15.08	13.06	2.02	0.50	774.63
06/13/07	15.00	12.90	2.10	1.00	775.63
06/25/07	15.20	13.13	2.07	0.75	776.38
06/28/07	15.05	13.16	1.89	0.00	776.38



## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
07/02/07	15.00	13.16	1.84	1.00	777.38
07/09/07	15.00	13.08	1.92	1.00	778.38
07/19/07	15.00	13.31	1.69	1.00	779.38
07/20/07	15.00	13.23	1.77	0.75	780.13
07/23/07	15.00	13.65	1.35	0.75	780.88
07/30/07	15.05	13.45	1.60	0.75	781.63
08/06/07	15.10	13.45	1.65	0.75	782.38
08/08/07	15.10	13.33	1.77	0.00	782.38
08/13/07	15.10	13.42	1.68	1.25	783.63
08/14/07	15.00	13.71	1.29	0.00	783.63
08/20/07	15.11	13.62	1.49	1.25	784.88
08/22/07	15.01	13.41	1.60	0.00	784.88
08/23/07	15.10	13.47	1.63	0.75	785.63
08/27/07	15.15	13.30	1.85	0.63	786.25
08/29/07	15.05	13.82	1.23	0.00	786.25
08/30/07	15.10	13.81	1.29	0.00	786.25
08/31/07	15.10	13.86	1.24	0.00	786.25
09/04/07	15.10	13.91	1.19	0.00	786.25
09/05/07	15.10	13.84	1.26	0.00	786.25
09/06/07	15.10	13.84	1.26	0.50	786.75
09/07/07	15.10	14.01	1.09	0.00	786.75
09/12/07	15.10	13.61	1.49	0.75	787.50
09/13/07	15.00	13.81	1.19	0.50	788.00
09/14/07	15.00	13.77	1.23	0.50	788.50
09/19/07	15.40	13.86	1.54	0.75	789.25
09/20/07	15.00	11.10	3.90	0.25	789.50
09/24/07	15.51	13.73	1.78	0.75	790.25
09/25/07	15.50	14.02	1.48	0.00	790.25
09/26/07	15.50	14.03	1.47	0.00	790.25
09/27/07	15.50	14.02	1.48	0.00	790.25
09/28/07	15.50	14.03	1.47	0.00	790.25
10/01/07	15.50	14.15	1.35	0.50	790.75
10/02/07	15.41	14.06	1.35	0.00	790.75
10/03/07	15.50	14.02	1.48	0.00	790.75
10/04/07	15.50	14.04	1.46	0.50	791.25
10/05/07	15.50	14.60	0.90	0.50	791.75
10/08/07	15.50	14.06	1.44	0.50	792.25
10/10/07	15.50	13.65	1.85	0.50	792.75
10/11/07	16.50	14.03	2.47	0.88	793.63
10/17/07	15.50	14.26	1.24	0.63	794.25
10/19/07	15.50	14.18	1.32	0.50	794.75
10/22/07	15.50	14.08	1.42	0.50	795.25
10/23/07	15.50	13.86	1.64	0.50	795.75
10/24/07	15.50	14.21	1.29	0.75	796.50
11/01/07	15.43	13.92	1.51	0.63	797.13
11/02/07	15.41	14.17	1.24	0.50	797.63
11/05/07	15.45	14.14	1.31	0.75	798.38

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
11/07/07	14.87	13.76	1.11	0.50	798.88
11/08/07	15.45	14.15	1.30	0.50	799.38
11/12/07	15.45	14.19	1.26	0.50	799.88
11/29/07	15.25	13.71	1.54	0.75	800.63
11/30/07	13.15	12.35	0.80	0.50	801.13
12/03/07	13.19	12.37	0.82	0.50	801.63
12/04/07	15.50	14.02	1.48	0.50	802.13
12/19/07	15.50	13.71	1.79	0.50	802.63
12/20/07	15.50	13.68	1.82	0.50	803.13
12/21/07	15.50	13.65	1.85	0.25	803.38
12/26/07	15.50	13.56	1.94	0.25	803.63
01/08/08	15.55	13.18	2.37	1.00	804.63
01/09/08	15.55	13.26	2.29	0.88	805.50
01/10/08	15.55	13.37	2.18	1.00	806.50
01/13/08	15.55	13.76	1.79	0.75	807.25
01/14/08	15.30	12.90	2.40	1.00	808.25
01/16/08	15.05	13.83	1.22	1.00	809.25
01/17/08	15.55	13.54	2.01	0.75	810.00
01/21/08	15.55	13.34	2.21	1.00	811.00
01/22/08	15.80	13.35	2.45	1.00	812.00
01/23/08	15.55	13.62	1.93	1.00	813.00
01/24/08	15.55	13.41	2.14	1.25	814.25
01/29/08	15.55	13.44	2.11	0.50	814.75
01/30/08	15.75	13.48	2.27	0.75	815.50
02/06/08	15.14	12.89	2.25	1.00	816.50
02/08/08	15.65	13.41	2.24	1.13	817.63
02/14/08	14.66	12.81	1.85	0.75	818.38
02/19/08	14.39	12.76	1.63	0.63	819.00
02/25/08	15.65	12.73	2.92	1.50	820.50
02/26/08	15.65	12.66	2.99	1.00	821.50
02/27/08	15.29	13.00	2.29	1.00	822.50
03/03/08	15.55	12.73	2.82	1.13	823.63
03/07/08	15.55	12.38	3.17	2.00	825.63
03/10/08	12.81	12.18	0.63	0.25	825.88
03/20/08	14.75	12.17	2.58	1.13	827.00
03/21/08	15.40	12.75	2.65	1.13	828.13
03/24/08	15.44	12.82	2.62	0.88	829.00
03/26/08	15.43	12.46	2.97	0.75	829.75
03/27/08	15.07	12.81	2.26	1.75	831.50
03/28/08	15.50	12.72	2.78	2.50	834.00
04/01/08	14.70	12.36	2.34	1.00	835.00
04/03/08	15.44	12.74	2.70	1.25	836.25
04/08/08	14.83	12.53	2.30	1.00	837.25
04/10/08	15.45	13.01	2.44	0.00	837.25
04/14/08	15.20	12.81	2.39	1.25	838.50
04/15/08	15.44	12.85	2.59	1.00	839.50
04/16/08	14.45	12.91	1.54	0.50	840.00

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
04/17/08	15.45	12.88	2.57	1.00	841.00
04/18/08	15.40	12.94	2.46	1.38	842.38
04/21/08	15.45	13.28	2.17	0.50	842.88
04/22/08	15.45	13.29	2.16	2.00	844.88
04/24/08	15.45	13.30	2.15	1.00	845.88
04/23/08	15.45	13.33	2.12	1.25	847.13
04/25/08	15.45	13.36	2.09	2.00	849.13
04/28/08	15.45	13.26	2.19	1.25	850.38
04/29/08	15.45	12.86	2.59	0.75	851.13
04/30/08	15.45	13.08	2.37	0.75	851.88
05/02/08	15.45	13.08	2.37	1.13	853.00
05/06/08	15.45	13.31	2.14	1.00	854.00
05/07/08	15.45	13.50	1.95	0.50	854.50
05/08/08	15.45	13.44	2.01	1.00	855.50
05/14/08	15.45	13.26	2.19	1.00	856.50
05/15/08	15.45	13.34	2.11	0.50	857.00
05/16/08	15.45	13.37	2.08	0.75	857.75
05/20/08	15.45	13.22	2.23	0.75	858.50
05/21/08	15.45	12.14	3.31	0.75	859.25
05/22/08	15.45	13.52	1.93	1.00	860.25
05/23/08	15.45	13.42	2.03	0.50	860.75
05/27/08	15.45	13.37	2.08	0.75	861.50
05/28/08	15.15	13.12	2.03	0.50	862.00
05/29/08	15.45	13.32	2.13	0.50	862.50
05/30/08	15.45	13.35	2.10	1.00	863.50
06/02/08	15.45	13.40	2.05	2.00	865.50
06/03/08	15.45	13.51	1.94	0.75	866.25
06/04/08	15.45	13.01	2.44	0.75	867.00
06/05/08	15.41	13.54	1.87	0.88	867.88
06/06/08	15.44	13.48	1.96	0.50	868.38
06/09/08	15.43	13.61	1.82	0.25	868.63
06/10/08	15.54	13.52	2.02	0.50	869.13
06/12/08	15.45	12.18	3.27	1.00	870.13
06/13/08	15.45	NM	NM	0.75	870.88
06/16/08	15.45	13.02	2.43	0.50	871.38
06/17/08	15.50	13.34	2.16	0.75	872.13
06/18/08	15.75	13.75	2.00	0.88	873.00
06/19/08	15.04	13.05	1.99	1.25	874.25
06/20/08	15.03	13.01	2.02	1.00	875.25
06/23/08	14.44	13.11	1.33	0.00	875.25
06/24/08	15.45	13.35	2.10	1.75	877.00
06/25/08	15.45	13.45	2.00	1.25	878.25
06/26/08	15.45	13.33	2.12	1.25	879.50
06/28/08	15.45	13.00	2.45	1.25	880.75
06/30/08	15.45	13.68	1.77	1.25	882.00
07/01/08	15.91	13.72	2.19	1.25	883.25
07/02/08	15.45	13.57	1.88	1.50	884.75

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-8 (Diameter = 2 inches)

Date	Well FA 4-8				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed: FA 4-8 (gallons)	
				Per Day	To-Date
07/07/08	15.45	12.94	2.51	0.75	885.50
07/08/08	15.52	13.24	2.28	0.63	886.13
07/09/08	15.43	13.22	2.21	0.63	886.75
07/10/08	15.45	13.47	1.98	0.50	887.25
07/11/08	15.55	13.47	2.08	0.25	887.50
07/14/08	15.42	12.12	3.30	0.50	888.00
07/15/08	15.42	13.43	1.99	0.25	888.25
07/17/08	15.45	13.48	1.97	0.63	888.88
07/22/08	15.52	13.57	1.95	1.00	889.88
07/24/08	15.45	13.04	2.41	0.00	889.88
07/25/08	15.51	13.66	1.85	0.75	890.63
07/28/08	14.73	13.11	1.62	0.50	891.13
07/29/08	15.52	13.53	1.99	1.00	892.13
07/31/08	15.20	13.54	1.66	0.75	892.88
08/04/08	14.92	13.24	1.68	0.75	893.63
08/05/08	14.90	13.24	1.66	1.25	894.88
08/08/08	15.55	13.18	2.37	1.00	895.88
08/11/08	15.75	13.72	2.03	1.50	897.38
08/15/08	15.45	13.16	2.29	0.75	898.13
08/20/08	15.42	13.61	1.81	1.00	899.13
09/20/08	15.45	13.32	2.13	0.25	899.38
10/21/08	15.20	13.88	1.32	0.75	900.13
10/23/08	15.40	13.90	1.50	0.50	900.63
12/06/08	15.40	13.53	1.87	0.50	901.13
12/17/08	15.18	12.90	2.28	0.00	901.13

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-56: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-9 (Well Diameter = 2 inches)**

Date	Well FA 4-9				
	DTW (ft.)	DTN (ft.)	NAPL Thickness	NAPL Removed - FA 4-9 (gallons)	
				Per Day	To-Date
4/15/02 *	12.51	9.04	3.47	0.00	0.00
09/25/02	12.18	8.95	3.23	0.53	0.53
10/09/02	11.93	8.82	3.11	0.51	1.03
12/18/02	11.35	7.42	3.93	0.64	1.68
02/04/03	10.87	7.93	2.94	0.48	2.16
03/31/03	11.18	7.00	4.18	0.68	2.84
09/17/03	10.70	7.53	3.17	0.52	3.36
03/02/04	10.26	8.22	2.04	0.33	3.69
04/27/04	19.70	18.00	1.70	0.28	3.97
06/08/04	9.90	8.43	1.47	0.25	4.22
06/10/04	9.22	8.44	0.78	0.06	4.28
06/17/04	8.72	8.34	0.38	0.13	4.40
06/23/04	10.75	8.00	2.75	0.50	4.90
07/01/04	8.75	8.50	0.25	0.00	4.90
07/07/04	9.85	8.43	1.42	0.38	5.28
07/14/04	8.41	8.35	0.06	0.00	5.28
08/11/04	8.30	7.85	0.45	0.13	5.40
08/24/04	9.57	7.97	1.60	0.44	5.84
09/21/04	8.46	6.96	1.50	0.50	6.34
10/06/04	7.70	7.22	0.48	0.13	6.47
12/12/04	7.37	7.35	0.02	0.00	6.47
12/20/04	8.35	8.35	0.00	0.00	6.47
11/09/04	8.40	8.35	0.05	0.00	6.47
02/15/05	9.10	7.61	1.49	0.38	6.84
02/16/05	7.87	7.74	0.13	0.00	6.84
03/31/05	8.40	7.57	0.83	0.14	6.98
04/26/05	8.32	7.74	0.58	0.09	7.07
07/13/05	8.46	8.45	0.01	0.00	7.07
11/01/05	8.53	7.12	1.41	0.23	7.30
01/10/06	7.43	7.43	0.00	0.00	7.30
05/31/06	8.57	8.55	0.02	0.00	7.30
05/13/08	6.76	6.76	0.00	0.00	7.30
08/27/08	9.05	8.54	0.51	0.00	7.30

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

Table A-57: NAPL Thickness and Removal Measurements

Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-10 (Well Diameter = 2 inches)

Date	Well FA 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-10 (gallons)	
				Per Day	To-Date
01/09/02 *	NM	11.73	NM	0.00	0.00
04/15/02 *	NM	12.21	NM	0.00	0.00
09/17/03	12.63	11.13	1.50	0.24	0.24
03/02/04	12.62	11.68	0.94	0.15	0.40
04/27/04	12.83	12.18	0.65	0.11	0.50
06/08/04	12.75	11.46	1.29	0.88	1.38
06/10/04	12.84	11.68	1.16	1.00	2.38
06/17/04	12.83	11.58	1.25	0.75	3.13
06/23/04	12.87	11.31	1.56	0.63	3.75
07/01/04	12.95	11.92	1.03	0.75	4.50
07/07/04	12.95	11.45	1.50	0.63	5.13
07/14/04	12.85	11.43	1.42	0.63	5.75
08/11/04	12.85	11.14	1.71	0.63	6.38
08/24/04	12.89	10.95	1.94	1.06	7.44
09/21/04	11.41	10.59	0.82	0.13	7.57
10/06/04	10.50	10.35	0.15	0.00	7.57
10/12/04	12.05	10.44	1.61	0.88	8.44
10/20/04	12.90	11.17	1.73	0.75	9.19
11/09/04	12.33	11.40	0.93	0.50	9.69
02/01/05	12.85	11.30	1.55	0.63	10.32
02/15/05	12.65	11.10	1.55	0.63	10.94
02/16/05	12.30	10.80	1.50	0.50	11.44
02/17/05	12.53	11.10	1.43	0.75	12.19
02/18/05	12.22	10.98	1.24	0.38	12.57
02/22/05	12.35	11.18	1.17	1.00	13.57
02/23/05	12.40	10.90	1.50	1.00	14.57
02/24/05	12.60	10.85	1.75	0.38	14.94
02/25/05	12.80	11.15	1.65	0.38	15.32
02/28/05	11.09	10.08	1.01	1.00	16.32
03/01/05	12.73	11.12	1.61	1.38	17.69
03/03/05	12.95	10.90	2.05	0.75	18.44
03/04/05	12.92	11.45	1.47	0.75	19.19
03/07/05	12.95	11.30	1.65	0.75	19.94
03/08/05	12.95	10.92	2.03	0.50	20.44
03/10/05	12.95	11.45	1.50	0.75	21.19
03/11/05	12.98	11.20	1.78	1.00	22.19
03/14/05	12.98	11.02	1.96	0.63	22.82
03/15/05	12.98	11.02	1.96	1.00	23.82
03/16/05	12.98	11.00	1.98	1.00	24.82
03/17/05	12.98	11.00	1.98	1.13	25.94
03/18/05	12.98	11.00	1.98	1.13	27.07
03/21/05	12.98	10.98	2.00	1.13	28.19
03/22/05	13.00	11.04	1.96	1.13	29.32
03/23/05	13.00	10.55	2.45	0.75	30.07
03/24/05	13.62	11.60	2.02	1.25	31.32
03/28/05	12.35	10.90	1.45	1.13	32.44
03/29/05	12.10	10.78	1.32	0.38	32.82

Table A-57: NAPL Thickness and Removal Measurements

Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-10 (Well Diameter = 2 inches)

Date	Well FA 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-10 (gallons)	
				Per Day	To-Date
03/30/05	11.95	10.70	1.25	1.00	33.82
03/31/05	11.08	10.67	0.41	0.00	33.82
04/01/05	11.40	10.65	0.75	0.63	34.44
04/04/05	10.80	10.10	0.70	0.13	34.57
04/05/05	10.99	10.19	0.80	0.00	34.57
04/06/05	10.55	10.17	0.38	0.00	34.57
04/07/05	10.50	10.10	0.40	0.00	34.57
04/08/05	11.35	10.16	1.19	0.63	35.19
04/11/05	11.67	10.20	1.47	0.50	35.69
04/12/05	11.38	10.22	1.16	0.38	36.07
04/13/05	11.43	10.23	1.20	0.75	36.82
04/14/05	11.52	10.34	1.18	0.75	37.57
04/15/05	11.69	10.34	1.35	0.75	38.32
04/18/05	12.03	10.38	1.65	0.38	38.69
04/19/05	12.09	10.40	1.69	0.38	39.07
04/20/05	12.11	10.43	1.68	0.38	39.44
04/21/05	12.30	10.55	1.75	0.38	39.82
04/22/05	12.15	10.58	1.57	0.38	40.19
04/25/05	12.53	10.60	1.93	0.88	41.07
04/26/05	12.58	10.68	1.90	1.00	42.07
04/27/05	12.55	10.62	1.93	0.38	42.44
04/28/05	12.70	10.68	2.02	0.75	43.19
04/29/05	12.44	10.72	1.72	0.75	43.94
05/02/05	12.63	10.65	1.98	0.38	44.32
05/09/05	12.96	10.84	2.12	0.50	44.82
05/10/05	NM	10.85	NM	0.00	44.82
05/11/05	12.88	10.85	2.03	0.88	45.69
05/12/05	12.95	10.92	2.03	0.50	46.19
05/13/05	12.91	10.93	1.98	0.50	46.69
05/16/05	13.18	10.90	2.28	0.63	47.32
05/17/05	13.08	10.93	2.15	0.50	47.82
05/18/05	13.02	10.94	2.08	0.75	48.57
05/19/05	12.99	10.93	2.06	0.75	49.32
05/20/05	13.02	10.93	2.09	0.75	50.07
05/23/05	13.10	11.00	2.10	0.63	50.69
05/24/05	13.03	11.02	2.01	0.63	51.32
05/26/05	13.08	11.06	2.02	0.50	51.82
05/27/05	13.00	11.10	1.90	0.50	52.32
05/31/05	12.91	11.05	1.86	0.50	52.82
06/01/05	13.06	11.06	2.00	0.50	53.32
06/02/05	13.07	11.07	2.00	0.63	53.94
06/03/05	12.90	11.07	1.83	0.38	54.32
06/06/05	12.05	10.05	2.00	0.50	54.82
06/07/05	13.05	11.17	1.88	0.50	55.32
06/08/05	11.70	10.85	0.85	0.50	55.82
06/09/05	13.00	11.20	1.80	0.38	56.19
06/10/05	13.10	11.23	1.87	0.50	56.69

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-10 (Well Diameter = 2 inches)

Date	Well FA 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-10 (gallons)	
				Per Day	To-Date
06/13/05	13.05	11.20	1.85	0.50	57.19
06/14/05	13.05	11.13	1.92	0.50	57.69
06/15/05	13.08	11.20	1.88	0.63	58.32
06/16/05	13.10	11.15	1.95	0.88	59.19
06/17/05	12.13	11.20	0.93	0.63	59.82
06/20/05	13.10	11.25	1.85	0.63	60.44
06/21/05	13.12	11.24	1.88	0.50	60.94
06/22/05	13.10	11.27	1.83	0.88	61.82
06/23/05	13.10	11.31	1.79	0.50	62.32
06/24/05	13.12	11.32	1.80	0.50	62.82
06/27/05	13.12	11.31	1.81	0.50	63.32
06/28/05	13.10	11.24	1.86	0.63	63.94
06/29/05	13.10	11.28	1.82	0.63	64.57
06/30/05	13.12	11.15	1.97	0.75	65.32
07/01/05	13.10	12.15	0.95	0.50	65.82
07/05/05	13.10	12.22	0.88	0.50	66.32
07/06/05	12.81	11.91	0.90	0.50	66.82
07/07/05	13.10	12.27	0.83	0.38	67.19
07/08/05	13.10	12.35	0.75	0.25	67.44
07/11/08	13.15	12.10	1.05	0.63	68.07
07/12/08	13.15	12.00	1.15	0.50	68.57
07/13/05	13.15	11.94	1.21	0.50	69.07
07/14/05	12.41	11.90	0.51	0.38	69.44
07/15/05	13.15	11.90	1.25	0.88	70.32
07/20/05	13.13	12.32	0.81	0.19	70.50
07/21/05	13.15	12.28	0.87	0.25	70.75
07/22/05	12.08	11.40	0.68	0.13	70.88
07/25/05	13.15	11.95	1.20	0.38	71.25
07/26/05	13.15	12.10	1.05	0.50	71.75
07/27/05	13.13	12.11	1.02	0.25	72.00
07/28/05	13.12	12.28	0.84	0.25	72.25
07/29/05	13.13	12.22	0.91	0.38	72.63
08/01/05	13.18	12.25	0.93	0.38	73.00
08/02/05	13.13	12.11	1.02	0.25	73.25
08/03/05	13.10	12.35	0.75	0.13	73.38
08/04/05	13.10	12.38	0.72	0.13	73.50
08/05/05	13.15	12.42	0.73	0.13	73.63
08/08/05	13.15	12.23	0.92	0.38	74.00
08/09/05	13.15	12.15	1.00	0.25	74.25
08/10/05	13.15	12.15	1.00	0.38	74.63
08/11/05	13.15	12.15	1.00	0.50	75.13
08/12/05	12.13	12.02	0.11	0.00	75.13
08/15/05	13.18	12.04	1.14	0.38	75.50
08/16/05	13.15	12.20	0.95	0.25	75.75
08/17/05	13.15	12.12	1.03	0.25	76.00
08/18/05	13.15	12.15	1.00	0.25	76.25
08/19/05	13.17	12.18	0.99	0.13	76.38



## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-10 (Well Diameter = 2 inches)

Date	Well FA 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-10 (gallons)	
				Per Day	To-Date
08/22/05	13.00	11.90	1.10	0.50	76.88
08/23/05	12.82	11.95	0.87	0.25	77.13
08/24/05	13.15	11.88	1.27	0.50	77.63
08/25/05	12.71	11.85	0.86	0.50	78.13
08/26/05	12.08	11.66	0.42	0.00	78.13
08/29/05	12.65	11.65	1.00	0.50	78.63
08/30/05	12.65	11.95	0.70	0.50	79.13
08/31/05	12.58	11.85	0.73	0.38	79.50
09/02/05	12.79	11.90	0.89	0.50	80.00
09/06/05	13.15	12.30	0.85	0.38	80.38
09/07/05	13.15	12.08	1.07	0.50	80.88
09/08/05	13.15	12.13	1.02	0.38	81.25
09/09/05	13.16	12.30	0.86	0.38	81.63
09/12/05	12.74	11.91	0.83	0.50	82.13
09/13/05	13.15	12.35	0.80	0.38	82.50
09/15/05	13.10	12.23	0.87	0.63	83.13
09/16/05	NM	NM	NM	0.38	83.50
09/19/05	13.18	12.32	0.86	0.38	83.88
09/20/05	13.20	11.70	1.50	0.25	84.13
09/21/05	13.15	11.65	1.50	1.00	85.13
09/23/05	13.15	12.30	0.85	0.50	85.63
09/26/05	13.15	12.35	0.80	0.50	86.13
09/27/05	13.15	12.28	0.87	0.38	86.50
09/28/05	13.15	12.43	0.72	0.38	86.88
09/29/05	13.15	12.35	0.80	0.00	86.88
09/30/05	12.65	12.11	0.54	0.38	87.25
10/03/05	13.15	12.47	0.68	0.38	87.63
10/04/05	13.15	12.48	0.67	0.25	87.88
10/05/05	13.15	12.50	0.65	0.38	88.25
10/06/05	13.15	12.45	0.70	0.38	88.63
10/07/05	13.15	12.33	0.82	0.38	89.00
10/10/05	12.38	11.70	0.68	0.00	89.00
10/11/05	12.53	11.62	0.91	0.25	89.25
10/12/05	12.52	11.60	0.92	0.13	89.38
10/13/05	11.90	11.50	0.40	0.00	89.38
10/14/05	11.48	11.02	0.46	0.00	89.38
10/17/05	12.14	11.28	0.86	0.00	89.38
10/18/05	11.75	11.20	0.55	0.00	89.38
10/19/05	11.22	10.90	0.32	0.00	89.38
10/20/05	12.10	11.30	0.80	0.13	89.50
10/21/05	11.73	11.00	0.73	1.00	90.50
10/24/05	11.15	10.25	0.90	0.25	90.75
10/26/05	11.00	9.80	1.20	0.25	91.00
10/27/05	11.33	10.10	1.23	0.25	91.25
10/28/05	10.95	10.30	0.65	0.25	91.50
10/31/05	11.00	9.82	1.18	0.13	91.63
11/01/05	11.78	10.60	1.18	0.50	92.13

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-10 (Well Diameter = 2 inches)

Date	Well FA 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-10 (gallons)	
				Per Day	To-Date
11/02/05	11.85	10.65	1.20	0.25	92.38
11/03/05	11.25	10.30	0.95	0.13	92.50
11/04/05	11.41	10.30	1.11	0.13	92.63
11/07/05	11.62	10.50	1.12	0.38	93.00
11/08/05	11.60	10.45	1.15	0.38	93.38
11/09/05	11.70	10.53	1.17	0.63	94.00
11/10/05	11.72	10.31	1.41	0.50	94.50
11/14/05	11.90	10.60	1.30	0.75	95.25
11/15/05	12.20	10.80	1.40	0.50	95.75
11/16/05	12.20	10.54	1.66	1.13	96.88
11/17/05	11.95	10.65	1.30	0.75	97.63
11/18/05	11.63	10.52	1.11	0.50	98.13
11/21/05	11.56	10.42	1.14	0.75	98.88
11/22/05	12.10	10.10	2.00	0.88	99.75
11/23/05	11.70	10.31	1.39	0.50	100.25
11/25/05	11.65	10.30	1.35	0.50	100.75
11/28/05	11.31	10.28	1.03	1.00	101.75
11/29/05	11.42	10.21	1.21	0.75	102.50
11/30/05	12.00	10.08	1.92	0.50	103.00
12/01/05	11.58	10.03	1.55	0.75	103.75
12/02/05	11.45	10.00	1.45	0.63	104.38
12/05/05	11.40	10.55	0.85	0.13	104.50
12/06/05	11.35	10.12	1.23	1.00	105.50
12/07/05	11.35	10.12	1.23	0.75	106.25
12/09/05	14.42	12.70	1.72	1.00	107.25
12/12/05	14.70	12.97	1.73	0.63	107.88
12/13/05	15.00	13.52	1.48	0.25	108.13
12/14/05	14.76	13.30	1.46	0.50	108.63
12/15/05	14.84	13.22	1.62	0.50	109.13
12/16/05	14.73	13.16	1.57	0.38	109.50
12/19/05	13.92	12.90	1.02	0.38	109.88
12/20/05	14.72	12.90	1.82	0.00	109.88
12/21/05	14.65	12.95	1.70	0.50	110.38
12/22/05	14.23	13.08	1.15	0.50	110.88
12/23/05	15.04	13.42	1.62	0.50	111.38
12/27/05	14.05	13.10	0.95	0.50	111.88
12/28/05	15.00	12.92	2.08	0.50	112.38
12/29/05	14.50	12.90	1.60	0.50	112.88
12/30/05	14.65	13.15	1.50	0.38	113.25
01/03/06	13.95	12.65	1.30	0.50	113.75
01/04/06	13.80	12.80	1.00	0.38	114.13
01/05/06	13.97	12.52	1.45	0.38	114.50
01/06/06	13.78	12.48	1.30	0.38	114.88
01/09/06	13.31	12.69	0.62	0.25	115.13
01/10/06	13.85	12.70	1.15	0.25	115.38
01/11/06	13.26	12.84	0.42	0.00	115.38
01/12/06	13.44	12.70	0.74	0.06	115.44

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-10 (Well Diameter = 2 inches)

Date	Well FA 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-10 (gallons)	
				Per Day	To-Date
01/13/06	13.84	12.68	1.16	0.13	115.57
01/16/06	13.72	12.77	0.95	0.13	115.69
01/17/06	13.79	12.60	1.19	0.25	115.94
01/18/06	13.80	12.65	1.15	0.00	115.94
01/19/06	13.68	13.10	0.58	0.00	115.94
01/20/06	13.53	12.60	0.93	0.50	116.44
01/23/06	13.45	12.31	1.14	0.38	116.82
01/24/06	12.31	NM	NM	0.00	116.82
01/25/06	13.90	12.30	1.60	1.00	117.82
01/26/06	13.58	12.45	1.13	0.50	118.32
01/27/06	13.62	12.50	1.12	0.00	118.32
01/30/06	13.85	12.50	1.35	0.00	118.32
01/31/06	13.95	12.28	1.67	0.13	118.44
02/01/06	14.40	13.13	1.27	0.25	118.69
02/02/06	14.20	12.52	1.68	0.50	119.19
02/03/06	14.07	12.30	1.77	0.50	119.69
02/06/06	14.34	12.38	1.96	0.50	120.19
02/07/06	13.58	12.53	1.05	0.75	120.94
02/08/06	13.85	12.50	1.35	0.75	121.69
02/09/06	13.96	12.48	1.48	0.38	122.07
02/10/06	14.18	12.62	1.56	0.50	122.57
02/13/06	14.52	12.58	1.94	0.50	123.07
02/14/06	14.55	13.10	1.45	0.50	123.57
02/15/06	14.55	13.00	1.55	0.75	124.32
02/16/06	15.73	13.02	2.71	0.75	125.07
02/17/06	14.30	12.58	1.72	0.63	125.69
02/21/06	14.68	12.41	2.27	0.50	126.19
02/22/06	14.80	13.22	1.58	0.50	126.69
02/23/06	14.72	13.02	1.70	0.50	127.19
02/24/06	14.99	13.39	1.60	0.50	127.69
02/27/06	15.22	13.45	1.77	0.50	128.19
02/28/06	15.60	13.61	1.99	0.75	128.94
03/01/06	14.58	13.12	1.46	0.50	129.44
03/02/06	15.25	13.17	2.08	0.50	129.94
03/13/06	15.37	13.42	1.95	1.13	131.07
03/14/06	15.02	13.37	1.65	1.13	132.19
03/15/06	15.50	13.72	1.78	0.75	132.94
03/16/06	15.57	13.72	1.85	1.00	133.94
03/17/06	15.39	13.81	1.58	0.75	134.69
03/20/06	15.44	13.49	1.95	1.00	135.69
03/21/06	15.38	13.58	1.80	1.00	136.69
03/22/06	15.55	13.52	2.03	0.88	137.57
03/23/06	15.62	13.85	1.77	0.75	138.32
03/24/06	15.63	13.70	1.93	0.75	139.07
03/27/06	15.50	13.65	1.85	0.88	139.94
03/28/06	15.48	14.22	1.26	0.88	140.82
03/29/06	15.63	14.08	1.55	1.13	141.94

**Table A-57: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-10 (Well Diameter = 2 inches)**

Date	Well FA 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-10 (gallons)	
				Per Day	To-Date
03/30/06	15.65	14.03	1.62	0.75	142.69
03/31/06	15.64	13.74	1.90	0.75	143.44
04/03/06	15.55	13.77	1.78	1.00	144.44
04/04/06	15.54	13.88	1.66	0.88	145.32
04/05/06	15.52	13.88	1.64	0.75	146.07
04/06/06	15.60	14.35	1.25	0.75	146.82
04/07/06	15.64	13.88	1.76	0.75	147.57
04/10/06	15.25	13.80	1.45	0.88	148.44
04/11/06	15.35	13.91	1.44	1.13	149.57
04/12/06	15.15	13.80	1.35	0.63	150.19
04/13/06	15.34	13.83	1.51	0.75	150.94
04/17/06	15.17	13.70	1.47	0.75	151.69
04/18/06	15.28	13.77	1.51	0.63	152.32
04/19/06	15.24	13.80	1.44	0.63	152.94
04/20/06	15.65	13.78	1.87	0.75	153.69
04/21/06	15.44	13.88	1.56	0.75	154.44
04/24/06	14.88	13.60	1.28	0.50	154.94
04/25/06	14.89	13.72	1.17	0.00	154.94
04/26/06	15.10	14.08	1.02	0.50	155.44
04/27/06	15.14	13.78	1.36	0.50	155.94
04/28/06	14.75	13.66	1.09	0.63	156.57
05/01/06	14.58	13.48	1.10	0.50	157.07
05/02/06	14.50	13.53	0.97	0.50	157.57
05/03/06	12.25	11.18	1.07	0.50	158.07
05/04/06	12.55	11.25	1.30	0.50	158.57
05/05/06	12.65	11.22	1.43	0.75	159.32
05/08/06	12.85	11.30	1.55	0.75	160.07
05/09/06	13.30	11.50	1.80	0.50	160.57
05/10/06	15.68	13.97	1.71	1.00	161.57
05/11/06	15.72	14.27	1.45	0.50	162.07
05/12/06	15.70	14.30	1.40	0.50	162.57
05/15/06	15.32	13.76	1.56	0.50	163.07
05/16/06	15.43	13.95	1.48	0.63	163.69
05/17/06	15.34	13.88	1.46	1.00	164.69
05/18/06	13.00	11.40	1.60	0.50	165.19
05/19/06	14.80	13.68	1.12	0.50	165.69
05/22/06	11.43	9.60	1.83	0.50	166.19
05/23/06	14.60	13.70	0.90	1.25	167.44
05/24/06	14.75	13.78	0.97	0.50	167.94
05/25/06	14.88	13.70	1.18	0.63	168.57
05/26/06	14.60	13.68	0.92	0.38	168.94
05/30/06	15.30	13.83	1.47	0.63	169.57
05/31/06	15.20	13.79	1.41	0.50	170.07
06/01/06	15.05	13.65	1.40	0.50	170.57
06/02/06	15.85	14.58	1.27	0.50	171.07
06/05/06	14.78	13.70	1.08	0.00	171.07
06/06/06	14.78	13.68	1.10	0.13	171.19

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-10 (Well Diameter = 2 inches)

Date	Well FA 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-10 (gallons)	
				Per Day	To-Date
06/07/06	14.75	13.75	1.00	0.63	171.82
06/08/06	13.20	12.00	1.20	0.50	172.32
06/09/06	12.35	11.40	0.95	0.25	172.57
06/12/06	11.72	11.10	0.62	0.00	172.57
06/13/06	11.60	11.10	0.50	0.00	172.57
06/14/06	11.72	11.18	0.54	0.00	172.57
06/15/06	11.60	11.10	0.50	0.00	172.57
06/16/06	13.25	10.00	3.25	1.00	173.57
06/19/06	13.30	11.96	1.34	0.00	173.57
06/20/06	12.00	11.15	0.85	0.25	173.82
06/22/06	12.12	11.81	0.31	0.00	173.82
06/23/06	13.12	12.10	1.02	0.50	174.32
06/27/06	13.35	12.10	1.25	0.50	174.82
06/30/06	12.92	11.92	1.00	0.00	174.82
07/03/06	13.04	12.00	1.04	0.00	174.82
07/05/06	12.68	12.20	0.48	0.00	174.82
07/06/06	13.25	11.97	1.28	0.88	175.69
07/07/06	13.22	12.10	1.12	0.50	176.19
07/10/06	13.25	11.98	1.27	0.50	176.69
07/11/06	13.45	12.10	1.35	0.50	177.19
07/12/06	13.35	12.20	1.15	0.50	177.69
07/13/06	13.35	12.10	1.25	0.50	178.19
07/14/06	12.80	11.60	1.20	0.63	178.82
07/17/06	12.30	10.90	1.40	0.50	179.32
07/18/06	12.95	11.90	1.05	1.00	180.32
07/19/06	13.20	12.35	0.85	0.50	180.82
07/20/06	13.02	11.65	1.37	0.63	181.44
07/21/06	12.83	11.70	1.13	0.50	181.94
07/24/06	13.45	12.25	1.20	0.75	182.69
07/25/06	13.50	12.20	1.30	0.75	183.44
07/26/06	13.18	11.60	1.58	0.75	184.19
07/27/06	13.35	12.00	1.35	0.75	184.94
07/28/06	13.20	11.80	1.40	0.75	185.69
07/31/06	13.00	11.60	1.40	0.75	186.44
08/01/06	12.90	11.55	1.35	0.63	187.07
08/02/06	12.90	11.60	1.30	0.75	187.82
08/03/06	13.35	12.07	1.28	0.88	188.69
08/04/06	13.35	12.00	1.35	0.75	189.44
08/07/06	13.15	11.40	1.75	0.00	189.44
08/08/06	12.95	11.65	1.30	0.88	190.32
08/09/06	13.15	11.76	1.39	0.38	190.69
08/10/06	13.15	11.98	1.17	0.50	191.19
08/14/06	12.95	11.44	1.51	0.75	191.94
08/16/06	12.98	11.45	1.53	0.75	192.69
08/17/06	12.95	11.40	1.55	0.75	193.44
08/18/06	13.30	11.71	1.59	0.50	193.94
08/21/06	13.10	11.54	1.56	0.75	194.69

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-10 (Well Diameter = 2 inches)

Date	Well FA 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-10 (gallons)	
				Per Day	To-Date
08/22/06	13.15	11.68	1.47	0.75	195.44
08/23/06	13.00	12.10	0.90	0.00	195.44
08/24/06	13.00	12.00	1.00	0.75	196.19
09/05/06	11.50	10.90	0.60	0.00	196.19
09/06/06	12.52	11.41	1.11	0.75	196.94
09/07/06	12.55	11.40	1.15	0.50	197.44
09/08/06	12.25	10.60	1.65	0.63	198.07
09/11/06	11.81	10.92	0.89	0.25	198.32
09/12/06	12.48	11.31	1.17	0.25	198.57
09/13/06	12.31	10.95	1.36	0.50	199.07
09/15/06	12.54	11.29	1.25	0.38	199.44
09/18/06	12.42	11.19	1.23	0.13	199.57
09/19/06	12.66	11.35	1.31	0.50	200.07
09/20/06	12.29	10.56	1.73	0.50	200.57
09/21/06	12.92	11.56	1.36	0.50	201.07
09/22/06	12.35	10.96	1.39	0.50	201.57
09/25/06	12.92	11.68	1.24	0.75	202.32
09/26/06	12.96	11.54	1.42	0.75	203.07
09/27/06	13.01	11.78	1.23	1.00	204.07
09/28/06	12.92	11.70	1.22	0.50	204.57
09/29/06	12.90	11.75	1.15	0.75	205.32
10/02/06	13.00	11.64	1.36	1.13	206.44
10/03/06	13.00	11.75	1.25	0.50	206.94
10/04/06	13.07	11.74	1.33	0.50	207.44
10/05/06	12.99	11.55	1.44	0.38	207.82
10/06/06	12.81	11.43	1.38	0.25	208.07
10/09/06	13.07	11.83	1.24	0.50	208.57
10/10/06	12.96	11.88	1.08	0.25	208.82
10/13/06	12.72	11.45	1.27	0.25	209.07
10/16/06	12.24	11.15	1.09	0.75	209.82
10/17/06	12.21	11.05	1.16	0.25	210.07
10/18/06	12.03	11.03	1.00	0.25	210.32
10/23/06	12.41	11.27	1.14	0.50	210.82
10/24/06	12.22	10.82	1.40	0.50	211.32
10/25/06	11.89	11.22	0.67	0.00	211.32
10/26/06	12.38	11.14	1.24	0.50	211.82
10/27/06	12.20	11.69	0.51	0.00	211.82
10/30/06	11.89	11.48	0.41	0.00	211.82
11/01/06	12.55	11.43	1.12	0.50	212.32
11/03/06	12.14	11.36	0.78	0.25	212.57
11/06/06	12.87	11.66	1.21	0.88	213.44
11/07/06	12.22	11.30	0.92	0.50	213.94
11/13/06	11.15	10.03	1.12	0.38	214.32
11/14/06	11.00	10.51	0.49	0.00	214.32
11/15/06	11.02	10.65	0.37	0.00	214.32
11/16/06	10.53	10.50	0.03	0.25	214.57
11/20/06	11.64	11.28	0.36	0.38	214.94

**Table A-57: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-10 (Well Diameter = 2 inches)**

Date	Well FA 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-10 (gallons)	
				Per Day	To-Date
11/21/06	12.12	11.41	0.71	0.00	214.94
11/22/06	11.68	11.15	0.53	0.13	215.07
11/24/06	11.91	10.98	0.93	0.25	215.32
11/27/06	11.10	NM	NM	0.00	215.32
11/28/06	11.31	NM	NM	0.00	215.32
11/30/06	9.40	9.21	0.19	0.00	215.32
12/01/06	10.61	NM	NM	0.00	215.32
12/05/06	11.48	11.23	0.25	0.00	215.32
12/06/06	11.35	NM	NM	0.00	215.32
12/07/06	11.72	NM	NM	0.00	215.32
12/08/06	11.74	NM	NM	0.00	215.32
12/11/06	12.19	11.81	0.38	0.25	215.57
12/13/06	12.71	10.65	2.06	1.00	216.57
12/14/06	12.15	11.48	0.67	0.50	217.07
12/15/06	12.02	11.53	0.49	0.00	217.07
12/18/06	13.02	11.82	1.20	0.00	217.07
12/19/06	12.95	11.93	1.02	0.75	217.82
12/20/06	13.00	11.89	1.11	0.50	218.32
12/21/06	13.04	11.94	1.10	0.50	218.82
12/28/06	12.51	11.33	1.18	0.50	219.32
12/29/06	13.03	11.93	1.10	0.63	219.94
01/08/07	11.40	NM	NM	0.00	219.94
01/09/07	11.41	NM	NM	0.00	219.94
01/10/07	11.63	NM	NM	0.00	219.94
01/11/07	11.13	NM	NM	0.00	219.94
01/12/07	11.56	NM	NM	0.00	219.94
01/15/07	11.48	NM	NM	0.00	219.94
01/16/07	11.51	NM	NM	0.00	219.94
01/17/07	11.32	NM	NM	0.00	219.94
01/22/07	11.44	NM	NM	0.00	219.94
01/23/07	11.25	NM	NM	0.00	219.94
01/30/07	12.01	11.78	0.23	0.00	219.94
01/31/07	12.38	11.86	0.52	0.25	220.19
02/01/07	12.68	11.73	0.95	0.25	220.44
02/02/07	12.95	11.97	0.98	0.25	220.69
02/09/07	13.00	11.84	1.16	0.00	220.69
02/26/07	NM	NM	NM	0.25	220.94
03/05/07	NM	NM	NM	0.00	220.94
03/13/07	12.72	11.81	0.91	0.50	221.44
03/15/07	11.67	11.63	0.04	0.00	221.44
03/22/07	11.45	NM	NM	0.00	221.44
03/26/07	10.99	NM	NM	0.00	221.44
03/27/07	13.00	10.68	2.32	0.00	221.44
03/29/07	7.62	6.45	1.17	0.00	221.44
03/30/07	9.52	8.19	1.33	0.25	221.69
04/02/07	9.82	9.15	0.67	0.00	221.69
04/03/07	10.98	10.62	0.36	0.00	221.69

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-10 (Well Diameter = 2 inches)

Date	Well FA 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-10 (gallons)	
				Per Day	To-Date
04/04/07	11.99	10.99	1.00	0.00	221.69
04/05/07	11.89	11.05	0.84	0.00	221.69
04/09/07	12.05	11.49	0.56	0.00	221.69
04/13/07	10.95	NM	NM	0.00	221.69
04/17/07	8.83	NM	NM	0.00	221.69
04/20/07	10.75	NM	NM	0.00	221.69
04/23/07	10.90	NM	NM	0.00	221.69
05/01/07	11.22	NM	NM	0.00	221.69
05/04/07	12.26	11.03	1.23	0.00	221.69
05/07/07	12.44	11.36	1.08	0.38	222.07
05/10/07	12.55	11.28	1.27	0.00	222.07
05/17/07	13.00	11.71	1.29	0.00	222.07
05/21/07	12.63	11.59	1.04	0.75	222.82
05/29/07	12.23	10.94	1.29	0.75	223.57
06/06/07	12.95	11.71	1.24	0.75	224.32
06/12/07	12.78	11.16	1.62	0.38	224.69
06/13/07	12.69	11.13	1.56	0.75	225.44
06/25/07	12.96	11.40	1.56	0.25	225.69
06/28/07	13.00	11.71	1.29	0.00	225.69
07/02/07	12.98	11.32	1.66	1.00	226.69
07/09/07	13.00	11.61	1.39	0.50	227.19
07/19/07	12.85	11.67	1.18	0.63	227.82
07/20/07	13.03	11.40	1.63	0.63	228.44
07/23/07	13.00	11.84	1.16	0.25	228.69
07/30/07	13.00	11.94	1.06	0.25	228.94
08/06/07	13.02	11.91	1.11	0.50	229.44
08/08/07	13.00	11.69	1.31	0.00	229.44
08/13/07	13.00	11.91	1.09	0.00	229.44
08/14/07	13.00	11.95	1.05	0.00	229.44
08/20/07	13.00	12.01	0.99	0.50	229.94
08/23/07	13.01	11.74	1.27	0.00	229.94
08/27/07	13.20	11.62	1.58	0.25	230.19
08/29/07	13.00	12.10	0.90	0.00	230.19
08/30/07	13.00	12.04	0.96	0.00	230.19
08/31/07	13.00	12.10	0.90	0.00	230.19
09/04/07	13.00	12.11	0.89	0.00	230.19
09/05/07	13.00	12.11	0.89	0.25	230.44
09/06/07	13.00	12.16	0.84	0.25	230.69
09/07/07	13.00	12.11	0.89	0.00	230.69
09/12/07	13.00	12.31	0.69	0.00	230.69
09/13/07	13.00	11.92	1.08	0.25	230.94
09/14/07	13.00	11.92	1.08	0.25	231.19
09/19/07	13.00	12.09	0.91	0.00	231.19
09/20/07	13.00	12.10	0.90	0.25	231.44
09/24/07	13.03	11.91	1.12	0.00	231.44
09/25/07	13.06	12.14	0.92	0.00	231.44
09/26/07	13.00	12.22	0.78	0.00	231.44



## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-10 (Well Diameter = 2 inches)

Date	Well FA 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-10 (gallons)	
				Per Day	To-Date
09/27/07	13.00	12.24	0.76	0.00	231.44
09/28/07	13.01	12.24	0.77	0.00	231.44
10/01/07	13.00	12.31	0.69	0.00	231.44
10/02/07	13.00	12.31	0.69	0.00	231.44
10/03/07	13.00	12.33	0.67	0.00	231.44
10/04/07	13.00	12.26	0.74	0.13	231.57
10/05/07	13.00	12.30	0.70	0.13	231.69
10/08/07	13.00	12.33	0.67	0.13	231.82
10/10/07	13.00	12.11	0.89	0.00	231.82
10/11/07	13.00	12.34	0.66	0.13	231.94
10/17/07	13.00	12.44	0.56	0.38	232.32
10/19/07	13.00	12.34	0.66	0.00	232.32
10/22/07	13.00	12.34	0.66	0.00	232.32
10/23/07	13.00	12.29	0.71	0.13	232.44
10/24/07	13.00	12.46	0.54	0.00	232.44
11/01/07	13.00	11.77	1.23	0.13	232.57
11/02/07	13.00	12.36	0.64	0.13	232.69
11/05/07	13.00	12.36	0.64	0.25	232.94
11/07/07	13.00	12.14	0.86	0.13	233.07
11/08/07	13.00	12.38	0.62	0.00	233.07
11/12/07	13.00	12.48	0.52	0.00	233.07
11/29/07	13.15	12.18	0.97	0.25	233.32
11/30/07	13.13	12.21	0.92	0.25	233.57
12/03/07	13.16	12.25	0.91	0.25	233.82
12/04/07	13.00	11.91	1.09	0.25	234.07
12/19/07	13.00	12.35	0.65	0.00	234.07
12/20/07	13.00	12.33	0.67	0.00	234.07
12/21/07	13.00	12.29	0.71	0.00	234.07
12/26/07	11.23	NM	NM	0.00	234.07
01/08/08	9.16	NM	NM	0.00	234.07
01/09/08	9.98	NM	NM	0.00	234.07
01/10/08	10.62	NM	NM	0.00	234.07
01/13/08	12.53	12.26	0.27	0.25	234.32
01/14/08	9.16	NM	NM	0.00	234.32
01/16/08	9.16	NM	NM	0.00	234.32
01/17/08	8.54	NM	NM	0.00	234.32
01/21/08	8.57	NM	NM	0.00	234.32
01/22/08	8.60	NM	NM	0.00	234.32
01/23/08	8.06	NM	NM	0.00	234.32
01/24/08	9.37	NM	NM	0.00	234.32
01/29/08	12.53	11.77	0.76	0.25	234.57
01/30/08	12.41	10.95	1.46	0.25	234.82
02/06/08	10.93	NM	NM	0.00	234.82
02/08/08	10.25	NM	NM	0.00	234.82
02/14/08	8.95	NM	NM	0.00	234.82
02/19/08	8.69	NM	NM	0.00	234.82
02/25/08	8.68	NM	NM	0.00	234.82

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-10 (Well Diameter = 2 inches)

Date	Well FA 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-10 (gallons)	
				Per Day	To-Date
02/26/08	8.28	NM	NM	0.00	234.82
02/27/08	9.22	NM	NM	0.00	234.82
03/03/08	9.37	8.93	0.44	0.25	235.07
03/07/08	8.31	NM	NM	0.00	235.07
03/10/08	7.71	NM	NM	0.00	235.07
03/20/08	9.48	NM	NM	0.00	235.07
03/21/08	10.01	9.63	0.38	0.00	235.07
03/24/08	10.02	9.61	0.41	0.00	235.07
03/26/08	9.27	9.02	0.25	0.00	235.07
03/27/08	10.50	9.50	1.00	0.00	235.07
03/28/08	10.45	NM	NM	0.00	235.07
04/01/08	11.64	NM	NM	0.00	235.07
04/03/08	10.25	10.20	0.05	0.00	235.07
04/08/08	11.42	NM	NM	0.00	235.07
04/10/08	10.86	NM	NM	1.25	236.32
04/14/08	12.48	NM	NM	0.00	236.32
04/15/08	10.55	NM	NM	0.00	236.32
04/16/08	10.70	NM	NM	0.00	236.32
04/17/08	10.68	NM	NM	0.00	236.32
04/18/08	12.05	NM	NM	0.00	236.32
04/21/08	12.44	NM	NM	0.00	236.32
04/22/08	12.40	NM	NM	0.00	236.32
04/24/08	12.62	12.42	0.20	0.00	236.32
04/23/08	12.38	12.38	0.00	0.00	236.32
04/25/08	12.43	12.43	0.00	0.00	236.32
04/28/08	12.44	12.44	0.00	0.00	236.32
04/29/08	12.39	12.39	0.00	0.00	236.32
04/30/08	12.68	12.51	0.17	0.00	236.32
05/02/08	12.66	12.54	0.12	0.00	236.32
05/06/08	11.72	11.72	0.00	0.00	236.32
05/07/08	12.33	12.33	0.00	0.00	236.32
05/08/08	12.60	11.92	0.68	0.00	236.32
05/14/08	11.29	11.25	0.04	0.00	236.32
05/15/08	11.82	11.76	0.06	0.00	236.32
05/16/08	11.93	11.90	0.03	0.00	236.32
05/20/08	10.91	10.91	0.00	0.00	236.32
05/21/08	10.83	10.83	0.00	0.00	236.32
05/22/08	11.46	11.46	0.00	0.00	236.32
05/23/08	11.63	11.63	0.00	0.00	236.32
05/27/08	11.82	11.82	0.00	0.00	236.32
05/28/08	11.73	11.73	0.00	0.00	236.32
05/29/08	11.85	11.85	0.00	0.00	236.32
05/30/08	11.64	11.64	0.00	0.00	236.32
06/02/08	12.06	12.06	0.00	0.00	236.32
06/03/08	12.09	12.09	0.00	0.00	236.32
06/05/08	12.13	12.11	0.02	0.00	236.32
06/06/08	12.15	12.12	0.03	0.00	236.32

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-10 (Well Diameter = 2 inches)

Date	Well FA 4-10				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-10 (gallons)	
				Per Day	To-Date
06/09/08	12.15	12.11	0.04	0.00	236.32
06/10/08	12.26	12.11	0.15	0.00	236.32
06/12/08	13.56	13.56	0.00	0.00	236.32
06/13/08	12.01	12.01	0.00	0.00	236.32
06/16/08	11.05	11.00	0.05	0.00	236.32
06/17/08	11.55	10.90	0.65	0.00	236.32
06/18/08	11.30	11.00	0.30	0.00	236.32
06/19/08	11.03	11.01	0.02	0.00	236.32
06/20/08	11.05	11.02	0.03	0.00	236.32
06/23/08	10.85	10.76	0.09	0.00	236.32
06/24/08	11.02	11.00	0.02	0.00	236.32
06/25/08	11.20	11.10	0.10	0.00	236.32
06/26/08	11.20	11.05	0.15	0.00	236.32
06/28/08	12.55	12.10	0.45	0.00	236.32
06/30/08	12.17	12.00	0.17	0.00	236.32
07/01/08	12.21	12.01	0.20	0.00	236.32
07/02/08	12.58	12.24	0.34	0.00	236.32
07/07/08	10.98	10.81	0.17	0.00	236.32
07/08/08	11.03	10.84	0.19	0.00	236.32
07/09/08	10.88	10.84	0.04	0.00	236.32
07/10/08	12.41	12.13	0.28	0.00	236.32
07/11/08	12.05	12.05	0.00	0.00	236.32
07/14/08	11.77	11.71	0.06	0.00	236.32
07/15/08	11.46	11.46	0.00	0.00	236.32
07/17/08	11.64	11.42	0.22	0.00	236.32
07/22/08	11.38	11.32	0.06	0.00	236.32
07/24/08	11.51	11.50	0.01	0.00	236.32
07/25/08	12.19	12.19	0.00	0.00	236.32
07/28/08	12.00	12.00	0.00	0.00	236.32
07/29/08	11.13	11.13	0.00	0.00	236.32
07/31/08	12.08	12.08	0.00	0.00	236.32
08/04/08	12.24	12.05	0.19	0.00	236.32
08/05/08	12.21	12.00	0.21	0.00	236.32
08/08/08	12.43	11.92	0.51	0.00	236.32
08/11/08	12.61	11.89	0.72	0.00	236.32
08/15/08	11.99	11.39	0.60	0.00	236.32
08/20/08	12.38	12.08	0.30	0.00	236.32
09/20/08	12.44	11.75	0.69	0.00	236.32
10/21/08	12.42	12.07	0.35	0.00	236.32
10/23/08	12.43	12.13	0.30	0.00	236.32
12/06/08	11.06	11.06	0.00	0.00	236.32
12/17/08	10.47	10.47	0.00	0.00	236.32

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-58: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-11 (Well Diameter = 2 inches)**

Date	Well FA 4-11				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4.11 (gallons)	
				Per Day	To-Date
04/15/02 *	12.41	9.12	3.29	0.00	0.00
09/25/02	11.60	9.06	2.54	0.41	0.41
10/09/02	11.37	8.98	2.39	0.39	0.80
12/18/02	9.26	7.65	1.61	0.26	1.07
02/04/03	11.76	11.74	0.02	0.00	1.07
03/31/03	9.18	7.21	1.97	0.32	1.39
09/17/03	9.38	8.03	1.35	0.22	1.61
03/02/04	9.15	8.46	0.69	0.11	1.72
04/27/04	9.85	8.24	1.61	0.26	1.99
06/08/04	9.10	8.28	0.82	0.00	1.99
06/10/04	9.30	8.15	1.15	0.38	2.36
06/17/04	9.50	8.35	1.15	0.13	2.49
06/23/04	9.65	8.15	1.50	0.38	2.86
07/01/04	9.73	8.38	1.35	0.25	3.11
07/07/04	10.00	8.30	1.70	0.50	3.61
07/14/04	9.39	8.35	1.04	0.19	3.80
08/11/04	8.45	8.10	0.35	0.13	3.93
08/24/04	8.37	7.78	0.59	0.13	4.05
09/21/04	7.49	7.43	0.06	0.00	4.05
10/06/04	7.35	7.02	0.33	0.00	4.05
10/12/04	7.54	7.47	0.07	0.00	4.05
10/12/04	8.83	7.73	1.10	0.13	4.18
11/09/04	8.55	8.24	0.31	0.00	4.05
02/15/05	8.35	8.00	0.35	0.00	4.05
03/31/05	7.90	7.53	0.37	0.00	4.05
04/26/05	8.97	7.54	1.43	0.25	4.30
07/13/05	8.90	8.53	0.37	0.06	4.36
11/01/05	7.32	7.25	0.07	0.00	4.36
01/10/06	7.43	7.40	0.03	0.00	4.36
05/31/06	9.50	8.16	1.34	0.25	4.61
05/13/08	8.92	8.70	0.22	0.00	4.61
08/27/08	9.60	8.50	1.10	0.00	4.61

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-59: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-12 (Well Diameter = 2 inches)**

Date	Well FA 4-12				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-12 (gallons)	
				Per Day	To-Date
01/09/02 *	14.41	11.79	2.62	0.00	0.00
04/15/02 *	14.39	11.75	2.64	0.00	0.00
09/25/02	14.32	11.68	2.64	0.43	0.43
10/09/02	11.25	8.84	2.41	0.39	0.82
12/18/02	12.21	10.26	1.95	0.32	1.14
02/04/03	12.87	10.77	2.10	0.34	1.49
03/31/03	10.30	10.05	0.25	0.04	1.53
09/17/03	12.28	10.60	1.68	0.27	1.80
03/02/04	13.02	11.30	1.72	0.28	2.08
04/27/04	12.60	10.90	1.70	0.28	2.36
06/08/04	12.31	10.89	1.42	0.13	2.48
06/10/04	12.32	10.80	1.52	0.13	2.61
06/17/04	13.05	11.15	1.90	0.13	2.73
06/23/04	11.10	10.92	0.18	0.00	2.73
07/01/04	12.79	11.03	1.76	0.13	2.86
07/07/04	11.94	11.00	0.94	0.09	2.95
07/14/04	12.70	10.98	1.72	0.25	3.20
08/11/04	11.84	10.66	1.18	0.13	3.33
08/24/04	11.50	10.45	1.05	0.09	3.42
09/21/04	10.18	10.17	0.01	0.00	3.42
10/06/04	9.65	9.65	0.00	0.00	3.42
10/12/04	10.13	10.13	0.00	0.00	3.42
11/09/04	11.78	10.86	0.92	0.13	3.55
02/01/05	10.40	10.20	0.20	0.00	3.55
02/15/05	11.60	10.60	1.00	0.13	3.67
03/31/05	10.39	10.30	0.09	0.00	3.67
04/26/05	10.96	10.96	0.00	0.00	3.67
07/13/05	12.20	11.10	1.10	0.00	3.67
11/01/05	10.12	10.12	0.00	0.00	3.67
01/10/06	10.10	10.10	0.00	0.00	3.67
05/31/06	12.55	11.55	1.00	0.00	3.67
05/13/08	11.74	11.20	0.54	0.00	3.67
08/27/08	12.65	11.55	1.10	0.00	3.67

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-60: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-13 (Well Diameter = 2 inches)**

Date	Well FA 4-13 (gallons)				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-13 (gallons)	
				Per Day	To-Date
04/15/02 *	12.02	8.84	3.18	0.00	0.00
09/25/02	11.59	8.87	2.72	0.44	0.44
10/09/02	14.21	11.73	2.48	0.40	0.85
12/18/02	9.51	7.43	2.08	0.34	1.19
02/04/03	9.14	8.62	0.52	0.08	1.27
03/31/03	8.05	6.85	1.20	0.20	1.47
09/17/03	9.15	7.78	1.37	0.22	1.69
03/02/04	10.25	8.25	2.00	0.33	2.02
04/27/04	9.61	7.86	1.75	0.29	2.30
06/08/04	9.65	8.13	1.52	0.50	2.80
06/10/04	9.30	8.06	1.24	0.25	3.05
06/17/04	NM	NM	NM	0.25	3.30
06/23/04	8.80	8.20	0.60	0.13	3.43
07/01/04	8.79	8.28	0.51	0.38	3.80
07/07/04	9.28	8.32	0.96	0.19	3.99
07/14/04	9.22	8.30	0.92	0.19	4.18
08/11/04	9.10	7.85	1.25	0.25	4.43
08/24/04	8.80	7.68	1.12	0.44	4.87
09/21/04	7.56	7.13	0.43	0.13	4.99
10/06/04	7.00	7.00	0.00	0.00	4.99
10/12/04	7.50	7.31	0.19	0.00	4.99
10/20/04	7.75	7.43	0.32	0.00	4.99
11/09/04	9.10	8.00	1.10	0.50	5.49
02/15/05	8.60	7.90	0.70	0.25	5.74
03/31/05	7.98	7.40	0.58	0.13	5.87
04/26/05	8.67	7.80	0.87	0.38	6.24
07/13/05	9.28	8.62	0.66	0.13	6.37
11/01/05	7.10	7.10	0.00	0.00	6.37
01/10/06	7.77	7.03	0.74	0.25	6.62
05/31/06	8.91	7.92	0.99	0.13	6.74
05/13/08	8.49	8.42	0.07	0.13	6.87
08/27/08	8.70	8.50	0.20	0.13	6.99

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

Table A-61: NAPL Thickness and Removal Measurements

Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
01/09/02 *	14.22	11.28	2.94		
04/15/02 *	13.89	11.12	2.77		
09/25/02	13.27	11.12	2.15		
10/09/02	12.98	10.93	2.05		
12/18/02	11.02	9.69	1.33		
02/04/03	11.14	10.14	1.00		
03/31/03	9.93	9.35	0.58		
09/17/03	10.74	10.21	0.53		
03/02/04	11.25	10.50	0.75		
04/27/04	10.58	10.25	0.33		
06/08/04	10.28	10.20	0.08	0.63	0.00
06/10/04	10.55	10.28	0.27	0.75	0.75
06/17/04	10.97	10.39	0.58	0.50	1.25
06/23/04	11.45	10.15	1.30	0.63	1.88
07/01/04	11.48	10.47	1.01	0.38	2.25
07/07/04	11.93	10.30	1.63	0.63	2.88
07/14/04	11.45	10.30	1.15	0.44	3.31
08/11/04	11.42	9.68	1.74	1.13	4.44
08/24/04	10.85	9.51	1.34	2.00	6.44
09/21/04	9.09	9.02	0.07	0.00	6.44
10/06/04	9.55	9.10	0.45	2.63	9.06
10/12/04	10.72	9.07	1.65	1.75	10.81
10/20/04	10.40	9.98	0.42	0.00	10.81
11/09/04	9.10	8.00	1.10	0.50	11.31
02/01/05	10.98	9.55	1.43	2.13	13.44
02/15/05	11.62	9.58	2.04	1.75	15.19
02/16/05	11.24	9.38	1.86	2.38	17.56
02/17/05	NM	NM	NM	0.00	17.56
02/18/05	9.65	9.16	0.49	1.50	19.06
02/22/05	11.25	9.90	1.35	1.00	20.06
02/23/05	11.30	9.95	1.35	0.75	20.81
02/24/05	10.50	9.85	0.65	0.38	21.19
02/25/05	11.30	10.00	1.30	1.00	22.19
02/28/05	11.37	10.00	1.37	0.63	22.81
03/01/05	10.25	9.75	0.50	0.63	23.44
03/03/05	10.85	10.00	0.85	0.63	24.06
03/04/05	11.70	10.25	1.45	0.50	24.56
03/07/05	11.54	10.11	1.43	1.00	25.56
03/08/05	11.16	9.90	1.26	0.75	26.31
03/09/05	NM	NM	NM	0.00	26.31
03/10/05	NM	NM	NM	0.00	26.31
03/11/05	11.43	10.06	1.37	0.63	26.94
03/14/05	11.15	9.95	1.20	0.63	27.56
03/15/05	11.58	10.02	1.56	0.75	28.31
03/16/05	11.50	10.18	1.32	0.50	28.81
03/17/05	11.20	10.12	1.08	0.38	29.19
03/18/05	10.65	9.96	0.69	0.50	29.69

**Table A-61: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)**

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
03/21/05	11.25	10.10	1.15	0.75	30.44
03/22/05	11.89	10.31	1.58	0.50	30.94
03/23/05	11.85	10.25	1.60	0.38	31.31
03/24/05	11.65	10.12	1.53	0.38	31.69
03/28/05	11.28	9.70	1.58	1.00	32.69
03/29/05	10.93	9.65	1.28	0.88	33.56
03/30/05	10.78	9.50	1.28	1.25	34.81
03/31/05	10.60	9.44	1.16	1.38	36.19
04/01/05	10.55	9.40	1.15	1.63	37.81
04/04/05	9.13	9.08	0.05	0.00	37.81
04/05/05	9.13	9.08	0.05	0.00	37.81
04/06/05	9.04	9.02	0.02	0.00	37.81
04/07/05	9.00	8.95	0.05	0.00	37.81
04/08/05	9.10	9.00	0.10	0.00	37.81
04/11/05	9.85	9.08	0.77	0.75	38.56
04/12/05	10.18	8.98	1.20	1.25	39.81
04/13/05	10.37	8.99	1.38	1.63	41.44
04/14/05	10.40	9.10	1.30	1.25	42.69
04/15/05	10.65	9.14	1.51	1.50	44.19
04/18/05	10.76	9.21	1.55	1.88	46.06
04/19/05	10.80	9.24	1.56	2.13	48.19
04/20/05	10.83	9.27	1.56	1.63	49.81
04/21/05	10.98	9.38	1.60	1.50	51.31
04/22/05	11.12	9.40	1.72	1.50	52.81
04/25/05	11.45	9.45	2.00	1.25	54.06
04/26/05	11.42	9.48	1.94	1.40	55.46
04/27/05	11.28	9.42	1.86	1.50	56.96
04/28/05	11.00	9.53	1.47	1.25	58.21
04/29/05	11.28	9.50	1.78	1.38	59.59
05/02/05	11.33	9.52	1.81	0.75	60.34
05/09/05	11.55	9.67	1.88	1.25	61.59
05/10/05	10.85	10.85	0.00	0.00	61.59
05/11/05	11.64	9.69	1.95	1.00	62.59
05/12/05	11.70	9.73	1.97	0.88	63.46
05/13/05	11.65	9.75	1.90	0.75	64.21
05/16/05	11.55	9.80	1.75	0.50	64.71
05/17/05	11.48	9.80	1.68	0.50	65.21
05/18/05	11.35	9.82	1.53	0.50	65.71
05/19/05	11.63	9.81	1.82	0.63	66.34
05/20/05	11.57	9.80	1.77	0.75	67.09
05/23/05	11.75	9.90	1.85	0.75	67.84
05/24/05	11.83	9.92	1.91	0.63	68.46
05/26/05	11.85	9.90	1.95	0.63	69.09
05/27/05	11.75	9.94	1.81	0.50	69.59
05/31/05	11.90	9.94	1.96	0.50	70.09
06/01/05	11.82	9.97	1.85	0.63	70.71
06/02/05	11.87	9.97	1.90	0.56	71.28



## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
06/03/05	11.90	9.98	1.92	0.63	71.90
06/06/05	13.05	11.15	1.90	0.63	72.53
06/07/05	11.73	10.00	1.73	0.50	73.03
06/08/05	11.68	10.05	1.63	0.50	73.53
06/09/05	11.80	10.15	1.65	0.38	73.90
06/10/05	11.95	10.10	1.85	1.00	74.90
06/13/05	12.05	10.05	2.00	0.50	75.40
06/14/05	12.10	10.02	2.08	0.63	76.03
06/15/05	11.85	10.10	1.75	0.50	76.53
06/16/05	11.85	10.05	1.80	0.50	77.03
06/17/05	11.80	10.10	1.70	0.63	77.65
06/20/05	12.18	10.20	1.98	0.50	78.15
06/21/05	11.95	10.12	1.83	0.50	78.65
06/22/05	8.72	7.52	1.20	0.44	79.09
06/23/05	11.98	10.18	1.80	0.50	79.59
06/24/05	12.00	10.18	1.82	0.50	80.09
06/27/05	12.13	10.19	1.94	0.50	80.59
06/28/05	12.05	10.15	1.90	0.50	81.09
06/29/05	12.18	10.20	1.98	0.50	81.59
06/30/05	11.79	10.34	1.45	0.38	81.96
07/01/05	12.23	10.56	1.67	0.38	82.34
07/05/05	12.24	10.48	1.76	0.44	82.78
07/06/05	11.72	10.41	1.31	0.38	83.15
07/07/05	12.26	10.63	1.63	0.38	83.53
07/08/05	12.20	10.64	1.56	0.50	84.03
07/11/08	12.00	10.20	1.80	0.63	84.65
07/12/08	12.10	10.43	1.67	0.50	85.15
07/13/05	12.15	10.52	1.63	0.38	85.53
07/14/05	12.20	10.52	1.68	0.50	86.03
07/15/05	12.24	10.54	1.70	0.50	86.53
07/20/05	12.13	10.35	1.78	0.31	86.84
07/21/05	12.34	10.54	1.80	0.25	87.09
07/22/05	12.12	10.51	1.61	0.25	87.34
07/25/05	12.00	10.47	1.53	0.50	87.84
07/26/05	11.75	10.18	1.57	0.25	88.09
07/27/05	12.02	10.42	1.60	0.38	88.46
07/28/05	12.08	10.50	1.58	0.31	88.78
07/29/05	12.10	10.53	1.57	0.25	89.03
08/01/05	12.10	10.58	1.52	0.25	89.28
08/02/05	12.08	10.51	1.57	0.25	89.53
08/03/05	12.09	10.54	1.55	0.25	89.78
08/04/05	12.20	10.56	1.64	0.25	90.03
08/05/05	12.22	10.58	1.64	0.25	90.28
08/08/05	11.96	10.45	1.51	0.44	90.71
08/09/05	12.15	10.53	1.62	0.38	91.09
08/10/05	12.12	10.60	1.52	0.25	91.34
08/11/05	12.05	10.58	1.47	0.25	91.59

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
08/12/05	12.15	10.40	1.75	0.38	91.96
08/15/05	12.00	10.38	1.62	0.25	92.21
08/16/05	12.18	10.50	1.68	0.50	92.71
08/17/05	12.10	10.46	1.64	0.63	93.34
08/18/05	12.18	10.50	1.68	0.50	93.84
08/19/05	12.25	10.12	2.13	0.50	94.34
08/22/05	12.45	10.25	2.20	0.50	94.84
08/23/05	12.30	10.80	1.50	0.50	95.34
08/24/05	12.35	10.55	1.80	0.50	95.84
08/25/05	12.25	10.55	1.70	0.43	96.26
08/26/05	11.18	10.35	0.83	0.50	96.76
08/29/05	11.84	10.40	1.44	0.50	97.26
08/30/05	12.30	10.55	1.75	0.38	97.64
08/31/05	11.72	10.34	1.38	0.38	98.01
09/02/05	12.12	10.45	1.67	0.38	98.39
09/06/05	12.45	10.65	1.80	0.38	98.76
09/07/05	12.40	10.65	1.75	0.38	99.14
09/08/05	12.43	10.64	1.79	0.38	99.51
09/09/05	12.42	10.62	1.80	0.38	99.89
09/12/05	12.60	10.65	1.95	0.38	100.26
09/13/05	12.34	10.70	1.64	0.38	100.64
09/15/05	12.40	10.55	1.85	0.50	101.14
09/16/05	NM	NM	NM	0.38	101.51
09/17/05	12.62	10.70	1.92	0.38	101.89
09/20/05	12.38	10.64	1.74	0.50	102.39
09/21/05	12.45	10.70	1.75	0.50	102.89
09/23/05	12.65	10.70	1.95	0.63	103.51
09/26/05	12.64	10.68	1.96	0.50	104.01
09/27/05	12.63	10.55	2.08	0.38	104.39
09/28/05	12.69	10.81	1.88	0.25	104.64
09/29/05	12.64	10.68	1.96	0.50	105.14
09/30/05	12.69	10.72	1.97	0.50	105.64
10/03/05	12.85	10.80	2.05	0.50	106.14
10/04/05	12.72	10.78	1.94	0.43	106.56
10/05/05	12.80	10.83	1.97	0.50	107.06
10/06/05	12.82	10.83	1.99	0.50	107.56
10/07/05	12.75	10.83	1.92	0.50	108.06
10/10/05	11.58	10.40	1.18	0.25	108.31
10/11/05	11.45	10.42	1.03	0.25	108.56
10/12/05	11.28	10.20	1.08	0.25	108.81
10/13/05	10.89	9.80	1.09	0.25	109.06
10/14/05	10.83	9.58	1.25	0.25	109.31
10/17/05	10.70	9.52	1.18	0.00	109.31
10/18/05	9.95	9.75	0.20	0.00	109.31
10/19/05	10.20	9.40	0.80	0.00	109.31
10/20/05	10.78	9.75	1.03	0.38	109.69
10/21/05	10.84	9.65	1.19	0.50	110.19

**Table A-61: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)**

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
10/24/05	10.40	9.35	1.05	0.25	110.44
10/26/05	10.23	8.65	1.58	0.25	110.69
10/27/05	10.25	9.28	0.97	0.25	110.94
10/28/05	10.15	9.30	0.85	0.13	111.06
10/31/05	10.10	9.35	0.75	0.25	111.31
11/01/05	10.62	9.32	1.30	0.25	111.56
11/02/05	10.50	9.45	1.05	0.50	112.06
11/03/05	10.82	9.90	0.92	0.63	112.69
11/04/05	10.90	9.45	1.45	0.50	113.19
11/07/05	10.96	9.48	1.48	0.88	114.06
11/08/05	10.65	9.32	1.33	0.75	114.81
11/09/05	10.92	9.41	1.51	1.25	116.06
11/10/05	10.93	9.30	1.63	1.25	117.31
11/14/05	11.04	9.50	1.54	0.75	118.06
11/15/05	11.03	9.55	1.48	1.00	119.06
11/16/05	11.04	9.54	1.50	1.25	120.31
11/17/05	10.71	9.48	1.23	0.75	121.06
11/18/05	10.71	9.39	1.32	1.25	122.31
11/21/05	11.35	10.35	1.00	0.75	123.06
11/22/05	10.85	9.20	1.65	0.75	123.81
11/23/05	10.95	9.33	1.62	1.25	125.06
11/25/05	10.80	9.25	1.55	1.00	126.06
11/28/05	10.50	9.49	1.01	0.75	126.81
11/29/05	11.45	9.49	1.96	1.50	128.31
11/30/05	10.53	9.31	1.22	1.00	129.31
12/01/05	10.50	9.28	1.22	1.00	130.31
12/02/05	9.23	9.16	0.07	0.00	130.31
12/05/05	10.40	9.35	1.05	0.25	130.56
12/06/05	10.55	9.36	1.19	0.50	131.06
12/07/05	10.78	9.53	1.25	0.88	131.94
12/09/05	13.34	11.96	1.38	0.38	132.31
12/12/05	13.84	12.20	1.64	1.75	134.06
12/13/05	13.83	12.34	1.49	1.00	135.06
12/14/05	13.48	12.32	1.16	1.00	136.06
12/15/05	13.43	12.25	1.18	1.50	137.56
12/16/05	13.40	12.28	1.12	1.25	138.81
12/19/05	13.27	11.38	1.89	2.00	140.81
12/20/05	12.98	11.85	1.13	0.00	140.81
12/21/05	13.10	11.85	1.25	1.75	142.56
12/22/05	13.25	11.92	1.33	1.75	144.31
12/23/05	13.65	12.10	1.55	1.25	145.56
12/27/05	13.20	12.10	1.10	1.25	146.81
12/28/05	13.50	12.10	1.40	1.50	148.31
12/29/05	13.35	11.95	1.40	2.00	150.31
12/30/05	13.60	12.10	1.50	1.25	151.56
01/03/06	12.95	11.82	1.13	2.13	153.69
01/04/06	12.90	11.72	1.18	1.50	155.19

**Table A-61: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)**

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
01/05/06	12.55	11.54	1.01	2.25	157.44
01/06/06	12.20	11.57	0.63	0.25	157.69
01/09/06	12.10	11.61	0.49	1.25	158.94
01/10/06	12.55	11.70	0.85	0.25	159.19
01/11/06	11.98	11.60	0.38	0.00	159.19
01/12/06	12.50	11.75	0.75	0.06	159.25
01/13/06	12.54	11.73	0.81	0.00	159.25
01/16/06	12.05	11.55	0.50	0.00	159.25
01/17/06	12.40	11.63	0.77	0.50	159.75
01/18/06	11.55	11.35	0.20	0.00	159.75
01/19/06	11.90	11.62	0.28	0.00	159.75
01/20/06	11.60	11.50	0.10	0.00	159.75
01/23/06	11.46	11.42	0.04	0.00	159.75
01/24/06	11.40	11.35	0.05	0.00	159.75
01/25/06	11.35	NM	NM	0.00	159.75
01/26/06	11.56	11.51	0.05	0.00	159.75
01/27/06	11.78	11.65	0.13	0.00	159.75
01/30/06	11.72	11.62	0.10	0.00	159.75
01/31/06	11.68	11.60	0.08	0.00	159.75
02/01/06	NM	NM	NM	0.00	159.75
02/02/06	NM	NM	NM	0.00	159.75
02/03/06	NM	NM	NM	0.00	159.75
02/06/06	NM	NM	NM	0.00	159.75
02/07/06	11.95	11.63	0.32	0.00	159.75
02/08/06	NM	NM	NM	0.00	159.75
02/09/06	NM	NM	NM	0.00	159.75
02/10/06	NM	NM	NM	0.00	159.75
02/13/06	12.70	11.95	0.75	0.00	159.75
02/14/06	NM	NM	NM	0.00	159.75
02/15/06	NM	NM	NM	0.00	159.75
02/16/06	NM	NM	NM	0.00	159.75
02/17/06	NM	NM	NM	0.00	159.75
02/21/06	12.85	11.90	0.95	0.00	159.75
02/22/06	NM	NM	NM	0.00	159.75
02/23/06	NM	NM	NM	0.00	159.75
02/24/06	NM	NM	NM	0.00	159.75
02/27/06	NM	NM	NM	0.00	159.75
02/28/06	NM	NM	NM	0.00	159.75
03/01/06	NM	NM	NM	0.00	159.75
03/02/06	NM	NM	NM	0.00	159.75
03/13/06	14.08	12.19	1.89	1.00	160.75
03/14/06	NM	NM	NM	0.00	160.75
03/15/06	NM	NM	NM	0.00	160.75
03/16/06	NM	NM	NM	0.00	160.75
03/17/06	NM	NM	NM	0.00	160.75
03/20/06	14.21	12.47	1.74	1.00	161.75
03/21/06	NM	NM	NM	0.00	161.75

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
03/22/06	NM	NM	NM	0.00	161.75
03/23/06	NM	NM	NM	0.00	161.75
03/24/06	NM	NM	NM	0.00	161.75
03/27/06	11.85	10.15	1.70	0.75	162.50
03/28/06	NM	NM	NM	0.00	162.50
03/29/06	NM	NM	NM	0.00	162.50
03/30/06	NM	NM	NM	0.00	162.50
03/31/06	NM	NM	NM	0.00	162.50
04/03/06	11.85	10.18	1.67	0.75	163.25
04/04/06	NM	NM	NM	0.00	163.25
04/05/06	NM	NM	NM	0.00	163.25
04/06/06	NM	NM	NM	0.00	163.25
04/07/06	NM	NM	NM	0.00	163.25
04/10/06	11.53	10.14	1.39	0.75	164.00
04/11/06	NM	NM	NM	0.00	164.00
04/12/06	NM	NM	NM	0.00	164.00
04/13/06	NM	NM	NM	0.00	164.00
04/17/06	11.87	9.97	1.90	0.75	164.75
04/18/06	NM	NM	NM	0.00	164.75
04/19/06	NM	NM	NM	0.00	164.75
04/20/06	NM	NM	NM	0.00	164.75
04/21/06	NM	NM	NM	0.00	164.75
04/24/06	11.68	9.84	1.84	0.75	165.50
04/25/06	NM	NM	NM	0.00	165.50
04/26/06	NM	NM	NM	0.00	165.50
04/27/06	NM	NM	NM	0.00	165.50
04/28/06	NM	NM	NM	0.00	165.50
05/01/06	11.65	9.80	1.85	0.50	166.00
05/02/06	NM	NM	NM	0.00	166.00
05/03/06	10.78	9.78	1.00	1.13	167.13
05/04/06	11.75	9.90	1.85	1.38	168.50
05/05/06	11.86	9.86	2.00	1.25	169.75
05/08/06	11.85	9.99	1.86	1.25	171.00
05/09/06	11.80	10.03	1.77	1.63	172.63
05/10/06	11.87	10.02	1.85	1.00	173.63
05/11/06	11.87	9.95	1.92	0.00	173.63
05/12/06	11.50	9.90	1.60	1.25	174.88
05/15/06	10.83	9.82	1.01	1.00	175.88
05/16/06	11.79	9.88	1.91	1.00	176.88
05/17/06	11.72	9.84	1.88	1.50	178.38
05/18/06	11.62	9.68	1.94	1.00	179.38
05/19/06	11.35	9.60	1.75	0.75	180.13
05/22/06	4.68	3.72	0.96	0.75	180.88
05/23/06	11.40	9.70	1.70	1.00	181.88
05/24/06	11.45	9.74	1.71	0.63	182.50
05/25/06	11.52	9.71	1.81	0.75	183.25
05/26/06	11.58	9.70	1.88	0.63	183.88

**Table A-61: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)**

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
05/30/06	11.62	9.83	1.79	0.75	184.63
05/31/06	11.60	9.85	1.75	1.00	185.63
06/01/06	11.35	9.85	1.50	1.00	186.63
06/02/06	10.58	9.60	0.98	0.75	187.38
06/05/06	11.14	9.54	1.60	0.75	188.13
06/06/06	11.32	9.57	1.75	1.63	189.75
06/07/06	11.15	9.50	1.65	1.25	191.00
06/08/06	11.15	9.40	1.75	1.25	192.25
06/09/06	11.00	9.47	1.53	1.25	193.50
06/12/06	11.14	9.38	1.76	1.38	194.88
06/13/06	11.00	9.55	1.45	1.63	196.50
06/14/06	10.95	9.60	1.35	0.50	197.00
06/15/06	10.80	9.40	1.40	0.63	197.63
06/16/06	11.15	9.60	1.55	1.00	198.63
06/19/06	11.20	9.60	1.60	0.00	198.63
06/20/06	12.25	11.65	0.60	1.00	199.63
06/22/06	11.30	9.63	1.67	1.13	200.75
06/23/06	11.02	9.67	1.35	1.00	201.75
06/27/06	11.13	9.35	1.78	1.13	202.88
06/30/06	11.08	9.57	1.51	1.00	203.88
07/03/06	11.33	9.65	1.68	1.00	204.88
07/05/06	11.28	9.74	1.54	1.00	205.88
07/06/06	11.30	9.38	1.92	1.00	206.88
07/07/06	11.16	9.78	1.38	0.75	207.63
07/10/06	11.40	9.70	1.70	0.88	208.50
07/11/06	11.50	9.75	1.75	0.75	209.25
07/12/06	11.15	9.50	1.65	0.75	210.00
07/13/06	11.24	9.18	2.06	1.00	211.00
07/14/06	11.20	9.80	1.40	1.13	212.13
07/17/06	11.30	9.72	1.58	1.00	213.13
07/18/06	11.15	9.75	1.40	1.25	214.38
07/19/06	11.30	9.85	1.45	0.75	215.13
07/20/06	11.28	9.75	1.53	0.50	215.63
07/21/06	11.48	9.75	1.73	1.13	216.75
07/24/06	11.60	9.76	1.84	1.25	218.00
07/25/06	11.52	9.80	1.72	1.00	219.00
07/26/06	11.58	9.87	1.71	0.75	219.75
07/27/06	11.52	9.82	1.70	0.75	220.50
07/28/06	11.50	9.80	1.70	0.75	221.25
07/31/06	11.65	9.92	1.73	1.25	222.50
08/01/06	11.65	9.90	1.75	0.75	223.25
08/02/06	11.55	9.90	1.65	0.75	224.00
08/03/06	11.72	9.92	1.80	0.75	224.75
08/04/06	11.70	9.92	1.78	0.75	225.50
08/07/06	10.75	9.95	0.80	0.00	225.50
08/08/06	11.65	9.90	1.75	1.25	226.75
08/09/06	11.85	10.02	1.83	0.75	227.50

**Table A-61: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)**

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
08/10/06	11.90	9.97	1.93	0.75	228.25
08/14/06	11.91	10.01	1.90	1.00	229.25
08/16/06	11.75	9.95	1.80	1.25	230.50
08/17/06	11.70	9.92	1.78	1.00	231.50
08/18/06	11.95	10.11	1.84	1.25	232.75
08/21/06	11.95	10.13	1.82	1.00	233.75
08/22/06	12.04	10.16	1.88	1.00	234.75
08/23/06	12.00	10.18	1.82	0.88	235.63
08/24/06	11.92	10.18	1.74	0.75	236.38
09/05/06	10.68	9.30	1.38	1.50	237.88
09/06/06	10.81	9.30	1.51	0.88	238.75
09/07/06	10.80	9.35	1.45	0.75	239.50
09/08/06	11.25	9.44	1.81	0.88	240.38
09/01/06	11.03	9.55	1.48	2.00	242.38
09/12/06	11.03	9.47	1.56	1.13	243.50
09/13/06	10.97	9.45	1.52	0.75	244.25
09/15/06	10.92	9.48	1.44	0.88	245.13
09/18/06	10.72	9.32	1.40	1.50	246.63
09/19/06	10.92	9.37	1.55	0.75	247.38
09/20/06	10.96	9.36	1.60	1.25	248.63
09/21/06	11.04	9.51	1.53	1.00	249.63
09/22/06	10.06	9.52	0.54	0.75	250.38
09/25/06	11.26	9.59	1.67	1.00	251.38
09/26/06	11.31	9.65	1.66	0.75	252.13
09/27/06	11.46	9.71	1.75	1.00	253.13
09/28/06	11.29	9.71	1.58	1.25	254.38
09/29/06	11.35	9.75	1.60	1.00	255.38
10/02/06	11.26	9.61	1.65	1.25	256.63
10/03/06	11.32	9.78	1.54	1.13	257.75
10/04/06	11.39	9.79	1.60	0.75	258.50
10/05/06	11.40	9.73	1.67	1.00	259.50
10/06/06	11.31	9.61	1.70	0.75	260.25
10/09/06	11.61	9.83	1.78	1.00	261.25
10/10/06	11.62	9.85	1.77	1.00	262.25
10/13/06	11.41	9.62	1.79	0.75	263.00
10/16/06	11.31	9.79	1.52	1.00	264.00
10/17/06	11.03	9.09	1.94	1.00	265.00
10/18/06	11.21	9.54	1.67	1.13	266.13
10/23/06	11.25	9.00	2.25	0.88	267.00
10/24/06	11.11	9.51	1.60	1.75	268.75
10/25/06	11.42	9.75	1.67	0.00	268.75
10/26/06	11.31	9.72	1.59	0.75	269.50
10/27/06	11.35	9.80	1.55	1.63	271.13
10/30/06	10.91	9.72	1.19	1.25	272.38
11/01/06	10.95	9.41	1.54	1.25	273.63
11/03/06	10.98	9.53	1.45	1.38	275.00
11/06/06	11.08	9.51	1.57	1.13	276.13

**Table A-61: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)**

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
11/07/06	11.14	9.71	1.43	0.75	276.88
11/13/06	10.61	9.31	1.30	0.63	277.50
11/14/06	10.60	9.04	1.56	1.38	278.88
11/15/06	10.45	9.21	1.24	0.63	279.50
11/16/06	10.13	9.46	0.67	0.25	279.75
11/20/06	10.47	9.14	1.33	0.75	280.50
11/21/06	10.51	9.32	1.19	1.50	282.00
11/22/06	10.52	9.31	1.21	0.75	282.75
11/24/06	10.61	9.24	1.37	0.75	283.50
11/27/06	10.41	9.14	1.27	1.13	284.63
11/28/06	10.22	9.12	1.10	0.63	285.25
11/30/06	10.42	9.15	1.27	1.13	286.38
12/01/06	10.41	9.31	1.10	0.88	287.25
12/05/06	10.71	9.36	1.35	1.00	288.25
12/06/06	10.90	9.54	1.36	1.13	289.38
12/07/06	10.94	9.49	1.45	0.75	290.13
12/08/06	11.11	9.65	1.46	0.63	290.75
12/11/06	11.35	9.60	1.75	0.50	291.25
12/13/06	11.31	9.61	1.70	1.50	292.75
12/14/06	11.51	9.53	1.98	1.00	293.75
12/15/06	11.38	9.56	1.82	0.00	293.75
12/18/06	11.58	9.74	1.84	1.00	294.75
12/19/06	11.58	9.84	1.74	1.00	295.75
12/20/06	11.61	9.91	1.70	1.00	296.75
12/21/06	11.61	9.91	1.70	1.00	297.75
12/28/06	11.30	9.85	1.45	1.00	298.75
12/29/06	11.26	9.75	1.51	1.13	299.88
01/08/07	11.15	9.26	1.89	1.75	301.63
01/09/07	11.12	9.53	1.59	1.50	303.13
01/10/07	11.97	10.53	1.44	1.00	304.13
01/11/07	11.01	9.54	1.47	0.75	304.88
01/12/07	11.14	9.54	1.60	0.88	305.75
01/15/07	10.81	9.33	1.48	0.75	306.50
01/16/07	10.81	9.47	1.34	1.00	307.50
01/17/07	10.75	9.45	1.30	1.00	308.50
01/22/07	11.10	9.46	1.64	1.25	309.75
01/23/07	11.12	9.55	1.57	1.25	311.00
01/30/07	11.40	9.81	1.59	1.25	312.25
01/31/07	11.41	9.83	1.58	1.00	313.25
02/01/07	11.41	9.86	1.55	1.00	314.25
02/02/07	10.46	9.81	0.65	0.88	315.13
02/09/07	11.87	10.04	1.83	1.75	316.88
02/26/07	NM	NM	NM	1.00	317.88
03/05/07	NM	NM	NM	1.00	318.88
03/13/07	11.42	10.81	0.61	1.00	319.88
03/15/07	11.51	9.73	1.78	2.00	321.88
03/22/07	11.07	9.65	1.42	1.00	322.88



## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
03/26/07	11.08	9.33	1.75	2.00	324.88
03/27/07	11.11	9.34	1.77	2.00	326.88
03/29/07	10.75	9.45	1.30	0.00	326.88
03/30/07	10.72	9.35	1.37	1.75	328.63
04/02/07	10.85	9.45	1.40	2.00	330.63
04/03/07	10.85	9.55	1.30	0.00	330.63
04/04/07	10.75	9.45	1.30	1.00	331.63
04/05/07	10.85	9.15	1.70	0.25	331.88
04/09/07	11.25	9.55	1.70	1.75	333.63
04/13/07	11.49	9.25	2.24	0.50	334.13
04/17/07	8.96	8.52	0.44	0.00	334.13
04/20/07	8.75	8.65	0.10	0.00	334.13
04/23/07	8.62	NM	NM	0.00	334.13
05/01/07	8.94	NM	NM	0.00	334.13
05/04/07	9.12	NM	NM	0.00	334.13
05/07/07	13.25	9.28	3.97	0.00	334.13
05/10/07	9.51	9.35	0.16	0.00	334.13
05/17/07	10.43	9.33	1.10	0.00	334.13
05/21/07	11.00	9.60	1.40	0.75	334.88
05/29/07	11.88	9.79	2.09	1.25	336.13
06/06/07	11.85	9.73	2.12	1.25	337.38
06/12/07	11.86	9.94	1.92	0.50	337.88
06/13/07	11.90	9.89	2.01	0.50	338.38
06/25/07	11.91	10.06	1.85	0.38	338.75
06/28/07	12.17	10.01	2.16	0.00	338.75
07/02/07	12.03	11.15	0.88	0.50	339.25
07/09/07	11.97	10.18	1.79	1.00	340.25
07/19/07	12.14	10.12	2.02	1.00	341.25
07/20/07	12.24	10.23	2.01	0.75	342.00
07/23/07	12.21	10.33	1.88	0.75	342.75
07/30/07	12.06	10.34	1.72	0.25	343.00
08/06/07	12.32	10.41	1.91	0.50	343.50
08/08/07	12.36	10.15	2.21	0.00	343.50
08/13/07	12.16	10.29	1.87	0.25	343.75
08/14/07	12.52	10.33	2.19	0.75	344.50
08/20/07	12.34	10.40	1.94	1.00	345.50
08/22/07	12.02	10.49	1.53	0.50	346.00
08/23/07	11.91	10.36	1.55	0.75	346.75
08/27/07	11.85	10.40	1.45	0.50	347.25
08/29/07	12.25	10.41	1.84	0.75	348.00
08/30/07	12.18	10.40	1.78	0.00	348.00
08/31/07	12.18	10.42	1.76	0.00	348.00
09/04/07	12.60	10.48	2.12	0.00	348.00
09/05/07	12.31	10.51	1.80	0.75	348.75
09/06/07	12.13	10.51	1.62	0.75	349.50
09/07/07	12.62	10.51	2.11	0.25	349.75
09/12/07	12.92	10.44	2.48	1.00	350.75

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
09/13/07	12.65	10.54	2.11	0.88	351.63
09/14/07	11.90	NM	NM	0.75	352.38
09/19/07	12.41	10.57	1.84	0.25	352.63
09/20/07	13.11	10.55	2.56	0.50	353.13
09/24/07	12.54	10.61	1.93	0.75	353.88
09/25/07	12.53	10.62	1.91	0.00	353.88
09/26/07	12.41	10.62	1.79	0.00	353.88
09/27/07	12.81	10.64	2.17	0.00	353.88
09/28/07	12.85	10.64	2.21	0.50	354.38
10/01/07	12.62	10.66	1.96	0.50	354.88
10/02/07	12.65	10.69	1.96	0.00	354.88
10/03/07	12.72	10.69	2.03	0.00	354.88
10/04/07	12.61	10.70	1.91	0.50	355.38
10/05/07	12.63	10.72	1.91	0.25	355.63
10/08/07	12.78	10.72	2.06	0.50	356.13
10/10/07	12.56	10.54	2.02	0.50	356.63
10/11/07	12.74	10.73	2.01	0.75	357.38
10/17/07	13.30	10.78	2.52	0.25	357.63
10/19/07	12.01	10.78	1.23	0.50	358.13
10/22/07	12.01	10.76	1.25	0.50	358.63
10/23/07	12.77	10.74	2.03	0.38	359.00
10/24/07	12.74	10.88	1.86	0.25	359.25
11/01/07	12.84	10.65	2.19	0.63	359.88
11/02/07	12.87	10.75	2.12	1.00	360.88
11/05/07	12.89	10.78	2.11	0.75	361.63
11/07/07	12.75	10.81	1.94	0.50	362.13
11/08/07	12.72	10.78	1.94	0.75	362.88
11/12/07	12.91	10.70	2.21	0.75	363.63
11/29/07	12.56	10.61	1.95	0.75	364.38
11/30/07	12.53	10.65	1.88	0.50	364.88
12/03/07	12.56	10.67	1.89	0.50	365.38
12/04/07	12.45	10.60	1.85	0.25	365.63
12/19/07	15.03	13.23	1.80	0.50	366.13
12/20/07	15.02	13.24	1.78	0.25	366.38
12/21/07	15.02	13.20	1.82	0.25	366.63
12/26/07	11.52	10.33	1.19	0.25	366.88
01/08/08	11.41	9.88	1.53	0.75	367.63
01/09/08	11.43	9.87	1.56	0.50	368.13
01/10/08	10.47	9.98	0.49	0.25	368.38
01/13/08	11.28	9.64	1.64	0.75	369.13
01/14/08	11.24	9.91	1.33	1.00	370.13
01/16/08	11.05	NM	NM	0.00	370.13
01/17/08	11.62	8.18	3.44	1.00	371.13
01/21/08	11.65	8.20	3.45	0.75	371.88
01/22/08	11.81	10.17	1.64	0.63	372.50
01/23/08	11.73	10.03	1.70	1.00	373.50
01/24/08	11.83	10.03	1.80	0.50	374.00

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
01/29/08	11.93	10.35	1.58	0.75	374.75
01/30/08	11.63	10.05	1.58	0.75	375.50
02/06/08	11.45	9.83	1.62	0.63	376.13
02/08/08	11.42	9.86	1.56	1.00	377.13
02/14/08	10.95	9.61	1.34	0.50	377.63
02/19/08	10.53	9.29	1.24	1.63	379.25
02/25/08	10.68	9.52	1.16	1.25	380.50
02/26/08	10.72	9.47	1.25	1.00	381.50
02/27/08	11.11	9.41	1.70	1.00	382.50
03/03/08	10.64	9.32	1.32	0.13	382.63
03/07/08	NM	NM	NM	0.00	382.63
03/10/08	9.92	9.05	0.87	0.75	383.38
03/20/08	10.22	8.91	1.31	1.38	384.75
03/21/08	10.13	9.26	0.87	0.00	384.75
03/24/08	10.41	9.33	1.08	1.75	386.50
03/26/08	10.37	9.25	1.12	0.88	387.38
03/27/08	10.56	9.36	1.20	1.00	388.38
03/28/08	10.73	9.31	1.42	1.38	389.75
04/01/08	10.77	9.22	1.55	1.00	390.75
04/03/08	11.32	9.55	1.77	2.00	392.75
04/08/08	10.79	9.36	1.43	0.75	393.50
04/10/08	11.18	9.59	1.59	1.00	394.50
04/14/08	11.52	9.52	2.00	1.00	395.50
04/15/08	11.10	9.71	1.39	1.25	396.75
04/16/08	11.22	9.73	1.49	1.38	398.13
04/17/08	11.54	9.72	1.82	0.75	398.88
04/18/08	11.21	9.68	1.53	0.25	399.13
04/21/08	11.81	9.88	1.93	1.00	400.13
04/22/08	11.48	9.90	1.58	0.50	400.63
04/24/08	11.71	9.92	1.79	1.00	401.63
04/23/08	11.88	9.91	1.97	1.13	402.75
04/25/08	11.84	9.94	1.90	2.25	405.00
04/28/08	11.32	9.98	1.34	1.00	406.00
04/29/08	11.21	9.69	1.52	1.00	407.00
04/30/08	11.72	10.04	1.68	0.75	407.75
05/02/08	13.57	9.86	3.71	1.00	408.75
05/06/08	11.81	10.08	1.73	1.00	409.75
05/07/08	11.94	10.51	1.43	0.25	410.00
05/08/08	12.11	10.11	2.00	0.25	410.25
05/14/08	11.54	10.11	1.43	0.88	411.13
05/15/08	11.45	10.19	1.26	0.75	411.88
05/16/08	11.43	10.11	1.32	0.50	412.38
05/20/08	11.48	10.08	1.40	0.50	412.88
05/21/08	11.70	10.01	1.69	0.50	413.38
05/22/08	11.28	10.37	0.91	0.75	414.13
05/23/08	11.34	10.13	1.21	0.50	414.63
05/27/08	11.62	10.14	1.48	0.25	414.88

## Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
05/28/08	11.16	10.02	1.14	0.25	415.13
05/29/08	11.43	10.02	1.41	0.38	415.50
05/30/08	11.70	10.04	1.66	0.75	416.25
06/02/08	11.67	10.12	1.55	0.63	416.88
06/03/08	11.52	10.12	1.40	0.50	417.38
06/04/08	11.41	10.46	0.95	0.50	417.88
06/05/08	11.46	10.19	1.27	0.38	418.25
06/06/08	11.56	10.51	1.05	0.25	418.50
06/09/08	11.56	10.18	1.38	0.25	418.75
06/10/08	11.66	10.19	1.47	0.50	419.25
06/12/08	11.74	10.26	1.48	0.75	420.00
06/13/08	11.75	10.24	1.51	0.00	420.00
06/16/08	11.07	10.15	0.92	0.75	420.75
06/17/08	11.82	10.25	1.57	0.75	421.50
06/18/08	11.75	10.25	1.50	0.50	422.00
06/19/08	12.08	10.24	1.84	1.00	423.00
06/20/08	12.20	10.31	1.89	1.00	424.00
06/23/08	11.57	10.22	1.35	0.00	424.00
06/24/08	12.01	10.03	1.98	1.25	425.25
06/25/08	11.81	10.28	1.53	0.75	426.00
06/26/08	11.95	10.22	1.73	0.50	426.50
06/28/08	11.81	10.24	1.57	0.75	427.25
06/30/08	11.90	10.32	1.58	0.75	428.00
07/01/08	11.80	10.30	1.50	0.75	428.75
07/02/08	12.01	10.10	1.91	0.50	429.25
07/07/08	11.64	10.11	1.53	0.75	430.00
07/08/08	11.42	10.11	1.31	0.38	430.38
07/09/08	11.51	10.12	1.39	0.63	431.00
07/10/08	11.45	10.14	1.31	0.00	431.00
07/11/08	11.63	10.14	1.49	0.50	431.50
07/14/08	11.60	10.08	1.52	0.50	432.00
07/15/08	11.93	10.25	1.68	0.25	432.25
07/17/08	11.64	10.26	1.38	0.63	432.88
07/22/08	11.91	10.36	1.55	0.75	433.63
07/24/08	11.91	10.33	1.58	0.00	433.63
07/25/08	11.74	10.32	1.42	0.50	434.13
07/28/08	11.52	10.20	1.32	0.38	434.50
07/29/08	11.65	10.22	1.43	0.38	434.88
07/31/08	11.73	10.24	1.49	0.50	435.38
08/04/08	11.54	10.24	1.30	0.63	436.00
08/05/08	11.50	10.24	1.26	0.63	436.63
08/08/08	11.58	10.18	1.40	0.25	436.88
08/11/08	11.97	10.23	1.74	0.50	437.38
08/15/08	11.77	10.15	1.62	0.25	437.63
08/20/08	11.80	10.35	1.45	0.50	438.13
09/20/08	11.85	10.22	1.63	0.25	438.38
10/21/08	12.38	10.57	1.81	0.75	439.13

Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well FA 4-14 (Well Diameter = 2 inches)

Date	Well FA 4-14				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-14 (gallons)	
				Per Day	To-Date
10/23/08	12.42	10.63	1.79	0.38	439.50
12/06/08	11.56	10.25	1.31	0.25	439.75
12/17/08	11.05	9.80	1.25	0.00	439.75

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-62: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-15 (Well Diameter = 2 inches)**

Date	Well FA 4-15				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-15 (gallons)	
				Per Day	To-Date
01/07/02 *	11.02	8.07	2.95	0.00	0.00
04/15/02 *	10.44	8.02	2.42	0.00	0.00
09/25/02	9.59	8.01	1.58	0.00	0.00
10/09/02	9.48	7.97	1.51	0.00	0.00
12/18/02	6.40	6.40	0.00	0.00	0.00
02/04/03	7.08	7.07	0.01	0.00	0.00
03/31/03	6.20	5.95	0.25	0.00	0.00
09/17/03	6.90	0.00	0.00	0.00	0.00
03/02/04	7.62	7.18	0.44	0.00	0.00
04/27/04	7.62	7.04	0.58	0.00	0.00
06/08/04	10.28	10.20	0.08	0.63	0.00
06/10/04	10.55	10.28	0.27	0.75	0.75
06/17/04	10.97	10.39	0.58	0.50	1.25
06/23/04	11.45	10.15	1.30	0.63	1.88
07/01/04	11.48	10.47	1.01	0.38	2.25
07/07/04	11.93	10.30	1.63	0.63	2.88
07/14/04	11.45	10.30	1.15	0.44	3.31
08/11/04	11.42	9.68	1.74	1.13	4.44
08/24/04	10.85	9.51	1.34	2.00	6.44
09/21/04	5.82	5.60	0.22	0.00	6.44
10/06/04	6.33	5.63	0.70	1.00	7.44
10/12/04	6.47	6.04	0.43	0.13	7.56
10/20/04	7.20	6.40	0.80	1.75	9.31
11/09/04	7.08	6.76	0.32	0.00	9.31
02/15/05	6.35	6.10	0.25	0.00	9.31
03/31/05	6.62	6.12	0.50	0.00	9.31
04/26/05	7.44	6.50	0.94	1.25	10.56
07/13/05	8.02	7.40	0.62	0.19	10.75
11/01/05	6.27	5.80	0.47	0.13	10.88
01/10/06	7.40	5.75	1.65	0.75	11.63
05/31/06	7.80	6.75	1.05	0.06	11.69
08/27/08	8.00	7.38	0.62	0.06	11.75

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-63: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-16 (Well Diameter = 2 inches)**

Date	Well FA 4-16				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-16 (gallons)	
				Per Day	To-Date
01/07/02 *	14.58	12.03	2.55	0.00	0.00
04/15/02 *	14.35	11.94	2.41	0.00	0.00
09/25/02	13.76	11.87	1.89	0.00	0.00
10/09/02	13.62	11.78	1.84	0.00	0.00
12/18/02	10.49	10.47	0.02	0.00	0.00
02/04/03	11.30	10.92	0.38	0.00	0.00
03/31/03	10.10	10.10	0.00	0.00	0.00
09/17/03	11.63	10.93	0.70	0.00	0.00
03/02/04	11.28	11.02	0.26	0.00	0.00
04/27/04	11.72	11.00	0.72	0.00	0.00
06/08/04	10.97	10.74	0.23	0.00	0.00
06/10/04	11.33	10.74	0.59	0.06	0.06
06/17/04	12.08	10.82	1.26	0.00	0.06
06/23/04	12.26	10.84	1.42	0.31	0.38
07/01/04	12.14	10.93	1.21	0.25	0.63
07/07/04	12.44	11.00	1.44	0.50	1.13
07/14/04	11.95	10.90	1.05	0.25	1.38
08/11/04	11.10	10.35	0.75	0.25	1.63
08/24/04	10.50	10.20	0.30	0.00	1.63
09/21/04	9.61	9.53	0.08	0.00	1.63
10/06/04	10.21	9.50	0.71	0.25	1.88
10/12/04	10.73	9.68	1.05	0.13	2.00
10/20/04	11.01	9.95	1.06	0.25	2.25
11/09/04	11.40	10.52	0.88	0.25	2.50
02/15/05	10.25	10.25	0.00	0.00	2.50
03/31/05	10.10	10.10	0.00	0.00	2.50
04/26/05	10.12	10.12	0.00	0.00	2.50
07/13/05	11.98	10.95	1.03	0.50	3.00
11/01/05	11.30	9.45	1.85	0.50	3.50
01/10/06	9.75	9.65	0.10	0.00	3.50
05/31/06	10.63	10.62	0.01	0.00	3.50
08/27/08	11.19	11.19	0.00	0.00	3.50

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-64: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-17 (Well Diameter = 2 inches)**

Date	Well FA 4-17				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-17 (gallons)	
				Per Day	To-Date
01/07/02 *	9.69	8.77	0.92	0.00	0.00
04/15/02 *	10.62	8.48	2.14	0.00	0.00
09/25/02	9.35	8.45	0.90	0.00	0.00
10/09/03	9.22	8.26	0.96	0.00	0.00
12/18/03	6.82	6.70	0.12	0.00	0.00
02/04/03	7.66	7.33	0.33	0.00	0.00
03/31/03	6.07	6.05	0.02	0.00	0.00
09/17/03	7.15	7.15	0.00	0.00	0.00
03/02/04	7.85	7.85	0.00	0.00	0.00
04/27/04	7.03	7.03	0.00	0.00	0.00
06/08/04	6.82	6.82	0.00	0.00	0.00
06/17/04	7.20	7.20	0.00	0.00	0.00
06/23/04	6.85	6.85	0.00	0.00	0.00
07/01/04	7.29	7.29	0.00	0.00	0.00
08/11/04	6.57	6.56	0.01	0.00	0.00
10/06/04	5.79	5.78	0.01	0.00	0.00
12/12/04	6.17	6.17	0.00	0.00	0.00
11/09/04	6.75	6.75	0.00	0.00	0.00
02/15/05	6.30	6.30	0.00	0.00	0.00
03/31/05	6.05	6.05	0.00	0.00	0.00
04/26/05	6.93	6.93	0.00	0.00	0.00
07/13/05	7.43	7.43	0.00	0.00	0.00
11/01/05	5.89	5.88	0.01	0.00	0.00
01/10/06	6.10	6.10	0.00	0.00	0.00
05/31/06	6.81	6.80	0.01	0.00	0.00
08/27/08	7.13	7.03	0.10	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.



**Table A-65: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-18 (Well Diameter = 2 inches)**

Date	Well FA 4-18				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-18 (gallons)	
				Per Day	To-Date
01/07/02 *	13.05	10.70	2.35	0.00	0.00
04/15/02 *	12.39	10.60	1.79	0.00	0.00
09/25/02	11.78	10.53	1.25	0.00	0.00
10/09/02	11.64	10.47	1.17	0.00	0.00
12/18/02	9.51	9.03	0.48	0.00	0.00
02/04/03	9.90	9.47	0.43	0.00	0.00
03/31/03	8.67	8.67	0.00	0.00	0.00
09/17/03	9.94	9.38	0.56	0.00	0.00
03/02/04	10.11	9.63	0.48	0.00	0.00
04/27/04	9.85	9.42	0.43	0.00	0.00
06/08/04	9.45	9.30	0.15	0.00	0.00
06/10/04	9.92	9.32	0.60	0.25	0.25
06/17/04	10.20	9.45	0.75	0.13	0.38
06/23/04	10.25	9.50	0.75	0.19	0.56
07/01/04	10.34	9.57	0.77	0.38	0.94
07/07/04	10.40	9.65	0.75	0.38	1.31
07/14/04	10.25	9.55	0.70	0.25	1.56
08/11/04	8.95	8.95	0.00	0.00	1.56
10/06/04	8.63	8.02	0.61	0.50	2.06
10/12/04	9.00	8.28	0.72	0.50	2.56
10/20/04	9.16	8.60	0.56	0.75	3.31
11/09/04	9.96	9.07	0.89	1.00	4.31
02/01/05	9.03	8.75	0.28	0.00	4.31
02/15/05	9.23	8.20	1.03	0.13	4.44
03/31/05	8.88	8.80	0.08	0.00	4.44
04/22/05	8.97	8.70	0.27	0.00	4.44
04/26/05	9.07	8.80	0.27	0.00	4.44
07/13/05	10.04	9.63	0.41	0.25	4.69
11/01/05	8.51	8.13	0.38	0.00	4.69
01/10/06	8.95	8.25	0.70	0.25	4.94
05/31/06	10.21	9.36	0.85	0.38	5.31
08/27/08	10.70	10.38	0.32	0.38	5.69

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-66: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-19 (Well Diameter = 2 inches)**

Date	Well FA 4-19				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-19 (gallons)	
				Per Day	To-Date
01/07/02 *	16.61	13.79	2.82	0.00	0.00
04/15/02 *	16.21	13.76	2.45	0.00	0.00
09/25/02	15.36	13.69	1.67	0.00	0.00
10/09/02	15.21	13.56	1.65	0.00	0.00
12/18/02	12.92	12.31	0.61	0.00	0.00
02/04/03	13.76	12.62	1.14	0.00	0.00
03/31/03	12.47	11.95	0.52	0.00	0.00
09/17/03	13.41	12.68	0.73	0.00	0.00
03/02/04	13.84	12.78	1.06	0.00	0.00
04/27/04	13.60	12.50	1.10	0.00	0.00
06/08/04	13.65	12.46	1.19	1.00	0.00
06/10/04	13.61	12.48	1.13	1.13	1.13
06/17/04	13.84	12.63	1.21	0.25	1.38
06/23/04	13.94	12.68	1.26	0.69	2.06
07/01/04	13.88	12.73	1.15	0.63	2.69
07/07/04	14.22	12.80	1.42	0.75	3.44
07/14/04	13.85	12.75	1.10	0.75	4.19
08/11/04	13.33	12.10	1.23	1.25	5.44
08/24/04	13.05	11.95	1.10	0.88	6.31
09/21/04	11.48	11.35	0.13	0.00	6.31
10/06/04	11.09	11.09	0.00	0.00	6.31
10/12/04	11.40	11.34	0.06	0.00	6.31
11/09/04	12.62	12.32	0.30	0.00	6.31
02/01/05	11.80	11.80	0.00	0.00	6.31
02/15/05	12.04	12.02	0.02	0.00	6.31
03/31/05	12.58	12.10	0.48	0.25	6.56
04/22/05	11.79	11.73	0.06	0.00	6.56
04/26/05	11.94	11.89	0.05	0.00	6.56
07/13/05	13.09	12.90	0.19	0.00	6.56
11/01/05	11.30	11.30	0.00	0.00	6.56
01/10/06	10.32	10.32	0.00	0.00	6.56
05/31/06	12.65	12.65	0.00	0.00	6.56

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-67: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-20 (Well Diameter = 2 inches)**

Date	Well FA 4-20				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-20 (gallons)	
				Per Day	To-Date
01/07/02 *	15.02	12.75	2.27	0.00	0.00
04/15/02 *	14.59	12.66	1.93	0.00	0.00
09/25/02	14.03	12.58	1.45	0.00	0.00
10/09/02	13.91	12.48	1.43	0.00	0.00
12/18/02	11.16	11.16	0.00	0.00	0.00
02/04/03	11.80	11.56	0.24	0.00	0.00
03/31/03	10.70	10.70	0.00	0.00	0.00
09/17/03	11.50	11.48	0.02	0.00	0.00
03/02/04	11.74	11.70	0.04	0.00	0.00
04/27/04	11.55	11.50	0.05	0.00	0.00
06/08/04	11.35	11.35	0.00	0.00	0.00
08/11/04	11.00	10.95	0.05	0.00	0.00
10/06/04	10.54	10.01	0.53	0.25	0.25
10/12/04	10.70	10.25	0.45	0.06	0.31
11/09/04	11.23	11.13	0.10	0.00	0.31
02/01/05	10.95	10.88	0.07	0.00	0.31
02/15/05	11.05	11.02	0.03	0.00	0.31
03/31/05	11.02	11.02	0.00	0.00	0.31
04/22/05	10.89	10.77	0.12	0.00	0.31
04/26/05	11.01	10.90	0.11	0.00	0.31
07/13/05	11.80	11.80	0.00	0.00	0.31
11/01/05	10.40	10.31	0.09	0.00	0.31
01/10/06	10.40	10.35	0.05	0.00	0.31
05/31/06	11.50	11.50	0.00	0.00	0.31
05/13/08	11.67	11.66	0.01	0.00	0.31

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-68: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-21 (Well Diameter = 2 inches)**

Date	Well FA 4-21				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-21 (gallons)	
				Per Day	To-Date
01/07/02 *	14.74	14.67	0.07	0.00	0.00
09/17/03	13.80	13.29	0.51	0.00	0.00
03/02/04	13.82	13.43	0.39	0.00	0.00
04/27/04	13.59	12.90	0.69	0.00	0.00
06/08/04	13.50	12.85	0.65	0.13	0.00
06/10/04	13.38	12.93	0.45	0.06	0.06
06/17/04	13.44	13.10	0.34	0.00	0.06
06/23/04	13.28	12.91	0.37	0.06	0.13
07/01/04	13.44	12.98	0.46	0.38	0.50
07/07/04	13.65	13.48	0.17	0.00	0.50
07/14/04	13.70	13.35	0.35	0.00	0.50
08/11/04	12.90	12.70	0.20	0.00	0.50
10/06/04	11.84	11.76	0.08	0.00	0.50
10/12/04	12.11	12.05	0.06	0.00	0.50
11/09/04	13.65	12.85	0.80	0.13	0.63
02/15/05	12.71	12.71	0.00	0.00	0.63
03/31/05	12.49	12.48	0.01	0.00	0.63
04/22/06	12.47	12.47	0.00	0.00	0.63
04/26/05	12.60	12.60	0.00	0.00	0.63
07/13/05	13.38	13.08	0.30	0.13	0.75
11/01/05	12.00	12.00	0.00	0.00	0.75
01/10/06	12.10	12.10	0.00	0.00	0.75
05/31/06	13.32	13.22	0.10	0.00	0.75
05/13/08	13.84	13.84	0.00	0.00	0.75
08/27/08	13.70	13.67	0.03	0.00	0.75

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-69: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-22 (Well Diameter = 2 inches)**

Date	Well FA 4-22				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-22 (gallons)	
				Per Day	To-Date
01/07/02 *	13.44	13.38	0.06	0.00	0.00
09/17/03	12.10	12.10	0.00	0.00	0.00
03/02/04	12.10	12.10	0.00	0.00	0.00
04/27/04	12.15	12.15	0.00	0.00	0.00
06/08/04	11.68	11.68	0.00	0.00	0.00
06/10/04	11.77	11.77	0.00	0.00	0.00
10/06/04	10.50	10.50	0.00	0.00	0.00
10/12/04	10.81	10.81	0.00	0.00	0.00
11/09/04	11.45	11.45	0.00	0.00	0.00
02/15/05	11.44	11.44	0.00	0.00	0.00
03/31/05	11.38	11.38	0.00	0.00	0.00
04/22/05	11.16	11.16	0.00	0.00	0.00
04/26/05	10.32	10.32	0.00	0.00	0.00
07/13/05	12.34	12.34	0.00	0.00	0.00
11/01/05	10.68	10.68	0.00	0.00	0.00
01/10/06	10.80	10.80	0.00	0.00	0.00
05/13/08	12.04	12.04	0.00	0.00	0.00
08/27/08	12.42	12.42	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-70: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-23 (Well Diameter = 2 inches)**

Date	Well FA 4-23				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-23 (gallons)	
				Per Day	To-Date
01/07/02 *	14.23	14.23	0.00	0.00	0.00
09/17/03	13.04	13.01	0.03	0.00	0.00
03/02/04	13.31	13.31	0.00	0.00	0.00
04/27/04	13.30	13.22	0.08	0.00	0.00
06/08/04	13.05	12.90	0.15	0.00	0.00
06/10/04	13.33	12.90	0.43	0.25	0.25
06/17/04	13.34	13.08	0.26	0.13	0.38
06/23/04	13.50	13.05	0.45	0.25	0.63
07/01/04	13.26	13.19	0.07	0.00	0.63
07/07/04	13.50	13.25	0.25	0.00	0.63
07/14/04	13.25	13.18	0.07	0.00	0.63
08/11/04	12.93	12.55	0.38	0.13	0.75
08/24/04	12.80	12.33	0.47	0.25	1.00
09/21/04	12.63	11.61	1.02	0.50	1.50
10/06/04	12.68	11.67	1.01	0.88	2.38
10/12/04	13.05	11.90	1.15	0.25	2.63
10/20/04	12.65	12.23	0.42	0.00	2.63
11/09/04	13.10	12.66	0.44	0.00	2.63
02/15/05	12.90	12.48	0.42	0.00	2.63
03/31/05	12.85	12.56	0.29	0.00	2.63
04/22/05	12.95	12.50	0.45	0.00	2.63
04/26/05	13.12	12.54	0.58	0.50	3.13
07/13/05	13.28	13.27	0.01	0.00	3.13
11/01/05	12.45	11.81	0.64	0.38	3.50
01/10/05	12.55	12.00	0.55	0.25	3.75
05/13/08	13.30	13.12	0.18	0.25	4.00
08/27/08	13.49	13.49	0.00	0.25	4.25

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-71: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-24 (Well Diameter = 2 inches)**

Date	Well FA 4-24				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-24 (gallons)	
				Per Day	To-Date
01/07/02 *	12.34	12.34	0.00	0.00	0.00
3/2/2004	11.43	11.43	0.00	0.00	0.00
4/27/2004	11.35	11.35	0.00	0.00	0.00
4/26/2005	10.73	10.73	0.00	0.00	0.00
7/13/2005	11.30	11.30	0.00	0.00	0.00
11/1/2005	9.95	9.95	0.00	0.00	0.00
1/10/2005	10.15	10.15	0.00	0.00	0.00
5/13/2008	11.31	11.31	0.00	0.00	0.00
8/27/2008	11.52	11.52	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table A-72: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well FA 4-25 (Well Diameter = 2 inches)**

Date	Well FA 4-25				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - FA 4-25 (gallons)	
				Per Day	To-Date
01/07/02 *	12.99	12.95	0.04	0.00	0.00
09/17/03	11.54	11.54	0.00	0.00	0.00
03/02/04	11.63	11.63	0.00	0.00	0.00
04/27/04	11.55	11.55	0.00	0.00	0.00
04/26/05	10.95	10.95	0.00	0.00	0.00
11/01/05	10.28	10.28	0.00	0.00	0.00
05/13/08	11.57	11.57	0.00	0.00	0.00
08/27/08	11.81	11.81	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.



**Table A-73: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well PGW-2 (Well Diameter = 2 inches)**

Date	Well PGW 2				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - PGW 2 (gallons)	
				Per Day	To-Date
01/09/02 *	11.05	7.11	3.94	0.00	0.00
04/15/02 *	9.49	7.41	2.08	0.00	0.00
06/26/02	8.33	6.64	1.69	0.00	0.00
08/27/02	NM	NM	NM	1.90	1.90
09/05/02	11.12	7.96	3.16	1.60	3.50
09/06/02	10.40	7.98	2.42	1.00	4.50
09/11/02	11.23	8.07	3.16	1.70	6.20
09/12/02	11.09	8.34	2.75	0.00	6.20
09/18/02	11.20	8.19	3.01	1.80	8.00
09/24/02	11.08	8.27	2.81	1.50	9.50
09/30/02	10.46	8.17	2.29	0.90	10.40
10/03/02	10.27	8.09	2.18	0.80	11.20
10/15/02	8.88	7.50	1.38	0.40	11.60
10/22/02	8.63	7.35	1.28	0.40	12.00
10/30/02	8.99	7.52	1.47	0.30	12.30
11/05/02	9.20	7.61	1.59	0.40	12.70
11/07/02	9.17	7.59	1.58	0.30	13.00
01/07/03	NM	NM	NM	0.80	14.70
01/09/03	NM	NM	NM	0.60	15.30
01/10/03	NM	NM	NM	0.50	15.80
01/13/03	NM	NM	NM	0.70	16.50
01/17/03	NM	NM	NM	0.50	17.00
01/20/03	NM	NM	NM	0.50	17.50
01/22/03	NM	NM	NM	0.50	18.00
01/28/03	NM	NM	NM	0.50	18.50
01/30/03	NM	NM	NM	0.30	18.80
02/06/03	NM	NM	NM	0.00	18.80
02/11/03	NM	NM	NM	0.00	18.80
02/19/03	NM	NM	NM	0.00	18.80
02/27/03	NM	NM	NM	0.20	19.00
03/10/03	NM	NM	NM	0.50	19.50
03/20/03	NM	NM	NM	0.00	19.50
03/02/04	8.00	6.40	1.60	0.25	19.75
04/27/04	7.20	5.80	1.40	0.00	19.75
05/25/04	6.29	6.17	0.12	0.00	19.75
05/26/04	7.07	6.00	1.07	0.38	20.13
06/01/04	7.03	5.86	1.17	0.25	20.38
06/08/04	7.35	6.52	0.83	0.00	20.38
06/10/04	7.50	6.21	1.29	0.25	20.63
06/17/04	7.93	6.56	1.37	0.38	21.00
06/23/04	8.00	6.49	1.51	0.25	21.25
07/01/04	8.38	6.72	1.66	0.50	21.75
07/07/04	8.57	6.84	1.73	0.50	22.25
07/14/04	8.60	6.69	1.91	0.63	22.88
08/11/04	7.55	6.10	1.45	0.38	23.25

**Table A-73: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009)**  
**Well PGW-2 (Well Diameter = 2 inches)**

Date	Well PGW 2				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - PGW 2 (gallons)	
				Per Day	To-Date
08/24/04	6.83	5.50	1.33	0.38	23.63
09/21/04	6.65	4.96	1.69	0.50	24.13
10/06/04	7.10	5.95	1.15	0.50	24.63
10/12/04	7.07	5.60	1.47	0.63	25.25
10/20/04	7.20	5.70	1.50	0.50	25.75
11/09/04	7.70	6.30	1.40	0.25	26.00
02/15/05	6.50	5.40	1.10	0.13	26.13
03/31/05	5.64	4.97	0.67	0.13	26.25
04/26/05	6.84	5.74	1.10	0.50	26.75
07/13/05	7.90	6.40	1.50	0.38	27.13
11/01/05	6.03	4.75	1.28	0.38	27.50
01/10/06	5.93	4.80	1.13	0.38	27.88
05/13/08	6.41	5.62	0.79	0.00	27.88
08/27/08	7.91	6.72	1.19	0.00	27.88

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

1.59            = average NAPL thickness  
30.77            14.00  
34.41            27.00

**Table A-74: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well PWW (Well Diameter = 6 inches)**

Date	Well VE 4-5 <sup>(1)</sup>				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
05/02/05	11.00	11.00	0.00	0.00	0.00
05/10/05	11.45	11.20	0.25	0.00	0.00
05/13/05	10.40	10.30	0.10	0.15	0.15
05/16/05	11.65	11.45	0.20	0.29	0.44
05/17/05	11.43	11.31	0.12	0.18	0.62
05/19/05	11.40	11.38	0.02	0.03	0.65
05/20/05	11.50	11.50	0.00	0.00	0.65
05/23/05	11.65	11.55	0.10	0.15	0.79
05/24/05	10.66	10.65	0.01	0.00	0.79
05/27/05	11.56	11.55	0.01	0.00	0.79
05/31/05	12.38	11.40	0.98	1.44	2.23
06/01/05	12.30	11.38	0.92	1.35	3.58
06/02/05	12.26	11.33	0.93	1.37	4.95
06/06/05	12.65	11.41	1.24	2.00	6.95
06/07/05	12.43	11.40	1.03	2.20	9.15
06/08/05	12.48	11.45	1.03	1.50	10.65
06/09/05	11.80	10.65	1.15	1.50	16.70
06/10/05	12.41	11.50	0.91	2.00	18.70
06/13/05	13.14	11.35	1.79	3.50	22.20
06/14/05	12.54	11.39	1.15	2.20	24.40
06/15/05	14.24	14.20	0.04	2.62	27.02
06/20/05	14.29	14.22	0.07	2.28	29.30
06/27/05	NM	NM	NM	1.61	30.91
07/11/05	14.60	14.32	0.28	1.53	72.90
07/25/05	14.40	14.20	0.20	1.65	74.55
08/01/05	14.50	14.25	0.25	0.63	75.18
08/02/05	see note 1.	see note 1.	see note 1.	see note 1.	see note 1.
08/03/05	see note 1.	see note 1.	see note 1.	see note 1.	166.30
09/27/05	see note 1.	see note 1.	see note 1.	see note 1.	242.30
11/18/05	see note 1.	see note 1.	see note 1.	see note 1.	282.30
03/02/06	see note 1.	see note 1.	see note 1.	see note 1.	480.30
05/03/06	see note 1.	see note 1.	see note 1.	see note 1.	668.30
07/03/06	see note 1.	see note 1.	see note 1.	see note 1.	831.30
09/08/06	see note 1.	see note 1.	see note 1.	see note 1.	966.30
11/13/06	see note 1.	see note 1.	see note 1.	see note 1.	983.30
01/22/07	see note 1.	see note 1.	see note 1.	see note 1.	987.80
04/24/07	see note 1.	see note 1.	see note 1.	see note 1.	1,079.30
07/26/07	see note 1.	see note 1.	see note 1.	see note 1.	1,110.30
10/03/07	see note 1.	see note 1.	see note 1.	see note 1.	1,332.30
01/22/08	see note 1.	see note 1.	see note 1.	see note 1.	1,515.30
02/06/08	14.21	13.63	0.58	3.02	1,518.32
02/14/08	14.15	12.22	1.93	2.97	1,521.29
02/19/08	see note 1.	see note 1.	see note 1.	2.98	1,524.27
02/25/08	13.80	12.93	0.87	2.98	1,527.25
03/03/08	14.28	13.03	1.25	2.97	1,530.22
03/10/08	13.84	12.69	1.15	2.97	1,533.19
03/24/08	14.60	12.64	1.96	2.98	1,536.17

**Table A-74: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well PWW (Well Diameter = 6 inches)**

Date	Well VE 4-5 <sup>(1)</sup>				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
04/08/08	15.27	12.73	2.54	2.98	1,539.15
04/14/08	17.18	12.60	4.58	2.98	1,542.13
04/21/08	14.61	13.34	1.27	2.84	1,544.97
04/29/08	13.68	13.22	0.46	2.72	1,547.69
04/30/08	see note 1.	see note 1.	see note 1.	see note 1.	1,601.30
05/14/08	15.16	13.15	2.01	2.25	1,603.55
05/15/08	15.17	13.14	2.03	2.25	1,605.80
05/16/08	14.63	13.10	1.53	2.50	1,608.30
05/20/08	14.33	13.15	1.18	2.25	1,610.55
05/21/08	13.92	13.12	0.80	0.50	1,611.05
05/22/08	14.61	13.10	1.51	1.00	1,612.05
05/23/08	14.38	13.14	1.24	2.50	1,614.55
05/27/08	15.04	13.13	1.91	3.00	1,617.55
05/28/08	15.57	13.11	2.46	2.50	1,620.05
05/29/08	14.18	12.96	1.22	2.75	1,622.80
05/30/08	13.95	13.14	0.81	0.00	1,622.80
06/02/08	14.85	13.13	1.72	2.50	1,625.30
06/05/08	14.86	13.22	1.64	3.00	1,628.30
06/06/08	14.66	13.14	1.52	3.00	1,631.30
06/09/08	14.87	13.24	1.63	3.00	1,634.30
06/10/08	14.58	13.22	1.36	2.50	1,636.80
06/13/08	15.25	13.15	2.10	2.50	1,639.30
06/16/08	15.21	13.20	2.01	3.25	1,642.55
06/17/08	14.70	13.30	1.40	2.25	1,644.80
06/18/08	14.35	13.32	1.03	2.00	1,646.80
06/19/08	14.45	13.41	1.04	1.00	1,647.80
06/23/08	14.77	13.32	1.45	1.50	1,649.30
06/24/08	15.07	13.35	1.72	1.50	1,650.80
06/25/08	14.85	13.30	1.55	3.00	1,653.80
06/26/08	14.72	13.35	1.37	2.25	1,656.05
06/28/08	15.75	13.20	2.55	3.50	1,659.55
06/30/08	16.65	13.23	3.42	4.50	1,664.05
07/01/08	16.71	13.41	3.30	2.25	1,666.30
07/02/08	15.73	13.00	2.73	3.00	1,669.30
07/07/08	14.53	13.21	1.32	2.00	1,671.30
07/08/08	14.14	13.17	0.97	1.75	1,673.05
07/09/08	13.85	13.17	0.68	1.50	1,674.55
07/10/08	14.30	13.16	1.14	2.00	1,676.55
07/11/08	14.37	13.16	1.21	2.00	1,678.55
07/14/08	14.37	13.12	1.25	3.00	1,681.55
07/15/08	14.42	13.38	1.04	2.25	1,683.80
17/16/08	14.09	13.66	0.43	2.00	1,685.80
07/17/08	14.20	13.41	0.79	1.00	1,686.80
07/22/08	15.44	13.31	2.13	2.25	1,689.05
07/24/08	15.11	13.30	1.81	1.75	1,690.80
07/25/08	15.22	13.31	1.91	2.25	1,693.05
07/28/08	14.64	13.24	1.40	3.00	1,696.05

**Table A-74: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L4 NAPL Area (2002 - 2009); Well PWW (Well Diameter = 6 inches)**

Date	Well VE 4-5 <sup>(1)</sup>				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 4-5 (gallons)	
				Per Day	To-Date
07/29/08	14.53	13.23	1.30	2.25	1,698.30
07/31/08	14.74	14.74	0.00	see note 1.	see note 1.
08/04/08	14.86	14.81	0.05	see note 1.	see note 1.
08/05/08	14.70	14.70	0.00	see note 1.	see note 1.
08/08/08	14.67	14.65	0.02	see note 1.	see note 1.
08/11/08	14.96	14.77	0.19	see note 1.	see note 1.
08/20/08	14.96	14.73	0.23	see note 1.	1,737.30
08/27/08	16.28	16.18	0.10	see note 1.	1,737.30

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). NM = Not Monitored.

1. This well uses an automatic product recovery system (Spill Buddy). Product is continuously recovered and, as a result, the amount recovered is greater than the daily amounts recovered listed on the table. In addition, daily product removal is not recorded in some cases because of the automatic recovery of product using the Spill Buddy system.

# *APPENDIX B*

## *L3 NAPL AREA REMEDY EVALUATION*

# *L3 NAPL AREA REMEDY EVALUATION*

## *METRO-NORTH RAILROAD HARMON RAILROAD YARD OPERABLE UNIT II*

*FEBRUARY 26, 2009*

*Prepared for:*

*METRO-NORTH RAILROAD  
ENVIRONMENTAL SERVICES AND COMPLIANCE DEPARTMENT  
347 MADISON AVENUE, 12<sup>TH</sup> FLOOR  
NEW YORK, NEW YORK 10017*

*Prepared by:*

*DAY ENGINEERING, P.C.  
274 MADISON AVENUE, SUITE 1104  
NEW YORK, NY 10016  
and  
40 COMMERCIAL STREET  
ROCHESTER, NY 14614*

**TABLE OF CONTENTS**

**EXECUTIVE SUMMARY..... ES-1**

**1.0 INTRODUCTION.....1**

    1.1 Purpose of The L3 NAPL Area Remedy Evaluation.....1

    1.2 Overview of The L3 NAPL Area Remedy Evaluation.....2

    1.3 Report Outline .....3

**2.0 PROJECT BACKGROUND.....4**

    2.1 Former Harmon Yard Wastewater Lagoon.....4

    2.2 Operable Unit I (OU-I) Remedy.....5

    2.3 Operable Unit II (OU-II) Remedy.....5

        2.3.1 NAPL Areas L1, L2, L3 and L4.....6

        2.3.2 L3 NAPL Area Vapor Enhanced NAPL Removal System.....7

        2.3.3 Current Status of OU-II Remedy Operation.....10

    2.4 Proposed Harmon Yard Recycling Center.....11

**3.0 OU-II SITE L3 NAPL AREA REMEDY EVALUATION .....12**

    3.1 L3 NAPL Area Thickness and Removal Data .....12

        3.1.1 NAPL Thickness and Removal Data - Performance Parameters.....12

        3.1.2 NAPL Thickness and Removal Measurement Methods.....13

        3.1.3 L3 NAPL Area Thickness Data.....14

        3.1.4 L3 NAPL Area Removal Data .....15

    3.2 Evaluation of NAPL Thickness - L3 NAPL Area.....16

        3.2.1 Comparison of 2002 to 2003 NAPL Levels.....17

        3.2.2 Current (2009) NAPL Levels.....19

        3.2.3 Air Inlet (AI) Well NAPL Levels .....19

    3.3 Evaluation of NAPL Removal Rates - L3 NAPL Area .....20

**4.0 CONCLUSIONS AND RECOMMENDATIONS .....22**

    4.1 Conclusions Regarding the L3 NAPL Area Remedial System .....22

    4.2 Recommendations Regarding the L3 NAPL Area Remedial System .....23

**5.0 REFERENCES.....24**



**LIST OF TABLES**

TABLE 1: *Well VE 3-1 NAPL Thickness and Removal (2002 - 2009)*

TABLE 2: *Well VE 3-2 NAPL Thickness and Removal (2002 - 2009)*

TABLE 3: *Well VE 3-3 NAPL Thickness and Removal (2002 - 2009)*

TABLE 4: *Well AI 3-1 NAPL Thickness and Removal (2002 - 2009)*

TABLE 5: *Well AI 3-2 NAPL Thickness and Removal (2002 - 2009)*

TABLE 6: *Well AI 3-3 NAPL Thickness and Removal (2002 - 2009)*

TABLE 7: *Well AI 3-4 NAPL Thickness and Removal (2002 - 2009)*

TABLE 8: *Well AI 3-5 NAPL Thickness and Removal (2002 - 2009)*

TABLE 9: *Well AI 3-6 NAPL Thickness and Removal (2002 - 2009)*

TABLE 10: *NAPL Thickness Measurements  
Harmon Yard OU-II Site L3 NAPL Area (2002 - 2009)  
All Wells - Vapor Extraction (VE) and Air Inlet (AI) Wells*

TABLE 11: *Amount of NAPL Removed in Gallons  
Harmon Yard OU-II Site L3 NAPL Area (2002 - 2009)  
All Wells - Vapor Extraction (VE) and Air Inlet (AI) Wells*

TABLE 12: *Percent Decrease (Removal) in NAPL Thickness (2002 - 2009)*

TABLE 13: *Current (2008 - 2009) NAPL Thickness Measurements  
Harmon Yard OU-II Site L3 NAPL Area*

TABLE 14: *Summary of NAPL Removal (Gallons)  
Harmon Yard OU-II Site L3 NAPL Area (2002 - 2009)*

**LIST OF FIGURES**

FIGURE 1: *Harmon Yard OU-II Site and Proposed Harmon Yard Recycling Center*

FIGURE 2: *Harmon Yard OU-II Site L3 NAPL Area*

FIGURE 3: *Harmon Yard OU-II Site NAPL Thickness - Vapor Extraction (VE) Wells*

FIGURE 4: *Harmon Yard OU-II Site NAPL Thickness - Air Inlet (AI) Wells*

**LIST OF APPENDICES**

APPENDIX A: *Decommissioning Requirements for the L3 NAPL Area*

## EXECUTIVE SUMMARY

This report, i.e., the "L3 NAPL Area Remedy Evaluation", was prepared to evaluate the effectiveness and current status of the Non-Aqueous Phase Liquid ("NAPL") removal remedy at the L3 NAPL Area, part of a hazardous waste site at the Metro-North Railroad ("MNR") Harmon Railroad Yard. The L3 NAPL Area is one of four NAPL areas located around a remediated (former) wastewater lagoon at Harmon Yard.

The former lagoon and the surrounding NAPL areas are two parts of a New York State Department of Environmental Conservation ("NYSDEC") Inactive Hazardous Waste Disposal Site. The lagoon, referred to as Operable Unit I ("OU-I"), was remediated in 1996. The remedy for the four NAPL areas, referred to as the Operable Unit II ("OU-II") Site, was constructed in 2001 and has been in operation since 2002.

The remedy for the OU-II Site is vacuum enhanced NAPL removal. This remedy was defined in a 1998 NYSDEC Record of Decision ("ROD"). The remedy for the L3 NAPL Area portion of the OU-II Site has been evaluated in this report to determine if components of the remedy can be decommissioned and removed so that the 8,000-square foot L3 NAPL Area can be used for a new Harmon Yard facility, i.e., the Harmon Yard Recycling Center.

The key parameters that describe the current status of the L3 NAPL Area and the performance of the vacuum enhanced NAPL removal remedy are:

- The thickness of the NAPL (feet) that has accumulated in the various wells that were installed and that are used in this area to monitor and remove NAPL.
- The amount of NAPL (gallons) that has been removed from these wells since system operation began in 2002.

NAPL thickness and NAPL removal rates have been measured and recorded during each of the NAPL removal events conducted at the OU-II Site including the L3 NAPL Area since 2002. These NAPL thickness and NAPL removal data are presented in tables and are described and evaluated in this report. For example, the decrease in NAPL thickness, the relatively low levels of NAPL in the L3 NAPL Area wells and the absence of NAPL in most L3 NAPL Area wells are described.

These data are used in this report to identify overall system performance and trends over the 7-year operating period of this remedy. Conclusions and recommendations regarding the future status of the L3 NAPL Area remedy were developed based on the NAPL thickness and removal rate information presented and evaluated in this report.

The conclusions and recommendations presented in this report regarding the L3 NAPL Area are summarized below.

## CONCLUSIONS

The following conclusions were developed based on the information presented in this report.

- There has been a significant decrease in NAPL thickness in the L3 NAPL Area during the 2002 through 2009 remedial system operating period.
- NAPL thickness levels have decreased significantly. No NAPL was observed in seven of the nine L3 NAPL Area wells during the most recent round of NAPL thickness measurements and the remaining two system wells (i.e., wells AI 3-4 and AI 3-6) contained less than 0.1 feet of NAPL.
- Approximately 39 gallons of NAPL had accumulated in the wells in the L3 NAPL Area and have been removed by the vacuum enhanced NAPL removal system from 2002 through 2009.
- Almost all (i.e., approximately 98%, or approximately 38 gallons) of the 39 gallons of NAPL that had accumulated in and been removed from the L3 NAPL Area wells by the vacuum enhanced NAPL removal system was removed during the first four years of system operation (i.e., 2002 through 2006).
- Less than 1 gallon of NAPL has accumulated in and been removed from the L3 NAPL Area wells since 2006.
- The very small amount of NAPL (i.e., less than 1 gallon) that has accumulated in and been removed from the L3 NAPL Area since 2006 demonstrates that the vacuum enhanced NAPL removal system has effectively removed NAPL from this area to the extent practicable.
- It is very unlikely that the very low levels of NAPL (i.e., less than 0.05 feet) remaining in some of the L3 NAPL Area wells (i.e., wells AI 3-4 and 3-6) could migrate beyond the boundary of the L3 NAPL Area in the future.
- The NAPL thickness and removal data demonstrate that the vacuum enhanced NAPL removal remedy, in conjunction with the access and use restrictions maintained by MNR throughout the OU-II Site, has achieved the remedial goals for the OU-II Site established by the NYSDEC in the ROD for this Site in the L3 NAPL Area.

## RECOMMENDATIONS

The following recommendations regarding the operation of the vacuum enhanced NAPL removal system at the OU-II Site L3 NAPL Area were developed based on the information presented in this report and in the conclusions presented above.

- Operation of the vapor extraction component of the vacuum enhanced NAPL removal system at the OU-II Site L3 NAPL Area should be discontinued.

- At least three of the nine system wells should be converted to flush-mounted wells. The wells that should be converted to flush-mounted wells are wells VE 3-1, AI 3-4 and AI 3-6. These wells should be converted to flush-mounted wells to monitor future conditions and to accommodate the proposed Harmon Yard Recycling Center. Although not necessary, the remaining six L3 NAPL Area wells could also be converted to flush-mounted wells.
- The vacuum enhanced NAPL removal system has achieved the OU-II Site ROD remedial goals in the L3 NAPL Area. As a result, the above ground vapor extraction equipment in the L3 NAPL Area should be decommissioned, removed from the site and disposed of off-site.
- The L3 NAPL Area wells that are to be converted to flush-mounted wells as described above should periodically be monitored for the presence of NAPL. If recoverable amounts of NAPL are observed to have accumulated in any of these wells, the NAPL should be removed. Recovered NAPL should be temporarily stored in the above ground NAPL storage tank located adjacent to the OU-II Site L4 NAPL Area.

A memorandum describing the vapor extraction equipment that should be decommissioned and removed, the methods to be used to decommission and remove this equipment, and the manner in which the L3 NAPL Area wells should be converted to flush-mounted wells is included with this report as Appendix A.

## 1.0 INTRODUCTION

This report, i.e., the "L3 NAPL Area Remedy Evaluation", was prepared to evaluate the effectiveness and current status of the Non-Aqueous Phase Liquid ("NAPL") removal remedy at the L3 NAPL Area. The L3 NAPL Area is one of four NAPL areas (i.e., the L1, L2, L3 and L4 NAPL Areas) located around a remediated (former) wastewater lagoon at the Metro-North Railroad ("MNR") Harmon Railroad Yard in Croton-on-Hudson, New York.

NAPL that primarily consists of fuel oil, lubricating oil and other chemicals, including Polychlorinated Biphenyls ("PCBs"), was found in four areas around the lagoon. The NAPL is present in subsurface soil above the water table and is presumed to have migrated from the lagoon before it was remediated. The water table and the NAPL that was found and that in some areas is still present in these areas is located at depths ranging from 5 to 15 feet below ground surface.

The former lagoon was remediated in accordance with a Record of Decision ("ROD") issued by the New York State Department of Environmental Conservation ("NYSDEC") in September 1992 (NYSDEC; 1992). The lagoon remedy, which included the removal and off-site disposal of the sludge that had accumulated at the bottom of the lagoon and some of the soil beneath the sludge, was completed in 1996 and is referred to as Operable Unit I ("OU-I"). The remedy for the removal of the NAPL that remained in the four areas around the lagoon, referred to as Operable Unit II ("OU-II"), was constructed in 2000 and 2001 and began operation in 2002 in accordance with a ROD issued by the NYSDEC on March 1998 (NYSDEC; 1998).

Section 1.1 describes the purpose of the L3 NAPL Area remedy evaluation and Section 1.2 provides an overview of the evaluation presented in this report. An outline of the contents of this report is presented in Section 1.3.

### 1.1 *Purpose of The L3 NAPL Area Remedy Evaluation*

As described below, the vacuum enhanced NAPL removal remedy for the L3 NAPL Area has been evaluated in this report to determine if this area can be used for a new Harmon Yard facility, i.e., the Harmon Yard Recycling Center.

The NAPL removal remedy for the OU-II Site, including the L3 NAPL Area, has been in operation since 2002. The remedy, referred to as vacuum enhanced NAPL removal, uses system components that include vertical perforated subsurface piping (wells), connecting piping, blowers and air treatment systems to remove NAPL from subsurface soil. Separate vacuum enhanced NAPL removal systems were installed for: (1) the L1 and L2 NAPL Areas, which were combined into one treatment area; (2) the L3 NAPL Area; and (3) the L4 NAPL Area.

A major capital construction project is currently underway at the MNR Harmon Yard. New locomotive and car maintenance and repair buildings, wheel truing equipment, car wash operations and other facilities have been designed and are currently under construction at Harmon Yard. A new facility to temporarily store waste prior to transportation and off-site disposal and to stage materials that are to be recycled is planned for Harmon Yard. This new facility, referred to as the Harmon Yard Recycling Center, is being designed and will be constructed as part of the Harmon Yard capital construction project.

Space at Harmon Yard is limited during this capital construction project because of the need to keep existing facilities in operation at the same time that new facilities are under construction. Because of these space limitations, MNR staff and consultants responsible for the design and construction of the Harmon Yard Recycling Center have identified the mostly vacant L3 NAPL Area as the proposed location of the Recycling Center. The separate vacuum enhanced NAPL removal system at the L3 NAPL Area covers an area of approximately 8,000 square feet.

This 8,000-square foot area is central to most of the operation and maintenance functions at Harmon Yard. The use of this centrally located area within Harmon Yard as a Recycling Center would reduce the movement of waste and recyclable material from various Harmon Yard operations to the Recycling Center for temporary storage and staging. In response to this proposed plan, the vacuum enhanced NAPL removal remedy that has been in operation at the L3 NAPL Area has been evaluated in this report to determine if the L3 NAPL Area can be modified so that this area could be used for the Harmon Yard Recycling Center.

As described in this report, the vacuum enhanced NAPL removal remedy has effectively removed NAPL from the L3 NAPL Area to the extent practicable. In addition, the remedy can be modified so that the Recycling Center can be constructed in this area and removal of the minor amount of NAPL that remains in some parts of the L3 NAPL Area can continue. The following section provides an overview of the evaluation of the vacuum enhanced NAPL removal remedy presented in this report.

## **1.2 Overview of the L3 NAPL Area Remedy Evaluation**

The key parameters that describe the current status of the L3 NAPL Area and the performance of the vacuum enhanced NAPL removal remedy are: (1) the thickness of the NAPL (feet) that has accumulated in the various wells that were installed and that are used in this area to monitor and remove NAPL; and (2) the amount of NAPL (gallons) that has been removed from these wells since system operation began in 2002.

NAPL thickness and NAPL removal rates have been measured and recorded during each of the NAPL removal events conducted at the OU-II Site including the L3 NAPL Area since 2002. These NAPL thickness and NAPL removal data are presented in tables and are described and evaluated in Section 3.0. For example, the decrease in NAPL thickness, the relatively low levels of NAPL in the L3 NAPL Area wells and the absence of NAPL in most L3 NAPL Area wells is described. These data are used in Section 3.0 to identify overall system performance and trends over the 7-year operating period of this remedy. The information presented in Section 3.0 is the basis for the conclusions and recommendations presented in Section 4.0 of this report.

### 1.3 *Report Outline*

The information used to evaluate the performance of the vacuum enhanced NAPL removal remedy for the L3 NAPL Area and to determine whether the Harmon Yard Recycling Center can be constructed over the L3 NAPL Area is presented in this report as described below.

Section 2.0: Project Background. This section contains a description of the following:

- The Former Harmon Yard Wastewater Lagoon
- The Operable Unit I (OU-I) Remedy
- The Operable Unit II (OU-II) Remedy
- The Proposed Harmon Yard Recycling Center

Section 3.0: OU-II L3 NAPL Area Remedy Evaluation. This section contains the following information:

- L3 Area NAPL Thickness and Removal Measurements
- Evaluation of L3 Area NAPL Thickness
- Evaluation of L3 Area NAPL Removal Rates

Section 4.0: Conclusions and Recommendations

Section 5.0: References

All tables, figures and appendices referenced in this report are provided at the end of Section 5.0.

## 2.0 PROJECT BACKGROUND

This section describes the various remedial actions that have been undertaken in the past and the remedial actions that are currently in progress at the Harmon Yard wastewater treatment area. The Harmon Yard wastewater treatment area consists of the former wastewater lagoon that was remediated in 1996 (i.e., OU-I) and the four NAPL areas around the former lagoon that are currently being remediated (i.e., OU-II). The location of the planned Harmon Yard Recycling Center and the section of the L3 NAPL Area that would be affected by the Recycling Center are also described.

This information is presented in the following sections:

Section 2.1: Former Harmon Yard Wastewater Lagoon

Section 2.2: Operable Unit I (OU-I) Remedy

Section 2.3: Operable Unit II (OU-II) Remedy

Section 2.4: Harmon Yard Recycling Center

### 2.1 Former Harmon Yard Wastewater Lagoon

Harmon Yard is an approximately 100-acre area that has been used to repair and maintain passenger railroad equipment (e.g., locomotives, passenger cars, track-mounted and other maintenance equipment) for over 100 years. A lagoon approximately one acre in size had been used to equalize the following: (1) stormwater from various areas within Harmon Yard; and (2) wastewater from maintenance and repair buildings and shops located within Harmon Yard. Wastewater and stormwater flows were equalized in the lagoon prior to treatment in a wastewater treatment facility referred to as the Old Wastewater Treatment Plant. Treated wastewater was discharged to Croton Bay south of Harmon Yard.

PCBs were discovered in the effluent discharge from the Old Wastewater Treatment Plant in 1980. The plant was not designed to remove PCBs and, as a result, PCBs were found in the Old Wastewater Treatment Plant as well as in the wastewater lagoon. The source of the PCBs was identified and discontinued and a New Wastewater Treatment Plant was constructed. The Harmon Railroad Yard was placed on the state registry of Inactive Hazardous Waste Disposal Sites in 1985. Wastewater currently generated at Harmon Yard, which does not contain PCBs, is now pumped to and treated at a Westchester County municipal treatment plant.

In 1988, the NYSDEC separated the wastewater treatment area, including the wastewater equalization lagoon, the Old Wastewater Treatment Plant, and the NAPL areas around the lagoon, from the Harmon Railroad Yard site. The wastewater treatment area of Harmon Yard maintained its Inactive Hazardous



Waste Disposal Site registry listing but the remainder of Harmon Yard, which did not contain PCBs, was assigned to the NYSDEC petroleum spill group for investigation and remediation.

A remedial investigation (Hart; 1989) was conducted and a feasibility study (Hart; 1992) report was prepared for the wastewater treatment area. A ROD for the lagoon and Old Wastewater Treatment Plant was prepared by the NYSDEC using this remedial investigation and feasibility study information. The ROD, which was issued by the NYSDEC in September 1992, separated the wastewater treatment area into two operable units designated OU-I and OU-II. A remedial design was completed for OU-I and the remedial actions for OU-I, described below, were completed in May 1996.

## 2.2 *Operable Unit I (OU-I) Remedy*

The OU-I remedy completed in 1996 consisted of the following remedial actions:

- A sheeting wall was installed around the wastewater lagoon. This sheeting wall was left in place after the remedial actions described below were completed.
- The wastewater that remained in the lagoon at the start of the remedial actions was removed, treated and discharged.
- The sludge that had accumulated at the bottom of the lagoon, which contained PCBs, was removed, transported and disposed of (incinerated) off-site.
- The soil that contained PCBs at concentrations above the NYSDEC soil cleanup objective and that was located beneath the sludge layer was removed, transported and disposed of (landfilled) off-site.
- Surface soil around the lagoon that contained PCBs at concentrations above the NYSDEC soil cleanup objective was removed, transported and disposed of (landfilled) off-site.
- Uncontaminated fill and crushed stone was placed in the excavated lagoon area.
- Synthetic liners were placed above and below the fill and stone material described above.
- A layer of crushed stone and an asphalt cover was placed over the remediated lagoon.
- The Old Wastewater Treatment Plant was decontaminated and demolished and the resulting demolition debris was disposed of off-site (ERM; 1994).

The remediated and paved former wastewater lagoon area has been used as a MNR material storage area since 1996.

### 2.3 *Operable Unit II (OU-II) Remedy*

The OU-II Site consisted of the following environmental media that could have been impacted by discharges from the former wastewater lagoon and treatment plant:

- Groundwater
- Soil in the wastewater treatment area adjacent to the former wastewater discharge line.
- NAPL located in four areas around the former wastewater lagoon
- Sediment and surface water in Croton Bay.

Based on information and data generated by a remedial investigation conducted between November 1994 and May 1996 (ERM; 1998), the NYSDEC eliminated groundwater, soil, sediment and surface water as areas of concern to be addressed as part of the OU-II remedial actions. These environmental media were eliminated because they did not contain hazardous wastes (i.e., PCBs) at concentrations above acceptable levels and were not impacted by discharges from the wastewater lagoon and treatment plant. Some of the soil adjacent to the former wastewater discharge line contained petroleum constituents and was addressed as part of the overall Harmon Yard petroleum spill remedial action.

As a result of this remedial investigation characterization, the OU-II ROD issued by the NYSDEC in March 1998 (NYSDEC; 1998) identified the four NAPL areas around the former wastewater lagoon as the only OU-II Site environmental media to be addressed by remedial actions.

The remainder of this section describes the four NAPL areas (Section 2.3.1), the remedial systems installed and operated to address these NAPL areas (Section 2.3.2), and the current status of the OU-II remedy in the L3 NAPL Area (Section 2.3.3).

#### 2.3.1 *NAPL Areas L1, L2, L3, and L4*

The OU-II Feasibility Study (ERM; 1998) describes the NAPL found around the former wastewater lagoon as a separate layer of liquid hydrocarbon resulting from past releases from the lagoon. The NAPL was characterized as a severely biodegraded diesel fuel containing PCBs at concentrations ranging from 4 to 120 parts per million ("ppm"), which is consistent with the sludge and petroleum materials that were removed from the lagoon during the OU-I remedy.

Numerous soil borings and temporary and permanent wells installed during the 1994 to 1996 OU-II remedial investigation delineated the extent of the lagoon, or "L", NAPL areas around the former lagoon. Four separate NAPL areas

designated L1, L2, L3, and L4 were identified. The extent of these four NAPL areas was shown on the design drawings for the OU-II Site remedy. A copy of one of these design drawings showing the extent of the four NAPL areas has been included with this report. (See Figure 1.)

Maximum NAPL thickness levels recorded during the 1994 to 1996 remedial investigation ranged from 1.3 feet in the L3 NAPL Area to 3.7 feet in the L4 NAPL Area. The horizontal extent of the areas to be addressed by remedial actions in these NAPL areas, including the L3 NAPL Area, was expanded to include additional perimeter or buffer areas. The resulting NAPL areas are shown on Figure 1.

A larger scale map of the L3 NAPL Area is presented in this report on Figure 2. The graphic scale provided on the design drawing (i.e., Drawing C-3: Underground Field Piping Layout, NAPL Areas L1, L2 and L3) that is the base map for Figure 2 was used to estimate the 8,000 square foot horizontal extent of the L3 NAPL Area referenced earlier in this report. As described in Section 3.0, NAPL thickness levels in the L3 NAPL Area have decreased since the OU-II remedy began operation in 2002 and the horizontal extent of NAPL has remained relatively constant.

As shown on Figures 1 and 2, the L3 NAPL Area is located south of the Harmon Yard wastewater pumping station and east of the sludge digester. The sludge digester, a large above ground tank, is still in place but is no longer in use. The sheeting wall that was installed around the irregular shape of the former wastewater lagoon during the OU-I remedy and that was left in place after that remedy was completed in 1996 is located west of the L3 NAPL Area. The following section describes the vacuum enhanced NAPL removal system that was installed as part of the OU-II Site remedial action to remove NAPL from the L3 NAPL Area.

### **2.3.2 L3 NAPL Area Vacuum Enhanced NAPL Removal System**

OU-II Site vacuum enhanced NAPL removal systems were installed in all four OU-II NAPL areas in 2001 and 2002. These systems have been in operation continuously since operation began in April 2002. The following section describes the system components that were in place and that have been in operation in the L3 NAPL Area. Similar system components were installed and are operated in the other three OU-II Site NAPL Areas.

The L3 NAPL Area removal system consists of a central vapor (soil gas) extraction system connected to three vapor extraction wells. These vapor extraction ("VE") wells are designated as follows: VE 3-1, VE 3-2, and VE 3-3. In addition, six passive air inlet wells were installed around the perimeter of the L3 NAPL Area. These air inlet ("AI") wells are designated as follows: AI 3-1, AI 3-2,

AI 3-2, AI 3-3, AI 3-4, AI 3-5, and AI 3-6. 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 ambient (i.e., above ground) air to replenish the air and oxygen in subsurface soil in the L3 NAPL Area. Air and oxygen is removed by the vapor extraction system and was removed by the bioremediation that had been occurring in the treatment area during the first few years of system operation.

In addition, the system includes the following above ground equipment:

- 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 to the three vapor extraction wells.

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 airflow and pressure gradients to accelerate the migration of NAPL that has accumulated as a liquid layer on the water tables and that has adhered to soil particles in the smear zone toward the vapor extraction wells, where it would accumulate in these wells and 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 the Harmon Yard OU-II Site is shown on Figures 1 and 2. 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 these 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 AI 3-4 in November 2008 and analyzed for PCBs. The sample contained 2.8 milligrams per kilogram ("mg/kg") of PCBs. This is less than the 10 mg/kg NYSDEC TAGM #4046 (NYSDEC; 1994) Recommended Soil Cleanup Objective ("RSCO") for PCBs in subsurface soil at petroleum spill sites that was specified as a cleanup objective for PCBs in subsurface soil in the OU-I ROD.

It is also less than the 25 mg/kg NYSDEC Part 375 Soil Cleanup Objective ("SCO") for PCBs currently used by the NYSDEC as a cleanup objective to evaluate soil quality at Inactive Hazardous Waste Disposal Sites. In addition, it is 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.

The blower (vacuum) unit draws gas (vapor) from subsurface soil through the three vapor extraction wells (VE 3-1, VE 3-2 and VE 3-3), a liquid/vapor separation unit (tank) and an air treatment unit consisting of two canisters (drums) of granular activated carbon. The treated air is discharged to the atmosphere.

Monitoring data has shown that relatively low levels of NAPL have accumulated in six of the L3 NAPL Area wells: VE 3-1, VE 3-2, VE 3-3, AI 3-4, AI 3-5 and AI 3-6. Measurable amounts of NAPL have not accumulated in the other three wells in the L3 NAPL Area (i.e., AI 3-1, AI 3-2, and AI 3-3).

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 (vacuum) component of this system. This small amount of accumulated NAPL was addressed by the manual removal of accumulated NAPL from these wells. As described later in this report, very little NAPL now accumulates in any of the L3 NAPL Area wells. Manual NAPL removal would be used to remove NAPL if there is a change in this condition in the future.

As discussed in Section 3.0, recent monitoring data (i.e., since 2005) shows that measurable amounts of NAPL have accumulated in only four of the L3 NAPL Area wells: VE 3-1, AI 3-4, AI 3-5 and AI 3-6. NAPL that had been accumulating in wells VE 3-2 and VE 3-3 has not been observed in these wells since 2005. In addition, NAPL accumulations were observed in only 2 of the 9 L3 NAPL Area wells during the most recent NAPL monitoring and NAPL monitoring event that was conducted on February 19, 2009 (i.e., 0.04 feet in well AI 3-4 and 0.02 feet in well AI 3-6).

The following section provides a brief description of the current status of the operation of the OU-II Site remedial actions.

### 2.3.3 *Current Status of the OU-II Remedy Operations*

System components similar to those described in Section 2.3.2 for the L3 NAPL Area (e.g., vapor extraction and air inlet wells, blower/vacuum equipment and air treatment units) were installed in all four OU-II Site NAPL Areas. These vacuum enhanced NAPL removal systems have operated continuously since system start-up began in April 2002. The following work has been performed as part of system operations since April 2002.

- Vapor extraction and air inlet wells are monitored for the presence of NAPL.
- The depth to groundwater is measured in each well and, if NAPL is observed in a well, the depth to NAPL and the depth to groundwater are measured using an oil/water interface probe. The NAPL and groundwater depth measurements are recorded and used to calculate NAPL thickness.
- Wells are monitored in this manner periodically, depending on the amount of NAPL that has accumulated in the wells and the frequency at which NAPL has accumulated in the wells as recorded during previous monitoring events.
- Recoverable amounts of accumulated NAPL (i.e., NAPL thickness greater than 0.1 feet) are manually removed using a portable pump. The NAPL is pumped into a small container. The container is then brought to an above ground temporary NAPL storage tank that was installed for this purpose near the L4 NAPL Area. The NAPL is transferred from this small container to the L4 NAPL Area temporary above ground storage tank. The amount of NAPL removed is measured during removal and recorded or calculated based on the thickness of accumulated NAPL measured before removal (pumping).
- The NAPL that is temporarily stored in the L4 NAPL Area temporary above ground storage tank is periodically sampled and analyzed for PCBs and other waste disposal parameters. The NAPL is then transported and disposed of (incinerated) off-site.
- The areas around the vapor extraction are kept clear of MNR equipment and materials. In addition, access to the vapor extraction and air inlet wells in the L4 NAPL Area is maintained by periodically cutting the vegetation in these areas.
- NAPL thickness, NAPL testing, and NAPL disposal records are maintained at the MNR office (trailer) at Harmon Yard located near the former wastewater lagoon area and OU-II Site.

NAPL thickness levels have decreased in the L3 NAPL Area since system operations began in 2002, as described below in Section 3.0. NAPL thickness levels have remained relatively constant in the wells in the L1 and L2 NAPL Areas. NAPL has been removed and has not accumulated in some of the L4 NAPL Area wells but has remained at relatively high levels (i.e., 1 to 2 feet) in other L4 NAPL Area wells (e.g., well VE 4-5) despite on-going NAPL removal efforts.

## 2.4 *Proposed Harmon Yard Recycling Center*

The MNR design engineer for the Recycling Center (i.e., Gannett Fleming Engineers & Planners, One Penn Plaza, New York, NY) provided the approximate location of the planned Harmon Yard Recycling Center to DAY on October 15, 2008. The location was shown on a survey drawing of the area as an outline of the area that would be directly affected by the planned facility. The outline of this facility as shown on this survey drawing has been superimposed on the OU-II Site plan included with this report as Figure 1.

As shown on Figure 1, two L3 NAPL Area wells (i.e., wells AI 3-4 and AI 3-5) are located within the outline of the area that will be directly affected by the construction of the Harmon Yard Recycling Center. DAY understands that the footprint of the Recycling Center building may not extend to this part of the facility outline as shown on Figure 1. Instead, this area may be used for truck loading docks. Nevertheless, these wells would need to be removed or modified to accommodate either truck loading and unloading activities or building activities such as material and waste storage, if the area is to be covered by the Recycling Center building.

In order to address the possible use of the L3 NAPL Area for the Harmon Yard Recycling Center, this report was prepared to evaluate the effectiveness and current status of the L3 NAPL Area remedy and to determine the following:

- The components of the L3 NAPL Area remedy that can be removed, if any.
- The components of the L3 NAPL Area remedy that should be retained and modified and the manner in which these components can be modified to enable the planned future use of this area for the Harmon Yard Recycling Center.

The following section (Section 3.0) presents an evaluation of the effectiveness and current status of the L3 NAPL Area remedy. Conclusions and recommendations developed based on this evaluation information are presented in Section 4.0.

### 3.0 *OU-II SITE L3 NAPL AREA REMEDY EVALUATION*

This section evaluates the effectiveness and the current status of the remedial actions that have been implemented since 2002 to remove NAPL from subsurface soil at the Harmon Yard OU-II Site L3 NAPL Area. Information collected as part of these remedial actions that describe the thickness of NAPL in the 9 wells that are part of the remedy in this area and the amount of NAPL removed from these wells is used in this evaluation.

As described in Section 2.3.3, these parameters (i.e., NAPL thickness and NAPL removal) are measured and recorded each time system wells are monitored for the presence of NAPL. NAPL thickness and removal data collected since April 2002 are described and used to evaluate the performance of the L3 NAPL Area remedy in the following sections:

Section 3.1: L3 NAPL Area Thickness and Removal Measurements

Section 3.2: Evaluation of NAPL Thickness - L3 NAPL Area

Section 3.3: Evaluation of NAPL Removal Rates - L3 NAPL Area

The data and the remedy evaluation information described in these sections are used to develop the conclusions and recommendations that are presented in Section 4.0.

### 3.1 *L3 NAPL Area Thickness and Removal Data*

This section describes:

- The reasons that an evaluation of the performance of the vacuum enhanced NAPL removal system can be based on NAPL thickness and removal data (Section 3.1.1).
- The manner in which these data have been collected (Section 3.1.2).
- The NAPL thickness measurements (Section 3.1.3) and NAPL removal data (Section 3.1.4) that are presented in tables at the end of this report.

Tables referenced in this section are presented at the end of this report.

#### 3.1.1 *NAPL Thickness and Removal Data - Performance Parameters*

The OU-II Site vacuum enhanced NAPL removal remedy has been in operation since April 2002. Biodegradation, manual liquid NAPL removal, and the removal of NAPL-related vapors (i.e., volatilization) are the three mechanisms through which this remedy has removed NAPL from subsurface soil at the OU-II Site.



The low carbon dioxide levels and the elevated oxygen levels that were recorded in the air extracted by the system after the first few years of operation indicate that the NAPL constituents that were amenable to biodegradation were removed several years ago. This is because relatively high concentrations of carbon dioxide and high oxygen levels would have been present in extracted air if biodegradation of NAPL were still occurring in subsurface soil. As a result, the low carbon dioxide levels and elevated oxygen concentrations indicate that little biodegradation of NAPL has been occurring in subsurface soil following the first few years of the remedy.

In addition, low Photoionization Detector ("PID") readings measured in air that was being extracted from subsurface soil after the first few years of operation indicate that volatile organics were not present in extracted air and that most of the volatile constituents in the NAPL that is present at the OU-II Site have been removed.

The carbon dioxide, oxygen and PID data, then, indicate that biodegradation and volatilization have not removed significant amounts of NAPL from subsurface soil at the OU-II Site following the first few years of system operation. As a result, the physical movement of NAPL toward system wells caused by the vacuum system and the subsequent manual removal of the NAPL that has accumulated in these wells is now the primary and possibly the only NAPL removal mechanism through which NAPL is removed from the OU-II Site.

Since manual NAPL removal is probably the sole mechanism currently removing NAPL at the OU-II Site, the performance of the OU-II Site vacuum enhanced NAPL removal remedy can be evaluated based on the NAPL thickness data and the record of the amount of NAPL removed from the various OU-II Site wells.

### **3.1.2 NAPL Thickness and Removal Measurement Methods**

As described in Section 2.3.3, the three vapor extraction ("VE") wells and the six air inlet ("AI") wells at the L3 NAPL Area are monitored for the presence of NAPL during periodic monitoring and NAPL removal events. The OU-II Remedial Investigation (HART; 1989) explained that NAPL at the OU-II Site is primarily diesel fuel with a specific gravity that is slightly less than that of water (i.e., NAPL specific gravity of approximately 0.8 to 0.9). As a result, OU-II Site NAPL generally remains (floats) on the water table. The vacuum system (blower) is temporarily shut off before each monitoring and NAPL removal event so that the vapor-tight well caps can be removed from the VE wells and the wells can be accessed.

The depth from the top of the well casing to groundwater is measured in the various OU-II Site wells during these periodic monitoring events. If NAPL is present, the depth from the top of the well casing to the top of the NAPL layer is

also measured in each well. An oil/water interface probe is used to collect these depth measurements.

The difference between these two measurements is the thickness of NAPL that has accumulated in each well. The depth to water ("DTW") and the depth to NAPL ("DTN") are measured in the OU-II Site wells, including the L3 NAPL Area wells, before the NAPL is removed using a portable pump. NAPL that has accumulated in the VE and AI wells is removed using a portable pump and transferred to a small container after the DTW and DTN information has been collected. The siphon end of the portable pump tube is carefully lowered into the accumulated NAPL within the well so that little to no groundwater is removed during this process.

Depending on the amount of NAPL that has accumulated in each well and manually removed, the amount of NAPL pumped from each well is measured using a graduated container or it is calculated based on: (1) the NAPL thickness prior to pumping; and (2) the diameter of the well. VE wells are 4-inch diameter wells and AI wells are 2-inch diameter wells. Little to no recharge occurs during the time that NAPL is pumped from the L3 NAPL Area wells and, as a result, the amount of NAPL removed from the L3 NAPL Area wells is generally equal to the amount of NAPL that has accumulated in the affected wells prior to removal.

The following sections describe the NAPL thickness and removal data that has been collected at the L3 NAPL Area.

### 3.1.3 L3 NAPL Area Thickness Data

The NAPL thickness measurements and the records of the amount of NAPL removed from 2002 to 2009 are presented in this report for the three VE wells in Table 1 through Table 3 and for the six AI wells in Table 4 through Table 9. Each table presents the following information for each of the nine L3 NAPL Area wells:

- Date of NAPL monitoring and removal event.
- Depth to Water (DTW) measurement (feet)
- Depth to NAPL (DTN) measurement (feet)
- NAPL Thickness (feet)
- Daily Amount of NAPL Removed (gallons)
- Cumulative Amount of NAPL Removed (gallons)

This section focuses on the NAPL thickness measurements for the L3 NAPL Area presented in these tables; the following section describes the NAPL removal data for this area.

The NAPL thickness measurements for the nine L3 NAPL Area wells that were recorded during the periodic NAPL monitoring and removal events from January 2002 (i.e., prior to system start-up in April 2002) until February 2009 presented in Tables 1 through 9 are summarized on Table 10.

This 1-page table (Table 10) provides a complete record of the amount (i.e., thickness, in feet) of NAPL that has accumulated in the L3 NAPL Area wells since January 2002 prior to the April 2002 system startup until February 2009. This table records the thickness of NAPL that was present in each of the nine L3 NAPL Area wells before the accumulated NAPL was removed using a portable pump.

As shown on this table and as discussed in Section 3.3, NAPL thickness levels of 1 to over 3 feet recorded during the first year of system operation (2002) have decreased significantly. In fact, no NAPL was observed in 7 of the 9 L3 NAPL Area wells in the most recent round of NAPL thickness measurements and the remaining 2 system wells (i.e., wells AI 3-4 and AI 3-6) contained less than 0.1 feet of NAPL.

The following section describes the amount of NAPL removed from these system wells over the same operating period (i.e., 2002 - 2009).

#### **3.1.4 L3 NAPL Area Removal Data**

The amount of NAPL removed (gallons) has been recorded for every NAPL thickness measurement and removal event conducted in this area since 2002. As described in Section 3.1.2, the amount of NAPL removed is either measured using a calibrated container or is calculated based on the thickness of the NAPL that had accumulated in each well prior to removal as measured using an oil/water interface probe.

These NAPL removal quantities are presented in this report for the three VE wells in Table 1 through Table 3 and for the six AI wells in Table 4 through Table 9. These tables list the amount of NAPL removed in gallons for every NAPL measurement and removal event since April 2002. The table also lists the cumulative amount of NAPL removed from each well over the 2002 - 2009 operating period.

The NAPL removal information presented on Tables 1 through 9 is summarized on Table 11. This table presents a summary of the amount (gallons) of NAPL that has been removed from the L3 NAPL Area since system startup in April 2002 until February 2009. The total amount of NAPL removed from each well during this operating period is presented on the chart below.

**Amount of NAPL Removed, L3 NAPL Area (2002 - 2009) <sup>(1)</sup>**

L3 NAPL Area Well	Cumulative Amount of NAPL Removed	
	Gallons	Percent of Total
Well VE 3-1	15.57	40.4%
Well VE 3-2	7.47	19.4%
Well VE 3-3	6.46	16.8%
<b>VE Well Subtotal =</b>	<b>29.50</b>	<b>76.5%</b>
Well AI 3-1	0.23	0.6%
Well AI 3-2	0.58	1.5%
Well AI 3-3	0.00	0.0%
Well AI 3-4	2.73	7.1%
Well AI 3-5	1.97	5.1%
Well AI 3-6	3.55	9.2%
<b>AI Well Subtotal =</b>	<b>9.06</b>	<b>23.5%</b>
<b>Total NAPL Removal =</b>	<b>38.56</b>	

1. This information is also presented on Table 11, as discussed above, and on Table 14, as discussed in Section 3.3.

As discussed in the previous section, little to no NAPL has accumulated in the L3 NAPL Area wells over the past few years. As a result, Table 10 shows that the amount of NAPL removed per well has decreased from as much as 1 gallon per well per removal event to about 0.01 gallon of NAPL removed from one well in 2009. In fact, the 0.01-gallon of NAPL removed from the L3 NAPL Area in 2009 was pumped from only one well (well AI 3-4). None of the other eight L3 NAPL Area wells contained recoverable amounts of NAPL in 2009.

The following sections evaluate the NAPL thickness and removal data presented above in Sections 3.1.1 through 3.1.4.

### 3.2 Evaluation of NAPL Thickness - L3 NAPL Area

The remedial goals for the OU-II Site remedy were established through the remedy selection process described in 6 New York Codes, Rules and Regulations (NYCRR) Part 375-1.10. As described in the OU-II Site ROD (NYSDEC; 1998), the overall remedial goal for NYSDEC Inactive Hazardous Waste Disposal Sites such as the Harmon Yard OU-II Site is to meet all Standards, Criteria and Guidelines (SCGs) and to be protective of human health and the environment.

The NYSDEC ROD for the Harmon Yard OU-II Site identified the following three specific remedial goals for the Site:

1. Prevent further migration of OU-II NAPL.
2. Remove OU-II NAPL to the extent practicable.
3. Continue to prevent direct contact with subsurface OU-II NAPL.

The last ROD remedial goal listed above (i.e., prevent direct contact) is achieved by the access and use restrictions maintained by MNR. The OU-II Site is located within the boundaries of Harmon Yard, which is an active railroad facility. No subsurface or other work can be conducted at the OU-II Site without the knowledge and specific permission of MNR. No subsurface work, such as excavation, drilling or trenching, other than the remedial investigation work and the installation and maintenance of the vacuum enhanced NAPL remedy has been performed at the OU-II Site since this area was listed as an Inactive Hazardous Waste Disposal Site in 1988.

NAPL investigation and removal operations are restricted to trained MNR personnel and MNR contractors. As a result, there have been no direct contact exposures to the NAPL that is present at the Harmon Yard U-II Site since at least 1988. The current access and use restrictions and the preventive measures used to remove NAPL from subsurface soil (i.e., the use of the OU-II Site VE and AI wells) have achieved the remedial goal of preventing direct contact with subsurface OU-II NAPL.

The evaluation of the change in NAPL presence (thickness) observed at the L3 NAPL Area presented in this section addresses the ability of the vacuum enhanced NAPL removal remedy to achieve the first two remedial goals for the OU-II Site identified in the ROD: (1) to prevent further NAPL migration; and (2) to remove NAPL to the extent practicable. The effectiveness of the vacuum enhanced NAPL remedy in the L3 NAPL Area in achieving these goals is evaluated in this section as follows:

- Comparing the thickness off NAPL currently observed in this area to the amount of NAPL present in this area at the start of the remedy (Section 3.2.1).
- Describing current NAPL levels in the nine L3 NAPL Area wells (Section 3.2.2).

The presence of NAPL in some of the AI wells is also discussed (Section 3.2.3).

### **3.2.1 Comparison of 2002 to 2009 NAPL Levels**

Table 3-1 through Table 3-9 list the thickness of NAPL measured in the nine L3 NAPL Area wells from January 2002 prior to the April 2002 system startup through February 2009.

The NAPL thickness measurements recorded in 2002 after the April system startup of the system were used to compute the average 2002 NAPL thickness shown in Table 12. Similarly, the NAPL thickness measurements collected in 2009 reported on Tables 3-1 through 3-9 are also listed on Table 12 for 8 of the 9 wells in the L3 NAPL Area. As noted on Table 12, NAPL thickness was not measured in well AI 3-3 in 2009. Instead, the last NAPL thickness measurement recorded in well AI 3-3 in 2008 was used in Table 12. As shown on Table 6, NAPL has never accumulated and has never been observed in well AI 3-3.

The comparison of the 2002 to the 2009 NAPL thickness data for the nine wells in the L3 NAPL Area shows that there has been a significant decrease in NAPL thickness in this area during the 2002 through 2009 vacuum enhanced NAPL removal system operating period. The table shows that all NAPL has now been removed from five of the nine L3 NAPL Area wells. Since NAPL has never been observed in two of the wells (i.e., wells AI 3-1 and AI 3-3), there is now no NAPL in seven of the nine L3 NAPL Area wells as of February 2009.

In addition, there has been a significant decrease in the NAPL thickness level in the remaining two wells. NAPL thickness levels have decreased by approximately 94% in well AI 3-4 and by approximately 98% in well AI 3-6. Also, these wells contain less than 0.1 feet of NAPL. In fact, it is now technically impracticable to remove the less than 0.5 inches of NAPL (approximately) remaining in well AI 3-4 and the 0.2 inches of NAPL in well AI 3-6.

The significant decrease in NAPL thickness in the L3 NAPL Area wells is also shown in the graphs included with this report as Figure 3 and Figure 4. Figure 3 shows the thickness of NAPL recorded in the three VE wells (i.e., wells VE 3-1, VE 3-2 and VE 3-3) beginning during system startup in April 2002 until the most recent NAPL monitoring event in February 2009. Similarly, Figure 4 shows the thickness of NAPL remaining in three of the six AI wells (i.e., AI 3-4, AI 3-5 and AI 3-6) from system startup in April 2002 through February 2009. The other three AI wells (i.e., wells AI 3-1, AI 3-2 and AI 3-3) are not shown on Figure 4 because NAPL has not accumulated in two of these wells (i.e., wells AI 3-1 and AI 3-3) and NAPL levels never exceeded 0.5 feet in the other AI well (i.e., well AI 3-2).

These NAPL thickness graphs (Figure 3 and Figure 4) show that there has been a generally steady decline in NAPL thickness across the L3 NAPL Area since the vacuum enhanced NAPL removal system began operation in April 2002. NAPL levels have decreased from the 2-foot to 3-foot levels observed during the early stages of system operation in 2002 and 2003 to the very low NAPL levels recorded during the last few years of system operation (i.e., 2008 and 2009).

As shown on these figures, NAPL levels fluctuate over time to some extent but NAPL has either not been present in most wells in recent years or is present at levels that cannot be recovered (i.e., less than 0.5 inches).

To summarize, NAPL thickness levels have decreased significantly since the vacuum enhanced NAPL removal system began operations in April 2002 and NAPL is either not present in most parts of the L3 NAPL Area or it is present at levels that cannot be recovered (i.e., less than 0.5 inches).

### 3.2.2 *Current (2009) NAPL Levels*

Current (2008 - 2009) NAPL thickness levels in the L3 NAPL Area wells are listed on Table 13. As shown on this table, NAPL was not present in seven of the nine wells in the L3 NAPL Area in 2009. The thickness of NAPL present in the other two wells in the L3 NAPL Area in 2009 was less than 0.5 feet:

- The thickness of NAPL measured in well AI 3-4 in 2009 was 0.04 feet (i.e., 0.48 inches).
- The thickness of NAPL measured in well AI 3-6 in 2009 was 0.02 feet (i.e., 0.25 inches).

Since these are 2-inch diameter wells, the total amount of NAPL that was present in both of these wells (i.e., wells AI 3-4 and AI 3-6) in 2009 amounted to less than 0.01 gallons. In addition, it is technically impracticable to recover NAPL when the thickness of accumulated NAPL in a 2-inch diameter well is less than 0.5 inches.

To summarize, NAPL is currently either not present in most parts of the L3 NAPL Area or it is present at levels that cannot be recovered (i.e., less than 0.5 inches). Also, there was less than 0.01 gallons of NAPL in all of the L3 NAPL Area wells as of February 2009.

### 3.2.3 *Air Inlet (AI) Well NAPL Levels*

As shown on Table 10, measurable amounts of NAPL had at various times since the start of system operations in 2002 accumulated in three of the six AI wells. Although little to no NAPL has accumulated in any of the AI wells in recent years, as discussed in Section 3.2.2, NAPL levels from 0.5 feet to almost 2 feet had been measured in wells AI 3-4, 3-5 and 3-6 during the early years of system operation.

The AI wells were not designed to accumulate NAPL. The purpose of the AI wells is to provide a pathway for ambient (i.e., above ground) air to replenish the air and oxygen in subsurface soil in the L3 NAPL Area. Air is removed by the vapor extraction system and oxygen was removed by the bioremediation that had been occurring in the treatment area during the first few years of system operation.

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 (vacuum) component of this system. This small amount of accumulated NAPL was addressed by the manual removal of accumulated NAPL from these wells. As described above, very little NAPL now accumulates in any of the L3 NAPL Area wells, including the AI wells. Manual NAPL removal would be used to remove NAPL if there is a change in this condition in the future.

### 3.3 *Evaluation of NAPL Removal Rates - L3 NAPL Area*

The amount of NAPL removed (gallons) has been recorded for each NAPL measurement and removal events conducted at the OU-II Site since 2002. This information is presented on Tables 1 through 9, summarized in Table 11, and discussed in Section 3.1.4. These data are used in this section to evaluate the performance of the vacuum enhanced NAPL removal system since system operations began in April 2002. These data are also used to evaluate the ability of this system to continue to remove NAPL in the future.

The NAPL removal data shown on Table 11 has been used to compile the following information that is presented on Table 14:

- The amount of NAPL removed from each of the nine L3 NAPL Area wells during the first four years of operation (i.e., 2002 to 2005).
- The percentage of the total amount of NAPL removed by the system during the first four years of operation (i.e., 2002 to 2005) that was removed from each well.
- The amount of NAPL removed from each of the nine L3 NAPL Area wells during the last three years of operation (i.e., 2006 to 2009).
- The percentage of the total amount of NAPL removed by the system during the last three years of operation (i.e., 2006 to 2009) that was removed from each well.
- The total amount of NAPL removed from each of the nine L3 NAPL Area wells from April 2002 through February 2009 and the percentage of the total amount of NAPL removed by the system during this operating period that was removed by each well.

Overall, the amount of NAPL that was present in the L3 NAPL Area and that was removed by the vacuum enhanced NAPL removal system throughout the operating period of this system was not significant. Table 14 shows that about 39 gallons of NAPL accumulated in the wells in this area and was removed by the system from 2002 through 2006 and that about 75% (30 gallons) of this NAPL accumulated in and was removed from the three VE wells.



Furthermore, the information presented on Table 14 also shows that almost all (i.e., 98%) of the NAPL that has been removed from the L3 NAPL Area by the vacuum enhanced NAPL removal system was removed during the first four years of operation (i.e., 2002 through 2005). This trend applied to the VE wells (i.e., 99% of NAPL was removed from 2002 through 2005) and to the AI wells (i.e., 95% of NAPL was removed from 2002 through 2005). More important, Table 14 shows that less than 1 gallon of NAPL has accumulated in and been removed from the L3 NAPL Area system wells during the last 3 years of operation (i.e., 2006 to February 2009).

The very small amount of NAPL (i.e., less than 1 gallon) that has accumulated in and been removed from the L3 NAPL Area since 2006 demonstrates that the vacuum enhanced NAPL removal system has effectively removed NAPL from this area to the extent practicable. In addition, it is very unlikely that the very low levels of NAPL (i.e., less than 0.05 feet) remaining in some of the L3 NAPL Area wells (i.e., wells AI 3-4 and 3-6) could migrate beyond the boundary of the L3 NAPL Area in the future.

These data demonstrate that the vacuum enhanced NAPL removal remedy, in conjunction with the access and use restrictions maintained by MNR throughout the OU-II Site, has achieved the remedial goals for the OU-II Site established by the NYSDEC in the ROD for this Site in the L3 NAPL Area.

## 4.0 CONCLUSIONS AND RECOMMENDATIONS

This section presents conclusions and recommendations regarding the operation of the vacuum enhanced NAPL removal system at the OU-II Site L3 NAPL Area that were developed based on the information presented in this report.

### 4.1 Conclusions Regarding the L3 NAPL Area Remedial System

The following conclusions regarding the operation of the vacuum enhanced NAPL removal system at the OU-II Site L3 NAPL Area were developed based on the information presented in this report.

- There has been a significant decrease in NAPL thickness in the L3 NAPL Area during the 2002 through 2009 vacuum enhanced NAPL removal system operating period.
- The NAPL thickness levels of 1 to 3 feet recorded during the first year of system operation (i.e., 2002) have decreased significantly. No NAPL was observed in seven of the nine L3 NAPL Area wells during the most recent round of NAPL thickness measurements and the remaining two system wells (i.e., wells AI 3-4 and AI 3-6) contained less than 0.1 feet of NAPL.
- Approximately 39 gallons of NAPL had accumulated in the wells in the L3 NAPL Area and have been removed by the vacuum enhanced NAPL removal system from 2002 through 2009.
- Almost all (i.e., approximately 98%, or approximately 38 gallons) of the 39 gallons of NAPL that had accumulated in and been removed from the L3 NAPL Area wells by the vacuum enhanced NAPL removal system was removed during the first four years of system operation (i.e., 2002 through 2006).
- Less than 1 gallon of NAPL has accumulated in and been removed from the L3 NAPL Area wells since 2006.
- The very small amount of NAPL (i.e., less than 1 gallon) that has accumulated in and been removed from the L3 NAPL Area since 2006 demonstrates that the vacuum enhanced NAPL removal system has effectively removed NAPL from this area to the extent practicable.
- It is very unlikely that the very low levels of NAPL (i.e., less than 0.05 feet) remaining in some of the L3 NAPL Area wells (i.e., wells AI 3-4 and 3-6) could migrate beyond the boundary of the L3 NAPL Area in the future.
- The NAPL thickness and removal data presented and evaluated in this report for the L3 NAPL Area demonstrate that the vacuum enhanced NAPL removal remedy, in conjunction with the access and use restrictions maintained by MNR throughout the OU-II Site, has achieved the remedial goals for the OU-II Site established by the NYSDEC in the ROD for this Site in the L3 NAPL Area.

## 4.2 *Recommendations Regarding the L3 NAPL Area Remedial System*

The following recommendations regarding the operation of the vacuum enhanced NAPL removal system at the OU-II Site L3 NAPL Area were developed based on the information presented in this report and in the conclusions presented above.

- Operation of the vapor extraction component of the vacuum enhanced NAPL removal system at the OU-II Site L3 NAPL Area should be discontinued. As shown on Table 4, only a very small amount (i.e., 0.24 gallons) of NAPL has accumulated in and been removed from the vapor extraction wells since 2006. In addition, no NAPL was observed in any of the vapor extraction wells during the last round of NAPL monitoring on February 19, 2009. The only NAPL remaining at the L3 NAPL Area is the very small (trace) amount of NAPL observed in the air inlet wells, which are not affected by the vapor extraction component of the remedy. The air inlet wells contained less than 0.1 feet of NAPL, which is not recoverable.
- At least three of the nine system wells should be converted to flush-mounted wells. The wells that should be converted to flush-mounted wells are wells VE 3-1, AI 3-4 and AI 3-6. Well VE 3-1 contained NAPL in 2006 and in 2008 at low levels that could be recovered (i.e., from 0.2 to 0.5 feet). The AI wells contained low levels (i.e., less than 0.1 feet) of NAPL in 2009. These wells should be converted to flush-mounted wells to monitor future conditions and to accommodate the proposed Harmon Yard Recycling Center. Although not necessary, the remaining six L3 NAPL Area wells could also be converted to flush-mounted wells.
- As described above, the vacuum enhanced NAPL removal system has achieved the OU-II Site ROD remedial goals in the L3 NAPL Area. As a result, the above ground vapor extraction equipment in the L3 NAPL Area should be decommissioned, removed from the site and disposed of off-site.
- The L3 NAPL Area wells that are to be converted to flush-mounted wells as described above should periodically be monitored for the presence of NAPL using the methods currently used to monitor for the presence of NAPL (see Section 3.1.2). If recoverable amounts of NAPL are observed to have accumulated in any of these wells, the NAPL should be removed using the NAPL removal methods currently used to remove NAPL (see Section 3.1.2). Recovered NAPL should be temporarily stored in the above ground NAPL storage tank located adjacent to the OU-II Site L4 NAPL Area.

A memorandum describing the vapor extraction equipment that should be decommissioned and removed, the methods to be used to decommission and remove this equipment, and the manner in which the L3 NAPL Area wells should be converted to flush-mounted wells is included with this report as Appendix A.

## 5.0 REFERENCES

ERM; 1994. *Decommissioning and Demolition Plan for the Old Wastewater Treatment Plan, Harmon Railroad Yard and Lagoon, Croton-on-Hudson, New York*; ERM-Northeast; February 25, 1994.

ERM; 1998. *Remedial Investigation and Feasibility Study Report, Harmon Railroad Yard Wastewater Treatment Area Operable Unit II*; ERM-Northeast; January 14, 1998.

Hart; 1989. *Remedial Investigation Report, Harmon Lagoon, Croton-on-Hudson, New York*; Fred C. Hart Associates; November 27, 1989.

Hart; 1992. *Revised Feasibility Study Report, Harmon Lagoon, Croton-on-Hudson, New York*; McLaren/Hart Environmental Engineering Company; February 1992.

NYSDEC; 1992. *Record of Decision for the Harmon Railroad Yard Wastewater Treatment Area; (Operable Unit I)*; NYSDEC Site Number 3-60-010; September 1992.

NYSDEC, 1994. *NYSDEC Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels*; HWR-90-4046; NYSDEC; January 24, 1994.

NYSDEC; 1998. *Record of Decision for the Harmon Railroad Yard Site Operable Unit II*; NYSDEC Site Number 3-60-010; March 1998.

# ***TABLES***

## ***EVALUATION OF L3 NAPL AREA***

***METRO-NORTH RAILROAD  
HARMON YARD OPERABLE UNIT II***

**Table 1: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L3 NAPL Area (2002 - 2009)**  
**Well: VE 3-1 (Well diameter = 4 inches)**

Date	Well VE 3-1				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - VE 3-1 (gallons)	
				Daily	Cumulative
01/07/02 *	13.71	12.20	1.51	0.00	0.00
01/29/02 *	13.92	12.20	1.72	0.00	0.00
04/08/02	12.65	12.11	0.54	1.00	1.00
04/15/02	12.43	12.22	0.21	1.00	2.00
05/17/02	13.64	11.44	2.20	1.00	3.00
07/26/02	14.62	11.40	3.22	1.00	4.00
08/15/02	14.58	11.37	3.21	1.00	5.00
09/09/02	14.42	11.27	3.15	1.00	6.00
10/10/02	13.79	11.27	2.52	1.00	7.00
11/05/02	11.82	11.25	0.57	1.00	8.00
12/17/02	10.98	10.83	0.15	1.00	9.00
01/07/03	10.55	9.70	0.85	1.00	10.00
02/03/03	11.78	11.48	0.30	0.00	10.00
03/12/03	10.55	10.50	0.05	0.00	10.00
09/16/03	11.24	10.90	0.34	0.22	10.22
11/05/03	10.82	10.48	0.34	0.22	10.44
03/02/04	11.37	11.11	0.26	0.17	10.61
04/27/04	11.04	10.78	0.26	0.17	10.78
06/10/04	11.12	10.77	0.35	0.25	11.03
06/17/04	11.10	10.87	0.23	0.15	11.18
07/07/04	11.36	11.08	0.28	0.38	11.56
07/14/04	11.43	10.95	0.48	0.50	12.06
08/11/04	10.87	10.22	0.65	0.75	12.81
08/24/04	10.40	9.96	0.44	0.38	13.18
09/21/04	9.88	9.23	0.65	0.50	13.68
10/06/04	9.90	9.49	0.41	0.50	14.18
10/12/04	10.02	9.83	0.19	0.12	14.31
10/20/04	10.23	10.08	0.15	0.10	14.41
11/09/04	10.73	10.60	0.13	0.08	14.49
02/15/05	10.38	10.29	0.09	0.06	14.55
03/31/05	10.42	10.40	0.02	0.01	14.56
04/26/05	10.53	10.50	0.03	0.02	14.58
11/01/05	10.39	9.49	0.90	0.75	15.33
01/10/06	9.90	9.55	0.35	0.13	15.46
05/31/06	10.89	10.72	0.17	0.11	15.57
08/19/08	11.32	10.83	0.49	0.00	15.57
02/19/09	14.58	14.58	0.00	0.00	15.57

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL).

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

Note: NAPL and water elevations were measured twice on 07/14/04. The second measurement showed a NAPL thickness of 0.2 feet: NAPL elevation = 11.22 feet below top of well casing and water table elevation of 11.02 feet below top of well casing.

**Table 2: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L3 NAPL Area (2002 - 2009)**  
**Well: VE 3-2 (Well diameter = 4 inches)**

Date	Well VE 3-2				
	DTW (ft.)	DTN (ft.)	NAPL Thickness	NAPL Removed - VE 3-2 (gallons)	
				Daily	Cumulative
01/07/02 *	13.91	11.60	2.31	0.00	0.00
01/29/02 *	14.02	11.56	2.46	0.00	0.00
04/08/02	13.21	11.58	1.63	1.00	1.00
04/15/02	13.21	11.62	1.59	0.25	1.25
05/17/02	12.17	11.18	0.99	1.00	2.25
07/26/02	11.56	11.47	0.09	0.10	2.35
08/15/02	11.71	11.52	0.19	0.25	2.60
09/09/02	11.82	11.54	0.28	0.25	2.85
10/10/02	11.27	11.21	0.06	1.00	3.85
11/05/02	11.92	10.76	1.16	1.00	4.85
12/17/02	10.01	9.92	0.09	1.00	5.85
01/07/03	9.40	9.20	0.20	0.25	6.10
02/03/03	10.60	10.58	0.02	0.00	6.10
03/12/03	10.28	10.17	0.11	0.00	6.10
09/16/03	10.49	10.30	0.19	0.12	6.22
11/05/03	10.18	9.95	0.23	0.25	6.47
03/02/04	10.65	10.50	0.15	0.10	6.57
04/27/04	10.45	10.20	0.25	0.16	6.74
06/10/04	10.53	10.25	0.28	0.00	6.74
06/17/04	10.60	10.40	0.20	0.13	6.87
07/07/04	10.80	10.55	0.25	0.31	7.18
07/14/04	10.52	10.50	0.02	0.00	7.18
08/11/04	9.92	9.87	0.05	0.00	7.18
09/21/04	8.77	8.70	0.07	0.05	7.22
10/06/04	9.00	8.90	0.10	0.07	7.29
10/12/04	9.40	9.34	0.06	0.04	7.33
10/20/04	9.70	9.55	0.15	0.10	7.43
11/09/04	10.20	10.15	0.05	0.03	7.46
02/15/05	9.83	9.83	0.00	0.00	7.46
03/31/05	9.94	9.93	0.01	0.01	7.47
04/26/05	10.14	10.14	0.00	0.00	7.47
11/01/05	8.94	8.94	0.00	0.00	7.47
01/10/06	9.10	9.10	0.00	0.00	7.47
05/31/06	10.23	10.23	0.00	0.00	7.47
08/19/08	10.79	10.79	0.00	0.00	7.47
02/19/09	14.21	14.21	0.00	0.00	7.47

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL).

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table 3: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L3 NAPL Area (2002 - 2009)**  
**Well: VE 3-3 (Well diameter = 4 inches)**

Date	Well VE 3.3				
	DTW (ft.)	DTN (ft.)	NAPL Thickness	NAPL Removed - VE 3-3 (gallons)	
				Daily	Cumulative
01/07/02 *	13.32	12.31	1.01	0.00	0.00
01/29/02 *	13.71	12.29	1.42	0.00	0.00
04/08/02	13.54	12.31	1.23	0.10	0.10
04/15/02	13.36	12.56	0.80	0.25	0.35
05/17/02	13.46	11.75	1.71	0.10	0.45
07/26/02	13.65	11.97	1.68	0.25	0.70
08/15/02	14.19	12.10	2.09	0.75	1.45
09/09/02	14.24	12.01	2.23	0.25	1.70
10/10/02	13.43	12.17	1.26	1.00	2.70
11/05/02	12.6	11.67	0.93	1.00	3.70
12/17/02	12.10	11.32	0.78	1.00	4.70
01/07/03	10.61	10.32	0.29	0.75	5.45
02/03/03	11.89	11.76	0.13	0.10	5.55
03/12/03	10.30	10.25	0.05	0.00	5.55
09/16/03	11.20	11.05	0.15	0.10	5.65
11/05/03	10.77	10.61	0.16	0.25	5.90
03/02/04	11.42	11.30	0.12	0.08	5.98
04/27/04	10.87	10.70	0.17	0.11	6.09
06/10/04	11.06	11.02	0.04	0.00	6.09
06/17/04	11.24	11.12	0.12	0.00	6.09
07/07/04	11.50	11.35	0.15	0.19	6.27
07/14/04	11.30	11.23	0.07	0.00	6.27
08/11/04	10.67	10.57	0.10	0.00	6.27
10/06/04	9.76	9.69	0.07	0.05	6.35
10/12/04	10.05	10.01	0.04	0.03	6.37
10/20/04	10.41	10.27	0.14	0.09	6.46
11/09/04	10.65	10.65	0.00	0.00	6.46
02/15/05	10.60	10.60	0.00	0.00	6.46
03/31/05	10.38	10.38	0.00	0.00	6.46
04/26/05	10.70	10.70	0.00	0.00	6.46
11/01/05	9.95	9.95	0.00	0.00	6.46
01/10/06	10.00	10.00	0.00	0.00	6.46
05/31/06	10.92	10.92	0.00	0.00	6.46
08/19/08	11.31	11.31	0.00	0.00	6.46
02/19/09	13.56	13.56	0.00	0.00	6.46

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL).

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.



**Table 4: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L3 NAPL Area (2002 - 2009)**  
**Well: AI 3-1 (Well diameter = 2 inches)**

Date	Well AI 3-1				
	DTW (ft.)	DTN (ft.)	NAPL Thickness	NAPL Removed - AI 3.1 (gallons)	
				Daily	Cumulative
01/07/02 *	15.94	-	0.00	0.00	0.00
04/15/02	15.88	-	0.00	0.00	0.00
09/16/03	14.50	-	0.00	0.00	0.00
03/02/04	14.70	-	0.00	0.00	0.00
04/27/04	14.35	-	0.00	0.00	0.00
02/15/05	16.47	16.11	0.36	0.06	0.06
03/31/05	14.07	13.05	1.02	0.17	0.23
04/26/05	14.08	-	0.00	0.00	0.23
11/01/05	13.11	-	0.00	0.00	0.23
01/10/06	13.30	-	0.00	0.00	0.23
05/31/06	14.30	-	0.00	0.00	0.23
08/19/08	14.73	-	0.00	0.00	0.23
02/19/09	14.58	-	0.00	0.00	0.23

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL).

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table 5: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L3 NAPL Area (2002 - 2009)**  
**Well: AI 3-2 (Well diameter = 2 inches)**

Date	Well AI 3-2				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 3.2 (gallons)	
				Daily	Cumulative
01/07/02 *	15.43	-	0.00	0.00	0.00
01/09/02 *	15.68	15.42	0.26	0.00	0.00
04/15/02	16.48	15.26	1.22	0.20	0.20
09/25/02	11.48	11.47	0.01	0.00	0.20
10/10/02	11.25	11.20	0.05	0.01	0.21
11/05/02	10.85	-	0.00	0.00	0.21
12/17/02	10.35	10.23	0.12	0.02	0.23
01/07/03	9.85	9.77	0.08	0.01	0.24
02/03/03	10.65	10.62	0.03	0.00	0.25
03/12/03	9.55	9.51	0.04	0.01	0.25
09/16/03	14.14	13.94	0.20	0.03	0.29
03/02/04	14.43	14.13	0.30	0.05	0.33
04/27/04	13.81	13.76	0.05	0.01	0.34
06/10/04	13.95	13.85	0.10	0.02	0.36
06/17/04	14.19	13.98	0.21	0.03	0.39
07/07/04	14.60	14.20	0.40	0.03	0.42
07/14/04	14.22	14.05	0.17	0.03	0.45
08/11/04	13.56	13.50	0.06	0.01	0.46
09/21/04	11.57	11.40	0.17	0.03	0.49
10/06/04	12.81	12.58	0.23	0.04	0.53
10/12/04	13.10	12.91	0.19	0.03	0.56
11/09/04	13.83	13.68	0.15	0.02	0.58
02/15/05	13.25	-	0.00	0.00	0.58
03/31/05	13.45	-	0.00	0.00	0.58
04/26/05	13.49	13.48	0.01	0.00	0.58
11/01/05	12.21	-	0.00	0.00	0.58
01/10/06	12.00	-	0.00	0.00	0.58
05/31/06	13.51	-	0.00	0.00	0.58
08/19/08	14.30	-	0.00	0.00	0.58
02/19/09	14.21	-	0.00	0.00	0.58

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL).

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table 6: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L3 NAPL Area (2002 - 2009)**  
**Well: AI 3-3 (Well diameter = 2 inches)**

Date	Well AI 3-3				
	DTW (ft.)	DTN (ft.)	NAPL Thickness (ft.)	NAPL Removed - AI 3.3 (gallons)	
				Daily	Cumulative
01/07/02 *	14.79	-	0.00	0.00	0.00
04/15/02	14.75	-	0.00	0.00	0.00
09/16/03	13.30	-	0.00	0.00	0.00
03/02/04	13.50	-	0.00	0.00	0.00
04/27/04	13.18	-	0.00	0.00	0.00
11/01/05	11.85	-	0.00	0.00	0.00
01/10/06	11.85	-	0.00	0.00	0.00
05/31/06	13.05	-	0.00	0.00	0.00
08/19/08	13.65	-	0.00	0.00	0.00

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL).

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table 7: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L3 NAPL Area (2002 - 2009)**  
**Well: AI 3-4 (Well diameter = 2 inches)**

Date	Well AI 3-4				
	DTW (ft.)	DTN (ft.)	NAPL Thickness	NAPL Removed - AI 3-4 (gallons)	
				Daily	Cumulative
01/07/02 *	17.01	14.96	2.05	0.33	0.33
04/15/02	16.75	14.95	1.80	0.29	0.92
09/25/02	12.16	11.15	1.01	0.16	1.08
10/10/02	11.75	11.00	0.75	0.12	1.20
11/05/02	10.75	10.65	0.10	0.02	1.22
12/17/02	9.95	9.94	0.01	0.00	1.22
01/07/03	9.51	-	0.00	0.00	1.22
02/03/03	10.82	10.27	0.55	0.09	1.31
03/12/03	9.36	9.10	0.26	0.04	1.35
09/16/03	14.13	13.75	0.38	0.06	1.42
03/02/04	14.54	13.96	0.58	0.09	1.51
04/27/04	13.97	13.70	0.27	0.04	1.56
06/10/04	14.05	13.70	0.35	0.06	1.61
06/17/04	14.30	13.84	0.46	0.08	1.69
07/07/04	14.75	14.01	0.74	0.12	1.81
07/14/04	14.54	13.89	0.65	0.11	1.91
08/11/04	13.48	13.32	0.16	0.03	1.94
09/21/04	13.16	12.31	0.85	0.14	2.08
10/06/04	13.25	12.45	0.80	0.13	2.21
10/12/04	13.48	12.80	0.68	0.11	2.32
10/20/04	13.50	13.05	0.45	0.07	2.39
11/09/04	13.95	13.50	0.45	0.07	2.47
02/15/05	9.81	9.76	0.05	0.01	2.48
03/31/05	13.19	13.14	0.05	0.01	2.48
04/26/05	13.68	13.15	0.53	0.09	2.57
11/01/05	12.74	12.25	0.49	0.08	2.65
01/10/06	12.50	12.40	0.10	0.02	2.67
05/31/06	13.54	13.40	0.14	0.02	2.69
08/19/08	14.19	13.98	0.21	0.03	2.72
02/19/09	13.79	13.75	0.04	0.01	2.73

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL).

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table 8: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L3 NAPL Area (2002 - 2009)**  
**Well: AI 3-5 (Well diameter = 2 inches)**

Date	Well AI 3-5				
	DTW (ft.)	DTN (ft.)	NAPL Thickness	NAPL Removed - AI 3-5 (gallons)	
				Daily	Cumulative
01/07/02 *	19.15	17.75	1.40	0.00	0.00
04/08/02	19.14	17.62	1.52	0.25	0.25
04/15/02	19.17	17.68	1.49	0.24	0.49
09/25/02	15.06	13.86	1.20	0.20	0.69
10/10/02	15.10	13.89	1.21	0.20	0.88
11/05/02	13.83	13.54	0.29	0.05	0.93
12/17/02	13.58	13.12	0.46	0.08	1.01
01/07/03	12.53	-	0.00	0.00	1.01
02/03/03	13.35	13.28	0.07	0.01	1.02
03/12/03	12.21	12.12	0.09	0.01	1.03
09/16/03	16.66	16.36	0.30	0.05	1.08
03/02/04	17.34	16.51	0.83	0.14	1.22
04/27/04	16.48	16.30	0.18	0.03	1.25
06/10/04	16.35	16.28	0.07	0.01	1.26
07/07/04	17.10	16.58	0.52	0.08	1.34
07/14/04	17.55	16.45	1.10	0.18	1.52
08/11/04	16.07	15.88	0.19	0.03	1.55
08/24/04	15.7	15.63	0.07	0.01	1.56
09/21/04	15.18	14.75	0.43	0.07	1.64
10/06/04	15.31	15.01	0.30	0.05	1.68
10/12/04	15.49	15.37	0.12	0.02	1.70
10/20/04	13.70	13.60	0.10	0.02	1.72
11/09/04	16.98	16.38	0.60	0.10	1.82
02/15/05	15.97	15.88	0.09	0.01	1.83
03/31/05	16.08	15.98	0.10	0.02	1.85
04/26/05	16.18	16.08	0.10	0.02	1.87
11/01/05	15.49	15.16	0.33	0.05	1.92
01/10/06	15.40	15.28	0.12	0.02	1.94
05/31/06	16.42	16.25	0.17	0.03	1.97
08/19/08	16.63	-	0.00	0.00	1.97
02/19/09	16.55	-	0.00	0.00	1.97

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL).

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table 9: NAPL Thickness and Removal Measurements**  
**Harmon Yard OU-II Site L3 NAPL Area (2002 - 2009)**  
**Well: AI 3-6 (Well diameter = 2 inches)**

Date	Well AI 3-6				
	DTW (ft.)	DTN (ft.)	NAPL Thickness	NAPL Removed - AI 3-6 (gallons)	
				Daily	Cumulative
01/11/02 *	19.74	17.95	1.79	0.00	0.00
04/08/02	19.62	17.87	1.75	0.29	0.29
04/15/02	19.68	17.90	1.78	0.29	0.58
09/25/02	15.42	14.08	1.34	0.22	0.79
10/10/02	15.28	14.00	1.28	0.21	1.00
11/05/02	14.40	13.69	0.71	0.12	1.12
12/17/02	13.58	13.12	0.46	0.08	1.19
01/07/03	12.66	-	0.00	0.00	1.19
02/03/03	14.53	13.46	1.07	0.17	1.37
03/12/03	13.48	12.47	1.01	0.16	1.53
09/16/03	17.40	16.60	0.80	0.13	1.66
03/02/04	17.95	16.79	1.16	0.19	1.85
04/27/04	17.10	16.58	0.52	0.08	1.94
06/10/04	17.25	16.53	0.72	0.12	2.06
06/17/04	17.45	16.68	0.77	0.13	2.18
06/23/04	17.48	16.69	0.79	0.13	2.31
07/01/04	17.66	16.78	0.88	0.14	2.45
07/07/04	17.98	16.84	1.14	0.19	2.64
07/14/04	17.71	16.70	1.01	0.16	2.81
08/11/04	16.50	16.14	0.36	0.06	2.86
08/24/04	16.06	15.93	0.13	0.02	2.89
09/21/04	15.16	-	0.00	0.00	2.89
10/06/04	15.61	15.32	0.29	0.05	2.93
10/12/04	15.87	15.60	0.27	0.04	2.98
10/20/04	16.24	15.90	0.34	0.06	3.03
11/09/04	16.28	16.13	0.15	0.02	3.06
02/15/05	16.47	16.11	0.36	0.06	3.12
03/31/05	16.40	16.25	0.15	0.02	3.14
04/26/05	16.68	16.30	0.38	0.06	3.20
11/01/05	15.59	15.41	0.18	0.03	3.23
01/10/06	15.90	15.50	0.40	0.07	3.30
05/31/06	17.30	16.70	0.60	0.10	3.39
08/19/08	17.22	16.26	0.96	0.16	3.55
02/19/09	13.85	13.83	0.02	0.00	3.55

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL).

\* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

**Table 10: NAPL Thickness Measurements, Harmon Yard OU-II Site - L3 NAPL Area (2002 - 2009)**  
**All Wells - Vapor Extraction (VE) and Air Inlet (AI) Wells**

Date	VE3-1	VE3-2	VE3-3	AI3-1	AI3-2	AI3-3	AI3-4	AI3-5	AI3-6
01/07/02 *	1.51	2.31	1.01	0.00	0.00	0.00	2.05	1.40	
01/09/02 *					0.26				
01/11/02 *									1.79
01/29/02 *	1.72	2.46	1.42						
04/08/02	0.54	1.63	1.23				1.77	1.52	1.75
04/15/02	0.21	1.59	0.80	0.00	1.22	0.00	1.80	1.49	1.78
05/17/02	2.20	0.99	1.71						
06/26/02									
07/26/02	3.22	0.09	1.68						
08/15/02	3.21	0.19	2.09						
09/09/02	3.15	0.28	2.23						
09/25/02					0.01		1.01	1.20	1.34
10/10/02	2.52	0.06	1.26		0.05		0.75	1.21	1.28
11/05/02	0.57	1.16	0.93		0.00		0.10	0.29	0.71
12/17/02	0.15	0.09	0.78		0.12		0.01	0.46	0.46
01/07/03	0.85	0.20	0.29		0.08		0.00	0.00	0.00
02/03/03	0.30	0.02	0.13		0.03		0.55	0.07	1.07
03/12/03	0.05	0.11	0.05		0.04		0.26	0.09	1.01
09/16/03	0.34	0.19	0.15	0.00	0.20	0.00	0.38	0.30	0.8
11/05/03	0.34	0.23	0.16						
03/02/04	0.26	0.15	0.12	0.00	0.30	0.00	0.58	0.83	1.16
04/27/04	0.26	0.25	0.17	0.00	0.05	0.00	0.27	0.18	0.52
06/10/04	0.35	0.28	0.04		0.10		0.35	0.07	0.72
06/17/04	0.23	0.20	0.12		0.21		0.46		0.77
06/23/04									0.79
07/01/04									0.88
07/07/04	0.28	0.25	0.15		0.40		0.74	0.52	1.14
07/14/04	0.48	0.02	0.07		0.17		0.65	1.10	1.01
08/11/04	0.65	0.05	0.10		0.06		0.16	0.19	0.36
08/24/04	0.44							0.07	0.13
09/21/04	0.65	0.07	0.04		0.17		0.85	0.43	0.00
10/06/04	0.41	0.10	0.07		0.23		0.80	0.30	0.29
10/12/04	0.19	0.06	0.04		0.19		0.68	0.12	0.27
10/20/04	0.15	0.15	0.14				0.45	0.10	0.34
11/09/04	0.13	0.05	0.00		0.15		0.45	0.60	0.15
02/15/05	0.09	0.00	0.00	0.36	0.00		0.05	0.09	0.36
03/31/05	0.02	0.01	0.00	1.02	0.00		0.05	0.10	0.15
04/26/05	0.03	0.00	0.00	0.00	0.01		0.53	0.10	0.38
11/01/05	0.90	0.00	0.00	0.00	0.00	0.00	0.49	0.33	0.18
01/10/06	0.35	0.00	0.00	0.00	0.00	0.00	0.10	0.12	0.40
05/31/06	0.17	0.00	0.00	0.00	0.00	0.00	0.14	0.17	0.60
08/19/08	0.49	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.96
02/19/09	0.00	0.00	0.00	0.00	0.00		0.04	0.00	0.02

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). \* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

= Indicates that well was not monitored on this date.

**Table 11: Amount of NAPL Removed in Gallons, Harmon Yard OU-II Site - L3 NAPL Area (2002 - 2009)**  
**All Wells - Vapor Extraction (VE) and Air Inlet (AI) Wells**

Date	VE3-1	VE3-2	VE3-3	AI3-1	AI3-2	AI3-3	AI3-4	AI3-5	AI3-6
01/07/02 *	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	
01/09/02 *					0.00				
01/11/02 *									0.00
01/29/02 *	0.00	0.00	0.00						
04/08/02	1.00	1.00	0.10				0.29	0.25	0.29
04/15/02	1.00	0.25	0.25	0.00	0.20	0.00	0.29	0.24	0.29
05/17/02	1.00	1.00	0.10						
06/26/02									
07/26/02	1.00	0.10	0.25						
08/15/02	1.00	0.25	0.75						
09/09/02	1.00	0.25	0.25						
09/25/02					0.00		0.16	0.20	0.22
10/10/02	1.00	1.00	1.00		0.01		0.12	0.20	0.21
11/05/02	1.00	1.00	1.00		0.00		0.02	0.05	0.12
12/17/02	1.00	1.00	1.00		0.02		0.00	0.08	0.08
01/07/03	1.00	0.25	0.75		0.01		0.00	0.00	0.00
02/03/03	0.00	0.00	0.10		0.00		0.09	0.01	0.17
03/12/03	0.00	0.00	0.00		0.01		0.04	0.01	0.16
09/16/03	0.22	0.12	0.10	0.00	0.03	0.00	0.06	0.05	0.13
11/05/03	0.22	0.25	0.25						
03/02/04	0.17	0.10	0.08	0.00	0.05	0.00	0.09	0.14	0.19
04/27/04	0.17	0.16	0.11	0.00	0.01	0.00	0.04	0.03	0.08
06/10/04	0.25	0.00	0.00		0.02		0.06	0.01	0.12
06/17/04	0.15	0.13	0.00		0.03		0.08		0.13
06/23/04									0.13
07/01/04									0.14
07/07/04	0.38	0.31	0.19		0.03		0.12	0.08	0.19
07/14/04	0.50	0.00	0.00		0.03		0.11	0.18	0.16
08/11/04	0.75	0.00	0.00		0.01		0.03	0.03	0.06
08/24/04	0.38							0.01	0.02
09/21/04	0.50	0.05	0.03		0.03		0.14	0.07	0.00
10/06/04	0.50	0.07	0.05		0.04		0.13	0.05	0.05
10/12/04	0.12	0.04	0.03		0.03		0.11	0.02	0.04
10/20/04	0.10	0.10	0.09				0.07	0.02	0.06
11/09/04	0.08	0.03	0.00		0.02		0.07	0.10	0.02
02/15/05	0.06	0.00	0.00	0.06	0.00		0.01	0.01	0.06
03/31/05	0.01	0.01	0.00	0.17	0.00		0.01	0.02	0.02
04/26/05	0.02	0.00	0.00	0.00	0.00		0.09	0.02	0.06
11/01/05	0.75	0.00	0.00	0.00	0.00	0.00	0.08	0.05	0.03
01/10/06	0.13	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.07
05/31/06	0.11	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.10
08/19/08	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.16
02/19/09	0.00	0.00	0.00	0.00	0.00		0.01	0.00	0.00
<b>Total Gallons Removed=</b>	15.57	7.47	6.46	0.23	0.58	0.00	2.73	1.97	3.55

DTW = Depth to Water. DTN = Depth to Non-Aqueous Phase Liquid (NAPL). \* Depth to water and depth to NAPL measurements recorded prior to system startup in April 2002.

= Indicates that well was not monitored on this date.



**Table 12: Percent Decrease in NAPL Thickness (2002 - 2009)  
Harmon Yard OU-II Site L3 NAPL Area**

Well No.	Average 2002 NAPL Thickness <sup>(1)</sup> (feet)	2009 NAPL Thickness (feet)	Percent Decrease (Removal) 2002 - 2009
VE 3-1	1.75	0.00	100.0%
VE 3-2	0.68	0.00	100.0%
VE 3-3	1.41	0.00	100.0%
AI 3-1	0.00	0.00	not applicable
AI 3-2	0.28	0.00	100.0%
AI 3-3	0.00	0.00 <sup>(2)</sup>	not applicable
AI 3-4	0.73	0.04	94.6%
AI 3-5	1.03	0.00	100.0%
AI 3-6	1.22	0.02	98.4%

**Notes:**

1. Average 2002 NAPL thickness presented here does not include the NAPL thickness levels measured in January 2002 prior to the April 2002 system startup.

2. Represents the NAPL thickness recorded in well AI 3-3 on August 19, 2008. NAPL thickness was not monitored in well AI 3-3 in 2009. As shown on Table 6, NAPL has never been observed in well AI 3-3.

**Table 13: Current (2008 - 2009) NAPL Thickness Measurements  
Harmon Yard OU-II Site L3 NAPL Area**

<b>Well No.</b>	<b>2008 NAPL Thickness (feet)</b>	<b>2009 NAPL Thickness (feet)</b>	<b>Average 2008 - 2009 NAPL Thickness (feet)</b>
VE 3-1	0.49	0.00	0.25
VE 3-2	0.00	0.00	0.00
VE 3-3	0.00	0.00	0.00
AI 3-1	0.00	0.00	0.00
AI 3-2	0.00	0.00	0.00
AI 3-3	0.00	not monitored	0.00
AI 3-4	0.21	0.04	0.12
AI 3-5	0.00	0.00	0.00
AI 3-6	0.96	0.02	0.49

**Table 14: Summary of NAPL Removal (Gallons)**  
**Harmon Yard OU-II Site L3 NAPL Area (2002 - 2009)**

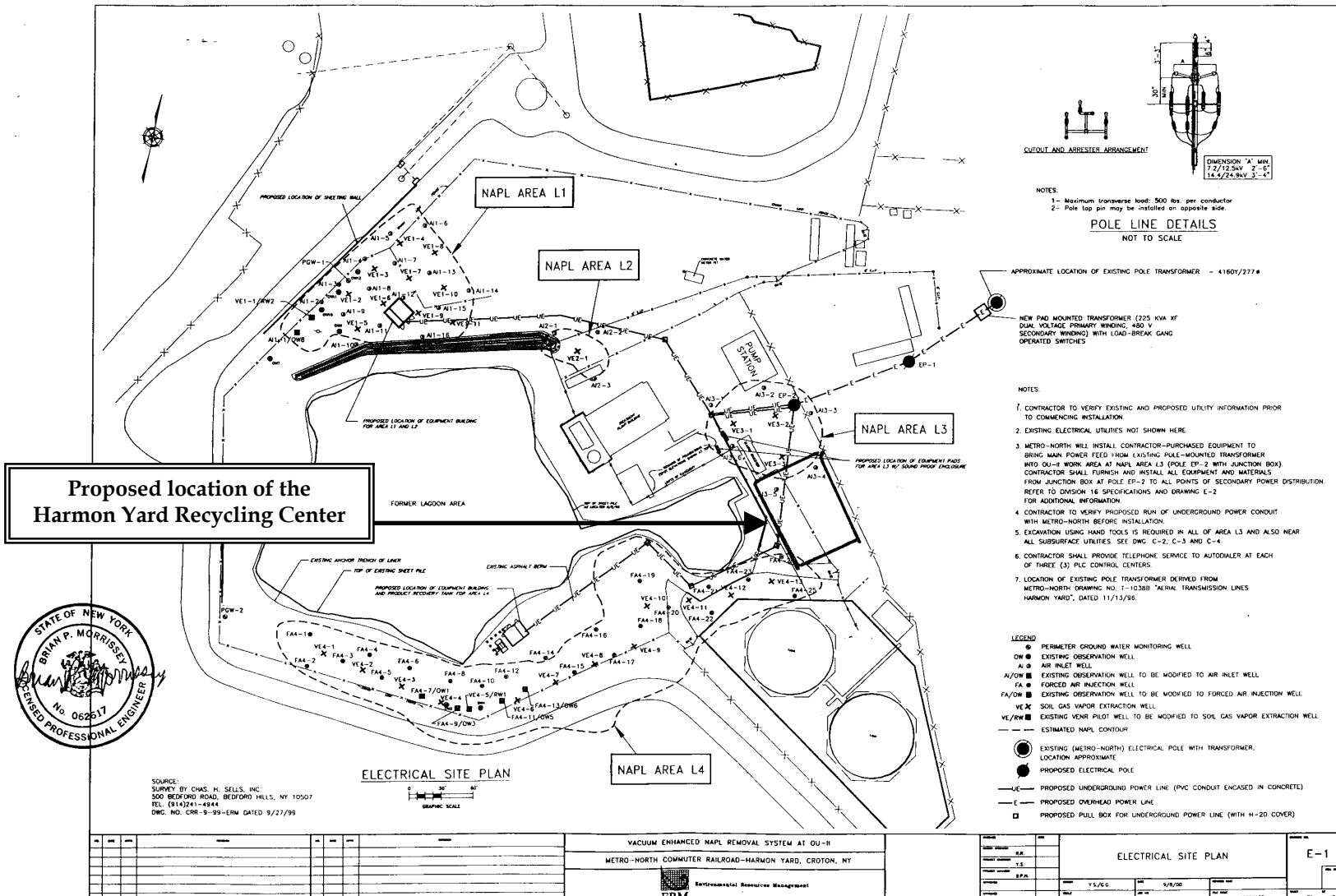
L3 NAPL Area Well No.	2002 - 2005		2006 - 2009		Total	
	(gallons)	(% of total)	(gallons)	(% of total)	Gallons	% of Total
Well VE 3-1	15.33	98.5%	0.24	1.5%	15.57	40.4%
Well VE 3-2	7.47	100.0%	0.00	0.0%	7.47	19.4%
Well VE 3-3	6.46	100.0%	0.00	0.0%	6.46	16.8%
<b>VE Well Subtotal =</b>	<b>29.26</b>	<b>99.2%</b>	<b>0.24</b>	<b>0.8%</b>	<b>29.50</b>	<b>76.5%</b>
Well AI 3-1	0.23	100.0%	0.00	0.0%	0.23	0.6%
Well AI 3-2	0.58	100.0%	0.00	0.0%	0.58	1.5%
Well AI 3-3	0.00	not applicable	0.00	not applicable	0.00	0.0%
Well AI 3-4	2.65	97.1%	0.08	2.9%	2.73	7.1%
Well AI 3-5	1.92	97.6%	0.05	2.4%	1.97	5.1%
Well AI 3-6	3.23	90.9%	0.32	9.1%	3.55	9.2%
<b>AI Well Subtotal =</b>	<b>8.61</b>	<b>95.0%</b>	<b>0.45</b>	<b>5.0%</b>	<b>9.06</b>	<b>23.5%</b>
<b>Total NAPL Removal =</b>	<b>37.87</b>	<b>98.2%</b>	<b>0.69</b>	<b>1.8%</b>	<b>38.56</b>	

# *FIGURES*

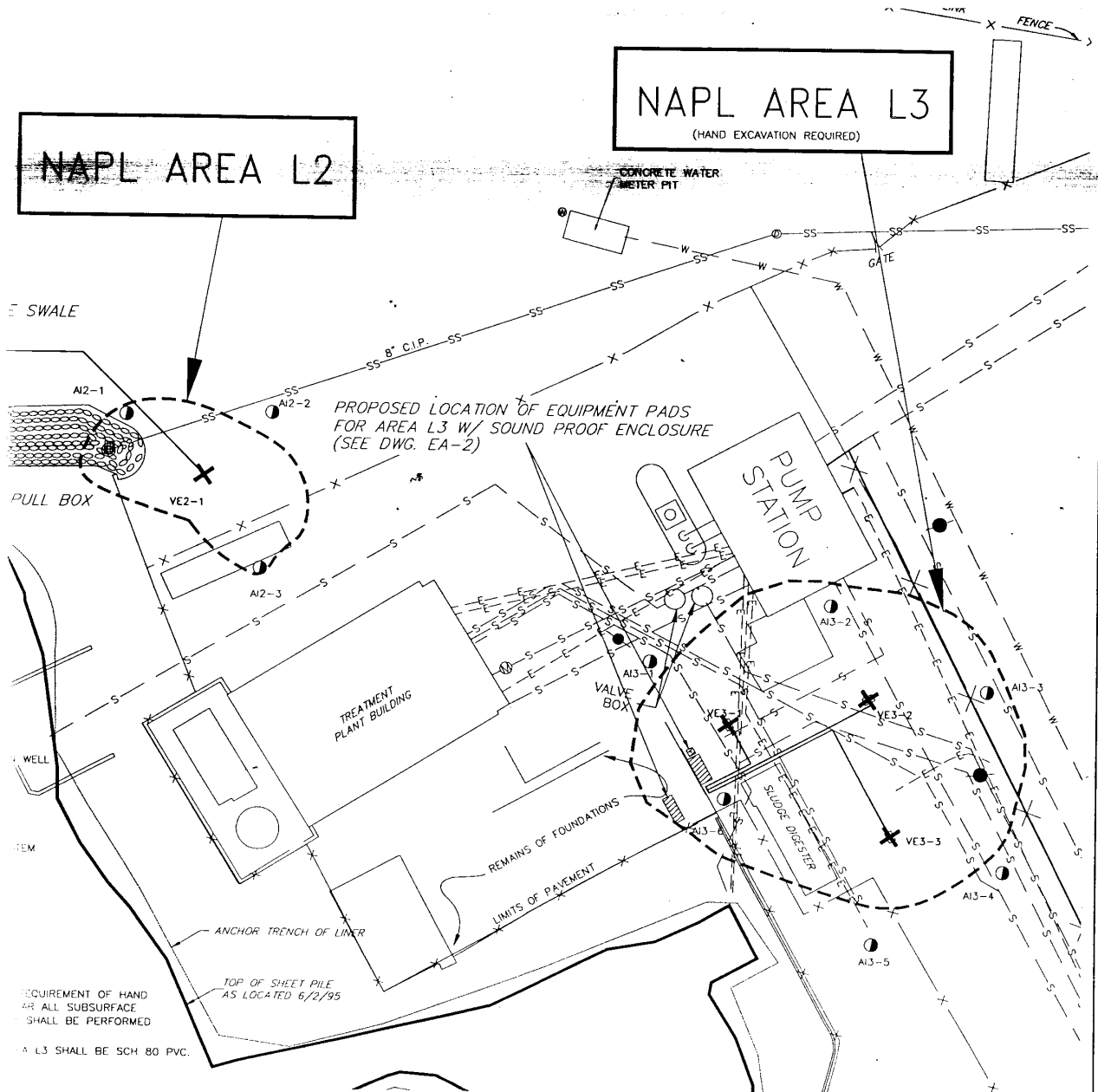
## *EVALUATION OF L3 NAPL AREA*

*METRO-NORTH RAILROAD  
HARMON YARD OPERABLE UNIT II*

Figure 1: Harmon Yard OU-II Site and Proposed Harmon Yard Recycling Center

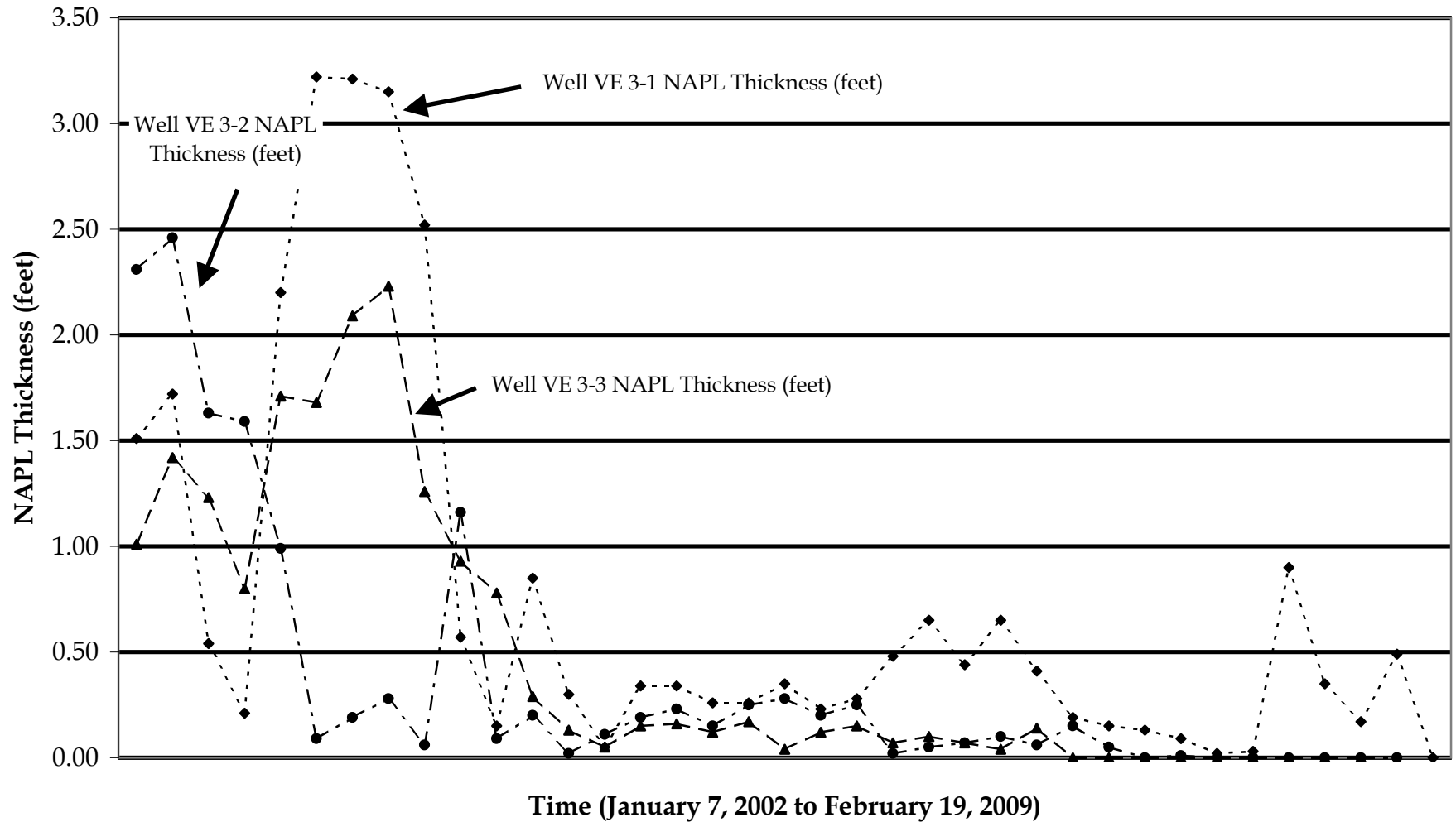


**Figure 2: Harmon Yard OU-II Site L3 NAPL Area (Detail)**

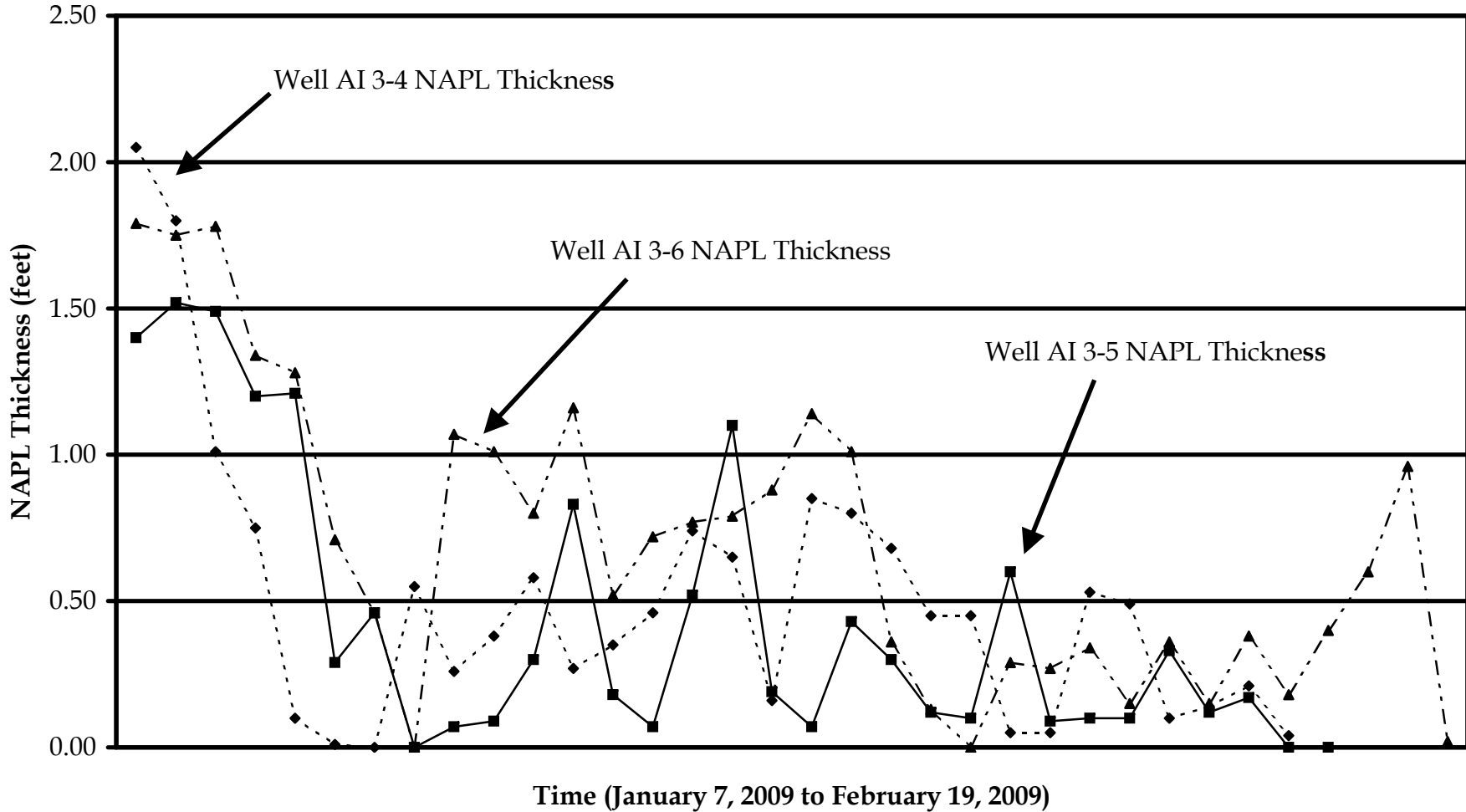


NAPL REMOVAL SYSTEM AT OU-II RAILROAD-HARMON YARD, CROTON, NY Environmental Resources Management	DRAWN: [ ] CHECKED: [ ] PROJECT ENGINEER: Y.S. PROJECT MANAGER: B.P.M.	DATE: [ ] DATE: 7/31/00 REVISION: [ ]	UNDERGROUND FIELD PIPING LAYOUT NAPL AREAS L1, L2 AND L3 C-3
	APPROVED: [ ] DATE: [ ]		REV. NO. [ ]
	[ ]		[ ]
	[ ]		[ ]

Figure 3: Harmon Yard OU-II Site L3 Area NAPL Thickness - Vapor Extraction (VE) Wells



**Figure 4: Harmon Yard OU-II Site L3 Area NAPL Thickness - Air Inlet (AI) Wells**  
(Note: NAPL has not accumulated in wells AI 3-1, AI 3-2 and AI 3-3 since 2005.)





# *APPENDIX A*

*DECOMMISSIONING REQUIREMENTS FOR  
THE L3 NAPL AREA  
METRO-NORTH RAILROAD  
HARMON YARD OPERABLE UNIT II*

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](mailto: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**

---

<b>DESCRIPTION OF THE L3 AREA OU-II REMEDY</b>
--

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.

<b>ABOVE GROUND SOIL VAPOR EXTRACTION SYSTEM COMPONENTS TO BE REMOVED</b>
---

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 gravel 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 <sup>(1)</sup> 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 <sup>(2)</sup> 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 <sup>(2)</sup> 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 <sup>(1)</sup> 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 <sup>(1)</sup> Related to the Decommissioning of the L3 NAPL Area  
Metro-North Railroad Harmon Yard Operable Unit II Site**

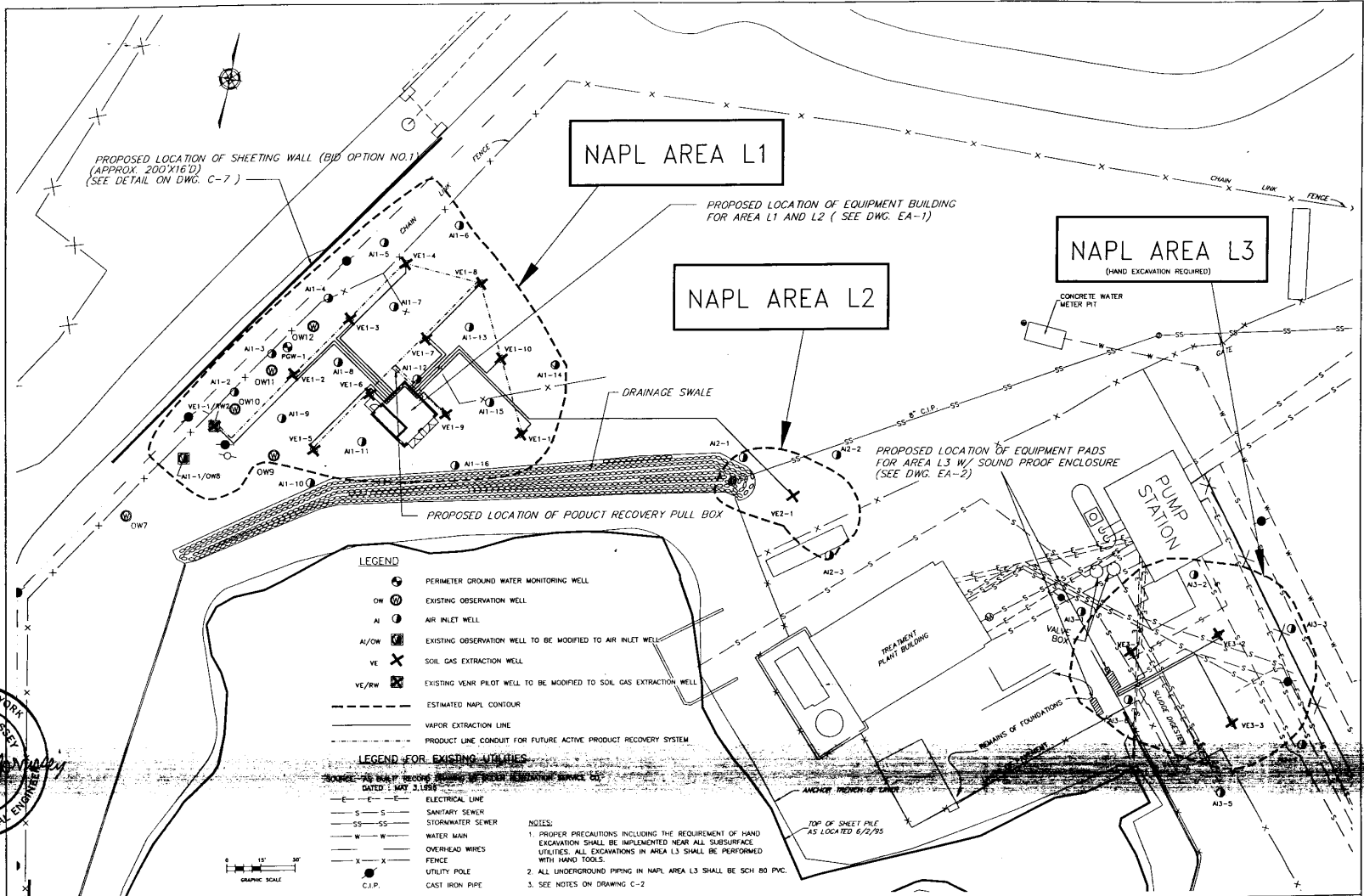
Drawing No.	Title	Description	Action
PID-3	NAPL Area L3 Soil Gas Extraction System Process and Instrumentation Diagram	This drawing shows the equipment, connections and instrumentation for the vapor extraction system component of the L3 Area NAPL removal system and the manner in which this equipment 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"> <li>• Control panel.</li> <li>• Instrumentation.</li> <li>• Liquid/vapor separator tank.</li> <li>• Exhaust stack.</li> <li>• Vacuum pump (blower).</li> <li>• Condensate pump.</li> <li>• Condensate storage tank.</li> <li>• Activated carbon air treatment units (2 drums).</li> <li>• Conduits and piping connecting this equipment.</li> </ul>

**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.



VACUUM ENHANCED NAPL REMOVAL SYSTEM AT OU-II METRO-NORTH COMMUTER RAILROAD-HARMON YARD, CROTON, NY		<b>UNDERGROUND FIELD PIPING LAYOUT</b> <b>NAPL AREAS L1, L2 AND L3</b>	
Date: _____ Drawn: _____ Check: _____ Scale: _____		Date: _____ Drawn: _____ Check: _____ Scale: _____	

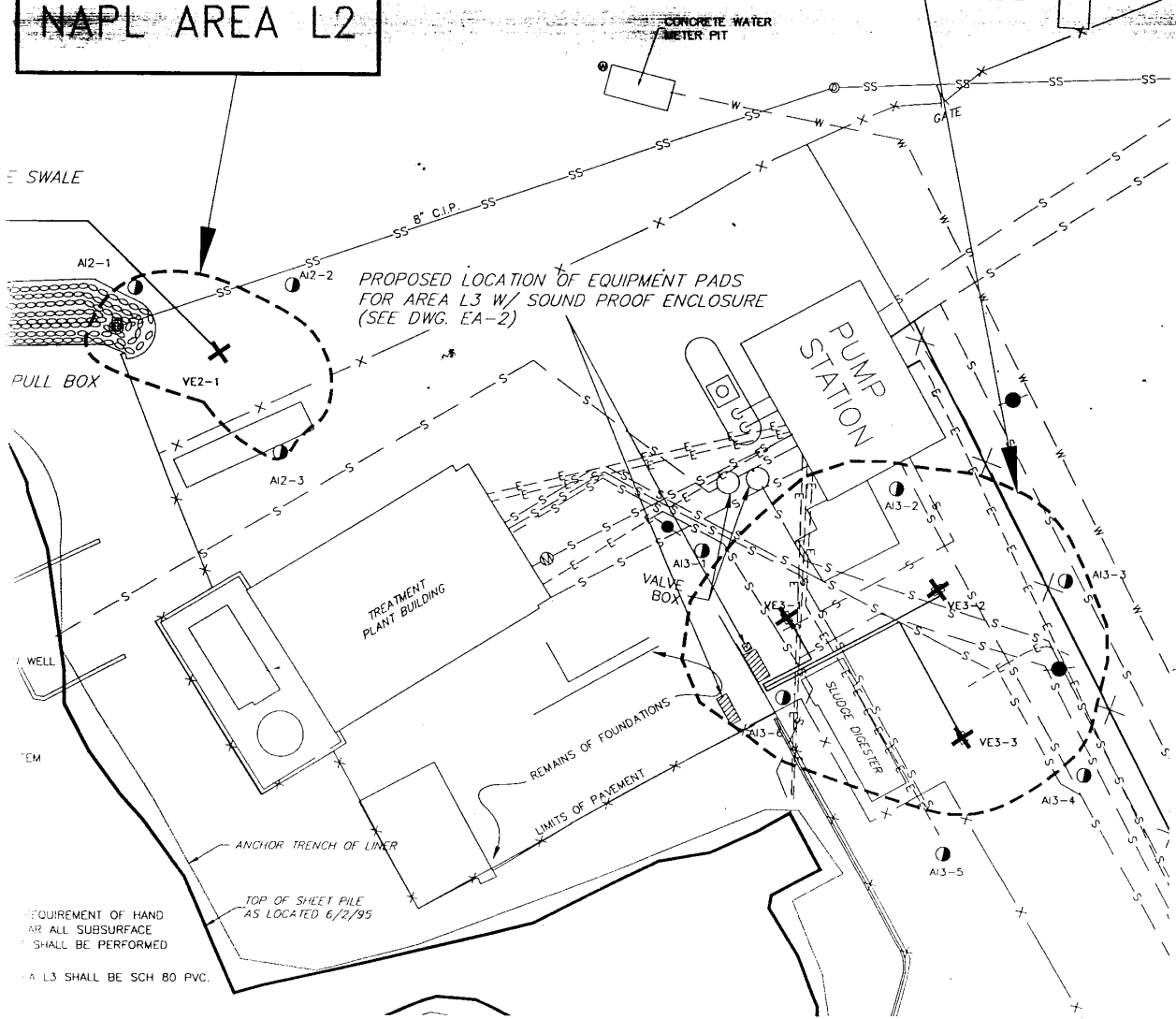
AREA L1

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

NAPL AREA L3  
(HAND EXCAVATION REQUIRED)

NAPL AREA L2

PROPOSED LOCATION OF EQUIPMENT PADS FOR AREA L3 W/ SOUND PROOF ENCLOSURE (SEE DWG. EA-2)

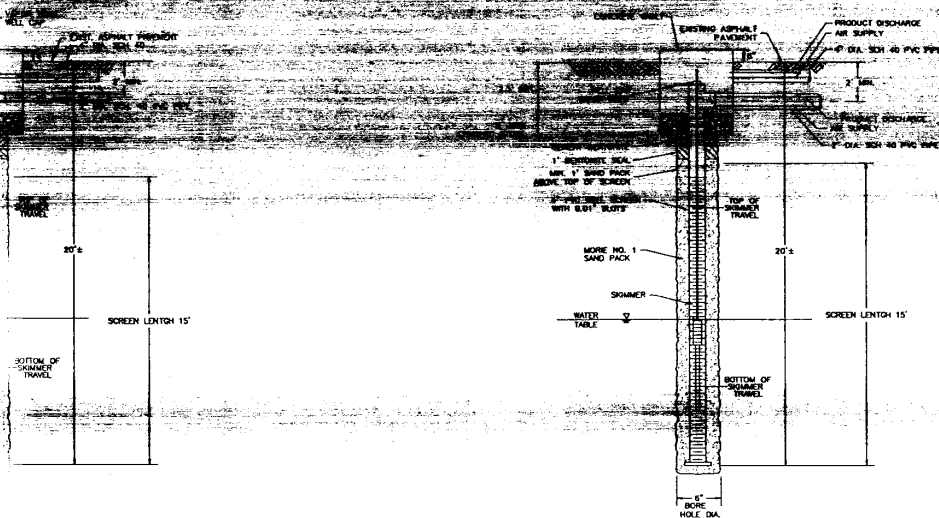


REQUIREMENT OF HAND EXCAVATION FOR ALL SUBSURFACE WORK SHALL BE PERFORMED

AREA L3 SHALL BE SCH 80 PVC.

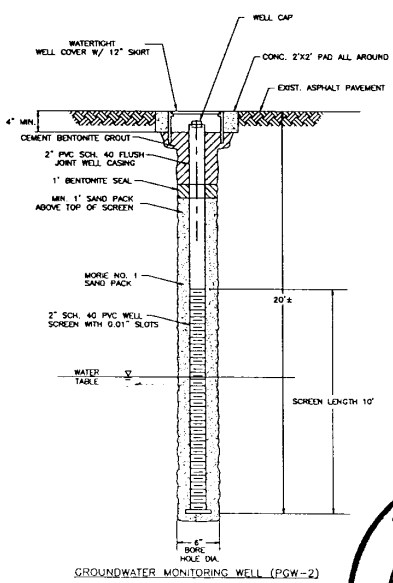
NAPL REMOVAL SYSTEM AT OU-II AIRROAD-HARMON YARD, CROTON, NY	CHECKED: _____ DATE: _____ DESIGN ENGINEER: A.M. PROJECT ENGINEER: Y.S. PROJECT MANAGER: B.P.M.	UNDERGROUND FIELD PIPING LAYOUT NAPL AREAS L1, L2 AND L3	DRAWING NO. C-3 REV. NO.



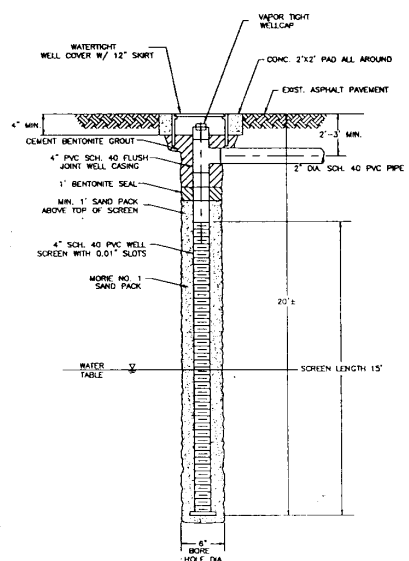


TYPICAL SOIL GAS EXTRACTION WELL W/  
PASSIVE NAPL RECOVERY (TYP. AREA L1)

EXTRACTION WELL  
COVERY (TYP. AREA L4)  
G C-5, DETAIL A-A  
SECTION



GROUNDWATER MONITORING WELL (PGW-2)



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



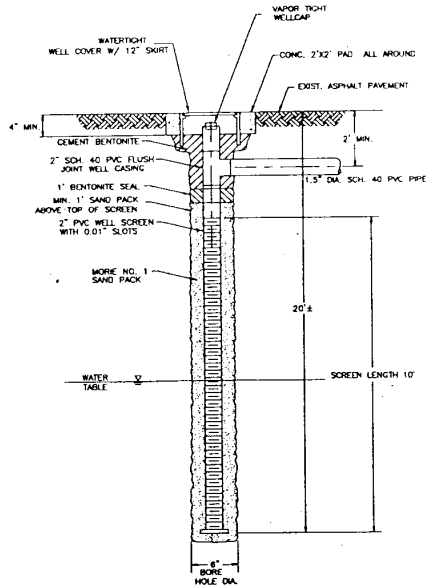
WELL SETTINGS ARE  
FOR MONITORING PURPOSES ONLY.  
SCREEN TO BOTTOM OF WELL IS 20  
FEET AND SCREEN SETTINGS WILL  
BE DETERMINED BY THE ENGINEER.

SOIL REMOVAL SYSTEM AT OU-II  
RAILROAD-HARMON YARD, CROTON, NY

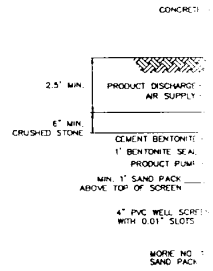
DESIGNED	DATE
SENIOR ENGINEER A.M.	
PROJECT ENGINEER Y.S.	

WELL CROSS-SECTIONS AND  
SCHEDULES

C-6

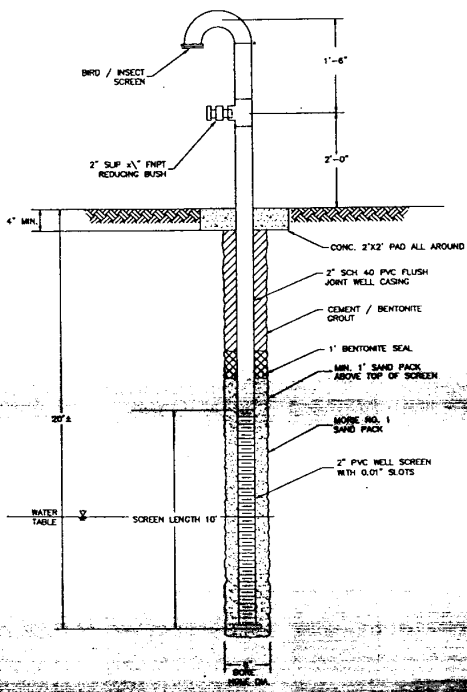


AIR INJECTION WELL (TYP. FOR AREA L4)

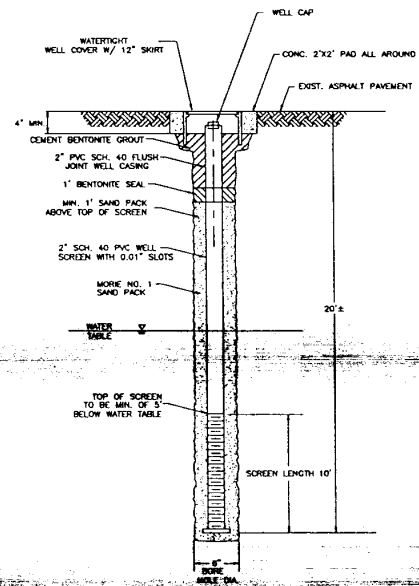


WATER TABLE SKETCH

TYP.  
W/AC  
NOT  
FOR

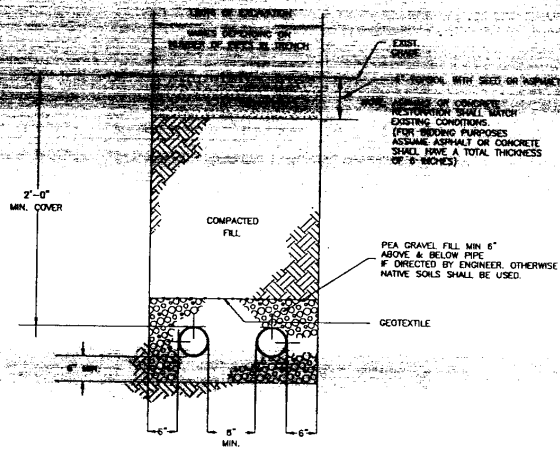


AIR INJECT WELL DETAIL (TYP.)

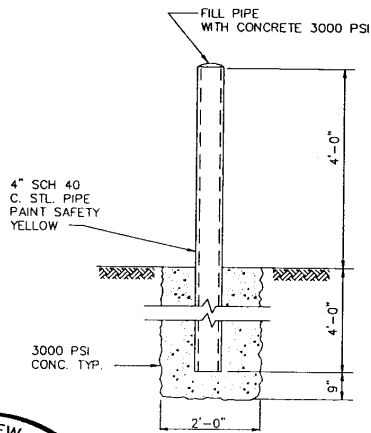


GROUNDWATER MONITORING WELL (GWM-1)

NOTE: APPROXIMATE DEPTH OF WATER TABLE TO BE DETERMINED BY FIELD MEASUREMENTS.



TYPICAL TRENCH DETAIL  
NOT TO SCALE



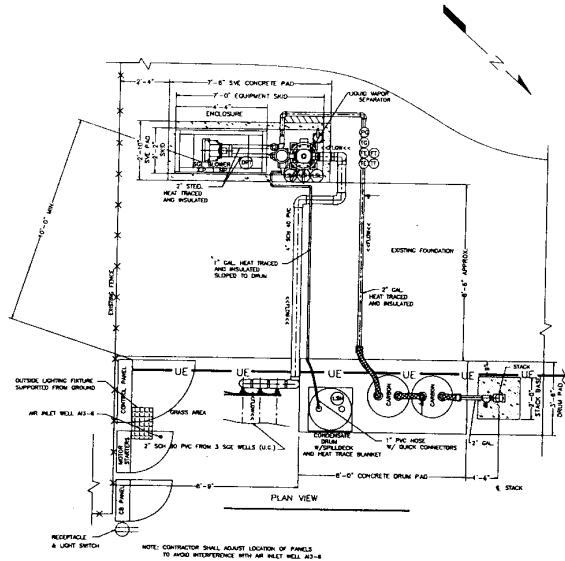
SAFETY BOLLARD DETAIL  
(NOT TO SCALE)

SCALE NOT TRUE  
REDUCED TO FIT

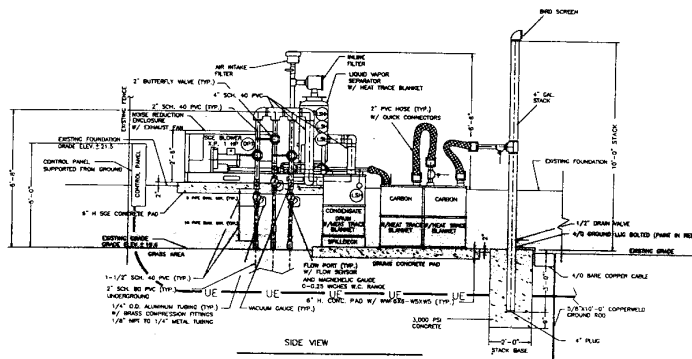


PILE REMOVAL SYSTEM AT OU-II  
ROAD-HARMOND YARD, CROTON, NY  
Environmental Resources Management

DESIGNED	DATE	SHEET PILING AND MISCELLANEOUS CIVIL DETAILS	DRAWING NO. C-7
DESIGN CHECKED	A.M.		
PROJECT CHECKED	Y.S.		
PROJECT MANAGER	B.P.M.		
APPROVED			



NOTE: CONTRACTOR SHALL ADJUST LOCATION OF PIPES TO AVOID INTERFERENCE WITH AIR INLET #3-4



- GENERAL NOTES FOR AREAS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

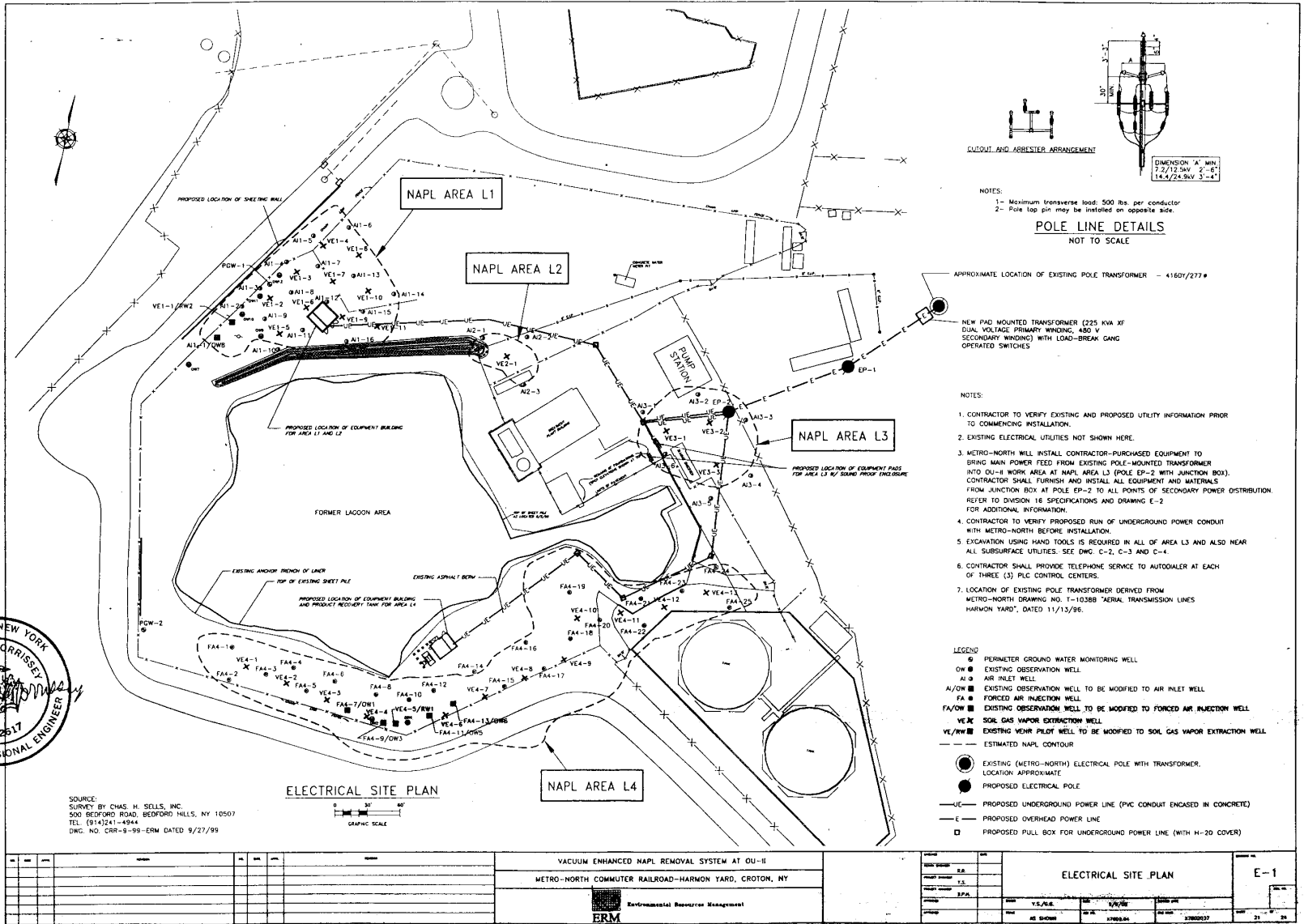


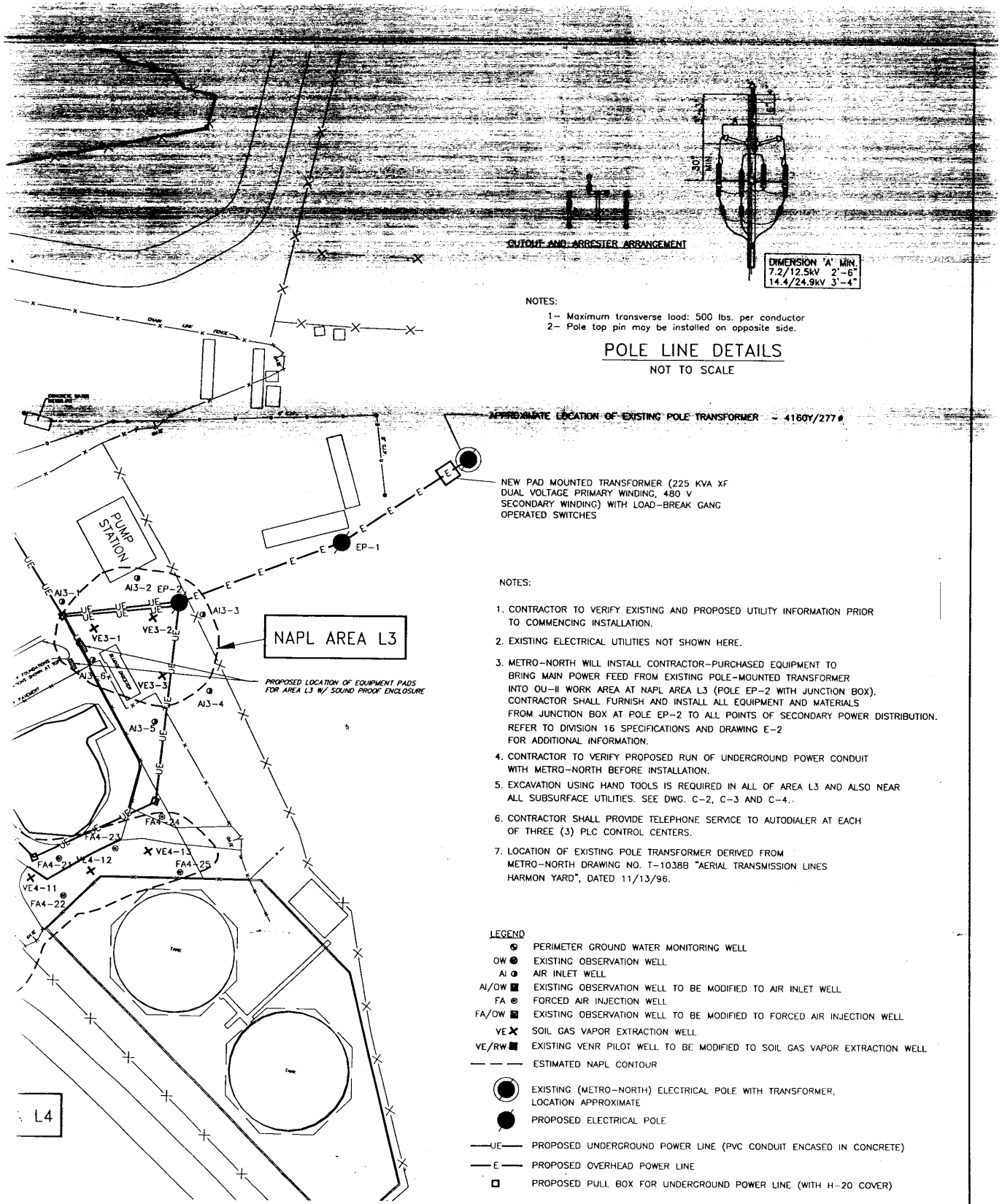
LEGEND  
 — UE — UE — PROPOSED UNDERGROUND POWER LINE (PVC CONDUIT ENCASED IN CONCRETE)

SCALE NOT THRU  
 REDUCED TO FIT

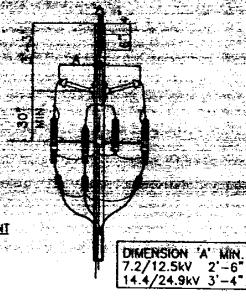
VACUUM ENHANCED NAPL REMOVAL SYSTEM AT OU-II METRO-NORTH COMMUTER RAILROAD-HARMON YARD, CROTON, NY		DATE: 1/12/99 DRAWN BY: J.S. CHECKED BY: J.S. PROJECT NO.: 990100		NAPL AREA 3 EQUIPMENT ARRANGEMENT EA-2
Environmental Resources Management 		1/12/99		18







**CUTOUT AND ARRESTER ARRANGEMENT**



- 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

APPROXIMATE LOCATION OF EXISTING POLE TRANSFORMER - 41801/277 #

NEW PAD MOUNTED TRANSFORMER (225 KVA XF DUAL VOLTAGE PRIMARY WINDING, 480 V SECONDARY WINDING) WITH LOAD-BREAK GANG OPERATED SWITCHES

- NOTES:
1. CONTRACTOR TO VERIFY EXISTING AND PROPOSED UTILITY INFORMATION PRIOR TO COMMENCING INSTALLATION.
  2. EXISTING ELECTRICAL UTILITIES NOT SHOWN HERE.
  3. METRO-NORTH WILL INSTALL CONTRACTOR-PURCHASED EQUIPMENT TO BRING MAIN POWER FEED FROM EXISTING POLE-MOUNTED TRANSFORMER INTO OU-II WORK AREA AT NAPL AREA L3 (POLE EP-2 WITH JUNCTION BOX). CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT AND MATERIALS FROM JUNCTION BOX AT POLE EP-2 TO ALL POINTS OF SECONDARY POWER DISTRIBUTION. REFER TO DIVISION 16 SPECIFICATIONS AND DRAWING E-2 FOR ADDITIONAL INFORMATION.
  4. CONTRACTOR TO VERIFY PROPOSED RUN OF UNDERGROUND POWER CONDUIT WITH METRO-NORTH BEFORE INSTALLATION.
  5. EXCAVATION USING HAND TOOLS IS REQUIRED IN ALL OF AREA L3 AND ALSO NEAR ALL SUBSURFACE UTILITIES. SEE DWG. C-2, C-3 AND C-4.
  6. CONTRACTOR SHALL PROVIDE TELEPHONE SERVICE TO AUTODIALER AT EACH OF THREE (3) PLC CONTROL CENTERS.
  7. LOCATION OF EXISTING POLE TRANSFORMER DERIVED FROM METRO-NORTH DRAWING NO. T-1038B "AERIAL TRANSMISSION LINES HARMON YARD", DATED 11/13/96.

**LEGEND**

- ⊙ PERIMETER GROUND WATER MONITORING WELL
- ○ ○ EXISTING OBSERVATION WELL
- ○ ○ AIR INLET WELL
- AI/OW ■ EXISTING OBSERVATION WELL TO BE MODIFIED TO AIR INLET WELL
- FA ○ FORCED AIR INJECTION WELL
- FA/OW ■ EXISTING OBSERVATION WELL TO BE MODIFIED TO FORCED AIR INJECTION WELL
- VE × SOIL GAS VAPOR EXTRACTION WELL
- VE/RW ■ EXISTING VENTR PILOT WELL TO BE MODIFIED TO SOIL GAS VAPOR EXTRACTION WELL
- - - ESTIMATED NAPL CONTOUR
- EXISTING (METRO-NORTH) ELECTRICAL POLE WITH TRANSFORMER, LOCATION APPROXIMATE
- PROPOSED ELECTRICAL POLE
- - - U - PROPOSED UNDERGROUND POWER LINE (PVC CONDUIT ENCASED IN CONCRETE)
- - - E - PROPOSED OVERHEAD POWER LINE
- PROPOSED PULL BOX FOR UNDERGROUND POWER LINE (WITH H-20 COVER)

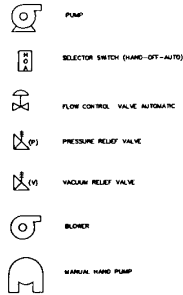
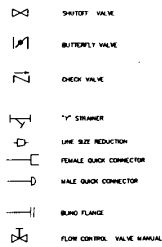
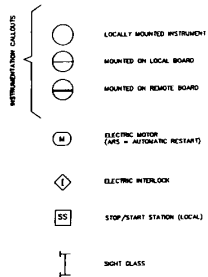
ANCED NAPL REMOVAL SYSTEM AT OU-II  
MUTER RAILROAD-HARMON YARD, CROTON, NY

DESIGNED	DATE
DESIGN ENGINEER	R.R.
PROJECT NUMBER	Y.S.
PROJECT NUMBER	B.P.M.

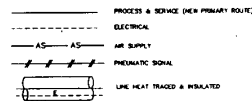
**ELECTRICAL SITE PLAN**

REV. NO. E-1

**LEGEND**



**LINE TYPE IDENTIFICATION**



**ABBREVIATIONS**

N.O.	NORMALLY OPEN	FT	FLOW TRANSMITTER
N.C.	NORMALLY CLOSED	FE	FLOW ELEMENT
CV	CHECK VALVE	RCR	RUNTIME RECORDER
SV	SHUTOFF VALVE	PLC	PROGRAMMABLE LOGIC CONTROLLER
M	MOTOR	TT	TEMPERATURE TRANSMITTER
VP	VELOCITY PORT	TE	TEMPERATURE ELEMENT
SS	START STOP	DP	DIFFERENTIAL PRESSURE TRANSMITTER
MC	MANUAL CONTROL	FCV	FLOW CONTROL VALVE
MG	MOTOR GAUGE	P	PUMP
MB	MOTOR BREAKER	PS	PRESSURE SWITCH
TD	TEMPERATURE GAUGE	PRV	PRESSURE RELIEF VALVE
MG	MOTOR GAUGE	SP	SAMPLE PORT
DM	DOUBLE WALL	S/D	SHUT DOWN
SV	SOLENOID VALVE	PVC	POLYVINYL CHLORIDE
UG	UNDERGROUND	CS	CORROSIVED STEEL
A.C.	ARMED GROUND	AS	AIR SUPPLY
LSH	LEVEL SENSOR HIGH HIGH	LEL	LOWER EXPLOSIVE LIMIT
LSH	LEVEL SENSOR HIGH	GAC	GRANULAR ACTIVATED CARBON
LSL	LEVEL SENSOR LOW	SON	SOUND

**INSTRUMENT IDENTIFICATION TABLE**  
ISA 551 - TABLE 1 (MODIFIED)

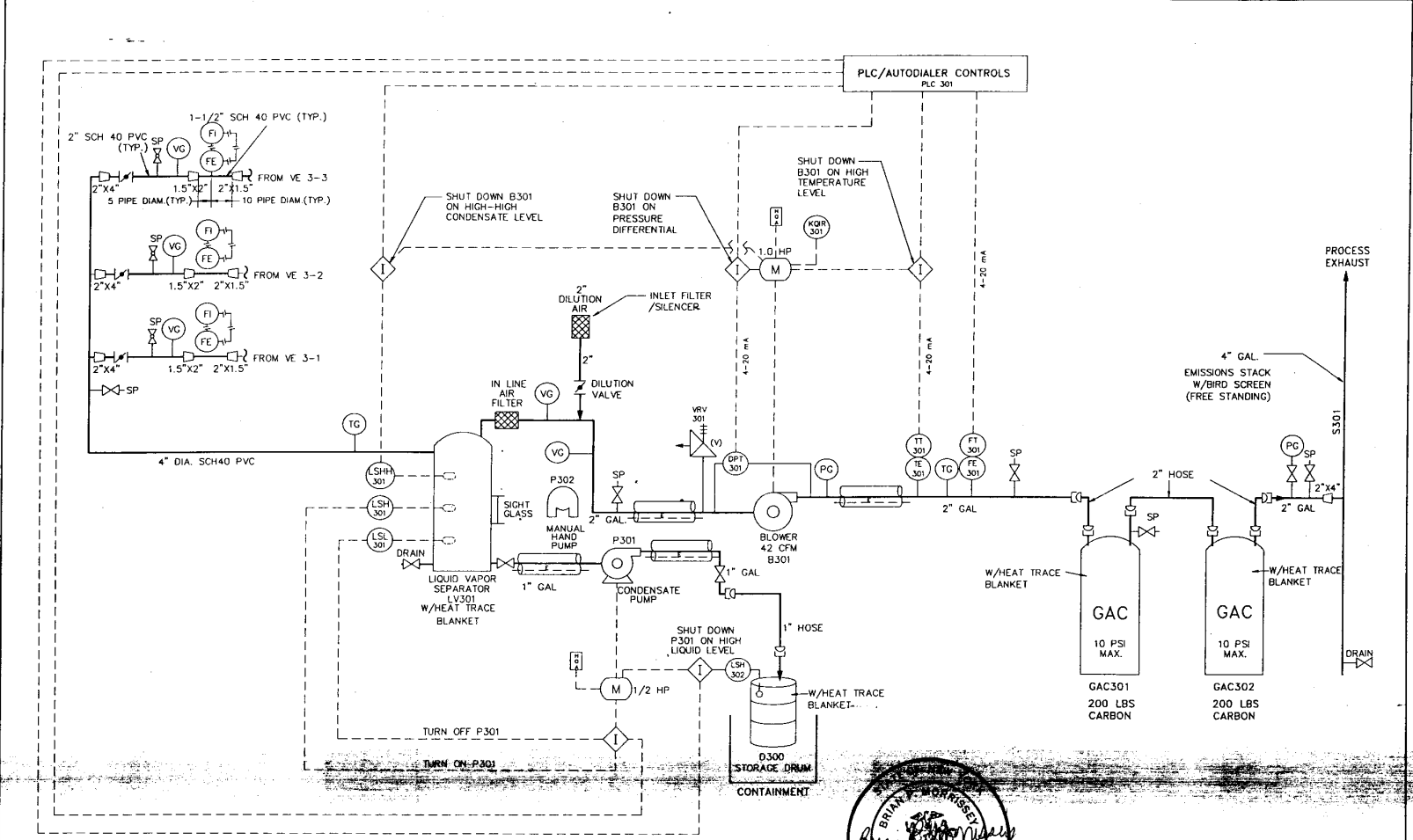
FIRST LETTER	SUCCEEDING LETTERS			
	MEASURED OR INPUT VARIABLE	MODIFIER	READOUT OR FUNCTION	OUTPUT FUNCTION
A	ANALYSIS		ALARM	
B	BURGER PLANE			
C	CONDUCTIVITY			CONTROL
D	DENSITY, DENSITY OF SPECIFIC GRAVITY	DIFFERENTIAL		
E	VOLTADE (EMF)		RELAY ELEMENT	
F	FLOW	AUTO (FUNCTION)		
G	GAS		GAUGE	
H	HUMIDITY (RELATIVE)			HIGH
I	CURRENT (ELECTRICAL)		ANGLE	
J	PUMP	STOP		
K	TIME OR TIME-DERIVATIVE			CONTROL STATION
L	LEVEL		LIGHT (FLUO)	LOW
M	MATERIAL OR MOISTURE			MEAS. OF MEASURABLE
N	NUMBER			
O	OPEN		ORIGIN (FUNCTION)	
P	PRESSURE OR PRESSURE OF FLOW	POINT (NEXT CONNECTION)		
Q	QUALITY OR QUANTITY OF MATERIAL OR TOTALS			
R	RAADIATION		RECORD OR PRINT	RECORD
S	SAFETY OR SECURITY	SAFETY		STOP
T	TEMPERATURE			TRIPPOINT
U	UNITS		MULTIPLICATION	MULTIPLICATION
V	VISIBILITY		VALVE, DAMPER OR COVER	
W	WEIGHT OR FORCE		WELL	
X	LEVEL RECEIVED			
Y	YOUNG		RELAY OR CONTACT	
Z	ZEROS			
A	DIFFERENTIAL			

**P&ID DRAWING LIST**

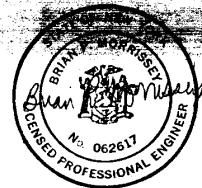
DWG. NO	TITLE
PID-1	SYMBOLS AND LEGENDS
PID-2	NAPL AREA L1/L2 SOIL GAS EXTRACTION SYSTEM
PID-3	NAPL AREA L3 SOIL GAS EXTRACTION SYSTEM
PID-4	NAPL AREA L4 SOIL GAS EXTRACTION SYSTEM
PID-5	NAPL AREA L4 REMEDIATION SYSTEM



VACUUM ENHANCED NAPL REMOVAL SYSTEM AT QU-II METRO-NORTH COMMUTER RAILROAD - HARMON YARD, CROTON, NY				SYMBOLS AND LEGENDS P & I DIAGRAM				PID-1	
---	--	--	--	--------------------------------------	--	--	--	-------	--



NOTES: 1. BLOWER B301 SHALL BE INSTALLED INSIDE SOUND REDUCING ENCLOSURE IN ACCORDANCE WITH THE SPECIFICATIONS.  
 2. ALL SGE UNDERGROUND PIPING IN NAPL AREA L3 SHALL BE SCH 80 PVC



VACUUM ENHANCED NAPL REMOVAL SYSTEM METRO-NORTH COMMUTER RAILROAD-HARMON YARD, CRITON, NY				NAPL AREA L3 SOIL GAS EXTRACTION SYSTEM		PID-3
--	--	--	--	--	--	-------