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Environmental Restoration Program

OPERABLE UNIT 3, MISCELLANEOUS SITES LIMITED FIELD INVESTIGATION REPORT

MOUND PLANT
MIAMISBURG, OHIO

VOLUME III APPENDICES B AND C

July 1993

FINAL

(Revision 0)

Department of Energy

EG & G Mound Applied Technologies

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REFERENCE USE ONLY

ENVIRONMENTAL RESTORATION PROGRAM

OPERABLE UNIT 3 — MISCELLANEOUS SITES
LIMITED FIELD INVESTIGATION REPORT
VOLUME III
APPENDICES B AND C

MOUND PLANT
MIAMISBURG, OHIO

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DEPARTMENT OF ENERGY

ENVIRONMENTAL RESTORATION PROGRAM
EG&G MOUND APPLIED TECHNOLOGIES

FINAL
(REVISION 0)

APPENDIX B

SITE SAMPLING ACTIVITY REPORTS

APPENDIX B1. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
PAINT SHOP AREA

B1-1. SUMMARY OF SAMPLING ACTIVITIES

The Paint Shop Area sampling activities included surface soil sampling with a scoop and subsurface soil sampling by hollow stem auger drilling techniques. Soil sample collection was conducted by WESTON representatives, and all samples collected by WESTON were sent to IT Laboratories, Oak Ridge, Tennessee, for analysis. Sampling activities at Building 61 were conducted from 19 November to 20 November 1991. Sampling was conducted at two locations as shown in Figure 2.1. A summary of soil samples collected at each location listing the sample identification number, sampling interval or type of sample, date collected, and analytical parameters requested is presented below.

B1-1.1. WESTON SAMPLE COLLECTION

Location 0062:

MND33-0062-0001	Interval 0.0 to 2.0 ft BGS; 19 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, tritium, TAL metals (including cyanide).
MND33-0062-1001	Interval 0.0 to 2.0 ft BGS (duplicate); 19 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, tritium, TAL metals (including cyanide).
MND33-0062-5001	Ambient field blank; 19 November 1991; analyses requested - TCL VOCs.
MND33-0062-0002	Interval 3.0 to 4.75 ft and 5.0 to 6.2 ft BGS; 19 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, tritium, TAL metals (including cyanide).
MND33-0062-1002	Interval 3.0 to 4.75 ft and 5.0 to 6.2 ft BGS (duplicate); 19 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, tritium, TAL metals (including cyanide).
MND33-0062-0003	Interval 8.0 to 11.0 ft BGS; 19 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, tritium, TAL metals (including cyanide), gross alpha-beta screen.

Location 0063:

MND33-0063-0001	Interval 0.0 to 0.5 ft BGS; 20 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, tritium, TAL metals (including cyanide).
MND33-0063-0001 MS/MSD	Interval 0.0 to 0.5 ft BGS; 20 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, tritium, TAL metals (including cyanide).
MND33-0063-5001	Ambient field blank; 20 November 1991; analyses requested - TCL VOCs.

B1-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

- The following is a summary of deviations from approved protocol for each sample collected at the Paint Shop Area.

Location 0062:

MND33-0062-0001	Interval 0.0 to 2.0 ft BGS. The surface sample was offset three times to obtain the required sample volume which included a duplicate sample.
MND33-0062-0002	Interval 3.0 to 4.75 ft and 5.0 to 6.2 ft BGS. The 5.0- to 6.2-ft BGS split spoon was needed to obtain the required sample volume, which included a duplicate sample. The TCL VOCs were obtained from the 3.0- to 4.75-ft BGS split spoon.
MND33-0062-0003	Interval 8.0 to 11.0 ft BGS. The 10.0- to 12.0-ft BGS split spoon was needed to obtain the required sample volume. The TCL VOCs were obtained from the 8.0- to 10.0-ft BGS split spoon. The 15.0-ft and 20.0-ft BGS intervals were not sampled according to Work Plan procedures because there were no OVA or HNu instrument readings above 1.0 unit.

APPENDIX B2. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
POWERHOUSE AREA FUEL TANKS

B2-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the Powerhouse Area Fuel Tanks on 26 June and 9 July 1991. Activities included surface soil sampling with a scoop and subsurface soil sampling using a hand auger and power auger. Soil samples were collected from three depth intervals at two locations at the powerhouse area. A fuel oil sample was also collected for laboratory characterization from the powerhouse area No. 2 fuel oil tank. Sample locations are shown in Figure 2.2. All samples collected by WESTON were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis.

B2-1.1. WESTON SAMPLE COLLECTION

A summary of soil samples collected at each location including the sample identification number, sample interval or type of sample, date collected, and analytical parameters requested is presented below:

Location 0001:

MND33-0001-0001	Interval 0.0 to 0.5 ft BGS; 26 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, EPH (as fuel oil).
MND33-0001-0011	Interval 0.0 to 0.5 ft BGS (duplicate); 26 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, EPH (as fuel oil).
MND33-0001-0002	Interval 1.5 to 2.5 ft BGS; 9 July 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, EPH (as fuel oil).
MND33-0001-1002	Interval 1.5 to 2.5 ft BGS; 9 July 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, EPH (as fuel oil).
MND33-0001-0003	Interval 4.5 to 5.5 ft BGS; 9 July 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, EPH (as fuel oil).

Location 0002:

MND33-0002-0001	Interval 0.0 to 0.5 ft BGS; 26 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, EPH (as fuel oil).
MND33-0002-0002	Interval 1.5 to 2.5 ft BGS; 9 July 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, EPH (as fuel oil).
MND33-0002-0003	Interval 4.5 to 5.5 ft BGS; 9 July 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, EPH (as fuel oil).
MND33-0002-3003	Sample bank blank; 9 July 1991; analyses requested - TCL VOCs.

Location 0003:

MND33-0003-0001	No. 2 fuel oil; 26 July 1991; analyses requested - No. 2 fuel oil (characterization sample).
MND33-0004-0001	Ambient field blank; 26 July 1991; analyses requested - TCL VOCs.
MND33-0005-0001	Trip blank; 26 July 1991; analyses requested - TCL VOCs.

B2-1.2. REGULATORY AGENCY SAMPLE COLLECTION

Soil samples were not collected by regulatory agencies at the Powerhouse Area Fuel Tanks.

B2-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

The following is a summary of deviations from approved project protocols associated with the relevant samples collected at the Powerhouse Area Fuel Tanks.

MND33-0001-0001	Interval 0.0 to 0.5 ft BGS; 26 June 1991; three hand auger locations were necessary to obtain the required sample volume.
MND33-0001-0011	Interval 0.0 to 0.5 ft BGS; 26 June 1991 (duplicate). See note for MND33-0001-0001.

MND33-0001-0002	Interval 1.5 to 2.0 ft BGS; 9 July 1991; drilling was conducted to a depth of 1.5 ft BGS using a gasoline-powered two-man auger due to the rocky soils encountered at the site. Soil sampling was conducted with a hand auger following drilling of borehole.
MND33-0001-0003	Interval 4.5 to 5.5 ft BGS; 9 July 1991; drilling was conducted to a depth of 4.5 ft BGS using a gasoline-powered two-man auger due to hand auger refusal. Soil sampling was performed with a hand auger.
MND33-0002-0001	Interval 0.0 to 0.5 ft BGS; 26 June 1991; three hand auger locations were necessary to obtain the required sample volume.
MND33-0002-0002	Interval 1.5 to 2.0 ft BGS; 9 July 1991; drilling was conducted to a depth of 1.5 ft BGS using a gasoline-powered two-man auger due to the rocky soils encountered at the site. Soil sampling was conducted with a hand auger.
MND33-0002-0003	Interval 4.5 to 5.0 ft BGS; 9 July 1991; drilling was conducted to a depth of 4.5 ft BGS using a gasoline-powered two-man auger due to hand auger refusal. Soil samples were collected with a hand auger.

APPENDIX B3. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
WD BUILDING DRUM STAGING AREA

B3-1. SUMMARY OF SAMPLING ACTIVITIES

Sampling activities at the WD Building Drum Staging Area were conducted by WESTON representatives on 5 November 1991. Sampling activities consisted of surface soil sampling with a scoop and subsurface soil sampling with a hand auger and a power auger. Soil samples were collected from three locations downslope of the drum staging area. All soil samples and associated QC samples collected by WESTON were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis. The sample locations are shown in Figure 2.3. A summary of soil samples collected at each location listing the sample identification number, sampling interval or type of sample, date collected, and analytical parameters requested is presented below.

B3-1.1. WESTON SAMPLE COLLECTION

Location 0048:

MND33-0048-0001	Interval 0.0 to 0.5 ft BGS; 5 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, tritium, TAL metals (including cyanide).
MND33-0048-0002	Interval 2.0 to 2.5 ft BGS; 5 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, tritium, TAL metals (including cyanide).

Location 0049:

MND33-0049-0001	Interval 0.0 to 0.5 ft BGS; 5 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, tritium, TAL metals (including cyanide), gross alpha-beta screen.
MND33-0049-1001	Interval 0.0 to 0.5 ft BGS; 5 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, tritium, TAL metals (including cyanide).

Location 0050:

MND33-0050-0001	Interval 0.0 to 0.5 ft BGS; 5 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, tritium, TAL metals (including cyanide).
MND33-0050-0001 MS/MSD	Interval 0.0 to 0.5 ft BGS; 5 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, tritium, TAL metals (including cyanide).
MND33-0050-5001	Ambient field blank; 5 November 1991; analyses requested - TCL VOCs.

B3-1.2. REGULATORY AGENCY SAMPLE COLLECTION

One split sample was obtained by an Ohio Environmental Protection Agency (OEPA) representative at location A at the WD Building Drum Staging Area. The soil sample was collected at the 2.5-ft BGS interval. The sample was analyzed at Betz Laboratory, Woodland, Texas. The following summary includes the sample identification number, sampling interval or type of sample, date collected, and analytical parameters for the split samples.

Location 0048:

MND33-0048-0002	Interval 2.0 to 2.5 ft BGS; 5 November 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, Rad-Pu,Th, gamma specs.

B3-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

- Alpha scintillometer readings were not taken by WESTON personnel at the WD Building. An alpha scintillometer was used by a member of the EG&G health physics staff to screen all personnel leaving the site.
- The following summarizes deviations from the approved protocol for each sample collected at the WD Building Drum Staging Area.

Location 0048:

- The 5.0-ft BGS interval was not sampled due to hand auger refusal at 3.5 ft BGS at the original location and refusal at 3.0 ft BGS at a second borehole located approximately 2 ft north of the original location.

Location 0049:

- The original location was moved approximately 3 ft south due to underground utility lines.
- The 2.5-ft BGS and the 5-ft BGS intervals were not sampled because of the abundance of rock at shallow depths. The power auger had refusal at 1.5 ft BGS. The borehole was offset two times, but the sampling intervals were not achieved due to power auger refusal.

Location 0050:

- The original location was moved approximately 3 ft south due to underground utility lines.
- The 2.5-ft BGS and the 5.0-ft BGS intervals were not sampled because of the abundance of rock at shallow depths. The power auger had refusal at 1.5 ft BGS. The borehole was offset two times, but the sampling intervals were not achieved due to power auger refusal.

APPENDIX B4. LIMITED FIELD INVESTIGATIONS, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
WD BUILDING GLASS MELTER ROOM SUMP

B4-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the WD Building Glass Melter Room Sump on 19 February 1992. The location of the sump is indicated in Figure 2.4. Water samples from the sump were collected by WESTON and were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis.

Sediment from the sump was not containerized due to elevated radiation readings using the field instrument for detection of low-energy radiation (FIDLER). A sediment sample was retained for analysis by the Mound low-level radiation soils screening facility. Radiation screening confirmed that elevated levels of plutonium-238 were present in the sediment.

B4-1.1. WESTON SAMPLE COLLECTION

A summary of water samples collected at each location is presented below and includes the sample identification number, type of sample, date collected, and analytical parameters requested.

Location 1142:

MND33-1142-0001	Sump water; 19 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), EPH (as kerosene), acetonitrile, acrylonitrile, tritium, alpha-beta screen.
MND33-1142-1001	Sump water (duplicate); 19 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), EPH (as kerosene), acetonitrile, acrylonitrile, tritium.
MND33-1142-0001MS	Sump water (matrix spike); 19 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), EPH (as kerosene), tritium.
MND33-1142-0001MSD	Sump water (matrix spike duplicate); 19 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), EPH (as kerosene), tritium.

MND33-1142-5001	Ambient blank; 19 February 1992; requested analyses - TCL VOCs.
MND33-1142-2001	Trip blank; 19 February 1992; requested analyses - TCL VOCs.
MND33-1142-2002	Ambient blank; 19 February 1992; requested analyses - TCL VOCs.
MND33-1142-3001	Ambient blank; 19 February 1992; requested analyses - TCL VOCs.

B4-1.2. REGULATORY AGENCY SAMPLE COLLECTION

No split samples were collected by a regulatory agency from the WD Building Glass Melter Room Sump.

B4-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

- Sampling of the sediment from the WD Building Glass Melter Room Sump was suspended permanently due to elevated levels of plutonium-238.

APPENDIX B5. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
BUILDING 51 WASTE SOLVENT TANK
BUILDING 34 FORMER AVIATION FUEL TANK

B5-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the Building 51 Waste Solvent Tank on 28 August 1991 and the Building 34 Former Aviation Fuel Tank on 29 August 1991. Four samples were collected from the base of the excavation at the side walls at Building 51, by sampling with a stainless steel scoop from soil in the backhoe bucket. Five samples were collected with a stainless steel scoop from the base of the excavation next to the sidewalls at the Building 34 excavation. The sample locations are shown in Figures 2.5 and 2.15. All samples collected by WESTON were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis.

B5-1.1. WESTON SAMPLE COLLECTION

A summary of soil samples collected at each location is presented below and includes the sample identification number, sample interval or type of sample, date collected, and analytical parameters requested.

Building 51 Waste Solvent Tank

Location 0016:

MND33-0016-0001	Interval 1.0 to 2.0 ft BGS below base of excavation next to cement foundation pad; 28 August 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gross alpha-beta screen.
MND33-0016-5001	Ambient blank; 28 August 1991; analyses requested - TCL VOCs.

Location 0017:

MND33-0017-0001	Interval 1.0 to 2.0 ft BGS below base of excavation next to cement foundation pad; 28 August 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).

Location 0018:

MND33-0018-0001	Interval 1.0 to 2.0 ft BGS below base of excavation next to cement foundation pad; 28 August 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).

Location 0019:

MND33-0019-0001	Interval 1.0 to 2.0 ft BGS below base of excavation next to cement foundation pad; 28 August 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).
MND33-0019-1001	Interval 1.0 to 2.0 ft BGS below base of excavation next to cement foundation pad (duplicate); 28 August 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).

Building 34 Former Aviation Fuel Tank

Location 0020:

MND33-0020-0001	Interval 1.0 to 2.0 ft BGS below base of excavation next to cement foundation pad; 29 August 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), EPH.

Location 0021:

MND33-0021-0001	Interval 1.0 to 2.0 ft BGS below base of excavation next to cement foundation pad; 29 August 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), EPH.

Location 0022: (MND33-0022)

MND33-0022-0001	Interval 1.0 to 2.0 ft BGS below base of excavation next to cement foundation pad; 29 August 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), EPH.

Location 0023:

MND33-0023-0001	Interval 1.0 to 2.0 ft BGS below base of excavation next to cement foundation pad; 29 August 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), EPH.
MND33-0023-1001	Interval 1.0 to 2.0 ft below base of excavation next to cement foundation pad (duplicate); 29 August 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), EPH.

Location 0024:

MND33-0024-0001	Interval 1.0 to 2.0 ft BGS below former tank discharge pipe location on sidewall of excavation; 29 August 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), EPH.
MND33-0024-5001	Ambient blank; 29 August 1991; analyses requested - TCL VOCs.

B5-1.2. REGULATORY AGENCY SAMPLE COLLECTION

Split samples were collected by the Ohio Environmental Protection Agency (OEPA) at the Building 51 Waste Solvent Tank on 28 August 1991 and Building 34 Former Aviation Fuel Tank on 29 August 1991. The following summary includes the WESTON sample identification number, sampling interval or type of sample, date collected, and the analytical parameters requested.

Building 51 Waste Solvent Tank

Location 0016:

MND33-0016-0001	Interval 1.0 to 2.0 ft BGS below base of excavation next to cement foundation pad; 28 August 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).

Building 34 Former Aviation Fuel Tank

Location 0021:

MND33-0021-0001	Interval 1.0 to 2.0 ft BGS below base of excavation next to cement foundation pad; 29 August 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals.

B5-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

Building 51 Waste Solvent Tank

- The sampling depths for all surface soil samples at the Building 51 Waste Solvent Tank sites were extended deeper than 0 to 6 inches as specified in the Work Plan at the request of OEPA due to the possible loss of VOCs after the tank was excavated.
- Due to underground utilities in the area, the excavation could not be sloped to allow access by soil samplers. Therefore, soil samples were collected from the center of the backhoe bucket after it collected a sample from the designated area.
- The sampling protocol was modified to collect samples from the sides of the in-place tank foundation pad.
- Soil samples were collected at four locations in the excavation only. The Work Plan specifies that a minimum of four locations and one discretionary location be sampled.

Building 34 Aviation Fuel Tank

- The sampling depths for all surface soil samples at the Building 34 Former Aviation Fuel Tank sites were extended deeper than 0 to 6 inches as specified in the Work Plan at the request of OEPA due to the possible loss of VOCs after the tank was excavated.
- The sampling protocol for soil samples was modified to include four locations along the sides of the in-place cement tank foundation pad and one location below the discharge pipe.

APPENDIX B6. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
BUILDING 61 FORMER HEAVY EQUIPMENT AREA

B6-1. SUMMARY OF SAMPLING ACTIVITIES

Building 61 sampling activities included subsurface soil sampling by hollow stem auger drilling techniques. Soil sample collection was conducted by WESTON representatives, and all samples collected by WESTON were sent to IT Laboratories, Oak Ridge, Tennessee, for analysis. Sampling activities at Building 61 were conducted from 7 November to 12 November 1991. Sampling was conducted at six locations as shown in Figure 2.6. A summary of soil samples collected at each location listing the sample identification number, sampling interval or type of sample, date collected, and analytical parameters requested is presented below.

B6-1.1. WESTON SAMPLE COLLECTION

Location 0051:

MND33-0051-0001	Interval 0.0 to 1.0 ft BGS; 7 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0051-0002	Interval 3.0 to 7.0 ft BGS; 7 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0051-0003	Interval 8.0 to 13.0 ft BGS; 7 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0051-1003	Interval 8.0 to 13.0 ft BGS (duplicate); 7 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0051-0004	Interval 13.0 to 19.0 ft BGS; 7 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).

Location 0052:

MND33-0052-0001	Interval 0.0 to 1.0 ft BGS; 8 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).

MND33-0052-1001	Interval 0.0 to 1.0 ft BGS (duplicate); 8 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0052-0002	Interval 3.0 to 7.0 ft BGS; 8 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0052-0003	Interval 8.0 to 13.0 ft BGS; 9 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), gross alpha-beta screen, TAL metals (including cyanide).
MND33-0052-0003 MS/MSD	Interval 8.0 to 13.0 ft BGS; 9 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).

Location 0053:

MND33-0053-0001	Interval 0.0 to 1.0 ft BGS; 9 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0053-5001	Ambient field blank; 9 November 1991; analyses requested - TCL VOCs.
MND33-0053-0002	Interval 3.0 to 5.0 ft BGS; 9 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0053-0003	Interval 8.0 to 10.0 ft BGS; 9 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0053-0004	Interval 13.0 to 15.0 ft BGS; 9 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).

Location 0054:

MND33-0054-0001	Interval 0.0 to 1.0 ft BGS; 11 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), gross alpha-beta screen, TAL metals (including cyanide).
MND33-0054-0002	Interval 3.0 to 5.0 ft BGS; 11 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).

MND33-0054-0003	Interval 8.0 to 10.0 ft BGS; 11 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0054-0004	Interval 13.0 to 15.0 ft BGS; 11 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).

Location 0055:

MND33-0055-0001	Interval 0.0 to 1.0 ft BGS; 11 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0055-0002	Interval 3.0 to 7.0 ft BGS; 11 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0055-5001	Ambient field blank; 11 November 1991; analyses requested - TCL VOCs.
MND33-0055-0002 MS/MSD	Interval 3.0 to 7.0 ft BGS; 11 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0055-0003	Interval 8.0 to 10.0 ft BGS; 11 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0055-0004	Interval 13.0 to 17.0 ft BGS; 11 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0055-1004	Interval 13.0 to 17.0 ft BGS (duplicate); 11 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).

Location 0056:

MND33-0056-0001	Interval 0.0 to 1.0 ft BGS; 12 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), gross alpha-beta screen, TAL metals (including cyanide).
MND33-0056-0002	Interval 3.0 to 7.0 ft BGS; 12 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).
MND33-0056-0003	Interval 8.0 to 9.9 ft BGS; 12 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, EPH (as motor oil), TAL metals (including cyanide).

B6-1.2. REGULATORY AGENCY SAMPLE COLLECTION

Split samples were collected by the Ohio Environmental Protection Agency (OEPA) representative from two different intervals at one soil boring location at Building 61. Split samples were collected at the 5.0-ft BGS and the 15.0-ft BGS intervals at location A. The samples were analyzed at Betz Laboratory, Woodland, Texas. The following summary includes the sample identification number, sampling interval or type of sample, date collected, and analytical parameters for the split samples.

Location 0051:

MND33-0051-0002	Interval 3.0 to 7.0 ft BGS; 7 November 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, TPH.
MND33-0051-0004	Interval 13.0 to 19.0 ft BGS; 7 November 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, TPH.

B6-2.0. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

- Building 61 soil boring locations C and E were moved from their original staked locations due to the presence of underground utilities and/or overhead utilities. Location 0053 was moved approximately 5 ft north from the original location and location 0055 was moved approximately 5 ft west from the original location.

- Auger refusal occurred at soil boring location A at approximately 2.0 ft BGS. The boring was subsequently redrilled and subsurface soil samples collected at a location approximately 3 ft west of the original soil boring at location 0051.

- At each soil boring location the surface sample interval was increased from 0.0 to 0.5 ft BGS to 0.0 to 1.0 ft BGS because of insufficient sample recovery and/or concrete or gravel was present at the surface. The surface sample was collected by hollow stem auger drilling techniques.

- Alpha scintillometer readings were not taken by WESTON personnel at the Building 61 area. An alpha scintillometer was used by a member of the EG&G health physics staff to screen all personnel leaving the work area.

- The following is a summary of deviations from approved protocol for each sample collected at Building 61.

Location 0051:

MND33-0051-0001	Interval 0.0 to 1.0 ft BGS. Three surface split spoon samples were necessary to obtain the required sample volume. The sampling interval was increased from 0.0 to 0.5 to 0.0 to 1.0 ft BGS because a concrete sidewalk was at the surface.
MND33-0051-0002	Interval 3.0 to 7.0 ft BGS. Additional sample from the 5.0- to 7.0-ft BGS split spoons was needed to obtain the required sample volume, which included an OEPA split sample.
MND33-0051-0003	Interval 8.0 to 13.0 ft BGS. Additional sample from the 10.0- to 13.0-ft BGS split spoon was needed to obtain the required sample volume for a duplicate sample.
MND33-0051-1003	Interval 8.0 to 13.0 ft BGS (duplicate). See note for MND33-0051-0003.
MND33-0051-0004	Interval 13.0 to 19.0 ft BGS. Additional sample from the 15.0- to 19.0-ft BGS split spoon was needed to obtain the required sample volume, which included an OEPA split sample.

Location 0052:

MND33-0052-0001	Interval 0.0 to 1.0 ft BGS. Three surface split spoon samples were necessary to obtain the required sample volume for a duplicate sample. The sampling interval was increased from 0.0 to 0.5 to 0.0 to 1.0 ft BGS because of insufficient sample recovery.
MND33-0052-1001	Interval 0.0 to 1.0 ft BGS (duplicate). See note for MND33-0052-0001.
MND33-0052-0002	Interval 3.0 to 7.0 ft BGS. Additional sample from the 5.0- to 7.0-ft BGS split spoon was necessary to obtain the required sample volume.
MND33-0052-0003	Interval 8.0 to 13.0 ft BGS. Additional sample from the 10.0- to 13.0-ft BGS split spoon was necessary to obtain the required sample volume, which included the MS/MSD sample. The 13.0- to 15.0-ft BGS interval was not sampled because of auger and spoon refusal at 13.0 ft.
MND33-0052-0003 MS/MSD	Interval 8.0 to 13.0 ft BGS. See note for MND33-0052-0003.

Location 0053:

MND33-0053-0001	Interval 0.0 to 1.0 ft BGS. Two surface split spoon samples were necessary to obtain the required sample volume. The sampling interval was increased from 0.0 to 0.5 ft to 0.0 to 1.0 ft BGS because of insufficient sample recovery.

Location 0054:

MND33-0054-0001	Interval 0.0 to 1.0 ft BGS. Three surface split spoon samples were necessary to obtain the required sample volume. The sampling interval was increased from 0.0 to 0.5 to 0.0 to 1.0 ft BGS because of insufficient sample recovery.

Location 0055:

MND33-0055-0001	Interval 0.0 to 1.0 ft BGS. Three surface split spoon samples were necessary to obtain the required sample volume. The sampling interval was increased from 0.0 to 0.5 ft to 0.0 to 1.0 ft BGS because of insufficient sample recovery.
MND33-0055-0002	Interval 3.0 to 7.0 ft BGS. The 5.0- to 7.0-ft BGS split spoon sample was collected to obtain the required sample volume.
MND33-0055-0002 MS/MSD	Interval 3.0 to 7.0 ft BGS. See note for MND33-0055-0002.
MND33-0055-0004	Interval 13.0 to 17.0 ft BGS. The 15.0- to 17.0-ft BGS split spoon sample was collected to obtain the required sample volume.

Location 0056:

MND33-0056-0001	Interval 0.0 to 1.0 ft BGS. Three surface split spoon samples were necessary to obtain the required sample volume. The sampling interval was increased from 0.0 to 0.5 ft to 0.0 to 1.0 ft BGS because of insufficient sample recovery.
MND33-0056-0002	Interval 3.0 to 7.0 ft BGS. The 5.0- to 7.0-ft BGS split spoon sample was collected to obtain the required sample volume.

MND33-0056-0003	Interval 8.0 to 9.9 ft BGS. The 8.0-ft BGS split spoon encountered refusal at 8.3 ft BGS. The augers over-drilled to 9.0 ft BGS and the 9.0-ft BGS split spoon encountered refusal at 9.9 ft BGS in limestone bedrock. The TCL VOC sample was collected at 8.0- to 8.3-ft BGS interval. Soil for balance of requested analytical parameters was collected at depths of 9.0 to 9.9 ft BGS. The 13.0- to 15.0-ft BGS interval was not sampled because of spoon refusal at 9.9 ft BGS in bedrock.

APPENDIX B7. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
BUILDING 27 SITES

BUILDING 27 SOLVENT STORAGE AREA
BUILDING 27 CONCRETE FLUME
BUILDING 27 SUMP

B7-1. SUMMARY OF SAMPLING ACTIVITIES

Soil sampling activities were conducted by WESTON at three Building 27 sites, the Solvent Storage Area, the Concrete Flume, and the Sump, from 27 June 1991 to 2 July 1991. Soil samples were collected by hollow stem auger drilling techniques. Samples were collected from various depth intervals at a total of six Building 27 locations. Sampling locations are shown in Figures 2.7, 2.8, and 2.9. All samples collected by WESTON were sent to IT Laboratories in Oak Ridge, Tennessee, for analysis.

B7-1.1. WESTON SAMPLE COLLECTION

A summary of soil samples collected at each Building 27 area, which includes the sample identification number, sample interval or type of sample, date collected, and analytical parameters requested, is presented below.

Building 27 Solvent Storage Area

MND33-0010-0001	Interval 0.0 to 0.5 ft BGS; 29 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.
MND33-0010-0002	Interval 1.5 to 2.0 ft BGS; 29 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.
MND33-0010-0003	Interval 2.5 to 6.5 ft BGS; 29 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.
MND33-0010-0004	Interval 8.5 to 12.5 ft BGS; 29 June 1991; analyses requested - TCL VOCs.
MND33-0010-0005	Interval 14.5 to 18.5 ft BGS; 29 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.

MND33-0010-0006	Interval 18.5 to 20.5 ft BGS; 29 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.
MND33-0011-0001	Interval 0.0 to 1.5 ft BGS; 30 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.
MND33-0011-1001	Interval 0.0 to 1.5 ft BGS; 30 June 1991 (duplicate); analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.
MND33-0011-0002	Interval 1.5 to 3.0 ft BGS; 30 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.
MND33-0011-5001	Ambient field blank; 30 June 1991; analyses requested - TCL VOCs.
MND33-0014-0001	Interval 0.0 to 2.0 ft BGS; 1 July 1991; analyses requested -TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.
MND33-0014-0002	Interval 2.0 to 3.0 ft BGS; 1 July 1991; analyses requested -TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.

Building 27 Concrete Flume

MND33-0006-0001	Interval 0.0 to 2.0 ft BGS; 27 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.
MND33-0006-0002	Interval 3.0 to 6.0 ft BGS; 27 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.
MND33-0006-0003	Interval 8.0 to 12.0 ft BGS; 22 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.
MND33-0007-0001	Ambient field blank; 27 June 1991; analyses requested - TCL VOCs.
MND33-0008-0001	Gross alpha-beta screening sample; 27 June 1991.
MND33-0009-0001	Interval 0.0 to 2.0 ft BGS; 28 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.
MND33-0009-0002	Interval 3.0 to 6.0 ft BGS; 28 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.

MND33-0009-0003	Interval 8.0 to 12.0 ft BGS; 28 June 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.

Building 27 Sump

MND33-0015-0001	Interval 0.0 to 3.0 ft BGS; 2 July 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.
MND33-0015-0002	Interval 3.5 to 8.0 ft BGS; 2 July 1991; analyses requested - TCL VOCs, TCL SVOCs, TAL P/PCBs, TAL metals, explosives.
MND33-0015-0003	Interval 8.0 to 12.0 ft BGS; 2 July 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.
MND33-0015-0003 MS/MSD	Interval 8.0 to 12.0 ft BGS; 2 July 1991; analyses requested TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives.

B7-1.2. REGULATORY AGENCY SAMPLE COLLECTION

Split samples were collected by Ohio Environmental Protection Agency (OEPA) representatives at the Building 27 Concrete Flume area. Soil samples were collected from two depth intervals at one location. The samples were sent by OEPA to Chemron Laboratory in Marietta, Ohio. The following summary includes the sample identification number, sampling interval, date collected, and analytical parameters requested.

MND33-0006-0002	Interval 3.0 to 6.0 ft BGS; 27 June 1991; analyses requested - TCL VOCs, SVOCs, P/PCBs; TAL metals (including cyanide).
MND33-0006-0003	Interval 8.0 to 12.0 ft BGS; 27 June 1991; analyses requested - TCL VOCs, SVOCs, P/PCBs, TAL metals (including cyanide).

B7-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

Building 27 Solvent Storage Area

MND33-0010-0001	Interval 0.0 to 5.0 ft BGS; 29 June 1991; two additional 0.0 to 1.0 ft BGS split spoon samples were driven next to the original location in order to collect sufficient sample volume.

MND33-0010-0002	Interval 1.5 to 2.0 ft BGS; 29 June 1991; sample volume not sufficient to fill all sample containers. No sample was obtained for TAL metals.
MND33-0010-0004	Interval 8.0 to 12.5 ft BGS; 29 June 1991; sample volume not sufficient to fill all sample containers. Samples were obtained for TCL VOCs only in the first boring attempt. Because direct-reading instruments indicated no readings above background at the 5.0-ft interval and sample volume was sufficient at the 5.0-ft, 15.0-ft, and 20.0-ft levels, no attempt was made to take additional sample at the 10.0-ft level using a second boring.
MND33-0011-0001	Interval 0.0 to 1.5 ft BGS; 30 June 1991; sampling location was moved from its original location on southern edge of the asphalt pad outside of fence line to adjacent western edge of asphalt pad. Three surface sample split spoon drives were necessary to obtain the required sample volume.
MND33-0011-1001	Interval 0.0 to 1.5 ft BGS (duplicate); 30 June 1991; see note for MND33-0011-0001.
MND33-0011-0002	Interval 1.5 to 3.0 ft BGS; 30 June 1991; see note for MND33-0011-0001.
MND33-0014-0001	Interval 0.0 to 2.0 ft BGS; 1 July 1991; sampling location was moved from its original location due to underground utilities, to a location outside south gate, adjacent to the asphalt pad. Two surface sample split spoon drives were necessary to obtain the required sample volume.
MND33-0014-0002	Interval 2.0 to 3.0 ft BGS; 1 July 1991; see note for MND33-0014-0001.

Building 27 Concrete Flume

MND33-0006-0001	Interval 0.0 to 2.0 ft BGS; 27 June 1991; sample volume not sufficient to fill all sample containers. Only one of two 120-mL containers was obtained for TAL metals.
MND33-0009-0001	Interval 0.0 to 2.0 ft BGS; 28 June 1991; an additional boring was drilled adjacent to the original location to obtain the required sample volume.
MND33-0009-0002	Interval 3.0 to 6.0 ft BGS; 28 June 1991; see note for MND33-0009-0001.

Building 27 Sump

MND33-0015-0001	Interval 0.0 to 3.0 ft BGS; 2 July 1991; sample location was moved from its original location near the connection to the concrete flume to location outside fence, east of the sump due to underground utilities.
MND33-0015-0002	Interval 3.5 to 8.0 ft BGS; 2 July 1991; see note for MND33-0015-0001.
MND33-0015-0003	Interval 8.0 to 12.0 ft BGS; 2 July 1991; see note for MND33-0015-0001.
MND33-0015-0003 MS/MSD	Interval 8.0 to 12.0 ft BGS; 2 July 1991; see note for MND33-0015-0001.

APPENDIX B8. LIMITED FIELD INVESTIGATIONS, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
AREA I BUILDING 27 LEACH PIT

B8-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the Area I Building 27 Leach Pit on 10 and 11 February 1992. Soil samples were collected by hollow stem auger drilling techniques from three intervals at three soil boring locations. The sample locations are presented in Figure 2.10. All samples collected by WESTON were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis.

B8-1.1. WESTON SAMPLE COLLECTION

A summary of sampling information for each location is presented below and includes the sample identification number, sample interval or type of sample, date collected, and analytical parameters requested.

Location 0131:

MND33-0131-0001	Interval 0.0 to 3.0 ft BGS; 10 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0131-0002	Interval 3.0 to 7.0 ft BGS; 10 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0131-0003	Interval 7.0 to 13.0 ft BGS; 10 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0131-5001	Ambient blank; 10 February 1992; requested analyses - TCL VOCs.

Location 0132:

MND33-0132-0001	Interval 0.0 to 3.0 ft BGS; 11 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, alpha-beta screen.

MND33-0132-0002	Interval 3.0 to 8.0 ft BGS; 11 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0132-0002 MS/MSD	Interval 3.0 to 8.0 ft BGS (matrix spike/matrix spike duplicate); 11 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0132-0003	Interval 8.0 to 12.0 ft BGS; 11 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0132-5001	Ambient blank; 11 February 1992; requested analyses - TCL VOCs.

Location 0133:

MND33-0133-0001	Interval 0.0 to 3.0 ft BGS; 11 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0133-1001	Interval 0.0 to 3.0 ft BGS (duplicate); 11 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0133-0002	Interval 3.0 to 7.0 ft BGS; 11 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0133-0003	Interval 7.0 to 10.0 ft BGS; 11 February 1992; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.

B8-1.2. REGULATORY AGENCY SAMPLE COLLECTION

Split samples were collected by the Ohio Environmental Protection Agency (OEPA) at one location at the Area I Building 27 Leach Pit on 10 February 1992. The samples were sent to Betz Laboratory, Woodland, Texas. The following summary includes the WESTON sample identification number, sampling interval or type of sample, date collected, and the analytical parameters requested.

Location 0131:

MND33-0131-0003	Interval 7.0 to 13.0 ft BGS; 10 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, nitrites/nitrates, iso-Pu, iso-Th, gamma specs (Co-60, Ac-227, Cs-137, Am-241, Bi-207, Bi-210m, K-40, Ra-226, Th-227).

B8-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

Location 0131:

MND33-0131-0001	Interval 0.0 to 3.0 ft BGS. Additional sample from the 2.0- to 3.0-ft split spoon was necessary to obtain the required sample volume.
MND33-0131-0002	Interval 3.0 to 7.0 ft BGS. Additional sample from the 5.0- to 7.0-ft BGS split spoon was necessary to obtain the required sample volume.
MND33-0131-0003	Interval 7.0 to 13.0 ft BGS. Additional sample from the 11.0- to 13.0-ft BGS split spoon was necessary to obtain the required sample volume.

Location 0132:

MND33-0132-0001	Interval 0.0 to 3.0 ft BGS. Additional sample from the 2.0- to 3.0-ft BGS split spoon was necessary to obtain the required sample volume.
MND33-0132-0002	Interval 3.0 to 8.0 ft BGS. Additional sample from the 5.0- to 7.0-ft and 7.0- to 8.0-ft BGS split spoons were necessary to obtain the required sample volume.
MND33-0132-0002 MS/MSD	Interval 3.0 to 8.0 ft BGS (MS/MSD). See note for MND33-0132-0002.
MND33-0132-0003	Interval 8.0 to 12.0 ft BGS. Additional sample from the 10.0- to 12.0-ft BGS split spoon was necessary to obtain the required sample volume.

Location 0133: (MND33-0133)

MND33-0133-0001	Interval 0.0 to 3.0 ft BGS. Additional sample from the 2.0- to 3.0-ft BGS split spoon was necessary to obtain the necessary sample volume.

MND33-0133-1001	Interval 0.0 to 3.0 ft BGS (duplicate). See note for MND33-0133-0001.
MND33-0133-0002	Interval 3.0 to 7.0 ft BGS. Additional sample from the 5.0- to 7.0-ft BGS split spoon was necessary to obtain the required sample volume.

APPENDIX B9. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
AREA I BUILDING 1 LEACH PIT

B9-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the Area I Building 1 Leach Pit on 15, 17, 20, and 21 January 1992. Soil samples were collected by hollow stem auger drilling techniques. Soil samples were collected from four intervals at one location, five intervals at a second location, and one interval at a third location. All sampling locations were at pipe discharge points. The sample locations are shown in Figure 2.11. All samples collected by WESTON were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis.

B9-1.1. WESTON SAMPLE COLLECTION

A summary of soil samples collected at each location is presented below and includes the sample identification number, sample interval or type of sample, date collected, and analytical parameters requested.

Location 0101:

MND33-0101-0001	Interval 0.0 to 3.0 ft BGS; 15 January 1992; analyses requested - TCL VOCs; 17 January 1992; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0101-0002	Interval 3.0 to 7.0 ft BGS; 15 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, gross alpha-beta screening.
MND33-0101-0003	Interval 8.0 to 11.5 ft BGS; 15 January 1992; analyses requested - TCL VOCs; 17 January 1992; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0101-0004	Interval 13.0 to 15.0 ft BGS; 17 January 1992; analyses requested - TCL VOCs.

Location 0105:

MND33-0105-0001	Interval 0.0 to 3.0 ft BGS; 17 January 1992; analyses requested - TCL VOCs; 20 January 1992; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0105-5001	Ambient blank; 17 January 1992; analyses requested - TCL VOCs.
MND33-0105-0002	Interval 3.0 to 5.0 ft BGS; 17 January 1992; analyses requested - TCL VOCs; 20 January 1992; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0105-0003	Interval 8.5 to 12.5 ft BGS; 20 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0105-1003	Interval 8.5 to 12.5 ft BGS (duplicate); 20 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0105-0004	Interval 13.0 to 15.0 ft BGS; 20 January 1992; analyses requested - TCL VOCs.
MND33-0105-0005	Interval 18.0 to 20.0 ft BGS; 20 January 1992; analyses requested - TCL VOCs.

Location 0109:

MND33-0109-0002	Interval 3.0 to 7.0 ft BGS; 20 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.
MND33-0109-0002 MS/MSD	Interval 3.0 to 7.0 ft BGS (MS/MSD); 21 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives.

B9-1.2. REGULATORY AGENCY SAMPLE COLLECTION

A split sample was collected by R & R International (R & R) for U.S. EPA at the Area I Building 1 Leach Pit. The sample was sent to Compuchem Laboratories in Research Triangle Park, North Carolina, for analysis. The following summary includes the R & R sample identification number, WESTON sample identification number, sampling interval or type of sample, date collected, and the analytical parameters requested.

Location 0101:

MP3-SB101-01 MND33-0101-0001	Interval 0.0 to 3.0 ft BGS; 15 January 1992; analyses requested - TCL VOCs.

B9-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

Location 0101:

- Auger refusal was met in the borehole 0101 at 15.0 ft BGS. Borehole 0101A was offset approximately 2 ft to the north to collect the remaining samples.

MND33-0101-0001	Interval 0.0 to 3.0 ft BGS. TCL VOCs collected from borehole 0101, 0.0- to 2.0-ft BGS interval. Additional sample from 0.0- to 2.0-ft and 2.0- to 3.0-ft BGS intervals in offset borehole (0101A) was necessary to obtain required volume of sample.
MND33-0101-0002	Interval 3.0 to 7.0 ft BGS. Additional sample from the 5.0- to 7.0-ft BGS interval was necessary to obtain required volume of sample.
MND33-0101-0003	Interval 8.0 to 11.5 ft BGS. No recovery in the 8.0- to 10.0-ft BGS interval split spoon from borehole 0101. Additional sample from the 10.0- to 11.5-ft interval of borehole 0101 and 8.0- to 10.0-ft BGS interval of offset borehole (0101A) was necessary to obtain the required sample volume.

Location 0105:

- Auger refusal at 6.0 ft BGS in borehole 0105. Boreholes 0105A and 0105B were offset to the north to obtain sufficient sample volume.

MND33-0105-0001	Interval 0.0 to 3.0 ft BGS. Additional sample from the 2.0- to 3.0-ft BGS interval of borehole 0105 and from the 0.0- to 2.0-ft BGS intervals of offset boreholes 0105A and 0105B were necessary to obtain the required sample volume.
MND33-0105-0002	Interval 3.0 to 5.0 ft BGS. Additional sample from the 3.0- to 5.0-ft BGS interval of offset borehole 0105A was necessary to obtain required sample volume.
MND33-0105-0003	Interval 8.5 to 12.5 ft BGS. Additional sample from the 10.5- to 12.5-ft BGS interval was necessary to obtain required sample volume.

MND33-0105-1003	Interval 8.5 to 12.5 ft BGS (duplicate). See note for MND33-0105-0003.

Location 0109:

- No samples were collected at 2.0 ft and 10.0 ft BGS due to insufficient soil recovery. Spoon refusal was met at 8.0 ft BGS, auger refusal at 10.0 ft BGS. Drillers were unable to offset and drill additional borings due to interference with underground utilities.

MND33-0109-0002	Interval 3.0 to 7.0 ft BGS. Additional sample from the 5.0- to 7.0-ft BGS interval was necessary to obtain the required sample volume.
MND33-0109-0002 MS/MSD	Interval 3.0 to 7.0 ft BGS (MS/MSD). See note for MND33-0109-0002.

APPENDIX B10. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
BUILDING 34 SITES

BUILDING 34 FIRE-FIGHTING TRAINING FACILITY PITS, BUILDING 34 HISTORICAL FIRE-FIGHTING TRAINING PIT, AND BUILDING 34 OIL BURN STRUCTURE

B10-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the oil burn structure on 27 and 28 January 1992 and at the Building 34 Fire-Fighting Training Facility Pits on 21, 22, and 27 January 1992. Soil samples were collected using hollow stem auger drilling techniques. Subsurface soil samples were collected from two borehole locations at the oil burn structure and four borehole locations at the fire-fighting training facility pits. The sample locations are shown in Figures 2.13 and 2.12(b). An additional concrete-lined pit was discovered on 28 January 1992 near the oil burn structure (Figure 2.14). Two boreholes were placed near the pit on 12 and 13 February 1992. Sampling of water and sediment at the fire training sites and the oil burn structure was conducted on 15 and 20 February 1992. All samples collected by WESTON were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis.

B10-1.1. WESTON SAMPLE COLLECTION

A summary of soil samples collected at each location is presented below and includes the sample identification number, sample interval or type of sample, date collected, and analytical parameters requested.

FIRE-FIGHTING TRAINING PITS

Location 0110:

MND33-0110-0001	Interval 0.0 to 2.0 ft BGS; 21 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, dioxin/furans, EPH (as diesel fuel), lithium, nitrite/nitrate, gamma spec.
MND33-0110-0002	Interval 3.0 to 7.0 ft BGS; 21 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, dioxin/furans, EPH (as diesel fuel), lithium, gamma spec.

MND33-0110-1002	Interval 3.0 to 7.0 ft BGS (duplicate); 21 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, dioxin/furans, EPH (as diesel fuel), lithium.
MND33-0110-0003	Interval 8.0 to 10.0 ft BGS; 21 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, dioxin/furans, EPH (as diesel fuel), lithium.
MND33-0110-5003	Ambient blank; 21 January 1992; analyses requested - TCL VOCs.
MND33-0110-0004	Interval 13.0 to 15.0 ft BGS; 22 January 1992; analyses requested - TCL VOCs, dioxin/furans, lithium.
MND33-0110-0005	Interval 17.0 to 19.0 ft BGS; 22 January 1992; analyses requested - TCL VOCs, dioxin/furans, lithium.

Location 0111:

MND33-0111-0001	Interval 0.0 to 2.0 ft BGS; 22 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), dioxin/furans, EPH (as diesel fuel), lithium, gamma spec.
MND33-0111-0001 MS/MSD	Interval 0.0 to 2.0 ft BGS (MS/MSD); 22 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), dioxin/furans, EPH (as diesel fuel), lithium.
MND33-0111-0002	Interval 3.0 to 5.0 ft BGS; 22 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), dioxin/furans, EPH (as diesel fuel), lithium, gamma spec.
MND33-0111-0003	Interval 8.0 to 10.0 ft BGS; 22 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), dioxin/furans, EPH (as diesel fuel), lithium, gross alpha-beta screen.

Location 0112:

MND33-0112-0001	Interval 0.0 to 2.0 ft BGS; 22 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), dioxin/furans, EPH (as diesel fuel), lithium, gamma spec.
MND33-0112-1001	Interval 0.0 to 2.0 ft BGS (duplicate); 22 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), dioxin/furans, EPH (as diesel fuel), lithium, gamma spec.

MND33-0112-0002	Interval 3.0 to 7.0 ft BGS; 22 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), dioxin/furans, EPH (as diesel fuel), lithium, gamma spec.
MND33-0112-0003	Interval 8.0 to 10.0 ft BGS; 22 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), dioxin/furans, EPH (as diesel fuel), lithium.
MND33-0112-0003 MS/MSD	Interval 8.0 to 10.0 ft BGS (MS/MSD); 22 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), dioxin/furans, EPH (as diesel fuel), lithium, gross alpha-beta screen.
MND33-0112-4003	Equipment (rinsate) blank; 27 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), dioxin/furans, EPH (as diesel fuel), lithium.

Location 0113:

MND33-0113-0001	Interval 0.0 to 2.0 ft BGS; 27 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel), gamma spec.
MND33-0113-0002	Interval 3.0 to 5.0 ft BGS; 27 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel), gamma spec.
MND33-0113-0003	Interval 9.0 to 11.0 ft BGS; 27 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel).
MND33-0113-0004	Interval 13.0 to 15.0 ft BGS; 27 January 1992; analyses requested - TCL VOCs, lithium, dioxin/furans.
MND33-0113-0005	Interval 15.0 to 17.0 ft BGS; 27 January 1992; analyses requested - TCL VOCs, lithium, dioxin/furans.
MND33-0113-0006	Interval 17.0 to 20.0 ft BGS; 27 January 1992; analyses requested - TCL VOCs, lithium, dioxin/furans.

OIL BURN STRUCTURE

Location 0114:

MND33-0114-0001	Interval 3.0 to 7.0 ft BGS; 28 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel), gamma spec.
MND33-0114-1001	Interval 3.0 to 7.0 ft BGS (duplicate); 28 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel).
MND33-0114-0002	Interval 7.0 to 11.0 ft BGS; 28 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel), gross alpha-beta screen, gamma spec.
MND33-0114-0002 MS/MSD	Interval 7.0 to 11.0 ft BGS (MS/MSD); 28 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel).

Location 0115:

MND33-0115-0001	Interval 3.0 to 7.0 ft BGS; 28 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel), gamma spec.
MND33-0115-0002	Interval 7.0 to 11.0 ft BGS; 28 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, nitrite/nitrate, dioxin/furans, EPH (as diesel fuel), gamma spec.
MND33-0115-4002	Equipment (rinsate) blank; 28 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel).

ADDITIONAL CONCRETE-LINED PIT

Location 0135:

MND33-0135-0001	Interval 3.0 to 6.0 ft BGS; 12 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel), gamma spec.
MND33-0135-0002	Interval 8.0 to 10.0 ft BGS; 12 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel), gamma spec.
MND33-0135-5001	Ambient blank; 12 February 1992; analyses requested - TCL VOCs.

Location 0136:

MND33-0136-0001	Interval 3.0 to 6.0 ft BGS; 13 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel), gamma spec.
MND33-0136-1001 MS/MSD	Interval 3.0 to 6.0 ft BGS (duplicate); 13 February 1992; analyses requested - TCL VOCS, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel).
MND33-0136-0002	Interval 8.0 to 12.0 ft BGS; 13 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel), gamma spec.
MND33-0136-4001	Equipment (rinsate) blank; 13 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, dioxin/furans, EPH (as diesel fuel).

SEDIMENT SAMPLING

Location 0140: (Fire-Fighting Training Pits)

MND33-0140-0001	Sediment sample, 15 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanides), dioxin/furans, EPH (as diesel fuel), gamma spec.

Location 0141: (Oil Burn Structure)

MND33-0141-0001	Sediment samples; 15 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), dioxin/furans, EPH (as diesel fuel), gamma spec.

WATER SAMPLING

Location 1140: (Fire-Fighting Training Pit)

MND33-1140-0004	Surface water sample; 20 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanides), tritium, dioxin/furans, EPH (as diesel fuel), gross alpha-beta screen.
MND33-1140-1001	Surface water sample (duplicate); 20 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), tritium, dioxin/furans, EPH (as diesel fuel).
MND33-1140-2001	Trip blank; 20 February 1992; analyses requested - TCL VOCs.
MND33-1140-5001	Ambient blank; 20 February 1992; analyses requested - TCL VOCs.

Location 1141: (Oil Burn Structure)

MND33-1141-0001	Surface water sample; 20 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), tritium, dioxin/furans, EPH (as diesel fuel).
MND33-1141-2001	Trip blank; 20 February 1992; analyses requested - TCL VOCs.
MND33-1141-2002	Trip blank; 20 February 1992; analyses requested - TCL VOCs.
MND33-1141-4001	Equipment (rinsate) blank; 20 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), tritium, dioxin/furans, EPH (as diesel fuel).

B10-1.2. REGULATORY AGENCY SAMPLE COLLECTION

Split samples were collected by the Ohio Environmental Protection Agency (OEPA) at one location at the Building 34: Fire-Fighting Training Facility Pits on 22 January 1992 and one location at the Oil Burn Structure on 28 January 1992. The samples were sent to Betz Laboratories, Woodland, Texas. The following summary includes the WESTON sample identification number, sampling interval or type of sample, date collected, and the analytical parameters requested.

Location 0110:

MND33-0110-0001	Interval 0.0 to 2.0 ft BGS; 21 January 1992; analyses requested - TAL metals, dioxin/furans, TPH, nitrite/ nitrates, iso-Pu, iso-Th, gamma specs (Co-60, Ac-227, Cs-137, Am-241, Bi-207, Bi-210m, K-40, Ra-226, Th-227).

Location 0115:

MND33-0115-0002	Interval 7.0 to 11.0 ft BGS; 28 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL /PCBs, TAL metals, nitrite/nitrate, dioxin/furans, TPH, iso-Pu, iso-Th, gamma specs (Co-60, Cs-137, Am-241, Bi-207, Bi-210m, K-40, Ra-226, Th-227).

B10-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

FIRE-FIGHTING TRAINING FACILITY PITS

- Three additional soil borings were completed in the area of boring MND33-0112 to delineate the extent of possible subsurface contamination. Details of this work are presented in the letter report dated 11 February 1992 (see Section 6).
- Surface soil sampling intervals (0.0 to 2.0 ft BGS) were collected for soil analyses at the four borings completed at the Building 34 Fire-Fighting Training Pits because of the occurrence of surface staining in each area. Additional deviations for each sample location are listed below.

Location 0110:

MND33-0110-0001	Interval 0.0 to 2.0 ft BGS. Three 0.0- to 2.0-ft BGS split spoon samples were necessary to obtain the required sample volume for this sample and the OEPA split sample.

MND33-0110-0002	Interval 3.0 to 7.0 ft BGS. Additional sample from the 5.0- to 7.0-ft BGS split spoon sample was necessary to obtain the required sample volume.
MND33-0110-1002	Interval 3.0 to 7.0 ft BGS (duplicate). See note for MND33-0110-0002.

Location 0111:

MND33-0111-0001	Interval 0.0 to 2.0 ft BGS. Two 0.0- to 2.0-ft BGS split spoon samples were necessary to obtain the required sample volume.
MND33-0111-0001 MS/MSD	Interval 0.0 to 2.0 ft BGS (MS/MSD). See note for MND33-0111-0001.

Location 0112:

MND33-0112-0001	Interval 0.0 to 2.0 ft BGS. Two 0.0- to 2.0-ft BGS split spoon samples were necessary to obtain the required sample volume.
MND33-0112-1001	Interval 0.0 to 2.0 ft BGS (duplicate). See note for MND33-0112-0001.
MND33-0112-0002	Interval 3.0 to 7.0 ft BGS. Additional sample from the 5.0- to 7.0-ft BGS interval split spoon was necessary to obtain the required sample volume.
MND33-0112-0003	An oil-like substance was discovered in the 8.0- to 10.0-ft and 10.0- to 12.0-ft BGS interval split spoon samples. Due to this occurrence, the boring was discontinued at 12.0 ft BGS.

Location 0113:

MND33-0113-0001	Interval 0.0 to 2.0 ft BGS. Three 0.0- to 2.0-ft BGS split spoon samples were necessary to obtain the required sample volume.
MND33-0113-0006	Interval 17.0 to 20.0 ft BGS. Split spoon samples from the 17.0- to 19.0-ft and 19.0- to 20.0-ft BGS intervals were necessary to obtain the required sample volume.

OIL BURN STRUCTURE

Location 0114:

MND33-0114-0001	Interval 3.0 to 7.0 ft BGS. Additional sample from the 5.0- to 7.0-ft BGS split spoon was necessary to obtain the required sample volume.
MND33-0114-1001	Interval 3.0 to 7.0 ft BGS. See note for MND33-0114-0001.
MND33-0114-0002	Interval 7.0 to 11.0 ft BGS. Split spoon samples from the 7.0- to 9.0-ft and 9.0- to 11.0-ft BGS intervals were necessary to obtain the required sample volume.
MND33-0114-0002 MS/MSD	Interval 7.0 to 11.0 ft BGS. See note for MND33-0114-0002.

Location 0115:

MND33-0115-0001	Interval 3.0 to 7.0 ft BGS. Additional sample from the 5.0- to 7.0-ft BGS split spoon was necessary to obtain the required sample volume.
MND33-0115-0002	Interval 7.0 to 11.0 ft BGS. Split spoon samples from the 7.0- to 9.0-ft and 9.0- to 11.0-ft BGS intervals were necessary to obtain the required sample volume for this sample and the OEPA split sample.

SEDIMENT SAMPLING

Location 0140:

MND33-0140-0001	Sediments were sampled from the southern fire-fighting training pit only due to the lack of sediment in the northern pit.

WATER SAMPLING

Location 1140:

MND33-1140-0001	Surface water samples were collected from the southern fire-fighting training pit only due to the lack of surface water in the northern pit.

MND33-1140-1001	Surface water sample (duplicate); see note for MND33-1140-0001.

APPENDIX B11. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
AREA C FORMER EQUIPMENT STORAGE AREA

B11-1. SUMMARY OF SAMPLING ACTIVITIES

Area C Former Equipment Storage Area sampling activities consisted of eight test pit excavations using a backhoe. The test pit areas were marked according to coordinates stipulated in the Work Plan and shown in Figure 2.16(b) (also Work Plan, Section 11, Page 7). Excavations were conducted by WESTON representatives from 31 January to 4 February 1992. Test pit excavations were performed according to Work Plan guidelines. Three of the test pits (nos. 2, 5, and 8) are associated with anomalies found using ground penetrating radar (GPR) techniques. The remaining test pits (nos. 1, 3, 4, 6, and 7) are associated with the magnetic survey. Table BXI.1 indicates the test pits by their assigned Work Plan number and their OU 3 Sample ID.

All excavation work was performed under Level C personal protection. Readings with direct-reading instruments were taken at each 2-ft-depth interval from soil collected from the backhoe bucket. The soil was collected using stainless steel scoops and bowls. Instrument readings were not greater than 1.0 unit above background for all samples. As a result, no samples were retained for laboratory analysis.

Debris and other objects found during the excavation activities were described and returned to their original locations. Each test pit was backfilled the same day of excavation. The following subsections describe each test pit operation.

B11-1.1. TEST PIT NO. 1

Sampling activities for test pit no. 1 were conducted on 1 February 1992. The pit was excavated to a depth of approximately 8 ft. Groundwater was encountered at approximately 7.5 ft. Nonmetallic debris found in test pit no. 1 consisted of small pieces of charred wood and small strips of plastic. The following metallic objects were found:

- Metal pipe, 1.5 ft by 1 inch diameter.
- Strip of metal, flat, 6 inches long.
- Metal 55-gallon drum lid.

Table BXI.1 Area C Former Equipment Storage Area Test Pit Excavations

Test Pit Number	OU 3 Sample Number	Excavation Date
1	MND 33-0123	02/01/92
2	MND 33-0129	02/04/92
3	MND 33-0125	02/02/92
4	MND 33-0126	02/02/92
5	MND 33-0122	01/31/92
6	MND 33-0128	02/03/92
7	MND 33-0124	02/02/92
8	MND 33-0127	02/03/92

All metal objects were encountered in the top 3 ft of soil removed. Pieces of charred wood were found consistently to a depth of 6.0 ft BGS. Native soil was encountered at approximately 6.5 ft BGS.

B11-1.2. TEST PIT NO. 2

Sampling activities for test pit no. 2 were conducted on 4 February 1992. The pit contains a concrete storm water drainage pipe which originates upgradient to the east and is oriented east and west across the pit. A change in scope for excavation at test pit no. 2 was executed as a result of the storm sewer line location in the pit. Due to the L-shape of the pit boundary, the pit is split into two sections by the pipe; one is two times larger than the other. The larger of the two sections was excavated first. Care was taken not to disturb the pipe. A 6-inch-long piece of rebar was uncovered in the larger section. No other objects were found in the excavations. Excavation was halted at a depth of 2 ft in both sections due to the presence of native soil.

B11-1.3. TEST PIT NO. 3

Sampling activities for test pit no. 3 were conducted on 2 February 1992. Within 1 ft of the ground surface, excavation efforts uncovered concrete foundation and flooring containing metal rebar. The area of the pit was excavated where possible to a depth of 2.0 ft BGS and the configuration of the foundation and flooring was noted in the test pit log. Native soils were observed beneath the concrete at the 2.0-ft BGS depth.

B11-1.4. TEST PIT NO. 4

Sampling activities for test pit no. 4 were conducted on 2 February 1992. A concrete foundation and flooring containing metal rebar was uncovered in test pit no. 4 within 1 ft of the ground surface. In addition, the following items were found:

- Metal fence post, 3 ft long, with barbed wire attached.
- Metal cap from vehicle gasoline tank.
- Heavy steel pipe, 3 ft long by 1 inch diameter.

The area of the pit was excavated where possible to a depth of 2.0 ft BGS. Native soils were observed at a depth of approximately 2.5 ft BGS.

B11-1.5. TEST PIT NO. 5

Sampling activities at test pit no. 5 were conducted on 31 January 1992. The pit was excavated to a depth of approximately 8.0 ft BGS and was completed in two sections. Four pieces of metal rebar were found in the upper 2 ft of the western (lower) half of the excavation. The pieces were between 1.0 and 1.5 ft long and 0.5 inches in diameter. No other objects were found in the excavation. Native soils were encountered at the 4.0- to 6.0-ft BGS interval.

B11-1.6. TEST PIT NO. 6

Sampling activities at test pit no. 6 were conducted on 3 February 1992. This area of the slope contains a debris pile and is part of the historical fill area. The pit was excavated to a depth of 5.0 ft. The following objects were found:

- Several pieces of sheet metal (up to 2 ft long).
- Concrete foundations and flooring containing rebar.
- Approximately 40 pieces of rebar (up to 15 ft long).
- Portions of a rusted 55-gallon drum.

The objects were found in the upper 3 ft of the excavation. Native soils were encountered at a depth of approximately 4.0 ft BGS.

B11-1.7. TEST PIT NO. 7

Sampling activities at test pit no. 7 were conducted on 2 February 1992. The pit was excavated to a depth of 8.0 ft BGS. Nonmetallic objects discovered in the excavation consisted of bricks, cinder blocks, and wood. The following metallic objects were found:

- Metal chains and steel cables (up to 1.5 ft long).
- Metal posts, wire and barbed wire.
- Concrete slab fragments with metal rebar.

The objects were found in the upper 6 ft of soil. Native soils were encountered at approximately 6.5 to 7.0 ft BGS.

B11-1.8. TEST PIT NO. 8

Sampling activities at test pit no. 8 were conducted on 3 February 1992. The pit was excavated to a depth of 7.0 ft BGS. Nonmetallic objects discovered in the excavation consisted of bricks, cinder blocks, and concrete blocks. A metal post and several pieces of metal rebar were the only metallic objects found. The objects were found in the upper 4.5 ft of soil. Native soil was encountered in the 5.0- to 6.0-ft BGS interval.

B11-1.9. REGULATORY AGENCY SAMPLING ACTIVITIES

No split samples were collected by a regulatory agency from the Area C Former Equipment Storage Area Test Pit Excavations.

B11-2.0. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

- Plastic sheeting was used to place excavated soil near the pit for test pit no. 5 only (the first excavation). For all other test pit excavations, the soil was placed directly onto the ground near the pit. The soil excavation technique was amended in the field to deal with problems caused by saturated surface soil conditions.

APPENDIX B12. LIMITED FIELD INVESTIGATIONS, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
AREA C DRUM STAGING AREA

B12-1. SUMMARY OF SAMPLING ACTIVITIES

Area C Drum Staging Area sampling activities included soil sampling by hollow stem auger drilling techniques. Soil sample collection was conducted by WESTON representatives, and all WESTON samples were sent to IT Laboratories, Oak Ridge, Tennessee, for analysis. Sampling activities were conducted from 22 November to 23 November 1991. Sampling was conducted at two locations as shown in Figure 2.17. A summary of soil samples collected at each location listing the sample identification number, sampling interval or type of sample, date collected, and analytical parameters requested is presented below.

B12-1.1. WESTON SAMPLE COLLECTION

Location 0069:

MND33-0069-0001	Interval 0.0 to 0.5 ft BGS; 22 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gross alpha-beta screen.
MND33-0069-1001	Interval 0.0 to 0.5 ft BGS (duplicate); 22 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).
MND33-0069-0002	Interval 3.0 to 7.0 ft BGS; 22 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).
MND33-0069-0003	Interval 8.0 to 8.92 ft BGS; 22 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).

Location 0070:

MND33-0070-0001	Interval 0.0 to 0.5 ft BGS; 23 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).

MND33-0070-0001 MS/MSD	Interval 0.0 to 0.5 ft BGS; 23 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).
MND33-0070-0002	Interval 3.0 to 7.0 ft BGS; 23 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).
MND33-0070-1002	Interval 3.0 to 7.0 ft BGS (duplicate); 23 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).
MND33-0070-0003	Interval 8.0 to 10.0 ft BGS; 23 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).

B12-1.2. REGULATORY AGENCY SAMPLE COLLECTION

Split samples were taken by the U.S. EPA representative at two different interval locations at the Area C Drum Staging Area. The U.S. EPA samples were analyzed at Compuchem Laboratories in Research Triangle Park, North Carolina, for TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide and mercury). The following summary includes the sample identification number, sampling interval or type of sample, date collected, and analytical parameters for the split samples.

Location 0069:

MND33-0069-0002	Interval 3.0 to 7.0 ft BGS; 22 November 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide and mercury).

Location 0070:

MND33-0070-0003	Interval 8.0 to 10.0 ft BGS; 23 November 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide and mercury).

B12-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

- The specific locations of 0069 and 0070 were moved based on the findings of OU 9 Volume 6 photo history report. Location A was moved approximately 50 ft northeast of the original location and location 0070 was moved approximately 20 ft east of the original location.
- Alpha scintillometer readings were not taken by WESTON personnel at Area C during activities at location 0069. An alpha scintillometer was used by a member of the health physics staff to screen all personnel leaving the work area.

- There were no samples collected at the 15.0- or 20.0-ft BGS interval (in compliance with the Work Plan), because the HNu and the OVA readings were less than 1.0 unit above background during screening of the 7.5- to 10.0-ft BGS sample interval.

- The following is a summary of deviations from approved protocol for each sample collected at Area C Drum Staging Area.

Location 0069:

MND33-0069-0001	Interval 0.0 to 0.5 ft BGS. Three surface split spoon samples were necessary to obtain the required sample volume which included a duplicate sample.
MND33-0069-0002	Interval 3.0 to 7.0 ft BGS. The 5.0- to 7.0-ft BGS split spoon was needed, in addition to the 3.0- to 7.0-ft BGS sample, to obtain the required sample volume which included a U.S. EPA split sample.

Location 0070:

MND33-0070-0001	Interval 0.0 to 0.5 ft BGS. Four surface split spoon samples were necessary to obtain the required sample volume.
MND33-0070-0002	Interval 3.0 to 7.0 ft BGS. The 5.0- to 7.0-ft BGS split spoon was needed, in addition to the 3.0- to 7.0-ft BGS sample, to obtain the required sample volume.

APPENDIX B13. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
AREA H SITES

AREA H PYROTECHNIC WASTE DISPOSAL AREA
AREA H TRASH BURNER AREA
AREA H THERMAL TREATMENT UNIT
AREA H PYROTECHNIC WASTE SHED

B13-1. SUMMARY OF SAMPLING ACTIVITIES

Area H sampling activities included subsurface soil sampling by hollow stem auger drilling techniques. Soil sample collection was conducted by WESTON representatives, and all samples collected by WESTON were sent to IT Laboratories in Oak Ridge, Tennessee, for analysis. The sampling activities at Area H were conducted on 19 November 1991 and from 16 December to 18 December 1991. Soil boring locations at Area H are presented in Figures 2.18, 2.19, 2.20, and 2.21. A summary of soil samples collected at each location listing the sample identification number, sampling interval or type of sample, date collected, and analytical parameters requested is presented below.

B13-1.1. WESTON SAMPLE COLLECTION

Location 0060:

MND33-0060-0001	Interval 0.0 to 2.0 ft BGS; 19 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

Location 0061:

MND33-0061-0001	Interval 0.0 to 2.0 ft BGS; 16 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

Location 0081:

MND33-0081-0001	Interval 0.0 to 2.0 ft BGS; 16 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

MND33-0081-1001	Interval 0.0 to 2.0 ft BGS (duplicate); 16 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

Location 0082:

MND33-0082-0001	Interval 0.0 to 0.5 ft BGS; 16 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide), gross alpha-beta screen.

Location 0083:

MND33-0083-0001	Interval 0.0 to 2.0 ft BGS; 16 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide), nitrate/nitrite and chloride.

Location 0084:

MND33-0084-0001	Interval 0.0 to 2.0 ft BGS; 16 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide), nitrate/nitrite and chloride.
MND33-0084-0001 MS/MSD	Interval 0.0 to 2.0 ft BGS; 16 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide), nitrate/nitrite and chloride.

Location 0085:

MND33-0085-0001	Interval 0.0 to 2.0 ft BGS; 16 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0085-0002	Interval 2.0 to 4.5 ft BGS; 16 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0085-0003	Interval 7.0 to 7.5 ft BGS; 16 December 1991; analyses requested - TCL VOCs.

Location 0086:

MND33-0086-0001	Interval 0.0 to 2.0 ft BGS; 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0086-4001	Equipment blank; 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals, cyanide.

Location 0087:

MND33-0087-0001	Interval 0.0 to 2.0 ft BGS; 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

Location 0088:

MND33-0088-0001	Interval 0.0 to 2.0 ft BGS; 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

Location 0089:

MND33-0089-0001	Interval 0.0 to 2.0 ft BGS; 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

Location 0090:

MND33-0090-0001	Interval 0.0 to 3.5 ft BGS; 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide), gross alpha-beta screen.
MND33-0090-1001	Interval 0.0 to 3.5 ft BGS (duplicate); 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

Location 0091:

MND33-0091-0001	Interval 0.0 to 2.0 ft BGS; 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

MND33-0091-0002	Interval 2.0 to 3.1 ft BGS; 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

Location 0092:

MND33-0092-0001	Interval 0.0 to 2.0 ft BGS; 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0092-0001 MS/MSD	Interval 0.0 to 2.0 ft BGS; 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

Location 0093:

MND33-0093-0001	Interval 0.0 to 2.0 ft BGS; 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

Location 0094:

MND33-0094-0001	Interval 0.0 to 2.0 ft BGS; 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0094-1001	Interval 0.0 to 2.0 ft BGS (duplicate); 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0094-5001	Ambient blank; 17 December 1991; analyses requested - TCL VOCs.
MND33-0094-0002	Interval 2.0 to 4.5 ft BGS; 17 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

Location 0095:

MND33-0095-0001	Interval 0.0 to 2.0 ft BGS; 18 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0095-4001	Equipment blank; 18 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals, cyanide.

MND33-0095-5001	Ambient blank; 18 December 1991; analyses requested - TCL VOCs.

Location 0096:

MND33-0096-0001	Interval 0.0 to 2.0 ft BGS; 18 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide), gross alpha-beta screen.

Location 0097:

MND33-0097-0001	Interval 0.0 to 2.0 ft BGS; 18 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0097-1001	Interval 0.0 to 2.0 ft BGS (duplicate); 18 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

Location 0098:

MND33-0098-0001	Interval 0.0 to 2.0 ft BGS; 18 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0098-0002	Interval 2.0 to 5.2 ft BGS; 18 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

B13-1.2. REGULATORY AGENCY SAMPLE COLLECTION

Split samples were collected by the Ohio Environmental Protection Agency (OEPA) representative at several different locations at Area H. The OEPA samples were analyzed at Betz Laboratory in Woodland, Texas. The following summary includes the sample identification number, sampling interval or type of sample, date collected, and analytical parameters requested for the split samples.

Location 0083:

MND33-0083-0001	Interval 0.0 to 2.0 ft BGS; 16 December 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including nitrate/nitrite).

MND33-0083-0002	Interval 2.0 to 2.6 ft BGS; 16 December 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs.

Location 0084:

MND33-0084-0001	Interval 0.0 to 2.0 ft BGS; 16 December 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including nitrate/nitrite).

B13-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

The following is a summary of deviations from the approved protocol for each sample collected at Area H.

Location 0060:

- Alpha scintillometer readings were not taken by WESTON personnel at this location. An alpha scintillometer was used by a member of the health physics staff to screen all personnel leaving the work area.

MND33-0060-0001	Interval 0.0 to 2.0 ft BGS. Two surface split spoons were necessary to obtain the required sample volume.

Location 0061:

MND33-0061-0001	Interval 0.0 to 2.0 ft BGS, 19 November 1992. Two surface split spoons were necessary to obtain the required sample volume. In the second split spoon, a white powder chunk (approx. 1 inch in diameter) was encountered with the scoop. The sample was left in the bowl as described in the Health and Safety Plan. A 55-gallon drum was placed over the top of the bowl near the sampling location until EG&G personnel could determine if it was an explosive. The collected sample was not sent. Interval 0.0 to 2.0 ft BGS, 16 December 1991. The location was re-sampled. Two split spoons were necessary to obtain the required sample volume.

Location 0081:

MND33-0081-0001	Interval 0.0 to 2.0 ft BGS. Two split spoons were necessary to obtain the required sample volume due to the duplicate sample.

Location 0082:

MND33-0082-0001	Interval 0.0 to 0.5 ft BGS. The sampling interval was from 0 to 0.5 ft BGS because of split spoon refusal at 0.5 ft BGS. Four split spoons were necessary to obtain the required sample volume.

Location 0083:

MND33-0083-0001	Interval 0.0 to 2.0 ft BGS. Three split spoons were necessary to obtain the required sample volume. A nitrate/nitrite and chloride sample was taken in addition to the requested analyses of TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0083-0002	Interval 2.0 to 2.6 ft BGS. The borehole could only be advanced to 2.6 ft BGS due to split spoon refusal and auger refusal at 2.6 ft BGS.

Location 0084:

MND33-0084-0001	Interval 0.0 to 2.0 ft BGS. Two split spoons were necessary to obtain the required sample volume due to the OEPA split sample.

Location 0090:

MND33-0090-0001	Interval 0.0 to 3.5 ft BGS. The sampling depth went to 3.5 ft BGS to obtain the required sample volume due to the duplicate sample.

Location 0094:

MND33-0094-0001	Interval 0.0 to 2.0 ft BGS. Three surface split spoons were necessary to obtain the required sample volume. There was no advancement of the borehole to 10.0 ft BGS because split spoon refusal was 4.5 ft BGS.

Location 0096:

MND33-0096-0001	Interval 0.0 to 2.0 ft BGS. Two surface split spoons were necessary to obtain the required sample volume.

Location 0097:

MND33-0097-0001	Interval 0.0 to 2.0 ft BGS. Two surface split spoons were necessary to obtain the required sample volume. There was no advancement of the borehole to 10.0 ft BGS because split spoon refusal was at 3.0 ft BGS and auger refusal was at 3.5 ft BGS. There was no recovery in the 2.0- to 4.0-ft split spoon.

APPENDIX B14. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
WASTE OIL DRUM FIELD

B14-1. SUMMARY OF SAMPLING ACTIVITIES

The Waste Oil Drum Field (WODF) sampling activities included surface soil sampling with a scoop and subsurface soil sampling by hollow stem auger drilling techniques. Soil sample collection was conducted by WESTON representatives, and all samples collected by WESTON were sent to IT Laboratories, Oak Ridge, Tennessee, for analysis. The surface sampling activities at WODF were conducted from 30 October to 31 October 1991 and the subsurface sampling activities were conducted from 10 December to 12 December 1991 and 19 December 1991. Sampling was conducted at 23 locations as shown in Figure 2.22. A summary of soil samples collected at each location listing the sample identification number, sampling interval or type of sample, date collected, and analytical parameters requested is presented below.

B14-1.1. WESTON SAMPLE COLLECTION

Location 0025:

MND33-0025-0001	Interval 0.0 to 0.5 ft BGS; 30 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0025-1001	Interval 0.0 to 0.5 ft BGS (duplicate); 30 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0025-0002	Interval 3.0 to 5.0 ft BGS; 19 December 1991; analyses requested - TCL VOCs.
MND33-0025-4002	Equipment blank; 19 December 1991; analyses requested - TCL VOCs.
MND33-0025-5002	Ambient field blank; 19 December 1991; analyses requested - TCL VOCs.

Location 0026:

MND33-0026-0001	Interval 0.0 to 0.5 ft BGS; 30 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

MND33-0026-0002	Interval 3.0 to 3.5 ft BGS; 19 December 1991; analyses requested - TCL VOCs, gross alpha-beta screen.
MND33-0026-1002	Interval 3.0 to 3.5 ft BGS (duplicate); 19 December 1991; analyses requested - TCL VOCs.

Location 0027:

MND33-0027-0001	Interval 0.0 to 0.5 ft BGS; 30 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0027-0002	Interval 3.0 to 3.5 ft BGS; 19 December 1991; analyses requested - TCL VOCs.

Location 0028:

MND33-0028-0001	Interval 0.0 to 0.5 ft BGS; 30 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0028-0002	Interval 3.0 to 4.0 ft BGS; 19 December 1991; analyses requested - TCL VOCs.

Location 0029:

MND33-0029-0001	Interval 0.0 to 0.5 ft BGS; 30 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0029-0002	Interval 3.0 to 4.5 ft BGS; 19 December 1991; analyses requested - TCL VOCs.
MND33-0029-0002 MS/MSD	Interval 3.0 to 4.5 ft BGS; 19 December 1991; analyses requested - TCL VOCs.

Location 0030:

MND33-0030-0001	Interval 0.0 to 0.5 ft BGS; 30 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide), gross alpha-beta screen.
MND33-0030-0002	Interval 3.0 to 3.75 ft BGS; 12 December 1991; analyses requested - TCL VOCs.

Location 0031:

MND33-0031-0001	Interval 0.0 to 0.5 ft BGS; 30 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0031-1001	Interval 0.0 to 0.5 ft BGS (duplicate); 30 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0031-5001	Ambient field blank; 30 October 1991; analyses requested - TCL VOCs.
MND33-0031-0002	Interval 3.0 to 4.0 ft BGS; 12 December 1991; analyses requested - TCL VOCs.

Location 0032:

MND33-0032-0001	Interval 0.0 to 0.5 ft BGS; 30 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0032-0002	Interval 3.0 to 3.67 ft BGS; 12 December 1991; analyses requested - TCL VOCs.

Location 0033:

MND33-0033-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0033-0002	Interval 3.0 to 5.0 ft BGS; 11 December 1991; analyses requested - TCL VOCs, TPH.

Location 0034:

MND33-0034-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0034-0001 MS/MSD	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0034-0002	Interval 1.0 to 4.0 ft BGS; 11 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), TPH.

Location 0035:

MND33-0035-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0035-0002	Interval 3.0 to 4.0 ft BGS; 10 December 1991; analyses requested - TCL VOCs.

Location 0036:

MND33-0036-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide), gross alpha-beta screen.
MND33-0036-0002	Interval 3.0 to 5.0 ft BGS; 11 December 1991; analyses requested - TCL VOCs, TPH.

Location 0037:

MND33-0037-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0037-1001	Interval 0.0 to 0.5 ft BGS (duplicate); 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0037-0002	Interval 3.0 to 5.0 ft BGS; 12 December 1991; analyses requested - TCL VOCs, gross alpha-beta screen.
MND33-0037-1002	Interval 3.0 to 5.0 ft BGS (duplicate); 12 December 1991; analyses requested - TCL VOCs.
MND33-0037-0002 MS/MSD	Interval 3.0 to 5.0 ft BGS; 12 December 1991; analyses requested - TCL VOCs.
MND33-0037-0003	Interval 8.0 to 8.67 ft BGS; 12 December 1991; analyses requested - TCL VOCs.

Location 0038:

MND33-0038-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).

MND33-0038-0002	Interval 3.0 to 5.58 ft BGS; 11 December 1991; analyses requested - TCL VOCs, TPH.

Location 0039:

MND33-0039-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0039-0002	Interval 3.0 to 7.0 ft BGS; 11 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gross alpha-beta screen, TPH.
MND33-0039-5002	Ambient field blank; 11 December 1991; analyses requested - TCL VOCs.

Location 0040:

MND33-0040-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0040-0002	Interval 1.0 to 5.0 ft BGS; 10 December 1991; analyses requested - TCL VOCs.
MND33-0040-1002	Interval 1.0 to 5.0 ft BGS (duplicate); 10 December 1991; analyses requested - TCL VOCs.

Location 0041:

MND33-0041-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0041-0002	Interval 3.0 to 5.0 ft BGS; 10 December 1991; analyses requested - TCL VOCs.

Location 0042:

MND33-0042-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0042-0002	Interval 1.0 to 3.0 ft BGS; 12 December 1991; analyses requested - TCL VOCs.

MND33-0042-5002	Ambient field blank; 12 December 1991; analyses requested - TCL VOCs.

Location 0043:

MND33-0043-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0043-1001	Interval 0.0 to 0.5 ft BGS (duplicate); 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0043-0002	Interval 3.0 to 5.0 ft BGS; 10 December 1991; analyses requested - TCL VOCs.
MND33-0043-4002	Equipment blank; 10 December 1991; analyses requested - TCL VOCs.

Location 0044:

MND33-0044-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0044-0002	Interval 3.0 to 4.3 ft BGS; 10 December 1991; analyses requested - TCL VOCs.

Location 0045:

MND33-0045-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0045-0002	Interval 3.0 to 5.0 ft BGS; 10 December 1991; analyses requested - TCL VOCs.
MND33-0045-5002	Ambient field blank; 10 December 1991; analyses requested - TCL VOCs.

Location 0046:

MND33-0046-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide), gross alpha-beta screen.

MND33-0046-0001 MS/MSD	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0046-5001	Ambient field blank; 31 October 1991; analyses requested - TCL VOCs.
MND33-0046-0002	Interval 3.0 to 5.0 ft BGS; 10 December 1991; analyses requested - TCL VOCs.
MND33-0046-1002	Interval 3.0 to 5.0 ft BGS (duplicate); 10 December 1991; analyses requested - TCL VOCs.
MND33-0046-0003	Interval 8.0 to 8.67 ft BGS; 10 December 1991; analyses requested - TCL VOCs.

Location 0047:

MND33-0047-0001	Interval 0.0 to 0.5 ft BGS; 31 October 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, explosives, TAL metals (including cyanide).
MND33-0047-0002	Interval 3.0 to 5.0 ft BGS; 10 December 1991; analyses requested - TCL VOCs, gross alpha-beta screen.

B14-1.2. REGULATORY AGENCY SAMPLE COLLECTION

- Split samples were collected by the Ohio Environmental Protection Agency (OEPA) representative at the WODF from five different locations. The OEPA samples were analyzed at Betz Laboratories in Woodland, Texas. The following summary includes the sample identification number, sampling interval or type of sample, date collected, and analytical parameters for the split samples.

Location 0033:

MND33-0033-0002	Interval 3.0 to 5.0 ft BGS; 11 December 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TPH.

Location 0034:

MND33-0034-0002	Interval 1.0 to 4.0 ft BGS; 11 December 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, nitrates/nitrites, TPH.

Location 0036:

MND33-0036-0002	Interval 3.0 to 5.0 ft BGS; 11 December 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TPH.

Location 0038:

MND33-0038-0002	Interval 3.0 to 5.58 ft BGS; 11 December 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TPH.

Location 0039:

MND33-0039-0002	Interval 3.0 to 7.0 ft BGS; 11 December 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, nitrates/nitrites, TPH.

- Split samples were collected by the U.S. EPA representative at the WODF from six different locations. The U.S. EPA samples were analyzed at Compuchem Laboratories in Research Triangle Park, North Carolina. The following summary includes the sample identification number, sampling interval or type of sample, date collected, and analytical parameters for the split samples.

Location 0033:

MND33-0033-0002	Interval 3.0 to 5.0 ft BGS; 11 December 1991; analyses - TCL VOCs.

Location 0034:

MND33-0034-0002	Interval 1.0 to 4.0 ft BGS; 11 December 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).

Location 0036:

MND33-0036-0002	Interval 3.0 to 5.0 ft BGS; 11 December 1991; analyses - TCL VOCs.

Location 0038:

MND33-0038-0002	Interval 3.0 to 5.58 ft BGS; 11 December 1991; analyses - TCL VOCs.

Location 0039:

MND33-0039-0002	Interval 3.0 to 7.0 ft BGS; 11 December 1991; analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).

Location 0042:

MND33-0042-0002	Interval 1.0 to 3.0 ft BGS; 12 December 1991; analyses - TCL VOCs.
MND33-0042-1002	Interval 1.0 to 3.0 ft BGS (duplicate); 12 December 1991; analyses - TCL VOCs.

B14-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

- Alpha scintillometer readings were not taken by WESTON personnel at the WODF during surface sampling (30, 31 October 1991). An alpha scintillometer screening was conducted by a member of the EG&G health physics staff to screen all personnel leaving the work area. All readings were equal to or below background levels.
- The following is a summary of deviations from approved protocol for each sample collected at WODF.

Location 0025:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 5.5 ft BGS.

Location 0026:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 5.0 ft BGS.

Location 0027:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 3.5 ft BGS.

MND33-0027-0002	Interval 3.0 to 3.5 ft BGS. There was no OVA reading obtained for this sample because of instrument malfunction.

Location 0028:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 4.0 ft BGS and split spoon refusal at 4.0 ft BGS.

Location 0029:

- Two boreholes were drilled at this location in order to obtain sufficient sample volume. The 10.0-ft BGS interval was not sampled at boring no. 1 due to auger refusal at 4.0 ft BGS and at boring no. 2 due to auger refusal at 4.5 ft BGS.

MND33-0029-0001	Interval 0.0 to 0.5 ft BGS. There was no OVA reading obtained for this sample due to instrument malfunction.
MND33-0029-0002	Interval 3.0 to 5.0 ft BGS. Two boreholes were drilled to obtain the required sample volume at the 5.0-ft interval, which included an MS/MSD sample.

Location 0030:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 6.0 ft BGS.

MND33-0030-0001	Interval 0.0 to 0.5 ft BGS. There was no OVA reading obtained for this sample due to instrument malfunction.

Location 0031:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 6.0 ft BGS.

MND33-0031-0001	Interval 0.0 to 0.5 ft BGS. There was no OVA reading obtained for this sample due to instrument malfunction.

Location 0032:

- The 10.0-ft BGS interval was not sampled due to split spoon refusal at 3.67 ft BGS.

MND33-0032-0001	Interval 0.0 to 0.5 ft BGS. There was no OVA reading obtained for this sample due to instrument malfunction.

Location 0033:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 6.0 ft BGS.

MND33-0033-0001	Interval 0.0 to 0.5 ft BGS. There was no OVA reading obtained for this sample due to instrument malfunction.
MND33-0033-0002	Interval 3.0 to 5.0 ft BGS. Two boreholes were necessary to obtain the required sample volume due to regulatory agency split samples. A TPH sample was taken in addition to the requested analyses of TCL VOC in order to duplicate regulatory agency samples.

Location 0034:

- The 10.0-ft BGS interval was not sampled due to split spoon refusal at 4.0 ft BGS.

MND33-0034-0002	Interval 1.0 to 4.0 ft BGS. Three boreholes were necessary to obtain the required sample volume due to regulatory agency split samples. TCL SVOCs, TCL P/PCBs, TAL metals, and TPH were taken by WESTON in addition to the requested analyses for TCL VOCs in order to duplicate regulatory agency samples.

Location 0035:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 5.4 ft BGS.

Location 0036:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 7.5 ft BGS.

MND33-0036-0002	Interval 3.0 to 5.0 ft BGS. A TPH sample was taken in addition to the requested analyses of TCL VOCs in order to duplicate regulatory agency samples.

Location 0038:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 6.5 ft BGS.

MND33-0038-0002	Interval 3.0 to 5.58 ft BGS. A TPH sample was taken in addition to the requested analyses of TCL VOCs in order to duplicate regulatory agency samples.

Location 0039:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 8.0 ft BGS.

MND33-0039-0002	Interval 3.0 to 7.0 ft BGS. Two boreholes were necessary to obtain the required sample volume due to regulatory agency split samples. TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), and TPH were taken by WESTON in addition to the requested analyses of TCL VOCs.

Location 0040:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 7.0 ft BGS.

Location 0041:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 5.5 ft BGS.

Location 0042:

- The 10.0-ft BGS interval was not sampled due to split spoon refusal at 3.2 ft BGS.

Location 0043:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 6.5 ft BGS.

Location 0044:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 4.3 ft BGS.

Location 0045:

- The 10.0-ft BGS interval was not sampled due to auger refusal at 6.5 ft BGS.

Location 0046:

- The 10.0-ft BGS interval was not sampled due to insufficient recovery and split spoon refusal at 8.25 ft BGS.

APPENDIX B15. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
OLD FIRING RANGE DRUM STORAGE SITE

B15.1. SUMMARY OF SAMPLING ACTIVITIES

The Old Firing Range Drum Storage Site (OFRDSS) sampling activities included surface and subsurface soil sampling by hollow stem auger drilling techniques. Soil sample collection was conducted by WESTON representatives, and all WESTON samples were sent to IT Laboratories, Oak Ridge, Tennessee, for analysis. The sampling activities at OFRDSS were completed in two shifts from 12 November to 18 November 1991 and from 3 December to 8 December 1991. A sampling grid was established for the OFRDSS. Grid blocks, which represent four grid nodes, were used for the collection of composite samples as described in the OU 3 Work Plan. The grid block locations are shown in Figure 2.23(b).

B15-1.1. WESTON SAMPLE COLLECTION

A summary of soil samples collected at each grid block location listing the sample identification number, sampling interval or type of sample, date collected, and analytical parameters requested is presented below.

Block 1:

MND33-0073-0001	Interval 0.0 to 2.0 ft BGS; 4 December 1991; sampled locations A, B, C, D; analyses requested. TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gamma spec.

Block 2:

MND33-0074-0001	Interval 0.0 to 2.0 ft BGS; 4, 5 December 1991; sampled locations A, B, C, D; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gamma spec.

Block 3:

MND33-0079-0001	Interval 0.0 to 2.0 ft BGS; 8 December 1991; sampled locations A, B, C, D; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gamma spec.
MND33-0079-0002	Interval 3.0 to 5.0 ft BGS; 8 December 1991; sampled locations B, C, D; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, gross alpha-beta screen, TAL

	metals (including cyanide); TCL VOCs sample from MND33-0079-0002C location, gamma spec.

Block 4:

MND33-0075-0001	Interval 0.0 to 2.0 ft BGS; 6 December 1991; sampled locations A, B, C, D; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gamma spec.
MND33-0075-0001 MS/MSD	Interval 0.0 to 2.0 ft BGS; 6 December 1991; sampled locations A, B, C, D; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).
MND33-0075-5001	Ambient field blank; 6 December 1991; analyses requested - TCL VOCs.

Block 5:

MND33-0076-0001	Interval 0.0 to 2.0 ft BGS; 6 December 1991; sampled locations A, B, C, D; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gamma spec.
MND33-0076-0002	Interval 3.0 to 5.0 ft BGS; 6 December 1991; sampled locations B, C, D; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide); TCL VOCs sample from MND33-0076-0002C location, gamma spec.

Block 6:

MND33-0059-0001	Interval 0.0 to 2.0 ft BGS; 13 November 1991; sampled locations A, B, C, D; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gamma spec.
MND33-0059-0002	Interval 3.0 to 7.0 ft BGS; 18 November 1991; sampled locations A, B, C, D; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide); TCL VOCs sample from MND33-0059-0002B location, gamma spec.
MND33-0059-0003 MS/MSD	Interval 8.0 to 12.0 ft BGS; 18 November 1991; sampled locations B, C, D; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide); TCL VOCs sample from MND33-0059-0003B location, gamma spec.

Block 7:

MND33-0078-0001	Interval 0.0 to 2.0 ft BGS; 7 December 1991; sampled locations A, B, D; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gamma spec.

MND33-0078-0002	Interval 3.0 to 4.0 ft BGS; 7 December 1991; sampled location B; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide); TCL VOC sample from MND33-0078-0002B location, gamma spec.

Block 8:

MND33-0077-0001	Interval 0.0 to 2.0 ft BGS; 7 December 1991; sampled locations A, B, C, D; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gamma spec.
MND33-0077-0002	Interval 3.0 to 5.0 ft BGS; 7 December 1991; sampled locations A, B, C, D; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide); TCL VOC sample from MND33-0077-0002A location, gamma spec.
MND33-0077-1002	Interval 3.0 to 5.0 ft BGS (duplicate); 7 December 1991; sampled locations A, B, C, D; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide); TCL VOC sample from MND33-0077-0002A location.
MND33-0077-0003	Interval 8.0 to 9.0 ft BGS; 7 December 1991; sampled location C; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide); TCL VOCs sample from MND33-0077-0003C location, gamma spec.

Block 9:

MND33-0058-0001	Interval 0.0 to 2.0 ft BGS; 13 November 1991; sampled locations A, B, C, D; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gamma spec.
MND33-0058-1001	Interval 0.0 to 2.0 ft BGS (duplicate); 13 November 1991; sampled locations A, B, C, D; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gamma spec.
MND33-0058-0002	Interval 3.0 to 5.0 ft BGS; 14 November 1991; sampled locations A, B, C, D; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide); TCL VOCs sampled from MND33-0058-0002C location, gamma spec.
MND33-0058-0003	Interval 8.0 to 10.0 ft BGS; 14 November 1991; sampled locations A, B, C, D; analyses requested TCL VOCs, TCL SVOCs, TCL P/PCBs, gross alpha-beta screen, TAL metals (including cyanide), TCL VOCs sampled from MND33-0058-0003C location, gamma spec.

Block 10:

MND33-0071-0001	Interval 0.0 to 2.0 ft BGS; 3 December 1991; sampled locations A, C, D; analyses requested - TCL SVOCs, TCL P/PCBs, gross alpha-beta screen, TAL metals (including cyanide), gamma spec.
MND33-0071-0002	Interval 3.0 to 5.1 ft BGS; 3 December 1991; sampled locations A, C; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide); TCL VOC sample from MND33-0071-0002C location, gamma spec.

Block 11:

MND33-0072-0001	Interval 0.0 to 2.0 ft BGS; 3 December 1991; sampled locations B, C, D; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gamma spec.
MND33-0072-0002	Interval 3.0 to 6.5 ft BGS; 3 December 1991; sampled locations B, C, D; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide); TCL VOC sample from MND33-0072-0002C location, gamma spec.
MND3-0072-1002	Interval 3.0 to 6.5 ft BGS (duplicate); 3 December 1991; sampled locations B, C, D; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide); TCL VOC sample collected from MND33-0072-0002C location.
MND33-0072-4002	Equipment blank; 3 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).

Block 12:

MND33-0057-0001	Interval 0.0 to 2.0 ft BGS; 12 November 1991; sampled locations A, B, C, D; analyses requested - TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), gamma spec.
MND33-0057-0002	Interval 3.0 to 5.0 ft BGS; 13 November 1991; sampled locations A, B, C, D; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide); TCL VOC sample from MND33-0057-0002C location, gamma spec.
MND33-0057-5002	Ambient field blank; 13 November 1991; analyses requested - TCL VOCs.

MND33-0057-0003	Interval 8.0 to 12.0 ft BGS; 13 November 1991; sampled locations A, B, C, D; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide); TCL VOC sample from MND33-0057-0003B location, gamma spec.

B15-1.2. REGULATORY AGENCY SAMPLE COLLECTION

Split samples were collected by an Ohio Environmental Protection Agency (OEPA) representative at the OFRDSS at two different intervals at three different block locations. The samples were analyzed at Betz Laboratory in Woodland, Texas. The following summary includes the sample identification number, sampling interval or type of sample, date collected, and analytical parameters requested for the split samples.

Block 1:

MND33-0073-0001	Interval 0.0 to 2.0 ft BGS; 4 December 1991; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, TPH, and gamma spec.

Block 4:

MND33-0075-0001	Interval 0.0 to 2.0 ft BGS; 6 December 1991; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, TPH, and gamma spec.

Block 9:

MND33-0058-0002	Interval 3.0 to 5.0 ft BGS; 14 November 1991; requested analyses - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, TPH, and gamma spec; TCL VOC sample from MND33-0058-0002C location.

B15-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

Block 1:

- Location C was moved approximately 5 ft east due to underground utilities.
- The 5.0-ft and 10.0-ft BGS intervals were not sampled due to auger refusal.

Block 2:

- Location B was not sampled due to utilities.
- While attempting to get the sampling interval of 5.0 ft BGS at location C, the boring was offset approximately 3.0 ft to the west because the auger encountered "soft earth" at a depth of 3.0 ft BGS. This "soft earth" was an indication that the auger was in a sewer line trench and could be near a sewer line. The offset boring had auger refusal at 3.8 ft BGS.
- The 5.0-ft and 10.0-ft BGS intervals were not sampled due to auger refusal.

Block 3:

- The 10.0-ft BGS intervals were not sampled due to auger and split spoon refusal.
- The 5.0-ft BGS interval was not sampled at location A due to auger refusal.

Block 4:

- The 5.0- and 10.0-ft BGS intervals were not sampled due to auger and split spoon refusal.
- Locations B and C were moved from the original locations due to underground utilities, approximately 6 ft east and 10 ft east, respectively.

Block 5:

- The 5.0-ft BGS interval at location A was not sampled due to split spoon and auger refusal.
- The 10.0-ft BGS intervals were not sampled at any of the locations due to split spoon and auger refusal.
- Location A was moved approximately 2 ft northwest because it was too close to the barbed wire fence.
- Location B was moved approximately 5 ft southeast because it was in the middle of the road.
- Location C was moved approximately 4 ft northwest because it was in the middle of the road.
- Location D was moved approximately 1 ft east because of the underground utilities.

Block 6:

- Alpha scintillometer readings were not taken by WESTON personnel at any borehole in this block. An alpha scintillometer was used by a member of the health physics staff to screen all personnel leaving the work area.
- There was no OVA reading obtained for MND33-0059-0003C due to instrument malfunction.
- The 8.0- to 10.0-ft BGS interval was not sampled at location A because of auger refusal at 7 ft BGS.

Block 7:

- Location C was eliminated as a sampling location due to utilities.
- Locations A and D were moved approximately 5 ft east of their original locations because they were on a slope and were inaccessible to the drilling rig.
- Location B was moved approximately 7 ft southeast because of utilities.

- The 5.0-ft BGS interval was not sampled at locations A or D due to auger and split spoon refusal.

- The 10.0-ft BGS interval was not sampled at any location due to auger and split spoon refusal.

Block 8:

- Location A was moved approximately 3 ft southwest of the original location due to underground utilities.

- Location B was moved approximately 2 ft southwest of the original location due to underground utilities.

- Location D was moved approximately 12 ft west of the original location due to underground utilities.

- The 10.0-ft BGS interval was not sampled at location A due to the presence of fill cuttings and "easy" drilling. This indicated the presence of a water line, which resulted in abandonment of the hole.

- The 10.0-ft BGS interval was not sampled at locations B or D due to auger and/or split spoon refusal.

Block 9:

- Alpha scintillometer readings were not taken by WESTON personnel at any borehole in this block. An alpha scintillometer was used by a member of the health physics staff to screen all personnel leaving the work area.

Block 10:

- Location A was moved approximately 10 ft south of the original location due to utilities.

- Location B was not sampled and could not be moved because of utilities.

- The 5.0-ft BGS interval was not sampled at location D due to auger refusal.

- The 10.0-ft BGS interval was not sampled at any of the locations due to auger refusal.

Block 11:

- Location A was not sampled and could not be moved due to utilities.

- Location B was moved approximately 18 ft south of the original location due to utilities.

- Location C was moved approximately 8 ft southeast of the original location due to overhead and underground utilities.

- Location D was moved approximately 4 ft west of the original location due to utilities.

- The 10.0-ft BGS interval was not sampled at any of the locations due to auger refusal.

Block 12:

- The 10.0- to 12.0-ft BGS split spoon was used for the composite sample of the 10.0-ft BGS interval in order to obtain an amount sufficient to sample volume.

- Alpha scintillometer readings were not taken by WESTON personnel at any borehole in this block. An alpha scintillometer was used by a member of the health physics staff to screen all personnel leaving the work area.

APPENDIX B16. LIMITED FIELD INVESTIGATIONS, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
FARM TRASH AREA

B16-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the Farm Trash Area on 16 January 1992. Sampling activities consisted of surface soil sampling with a scoop and subsurface sampling with a hand auger. Samples were collected from two depth intervals at three locations at the Farm Trash Area. The sample locations are shown in Figure 2.24. All soil samples and associated QC samples collected by WESTON were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis.

B16-1.1. WESTON SAMPLE COLLECTION

A summary of soil samples collected at each location is presented below and includes the sample identification number, sample interval or type of sample, date collected, and analytical parameters requested.

Location 0102:

MND33-0102-0001	Interval 0.0 to 0.5 ft BGS; 16 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/ PCBs, TAL inorganics (including cyanide), gross alpha-beta screen.
MND33-0102-1001	Interval 0.0 to 0.5 ft BGS (duplicate); 16 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL inorganics (including cyanide).
MND33-0102-0002	Interval 1.5 to 2.0 ft BGS; 16 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL inorganics (including cyanide).
MND33-0102-5002	Ambient field blank; 16 January 1992; analyses requested - TCL VOCs.

Location 0103:

MND33-0103-0001	Interval 0.0 to 0.5 ft BGS; 16 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL inorganics (including cyanide).
MND33-0103-0001 MS/MSD	Interval 0.0 to 0.5 ft BGS (MS/MSD); 16 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL inorganics (including cyanide).

MND33-0103-0002	Interval 1.5 to 2.0 ft BGS; 16 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL inorganics (including cyanide).

Location 0104:

MND33-0104-0001	Interval 0.0 to 0.5 ft BGS; 16 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL inorganics (including cyanide).
MND33-0104-0002	Interval 1.5 to 2.0 ft BGS; 16 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL inorganics (including cyanide).
MND33-0104-1002	Interval 1.5 to 2.0 ft BGS (duplicate); 16 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL inorganics (including cyanide).

B16-1.2. REGULATORY AGENCY SAMPLE COLLECTION

Split samples were collected by R & R International (R & R) for the U.S. EPA at two different locations at the Farm Trash Area. The samples were sent to Compuchem Laboratories in Research Triangle Park, North Carolina, for analysis. The following summary includes the R & R sample identification number, WESTON sample identification number, sampling interval or type of sample, date collected, and the analytical parameters requested.

Location 0102:

MP3-SB102-01

MND33-0102-0001	Interval 0.0 to 0.5 ft BGS; 16 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL inorganics (including cyanide).

Location 0103:

MP3-SB103-02

MND33-0103-0002	Interval 1.5 to 2.0 ft BGS; 16 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL inorganics (including cyanide).

APPENDIX B17. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
UNDERGROUND SEWER LINES GRID G5

B17-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the Underground Sewer Lines Grid G5 area on 9 December 1991 and 14 February 1992. Soil samples were collected by hollow stem auger drilling techniques from one interval near two manhole locations. Power auger/hand auger borings were attempted at two locations but were unsuccessful at reaching the desired sampling interval. The sample locations are shown in Figure 2.25. All samples collected by WESTON were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis.

B17.1.1. WESTON SAMPLE COLLECTION

A summary of soil samples collected at each location is presented below and includes the sample identification number, sample interval or type of sample, date collected, and analytical parameters requested.

Location 0080:

MND33-0080-0001	Interval 1.5 to 3.5 ft BGS; 9 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, chloride, nitrites/nitrates.

Location 0081:

MND33-0081-0001	Interval 5.5 to 7.5 ft BGS; 9 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, chloride, nitrites/nitrates.
MND33-0081-0001 MS/MSD	Interval 5.5 to 7.5 ft BGS (matrix spike/matrix spike duplicate); 9 December 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, chloride, nitrites/nitrates.

B17-1.2. REGULATORY AGENCY SAMPLE COLLECTION

No split samples were collected by the regulatory agencies in the Grid G5 area.

B17-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

- Soil samples for tritium analyses were not collected at sample locations A and B (MND33-0080-0001 and MND33-0081-0001).

Location 0080:

MND33-0080-0001	Interval 1.5 to 3.5 ft BGS. Sample from two boreholes was necessary to obtain the required sample volume. One split spoon was obtained at the required interval from each borehole.

Location 0081:

MND33-0081-0001	Interval 5.5 to 7.5 ft BGS. Sample from boreholes was necessary to obtain the required sample volume for the sample and an MS/MSD. One split spoon was obtained at the required interval from each borehole.
MND33-0081-0001 MS/MSD	Interval 5.5 to 7.5 ft BGS (matrix spike/matrix spike duplicate). See note for MND33-0081-0001.

Location 0137:

MND33-0137-0001	Interval 5.5 to 7.5 ft BGS. No sample was taken due to the inability to reach the required sample depth.

Location 0138:

MND33-0138-0001	Interval 5.5 to 7.5 ft BGS. No sample was taken due to the inability to reach the required sample depth.

APPENDIX B18. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
UNDERGROUND SEWER LINES GRIDS G6 AND G7

B18-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the SM/PP Underground Sewer Lines Grid G6 and G7 areas on 21 and 22 November 1991. Soil samples were collected by hollow stem auger drilling techniques from one interval at five locations. The sample locations for Grids G6 and Grid 7 are shown in Figure 2.26. All samples collected by WESTON were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis.

B18-1.1. WESTON SAMPLE COLLECTION

A summary of soil samples collected at each location is presented below and includes the sample identification number, sample interval or type of sample, date collected, and analytical parameters requested.

Location 0064:

MND33-0064-0001	Interval 4.0 to 8.0 ft BGS; 21 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, chloride, nitrites/nitrates, tritium.

Location 0065:

MND33-0065-0001	Interval 4.5 to 8.0 ft BGS; 21 November 1991; analyses requested - TCL VOCs.

Location 0066:

MND33-0066-0001	Interval 4.0 to 6.0 ft BGS; 21 November 1991; insufficient recovery, no sample taken.

Location 0067:

MND33-0067-0001	Interval 8.0 to 10.0 ft BGS; 22 November 1991; analyses requested - TCL VOCs.

Location 0068:

MND33-0068-0001	Interval 4.5 to 8.5 ft BGS; 22 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), lithium, explosives, chloride, nitrites/nitrates, tritium, gross alpha-beta screen.
MND33-0068-5001	Ambient blank; 22 November 1991; analyses requested - TCL VOCs.

Location 0130:

MND33-0130-0001	Sediment sample (SD1008); 5 February 1992; analyses requested: TCL VOCs; TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, chloride, nitrites/nitrates, tritium.
MND33-0130-1001	Sediment sample (SD1008) (duplicate); 5 February 1992; analyses requested: TCL VOCs; TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, chloride, nitrites/nitrates, tritium.

B18-1.2. REGULATORY AGENCY SAMPLE COLLECTION

Split samples were collected by R & R International (R & R) for the U.S. Environmental Protection Agency at one location in Grid G6 and one location in Grid G7. The samples were sent to Compuchem Laboratories in Research Triangle Park, North Carolina, for analysis. The following summary includes the R & R sample identification number, WESTON sample identification number, sampling interval or type of sample, date collected, and the analytical parameters requested.

Location 0067:

MD3-SB67-01

MND33-0067-0001	Interval 8.0 to 10.0 ft BGS; 22 November 1991; analyses requested - TCL VOCs.

Location 0068:

MP3-SB68-01

MND33-0068-0001	Interval 4.5 to 8.5 ft BGS; 22 November 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide).

B18-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

Location 0064:

MND33-0064-0001	Interval 4.0 to 8.0 ft BGS. Additional sample from the 6.0- to 8.0-ft BGS split spoon was necessary to obtain required sample volume.

Location 0065:

MND33-0065-0001	Interval 4.5 to 8.0 ft BGS. Additional sample from the 6.0- to 8.0-ft BGS split spoon sample was necessary to obtain the required volume for TCL VOCs only. Insufficient soil recovered to collect soil for remainder of sample analytical parameters. Insufficient area to place an additional borehole for additional recovery.

Location 0066:

MND33-0066-0001	Interval 4.0 to 6.0 ft BGS. Two boreholes were attempted. No sample was collected due to insufficient recovery.

Location 0067:

MND33-0067-0001	Interval 8.0 to 10.0 ft BGS. Two 8.0- to 10.0-ft BGS split spoon samples from two boreholes were necessary to obtain required volume for TCL VOCs only. Insufficient recovery to collect remainder of sample.

Location 0068:

MND33-0068-0001	Interval 4.5 to 8.5 ft BGS. Two 4.5- to 8.5-ft BGS split spoon samples from two boreholes were necessary to obtain required sample volume.

APPENDIX B19. LIMITED FIELD INVESTIGATIONS, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
UNDERGROUND SEWER LINES GRID G12

B19-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the Underground Sewer Lines Grid G12 area on 15 February 1992. Soil samples were collected by hollow stem auger drilling techniques from one interval at a single location near manhole no. 0112. The sample location is indicated in Figure 2.27. All samples collected by WESTON were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis.

B19-1.1. WESTON SAMPLE COLLECTION

A summary of soil samples collected at each location is presented below and includes the sample identification number, sample interval or type of sample, date collected, and analytical parameters requested.

Location 0139:

MND33-0139-0001	Interval 20.0 to 24.0 ft BGS; 15 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, chloride, nitrites/nitrates, tritium.
MND33-0139-1001	Interval 20.0 to 24.0 ft BGS (duplicate); 15 February 1992; analytics requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, chloride, nitrites/nitrates, tritium.

B19-1.2. REGULATORY AGENCY SAMPLE COLLECTION

No split samples were collected by a regulatory agency from the Underground Sewer Lines in the Grid G12 area.

B19-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

- Construction in the area of Grid G12 and manhole no. 0112 has altered the elevation of the manhole. The area has been filled and graded and the manhole raised approximately 14 ft. The original depth to the line from ground surface was 6.0 ft. The present depth of the line is now 20.0 ft BGS. The sample interval was therefore changed to 20.0 to 22.0 ft BGS.

Location 0139:

MND33-0139-0001	Interval 20.0 to 24.0 ft BGS. Additional sample from the 22.0 to 24.0 ft BGS split spoon was necessary to obtain the required sample volume for the sample and duplicate.
MND33-0139-1001	Interval 20.0 to 24.0 ft BGS (duplicate). See note for MND33-0139-1001.

APPENDIX B20. LIMITED FIELD INVESTIGATIONS, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
UNDERGROUND SEWER LINES GRID G14 WEST

B20-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the Underground Sewer Lines Grid G14 West area on 1 July 1991. Soil samples were collected by hollow stem auger drilling techniques from one interval at one location. The sample location is shown in Figure 2.28. All samples collected by WESTON were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis.

B20-1.1. WESTON SAMPLE COLLECTION

A summary of the soil sample collected at Grid G14 West is presented below and includes the sample identification number, sample interval or type of sample, date collected, and analytical parameters requested.

Location 0012:

MND33-0012-0001	Interval 10.0 to 15.0 ft BGS; 1 July 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives, chloride, nitrites/nitrates.

B20-1.2. REGULATORY AGENCY SAMPLE COLLECTION

No split samples were collected by a regulatory agency from the Underground Sewer Lines in the Grid G14 West area.

B20-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

- The boring location was moved from its original location approximately 3 ft northeast due to underground utilities. Additional split spoons were collected from 12.0 to 15.0 ft BGS to obtain sufficient sample volume.

APPENDIX B21. LIMITED FIELD INVESTIGATIONS, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
UNDERGROUND SEWER LINES GRID G14 EAST

B21-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the Underground Sewer Lines Grid G14 East area on 1 July 1991. Soil samples were collected by hollow stem auger drilling techniques from one interval at one location. The sample location is shown in Figure 2.29. All samples collected by WESTON were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis.

B21-1.1. WESTON SAMPLE COLLECTION

A summary of the soil sample collected at Grid G14 East is presented below and includes the sample identification number, sample interval or type of sample, date collected, and analytical parameters requested.

Location 0013:

MND33-0013-0001	Interval 7.0 to 12.5 ft BGS; 1 July 1991; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, explosives, chloride, nitrites/nitrates.

B21-1.2. REGULATORY AGENCY SAMPLE COLLECTION

No split samples were collected by a regulatory agency from the Underground Sewer Lines in the Grid G14 East area.

B21-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

- Sample boring location was moved from its original location to a location approximately 2 ft northeast due to auger refusal at 7.0 ft BGS. Additional split spoons were collected from 8.0 to 12.5 ft BGS to collect sufficient sample volume.

APPENDIX B22. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
UNDERGROUND SEWER LINES GRID G15

B22-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the Underground Sewer Lines Grid G15 area on 18, 19, and 29 January 1992. Soil samples were collected by hollow stem auger drilling techniques from one interval at three locations. The sample locations are shown in Figure 2.30. All samples collected by WESTON were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis.

B22-1.1. WESTON SAMPLE COLLECTION

A summary of soil samples collected at each location is presented below and includes the sample identification number, sample interval or type of sample, date collected, and analytical parameters requested.

Location 0106:

MND33-0106-0001	Interval 13.5 to 15.5 ft BGS; 18 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, tritium, chloride, nitrites/nitrates, and gross alpha-beta screen.
MND33-0106-1001	Interval 13.5 to 15.5 ft BGS (duplicate); 18 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, tritium, chloride, and nitrites/nitrates.
MND33-0106-0002	Interval 17.5 to 19.5 ft BGS; 18 January 1992; analyses requested - TCL VOCs.

Location 0107:

MND33-0107-0001	Interval 12.5-14.5 ft BGS; 18 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, tritium, chloride, and nitrites/nitrates.

MND33-0107-0001 MS/MSD	Interval 12.5 to 14.5 ft BGS (matrix spike/matrix spike duplicate); 18 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, tritium, chloride, and nitrites/nitrates.
MND33-0107-4001	Equipment (rinsate) blank; 19 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals, cyanide, explosives, tritium, chloride, and nitrites/nitrates.

Location 0116:

MND33-0116-0001	Interval 12.5 to 14.2 ft BGS; 29 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, tritium, chloride, nitrites/nitrates.
MND33-0116-5001	Ambient blank; 29 January 1992; analyses requested - TCL VOCs.

B22-1.2. REGULATORY AGENCY SAMPLE COLLECTION

No split samples were collected by a regulatory agency from the Underground Sewer Lines Grid G15 area.

B22-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

- Figure 16.7 Grid G15 in the OU 3 Work Plan indicates an abandoned 8-inch VCP sewer line and an 8-inch PVC sewer line. EG&G Mound representatives indicate that the VCP line has not been abandoned and the 8-inch PVC line was not constructed. Soil samples were collected from the locations specified in the OU 3 Work Plan.

Location 0106:

An additional sample was collected at a depth interval of 17.5 to 19.5 ft BGS (MND33-0106-0002) due to elevated field screening instrument readings at the previous depth interval at location A.

Location 0116:

- First attempt to collect a sample at this location was on 19 January 1992 (borehole 0108). Auger refusal met at 12 ft. Borehole offset, where auger refusal was met at 2.5 ft. No samples were collected at this time. Sample was collected on 29 January 1992 from borehole 0116.

APPENDIX B23. LIMITED FIELD INVESTIGATION, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
UNDERGROUND SEWER LINES GRID G19/14

B23-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the Underground Sewer Lines Grid G19/14 area on 29 January 1992 and 12 February 1992. Soil samples were collected by hollow stem auger drilling techniques. The sample locations are shown in Figure 2.31. All samples collected by WESTON were shipped to IT Laboratories, Oak Ridge, Tennessee, for analysis.

B23-1.1. WESTON SAMPLE COLLECTION

A summary of soil samples collected at each location is presented below and includes the sample identification number, sample interval or type of sample, date collected, and analytical parameters requested.

Location 0117:

MND33-0117-0001	Interval 9.0 to 13.0 ft BGS; 29 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, chloride, nitrites/nitrates, tritium.
MND33-0117-1001	Interval 9.0 to 13.0 ft BGS (duplicate); 29 January 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, chloride, nitrites/nitrates, tritium.

Location 0134:

MND33-0134-0001	Interval 7.0 to 11.0 ft BGS; 12 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, chloride, nitrites/nitrates, tritium, alpha-beta screen.

MND33-0134-0002	Interval 11.0 to 15.0 ft BGS; 12 February 1992; analyses requested - TCL VOCs, TCL SVOCs, TCL P/PCBs, TAL metals (including cyanide), explosives, chloride, nitrites/nitrates, tritium.
MND33-0134-5001	Ambient blank; 12 February 1992; analysis requested - TCL VOCs.

B23-1.2. REGULATORY AGENCY SAMPLE COLLECTION

No split samples were collected by a regulatory agency from the Underground Sewer Lines in the Grid G19/14 area.

B23-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

- Although elevated FID measurements were observed in borehole 0117 and in headspace samples, groundwater was encountered at 13.0 ft BGS. Sampling was not continued below the target sample depth at the borehole.

MND33-0117-0001	Interval 9.0 to 13.0 ft BGS. Additional sample from the 11.0- to 13.0-ft BGS split spoon was necessary to obtain the required sample volume for the sample and duplicate.
MND33-0117-1001	Interval 9.0 to 13.0 ft BGS (duplicate). See note for MND33-0117-0001.

- Although elevated FID measurements were observed in soil samples from borehole 0134 at the interval 11.0 to 15.0 ft BGS (interval 0002), groundwater was encountered at 14.5 ft BGS. Sampling was not continued below 15 ft BGS.

MND33-0134-0001	Interval 7.0 to 11.0 ft BGS. Additional sample from the 9.0- to 11.0-ft BGS split spoon was necessary to obtain the required sample volume.
MND33-0134-0002	Interval 11.0 to 15.0 ft BGS. Additional sample from the 13.0-to 15.0-ft BGS split spoon was necessary to obtain the required sample volume.

APPENDIX B24. LIMITED FIELD INVESTIGATIONS, OPERABLE UNIT 3
MISCELLANEOUS SITES
MOUND PLANT, MIAMISBURG, OHIO

SITE SAMPLING ACTIVITY REPORT
UNDERGROUND SEWER LINES GRID G24

B24-1. SUMMARY OF SAMPLING ACTIVITIES

WESTON representatives conducted sampling activities at the Underground Sewer Lines Grid 24 area on 19 December 1991 and 30 January 1992. Sampling was attempted near manhole no. 0002 (as indicated in the Work Plan) using hollow stem auger drilling techniques. No samples were collected at the location near manhole no. 0002 due to auger and split spoon refusal. The sample locations are indicated on Figure 2.32.

B24-1.1. WESTON SAMPLE COLLECTION

A summary of sampling information for each location is presented below and includes the sample identification number, sample interval, and information concerning depth reached at refusal.

Location O:

MND33-0099-0001	Interval 9.5 to 11.5 ft BGS; 19 December 1991. No sample was collected; refusal was encountered at 8 ft BGS.
MND33-0118-0001	Interval 9.5 to 11.5 ft BGS; 30 January 1992. No sample collected. The sample depth interval was reached, however the split spoons did not yield any sample recovery at 9.5 to 11.5 ft BGS and at 11.5 to 13.5 ft BGS. The close proximity of underground sewer lines prevented the drilling of additional soil boring near manhole no. 0002.

B24-1.2. REGULATORY AGENCY SAMPLE COLLECTION

No split samples were collected by a regulatory agency from the Underground Sewer Lines in the Grid G24 area.

B24-2. SUMMARY OF DEVIATIONS FROM APPROVED PROTOCOL

- Samples were not obtained in the area of manhole no. 0002 due to the shallow bedrock geology.

APPENDIX C

GEOLOGIC BORING LOGS

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	ROY F. WESTON, INC.	**Borehole/Well Id**	MND33-0001
Drilling Method	POWER/HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	1/14/91	**North (ft)**	598736.75
Date Completed	1/14/91	**East (ft)**	1496470.51
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	884.9
Checked By	RICHARD LEY	**Total Depth (ft)**	4.7

Comments: Powerhouse Area - Fuel Tanks.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		GM	SILT AND GRAVEL, WITH CLAY - fine to very coarse, loose, clay, gray-brown.
				CL	SILT AND CLAY WITH GRAVEL - gravel fine to coarse, loose, black, brown and gray color, some soils, black.
		0002		SM	SILTY SAND - wet to moist sand, no graveling, 100% sand, subangular to rounded grains, tan to gray, no cement.
5		0003		S	SAND - wet to moist, no gravel.
					TOTAL DEPTH = 4.7'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0002
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	6/27/91	**North (ft)**	~~59718.31~~ 598718.31
Date Completed	6/27/91	**East (ft)**	1496472.79
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	881.9
Checked By	RICHARD LEY	**Total Depth (ft)**	12.0

Comments: Powerhouse Area - Fuel Tanks.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	6, 14, 14, 7	0001		CLG, SM	GRAVELLY SILTY CLAY - stiff, moist, light gray and brown.
	23, 42, 27, 30	0002		MLG	GRAVELLY CLAYEY SILT - stiff, moist, brown.
5	42, 37, 23, 29			MLG	GRAVELLY CLAYEY SILT - stiff, moist, brown.
	7, 12, 13, 24	0003		MLG	GRAVELLY CLAYEY SILT - stiff, moist, brown.
	5, 9, 12, 10			MLG	GRAVELLY CLAYEY SILT - stiff, moist, brown.
10	10, 8, 9, 11			MLG	GRAVELLY CLAYEY SILT - stiff, saturated, gray.
					TOTAL DEPTH = 12.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0009
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	6/28/91	**North (ft)**	597516.76
Date Completed	6/28/91	**East (ft)**	1495636.95
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	738.0
Checked By	RICHARD LEY	**Total Depth (ft)**	12.0

Comments: Building 27 - Concrete Flume. Two bore holes advanced at this location. Log of second boring follows directly after first.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		GM	SILTY GRAVEL - 90% subrounded gravel, 10% silt, nonstratified, poorly cemented, gray-green, saturated at 4.0 feet, some till, clay, pipe (steel ?), organic silt.
	6 40 7 10				
5	7 27 27 30			GM/ GC	GRAVELLY SILTY CLAY - 60% gravel, 40% silt, (5' interval), gravel rounded to subrounded, gray green, wet, nonstratified, poorly-cemented till, some organics (< 5%).
	13 9	0002		GM	SILTY CLAYEY GRAVEL - 75% gravel, 25% silty clay, subangular grains, tan to gray green, moist, nonstratified, poorly cemented, till, few organics (<1%).
	8 7 7 7	0003		GP/ SC	SILT AND GRAVEL AT BASE - nongraded, 80% silt, 20% gravel, fines upward, subangular grains, gray blue to tan, dry to moist, nonstratified, weakly to moderately cemented, no organics.
10	10 10 4 7			ML	ORGANIC RICH CLAY - at base, nongraded, 2% gravel, fine to coarse gravel, firm consistancy in clay fraction, weakly cemented gravel gray blue to tan color, dry to slightly moist, organic lens.
					TOTAL DEPTH = 12.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 2

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0010
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	6/29/91	**North (ft)**	597503.59
Date Completed	6/29/91	**East (ft)**	1495665.28
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	737.6
Checked By	RICHARD LEY	**Total Depth (ft)**	20.5

Comments: Building 27 - Solvent Storage Area. Advance two borings at this location.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	6, 12	0001		CL	CLAYEY SOIL - organic at base, silty near 0-0.5' interval, 0-3' interval tan to gray green, no pebbles > 10 mm in size, subangular to subrounded, dry to moist, weakly cemented.
	16, 12	0002		CL	CLAYEY SOIL - silty at (1-5-2-0) base, subangular pebbles to small cobbles, tan to gray-green, dry to slightly moist, weakly cemented,.
	7, 17, 29, 29	0003		GW	Till at base, clayey soil, silty upwards, subangular (5' interval) cobbles to pebbles at base, gray green, tan with pebbles at top of interval, moist, weakly cemented.
5	18, 18, 21, 13			GW	Gray-green, slightly silty, clayey, pebbles, subangular, (5' interval) pebbles, tan to brown at top, dry to moist, no cement.
	5, 15, 15, 11	0004		BL	Not sampled.
10	15, 18, 6, 13			CL	SILTY CLAY - gray to green gray, dry to moist, soft to slightly firm, homogeneous, weakly cemented.
	8, 50, 50, 50			BL	No recovery, no samples.
	16, 12, 9, 3			CL	CLAY RICH - slightly silty, gray-green, saturated, homogeneous, cemented, large limestone fragments.
15	3, 11, 19, 13	0005		CH	CLAY RICH - organic at base, 100% fines, dark gray green, moist (15' interval) very plastic clay, stiff, homogeneous.
	16, 20, 25, 32			OH	CLAY RICH - organics, dark gray green, plastic clay, no sample retained.
20	10, 25, 15	0006		CH	CLAYEY SLIGHTLY SILTY TO SANDY - larger grains are subangular to angular, gray green to olive drab, moist, plastic.

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 2 of 2

Borehole/Well Id MND33-0010

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
20	60				
					TOTAL DEPTH = 20.5'.
25					
30					
35					
40					
45					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0011
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	6/30/91	**North (ft)**	597494.84
Date Completed	6/30/91	**East (ft)**	1495545.83
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	736.9
Checked By	RICHARD LEY	**Total Depth (ft)**	3.0

Comments: Building 27 - Solovent Storage Area. Samples collected from three borings advanced at this location.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	30 25 27	0001		SM	SILTY SAND - 85% sand, 15% silt, tan to gray, dry, very soft, homogeneous, no cementation.
	13 18 38	0002		SM	SILTY SAND - 85% sand, 10% gravel, 5% silt, tan to gray, dry, very soft, homogeneous, no cementation.
					TOTAL DEPTH =3.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0012
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	6/30/91	**North (ft)**	597488.98
Date Completed	6/30/91	**East (ft)**	1495501.55
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	733.7
Checked By	RICHARD LEY	**Total Depth (ft)**	15.0

Comments: Underground Sewer Lines - Grid G14W.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				BL	ALL ROCK - no spoon.
	31 32 21 32			MLG	CLAYEY SILT - 60% clay-rich silt, 40% gravel, gray green to tan, dry to slightly moist, soft, homogeneous, weakly cemented.
	5 5 4 2			MLG	CLAYEY SILT - and gravel, 60% silt, 40% gravel, gray to tan, few cobbles, dry to slightly moist, soft homogeneous, weakly cemented.
5	4 4 5 4			SC	CLAYEY SAND AND SILT - some pebbles, gray to tan, several rounded cobbles, homogeneous, no cementing.
				BL	No sample interval. Auger to 9.0'.
10	13 29 48 45	0001		CLM	SILTY CLAY - 85% clay, 15% silt, gray to tan, moist to wet, soft, homogeneous, poorly cemented, few small pebbles (rounded).
	9 18 11 13			SMG	SILTY SAND - to gravel, subangular to subrounded, gray-green to tan, dry, slightly moist, soft, homogeneous, poorly cemented.
15	10 16 9 8			CL	SILTY CLAY - gray-green, moist to saturated, soft, no cementing, homogeneous.
20					TOTAL DEPTH = 15.0'.

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0013
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	7/1/91	**North (ft)**	597469.87
Date Completed	7/1/91	**East (ft)**	1495603.97
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	734.4
Checked By	RICHARD LEY	**Total Depth (ft)**	12.5

Comments: Underground Sewer Line - Grid G14E. Attempt first hole, abandoned after 35 blows. Dave Weimer (EG & G) spots 2nd location 2.5 feet S.E. of original boring.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				BL	No sample interval.
5					
	11 16 17 19	0001		CL	SILTY CLAY - 90% clay, 10% silt, gray green, dry, soft homogeneous, no cementing, no pebbles.
	13 30			GM/ ML	COBBLY SILT - gray green, dry, silty, soft, homogeneous, no cementing, cobbles and pebbles, limestone cobble in shoe.
10	54			BL	No sample interval.
	42 37 35			CL	SILTY CLAY - 90% clay, 10% silt, gray green, soft, dry, homogeneous, no cementing, no pebbles, small sand sized grains.
					TOTAL DEPTH = 12.5'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0014
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	7/1/91	**North (ft)**	597492.46
Date Completed	7/1/91	**East (ft)**	1495599.63
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	736.7
Checked By	RICHARD LEY	**Total Depth (ft)**	3.0

Comments: Building 27 - Solvent Storage Area. Three bore holes advanced at this location.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	14 22 13	0001		SM	SILTY SAND - many pebbles, cobbles, gravel, rounded, gray green to tan, soft, homogeneous, some clay in shoe of spoon.
	10 15 10	0002		GS2	SANDY GRAVEL - rounded to subrounded, 100% sand/gravel, tan to gray, soft, homogeneous, no cementing, some clay in shoe of spoon.
					TOTAL DEPTH = 3.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0015
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	7/2/91	**North (ft)**	597491.84
Date Completed	7/2/91	**East (ft)**	1495648.51
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	737.0
Checked By	RICHARD LEY	**Total Depth (ft)**	12.0

Comments: Building 27 - Sump.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	5, 12, 17	0001		SM	SILTY SAND - 95% sand and silt, 5% gravel, some pebbles, subangular to rounded, poorly graded, tan to gray, dry to slightly moist, nonstratified, weakly cemented.
	12, 12, 12, 36			SM-SC	PLASTIC SAND - coarse fragments up to 2.0", sand and silt at 1.7', dry to slightly moist, nonstratified, weakly cemented, interlayered clay and sand at top.
	8, 8, 7	0002		CH	PLASTIC CLAY - no grading, no silt, 100% clay, gray green, slightly moist.
5	6, 52, 6			CLG	CLAY - 90% clay, 10% rock fragments, plastic, no grading, slightly moist, limestone clast (subangular, gray to blue gray, crystallince) at base, no cementing.
	12, 8			CH	CLAY - 100% clay, no pebbles, plastic clay, gray-green, large limestone clast, cobble, subangular, blue gray, no grading, no cementing, moist.
	7, 13, 13, 15	0003		CH	CLAY - 100% clay, limestone clast, rounded to subangular, gray blue, most to gray green, plastic, no silt, no cement, soft, slightly moist.
10	8, 9, 8, 7			CH	CLAY - 95% clay, little silt (<5%), plastic, gray green, moist, poorly cemented, soft.
					TOTAL DEPTH = 12.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	EG & G	**Borehole/Well Id**	MND33-0016
Drilling Method	BACKHOE	**STATE PLANE COORDINATES**	
Date Started	8/28/91	**North (ft)**	598323.20
Date Completed	8/28/91	**East (ft)**	1496853.27
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	782.4
Checked By	RICHARD LEY	**Total Depth (ft)**	3.0

Comments: Building 51 - Waste Solvent Tank. Sample collected from backhoe bucket.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLSC	SANDY SILTY CLAY - moist, gray staining.
					TOTAL DEPTH = 3.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	EG & G	**Borehole/Well Id**	MND33-0017
Drilling Method	BACKHOE	**STATE PLANE COORDINATES**	
Date Started	8/28/91	**North (ft)**	598330.85
Date Completed	8/28/91	**East (ft)**	1496849.66
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	782.4
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Building 51 - Waste Solvent Tank. Sample collected from backhoe bucket

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				MLSC	SANDY SILTY CLAY - moist, dark, gray stained.
		0001			TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	EG & G	**Borehole/Well Id**	MND33-0018
Drilling Method	BACKHOE	**STATE PLANE COORDINATES**	
Date Started	8/28/91	**North (ft)**	598336.84
Date Completed	8/28/91	**East (ft)**	1496856.43
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	782.4
Checked By	RICHARD LEY	**Total Depth (ft)**	1.0

Comments: Building 51 - Waste Solvent Tank. Sample collected from backhoe bucket.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		CLM	SILTY CLAY TRACE SAND - Dry, moist in stained area, very dark gray.
					TOTAL DEPTH = 1.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	EG & G	**Borehole/Well Id**	MND33-0019
Drilling Method	BACKHOE	**STATE PLANE COORDINATES**	
Date Started	8/28/91	**North (ft)**	598329.45
Date Completed	8/28/91	**East (ft)**	1496861.92
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	782.8
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Building 51 - Waste Solvent Tank. Sample collected from backhoe bucket.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLSC	SANDY, SILTY CLAY - 90% clay, 5% sand, 5% silt, dry, light brown to greenish color, light gray staining.
					TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	EG & G	**Borehole/Well Id**	MND33-0020
Drilling Method	HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	8/29/91	**North (ft)**	597194.34
Date Completed	8/29/91	**East (ft)**	1495192.43
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	716.9
Checked By	RICHARD LEY	**Total Depth (ft)**	1.0

Comments: Building 34 - Aviation Fuel Tank.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		CLGS	SANDY CLAY WITH SUBANGULAR GRAVEL - gravel subangular, gray, moist.
					TOTAL DEPTH = 1.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	EG & G	**Borehole/Well Id**	MND33-0021
Drilling Method	HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	8/29/91	**North (ft)**	597199.57
Date Completed	8/29/91	**East (ft)**	1495181.94
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	717.5
Checked By	RICHARD LEY	**Total Depth (ft)**	1.0

Comments: Building 34 - Aviation Fuel Tank.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		CLS	SANDY CLAY - with subangular gravel, gravel subangular, wet.
					TOTAL DEPTH = 1.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	EG & G	**Borehole/Well Id**	MND33-0022
Drilling Method	HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	8/29/91	**North (ft)**	597209.45
Date Completed	8/29/91	**East (ft)**	1495191.06
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	718.2
Checked By	RICHARD LEY	**Total Depth (ft)**	1.0

Comments: Building 34 - Aviation Fuel Tank.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		CLGS	SANDY CLAY - Coarse subrounded gravel, tan to light brown, moist.
					TOTAL DEPTH = 1.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	EG & G	**Borehole/Well Id**	MND33-0023
Drilling Method	HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	8/29/91	**North (ft)**	597200.31
Date Completed	8/29/91	**East (ft)**	1495200.25
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	717.3
Checked By	RICHARD LEY	**Total Depth (ft)**	1.0
Comments:	Building 34 - Aviation Fuel Tank.		

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		CLGS	SANDY CLAY - and coarse rounded gravel, tan to light brown, wet.
					TOTAL DEPTH = 1.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	EG & G	**Borehole/Well Id**	MND33-0024
Drilling Method	HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	8/29/91	**North (ft)**	597207.46
Date Completed	8/29/91	**East (ft)**	1495199.90
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	716.8
Checked By	RICHARD LEY	**Total Depth (ft)**	3.0

Comments: Building 34 - Aviation Fuel Tank.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLC	CLAYEY SILT - highly compacted.
					TOTAL DEPTH = 3.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0025
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/30/91	**North (ft)**	596593.29
Date Completed	10/30/91	**East (ft)**	1496894.37
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	893.2
Checked By	RICHARD LEY	**Total Depth (ft)**	5.5

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001 1001		MLGS	GRAVELLY SANDY SILT - 40% silt, 30% fine grained sand, 30% fine gravel, sand subrounded, gravel rounded, poorly sorted, nonstratified, medium brown, dry.
	14 15 60/1	0002		MLG	GRAVELLY SILT - 90% silt, 10% medium angular gravel, stiff, moist, 10YR 4/2, dark grayish brown. Auger refused 5.5'.
5					
					TOTAL DEPTH = 5.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0026
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/30/91	**North (ft)**	596568.89
Date Completed	10/30/91	**East (ft)**	1496890.21
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	891.7
Checked By	RICHARD LEY	**Total Depth (ft)**	5.0

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLS	SANDY SILT - trace gravel, poorly graded, 50% silt, 40% very fine grained sand, 10% fine to coarse gravel, sand subrounded, gravel rounded, medium grayish brown, nonstratified, dry.
				BL	No sample interval. Augered to 3.0'.
	6 60/0	1002		ML	SILT - trace gravel, 98% silt, 2% medium to coarse gravel, moist, stiff, 10YR 6/6, brownish yellow. Auger refused at 5.0'.
5					TOTAL DEPTH = 5.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0027
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/30/91	**North (ft)**	~~59654402.00~~ 596544.02
Date Completed	10/30/91	**East (ft)**	1496886.66
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	890.8
Checked By	RICHARD LEY	**Total Depth (ft)**	3.5

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		CLM	SILTY CLAY, SOME SAND - Moderately graded, 50% clay, 40% silt, 10% sand, sand fine grained, subangular, medium brown, non-stratified, slightly moist, organic clay.
				BL	No sample interval. Augered to 3.0'.
	6 / 60/0	0002		ML	CLAYEY SILT - 80% silt, 20% clay, moist, slight plasticity, 2Y 6/3, light yellowish green.
					TOTAL DEPTH = 3.5'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0028
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/30/91	**North (ft)**	596552.74
Date Completed	10/30/91	**East (ft)**	1496899.13
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	891.3
Checked By	RICHARD LEY	**Total Depth (ft)**	4.0

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		OL	CLAY AND SILT - 50% silt, 40% clay, 10% very fine grained sand, moderately sorted, sand subrounded, dark brown, nonstratified, slightly moist, organic silt.
				BL	No sample interval. Auger to 3.0'.
	6 12 60/0	0002		MLG	GRAVELLY SILT - 80% silt, 20% fine rounded gravel, moist, 5Y 5/2, olive gray. Auger refused at 4.0'.
5					TOTAL DEPTH = 4.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0029
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/30/91	**North (ft)**	596575.58
Date Completed	10/30/91	**East (ft)**	1496903.54
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	892.3
Checked By	RICHARD LEY	**Total Depth (ft)**	4.5

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLS	SANDY SILT - trace gravel, moderate grading, 70% silt, 20% sand, 10% clay, sand very fine grained, subrounded, gravel fine, rounded, 10YR 9/4, yellowish brown, slightly moist, organic silt.
				BL	No sample interval. Auger to 3.0'.
	16 15 27	0002		MLG	GRAVELLY SILT - 90% silt, 10% course angular gravel, moist, stiff, 10YR 6/6, brownish yellow. Offset 10.0' for 2nd spoon, same as above, limestone plug in shoe, auger refused hole #1 at 4.0', hole #2 at 4.5'.
5	60/0				TOTAL DEPTH = 4.5'
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0030
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/30/91	**North (ft)**	596586.97
Date Completed	12/12/91	**East (ft)**	1496918.15
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	893.5
Checked By	RICHARD LEY	**Total Depth (ft)**	3.8

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				MLSC	SANDY CLAYEY SILT - 50% silt, 40% clay, 10% very fine subrounded sand, trace fine subangular gravel, non-stratified, slightly moist, 10YR 4/4 yellow brown.
				BL	Non sample interval. Auger to 3.0 feet.
		0002		SH	SHALE BEDROCK - Fissile, dry, uniform color, 10YR 7/4 very pale brown.
5					TOTAL DEPTH = 3.8'.
10					
15					
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WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0031
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/30/91	**North (ft)**	596561.32
Date Completed	10/30/91	**East (ft)**	1496913.07
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	892.2
Checked By	RICHARD LEY	**Total Depth (ft)**	4.5

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLSC	CLAYEY SANDY SILT - 50% silt, 30% sand, 20% clay, trace gravel, sand very fine, subrounded, gravel very fine, rounded, 10YR 5/6, yellowish brown, nonstratified, slightly moist, organic silt.
				BL	No sample interval. Augered to 3.0'.
	15 23 60	0002		MLC	FILL - 10YR 4/1, dark gray, 15% coarse to fine gravel, 15% fine sand, 25% clay, 45% silt, uniform color, firm, clayey sandy silt.
	0				Spoon and auger refusal at 4.5'.
5					TOTAL DEPTH = 4.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0032
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/30/91	**North (ft)**	596535.71
Date Completed	10/30/91	**East (ft)**	1496909.01
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	890.7
Checked By	RICHARD LEY	**Total Depth (ft)**	3.7

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLS	SANDY SILT - Some clay, some gravel, 50% silt, 40% sand, 5% clay, 5% gravel, some very fine gravel, subrounded, gravel fine grained, angular, 10YR 5/4, yellowish brown, slightly moist, unstratified, organic silt.
				BL	No sample interval. Auger to 3.0'.
	14	0002		MLC	CLAYEY SILT - 40% clay, 5% gravel medium fine, 55% silt, 10YR 4/3, brown, mottled, hard, limestone plug in shoe end. Spoon refusal at 3.7'.
	60				
5					TOTAL DEPTH = 3.7'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0033
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/31/91	**North (ft)**	596544.67
Date Completed	10/31/91	**East (ft)**	1496922.56
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	891.5
Checked By	RICHARD LEY	**Total Depth (ft)**	6.0

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		ML	SANDY CLAYEY SILT - 70% silt, 15% clay, 15% fine sand, slightly moist, firm, 10YR 4/4, dark yellowish brown.
				BL	No sample interval. Auger to 3.0'.
	17 41 60/4	0002		MLC	GRAVELLY SANDY CLAYEY SILT - 20% fine to course gravel, angular, firm, moist, moderate plasticity, 5Y 4/1, dark gray.
5	14 60/2			BL	No sample interval. Auger refused at 6.0'.
					TOTAL DEPTH = 6.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0034
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/31/91	**North (ft)**	596569.05
Date Completed	12/11/91	**East (ft)**	1496926.65
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	892.6
Checked By	RICHARD LEY	**Total Depth (ft)**	4.0

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLC	SANDY CLAYEY SILT - 65% silt, 30% clay, 5% fine sand, organics, trace subangular gravel, firm, slightly moist, 10YR 3/3, dark brown.
		0002		NR	No sample interval.
	21 17 60/0			MLC	GRAVELLY CLAY SILT - 60% silt, 35% clay, 5% medium subangular gravel, moist, stiff, 2.5YR 6/2, light brownish gray.
5					TOTAL DEPTH = 4.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0035
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/31/91	**North (ft)**	596578.92
Date Completed	10/31/91	**East (ft)**	1496942.25
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	893.3
Checked By	RICHARD LEY	**Total Depth (ft)**	5.5

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		ML	SANDY CLAYEY SILT - 75% silt, 20% clay, 5% fine sand, organics, firm, slightly moist, 10YR 4/3, brown.
				BL	No sample interval. Auger to 3.0'.
	14 21 60/0	0002		MLC	GRAVELLY CLAYEY SILT - trace sand, 70% silt, 20% clay, 10% fine to medium subangular gravel, moist, stiff, 2.5Y 5/3, light yellowish brown. Spoon refusal at 4.0'.
5				BL	No sample interval. Auger refused at 5.5'.
					TOTAL DEPTH = 5.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0036
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/31/91	**North (ft)**	596552.74
Date Completed	12/11/91	**East (ft)**	1496933.58
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	892.3
Checked By	RICHARD LEY	**Total Depth (ft)**	7.5

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLC	SANDY CLAYEY SILT - 70% silt, 25% clay, 5% fine sand, slightly moist, firm, 10YR 3/3, dark brown.
				BL	No sample interval. Auger to 3.0'.
	17 31 46 14	0002		MLG	GRAVELLY CLAYEY SILT - 40% silt, 30% clay, 30% fine to coarse subangular to angular gravel, gravel consists of limestone and asphalt fragments, moderate plasticity, moist, 5YR 4/1, dark gray.
5	60/2			BL	Do not need more sample from this interval auger to 8.0'. Auger refused 7.5'.
					TOTAL DEPTH = 7.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0037
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/31/91	**North (ft)**	596528.53
Date Completed	12/12/91	**East (ft)**	1496933.58
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	890.9
Checked By	RICHARD LEY	**Total Depth (ft)**	8.7

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLC	SANDY CLAYEY SILT - 75% silt, 20% clay, 5% fine sand (trace medium sand), subrounded, stiff, slightly moist, 10YR 3/2, very dark grayish brown.
				BL	No sample interval. Auger to 3.0 feet.
	17 21 25 16	0002		MLC	CLAYEY SILT - upper spoon-fill, 10YR 3/1, very dark gray brown, 10% coarse to fine, angular gravel, 5% coarse to fine sand, 30% clay, 55% silt firm, slightly moist, 10YR 4/4, dark yellowish brown, dry, lower 8" of spoon trace gravel, 30% fine sand, 10% clay, 60% silt, loose.
5				BL	No sample interval. Auger to 8.0 feet.
	28	0003		SH	SHALE - loose, dry; 10YR 6/4, light yellowish brown.
	60/2				TOTAL DEPTH = 8.7'.
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15					
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WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0038
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/31/91	**North (ft)**	596537.77
Date Completed	12/11/91	**East (ft)**	1496947.66
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	891.6
Checked By	RICHARD LEY	**Total Depth (ft)**	6.5

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLC	SANDY CLAYEY SILT - trace gravel, 50% silt, 45% clay, 4% fine sand, 1% coarse gravel, subangular, stiff, slightly moist, 10YR 4/3, brown.
				BL	No sample interval. Auger to 3.0'.
	17 25 60/4	0002		MLG	SANDY CLAYEY GRAVELLY SILT - 40% silt, 30% gravel, fine to coarse, subangular to angular, 20% clay, 10% fine formed sand, 2.5Y 4/2, dark grayish brown, moist, slight plasticity.
5	10 60/1			MLG	SANDY CLAYEY GRAVELLY SILT - 40% silt, 30% gravel, fine to coarse, subangular to angular, 20% clay, 10% fine formed sand, 2.5Y 4/2, dark grayish brown, moist, slight plasticity.
				BL	Limestone plug in auger.
					No sample interval. Auger refused at 6.5'.
					TOTAL DEPTH = 6.5'
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0039
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/31/91	**North (ft)**	596561.77
Date Completed	12/11/91	**East (ft)**	1496951.97
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	893.1
Checked By	RICHARD LEY	**Total Depth (ft)**	8.0

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		ML	SANDY CLAYEY SILT - 85% silt, 10% clay, 5% fine sand, organics, slightly moist, firm, 10YR 4/4, dark yellowish brown.
				BL	No sample interval. Augered to 3.0'.
	13 27 37 16	0002		MLC	GRAVELLY CLAYEY SILT AND ASPHALT - 50% silt, 20% clay, 15% gravel, medium to course, subangular, 15% asphalt, stiff, moist, 2.5Y 5/2, grayish brown.
5	17 21 36 23 17 60/1			MLC	GRAVELLY CLAYEY SILT AND ASPHALT - 50% silt, 20% clay, 15% gravel, medium to course, subangular, 15% asphalt, stiff, moist, 2.5Y 5/2, grayish brown. Auger refused at 8.0'. Limestone gravel.
					TOTAL DEPTH = 8.0.'
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WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0040
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/31/91	**North (ft)**	596570.56
Date Completed	12/10/91	**East (ft)**	1496964.36
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	893.6
Checked By	RICHARD LEY	**Total Depth (ft)**	7.0

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		ML	GRAVELLY SANDY SILT - trace clay, 75% silt, 18% fine sand, 10% subrounded gravel, 2% clay, hard, 10YR 6/3, pale brown.
				BL	No sample interval. Auger to 1.0'.
	11 14 21 56	0002		MLS	GRAVELLY SANDY SILT - 60% silt, 35% fine to coarse subangular sand, 5% fine to medium subangular gravel, moist, stiff, 10YR 5/3, brown.
	13 31 37 36				Auger refusal at 7.0'.
5				BL	No sample interval. Auger refused at 7.0'.
					TOTAL DEPTH = 7.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0041
Drilling Method	HOLLOW STEM AUGER.	**STATE PLANE COORDINATES**	
Date Started	10/31/91	**North (ft)**	596544.97
Date Completed	12/10/91	**East (ft)**	1496960.09
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	892.3
Checked By	RICHARD LEY	**Total Depth (ft)**	5.0

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		ML	SANDY CLAYEY SILT - 90% silt, 5% fine sand, 5% clay, organics, slightly moist, firm, 10YR 3/4, dark yellowish brown.
				BL	No sample interval. Auger to 3.0'.
	25 35 28 40	0002		MLG	CLAYEY GRAVELLY SILT - 70% silt, 20% medium-coarse angular gravel, 10% clay, stiff, moist, 10YR 5/3, brown.
5					TOTAL DEPTH = 5.0'.
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15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0042
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/31/91	**North (ft)**	596520.97
Date Completed	12/12/91	**East (ft)**	1496956.14
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	891.1
Checked By	RICHARD LEY	**Total Depth (ft)**	3.2

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		ML	CLAYEY SANDY SILT - 75% silt, 20% fine sand, 5% clay, dry, soft, 10YR 4/4, dark yellowish brown.
	16 25 50 42	0002		ML	GRAVELLY SANDY CLAYEY SILT - 60% silt, 30% clay, 5% fine sand, 5% c-f gravel, mottled, firm, 10YR 4/3, brown.
	60/0			BL	No sample interval. Spoon refusal at 3.2'.
					TOTAL DEPTH = 3.2'.
5					
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15					
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WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0043
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/12/91	**North (ft)**	596529.81
Date Completed	12/10/91	**East (ft)**	1496971.34
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	891.8
Checked By	RICHARD LEY	**Total Depth (ft)**	6.5

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		ML	CLAYEY SANDY SILT - 80% silt, 15% fine sand, 5% clay, dry, soft, organics, 10YR 9/4, dark yellowish brown.
				BL	No sample interval. Auger to 3.0 feet.
	17 23 27 40	0002		MLSC	GRAVELLY CLAYEY SANDY SILT - 40% silt, 20% fine sand, 20% clay, 20% medium course angular gravel, moist, stiff, poorly sorted, 2-5Y 6/3, light yellowish brown.
5				BL	No sample interval. Auger to refusal (6.5')
					TOTAL DEPTH = 6.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0044
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/12/91	**North (ft)**	596553.55
Date Completed	12/10/91	**East (ft)**	1496977.36
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	893.0
Checked By	RICHARD LEY	**Total Depth (ft)**	4.4

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		ML	SANDY CLAYEY SILT - 90% silt, 5% clay, 5% fine to medium, subangular, sand, organics, dry, soft, bryozoan fossils, 10YR 4/4 dark yellowish brown.
				BL	No sample interval. Auger to 3.0 feet.
	7 9 60/4	0002		MLC	GRAVELLY SANDY CLAYEY SILT - 70% silt, 20% clay, 5% coarse to fine sand, 5% coarse to fine rounded gravel, stiff, mottled, 5YR 4/2 olive gray.
5					TOTAL DEPTH = 4.4'
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0045
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/31/91	**North (ft)**	596562.82
Date Completed	12/10/91	**East (ft)**	1496989.94
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	893.6
Checked By	RICHARD LEY	**Total Depth (ft)**	6.5

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLS	GRAVELLY, CLAYEY, SANDY SILT - 50% silt, 40% fine to coarse, subrounded sand, 5% clay, 5% subrounded, fine to coarse gravel, dry, stiff, 10YR 5/4 yellowish brown.
				BL	No sample interval. Auger to 3.0 feet.
	10 13 18 17	0002		MLGS	GRAVELLY SANDY SILT - 50% silt, 30% fine sand, 20% medium to coarse subangular gravel, trace organics, moist, stiff, 10YR 5/4, dark yellowish brown. Auger refused at 6.5'.
5				BL	No sample interval. Auger refusal (6.5')
					TOTAL DEPTH = 6.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0046
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/31/91	**North (ft)**	596538.81
Date Completed	12/10/91	**East (ft)**	1496985.65
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	892.6
Checked By	RICHARD LEY	**Total Depth (ft)**	8.7

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLS	SANDY SILT - 50% silt, 40% fine to coarse, subrounded sand, 5% clay, 5% subrounded fine to coarse gravel, dry, stiff, 10YR 5/4 yellowish brown.
				BL	No sample interval. Auger to 1.0 feet.
	13 47 27 13			MLGS	GRAVELLY SANDY SILT - 50% silt, 30% fine sand, 20% fine to coarse subrounded gravel, stiff, dry, 10YR 5/4, yellowish brown.
	12 14 27 47	0002		MLGS	GRAVELLY SANDY SILT - 50% silt, 30% fine sand, 20% fine to coarse subrounded gravel, stiff, dry, 10YR 5/4, yellowish brown.
5				BL	No sample interval. Auger to 8.0'.
	37	0003		LS	LIMESTONE AND SHALE GRAVEL - and rock powder, 2-5YR 7/4, pale yellow.
	60/2				TOTAL DEPTH = 8.7'
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0047
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	10/31/91	**North (ft)**	596514.11
Date Completed	12/10/91	**East (ft)**	1496983.60
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	891.3
Checked By	RICHARD LEY	**Total Depth (ft)**	8.2

Comments: Waste Oil Drum Field.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLS	GRAVELLY CLAYEY SANDY SILT - 50% silt, 40% sand (25% medium subrounded; 10% fine subrounded; 5% coarse subrounded) 5% subrounded fine to coarse gravel, 5% clay, dry, stiff, 10YR 5/4 yellowish brown.
				BL	No sample interval.
	34			SMG	GRAVELLY SILTY SAND - 50% silt, 30% fine sand, 20% medium to coarse gravel (subangular) moist, stiff, 10YR 4/6, dark yellowish brown.
	33				
	21				
	23				
	8	0002		SMG	GRAVELLY SILTY SAND - 50% silt, 30% fine sand, 20% medium to coarse gravel (subangular) moist, stiff, blue green color.
	13				
	21				
	12				
5				BL	No sample interval.
	60/3				
		0003		LS	LIMESTONE AND SHALE COBBLES - limestone and shale rock powder, 2-5YR 7/4, pale yellow.
					TOTAL DEPTH = 8.2'.
10					
15					
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WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	ROY F. WESTON, INC.	**Borehole/Well Id**	MND33-0048
Drilling Method	HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	11/5/91	**North (ft)**	598016.80
Date Completed	11/5/91	**East (ft)**	1495587.62
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	795.0
Checked By	RICHARD LEY	**Total Depth (ft)**	2.5

Comments: WD Building - Drum Storage Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLGS	GRAVELLY SANDY SILT - 50% silt, 30% fine subrounded sand, 20% fine to medium, subangular gravel, loose, 10YR 5/4, yellowish brown, poorly sorted, dry.
				BL	No sample interval. Auger to 2.0'.
		0002		MLGS	GRAVELLY SANDY SILT - 60% fine to medium subangular sand, 20% fine to medium subrounded gravel, 20% silt, loose, poorly sorted, 10YR 6/3, pale brown.
					TOTAL DEPTH = 2.5'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	ROY F. WESTON, INC.	**Borehole/Well Id**	MND33-0049
Drilling Method	HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	11/5/91	**North (ft)**	598036.94
Date Completed	11/5/91	**East (ft)**	1495588.92
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	800.7
Checked By	RICHARD LEY	**Total Depth (ft)**	0.5

Comments: WD Building - Drum Staging Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLGS	GRAVELLY SANDY SILT - 60% silt, 20% fine grained subangular sand, 20% fine to course, subrounded gravel, dry, loose, 10YR 4/4, dark yellowish brown.
					TOTAL DEPTH = 0.5'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	ROY F. WESTON, INC.	**Borehole/Well Id**	MND33-0050
Drilling Method	HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	11/5/91	**North (ft)**	598037.82
Date Completed	11/5/91	**East (ft)**	1495578.61
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	801.5
Checked By	RICHARD LEY	**Total Depth (ft)**	0.5

Comments: WD Building - Drum Staging Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLGS	GRAVELLY SANDY SILT - 60% silt, 20% fine subangular sand, 20% fine to coarse subrounded gravel, loose, dry, 10YR 5/4, yellowish brown.
					TOTAL DEPTH = 0.5'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0051
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/7/91	**North (ft)**	598727.26
Date Completed	11/7/91	**East (ft)**	1497186.94
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	809.4
Checked By	RICHARD LEY	**Total Depth (ft)**	19.0

Comments: Building 61 - Former Heavy Equipment Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	13 6	0001		MLGS	GRAVELLY SANDY CLAYEY SILT - 40% silt, 20% clay, 20% fine subrounded to rounded sand, 20% fine to coarse angular gravel, mottled 10YR 4/3, brown and 2.5Y N/6, light gray, moist.
				BL	No sample interval. Auger to 3.0'.
	7 13 32 35	0002		CL	GRAVELLY SILTY CLAY - trace sand, 80% clay, 10% silt, 10% fine to coarse angular gravel, trace fine subangular sand, trace wood fibers, moist, very stiff, 2.5Y N6, light gray, fill.
5	25 50 100/3			MLGS	CLAYEY GRAVELLY SANDY SILT - 40% silt, 30% fine subangular sand, 20% fine to coarse subangular gravel, 10% clay, firm, moist, 10YR 5/6, yellowish brown.
				BL	No sample interval. Auger to 10.0'.
	30 20 15 13	0003 1003		CLM	SILTY CLAY - trace sand, trace gravel, 50% clay, 40% silt, 5% fine grained subangular sand, 5% fine to coarse angular gravel, stiff, moist, mottled, 5Y 6/2, light olive gray and 10YR 3/2, very dark grayish brown.
10	7 21 25 20			CLM	SILTY CLAY - some gravel, organics, 50% silt, 40% clay, 5% fine to coarse angular gravel, 5% organics, firm, moist, mottled, 10YR 3/2, very dark grayish brown and 5Y 6/2, light olive gray. Organics increase with depth (bottom 6" of spoon).
	4 3			CLM	SILTY CLAY - trace sand with organics, 50% clay, 30% silt, 15% organics, 5% trace fine subangular sand, firm, moist, 5Y 6/1, gray.
	10 13 15 26	0004		CLM	GRAVELLY SILTY CLAY - 60% clay, 30% silt, 10% fine to coarse angular gravel, moist, soft, 5Y 5/1, gray.
15	14 21 73 13			CLM	SILTY CLAY - trace organics, trace coarse angular gravel, 60% clay, 30% silt, 8% organics, 2% gravel, organics are root/wood fibers, moist, soft, 5Y 5/1, gray.
	14 10 13 9			CLM	SILTY CLAY - trace fine grained, subangular sand with organics, 70% clay, 25% silt, 5% organics, stiff, moist, 5Y 4/3, olive.
20					TOTAL DEPTH = 19.0'.

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0052
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/8/91	**North (ft)**	598713.38
Date Completed	11/9/91	**East (ft)**	1497186.94
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	809.0
Checked By	RICHARD LEY	**Total Depth (ft)**	13.0

Comments: Building 61 - Former Heavy Equipment Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	26 27			MLC	GRAVELLY CLAYEY SANDY SILT - 70% silt, 20% clay, 5% fine grained sand, 5% medium to course angular gravel, organic rich, uniform color, firm, 10YR 4/3, brown.
				BL	No sample interval. Auger to 3.0'.
5	60 60 40 37			MLC	CLAYEY SILT - trace gravel, trace sand, 75% silt, 20% clay, 3% fine sand, 2% coarse subrounded gravel, moist, stiff, 10YR 4/3, brown.
				BL	No sample interval. Auger to 8.0'.
	24 26 53 31	0001		ML	SANDY CLAYEY SILT - 80% silt, 15% clay, 5% fine sand, moist, hard, mottled, 10YR 5/2, grayish brown.
10	39 44 56 62 60/0			ML	SANDY CLAYEY SILT - 80% silt, 15% clay, 5% fine sand, moist, hard, mottled, 10YR 5/2, grayish brown.
15					TOTAL DEPTH = 13.0'.
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0053
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/9/91	**North (ft)**	598962.03
Date Completed	11/9/91	**East (ft)**	1497332.73
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	806.4
Checked By	RICHARD LEY	**Total Depth (ft)**	15.0

Comments: Building 61 - Former Heavy Equipment Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	23 18	0001		ML	GRAVELLY SILT - trace sand, 80% silt, 18% fine to course, angular gravel, 2% fine subangular sand, dry, stiff, moderate sorting, 10YR 5/4, yellowish brown.
				BL	No sample interval. Auger to 3.0 feet.
	18 20 20 13	0002		ML	GRAVELLY SANDY SILT - 75% silt, 15% very fine subangular sand, 10% fine to coarse, angular gravel, dry, fine, mottled, 10YR 5/6, yellowish brown and 10YR 7/1 light gray.
5					
	6 10 13 12				
10					Description not available.
	12 25 16 23				
15					TOTAL DEPTH = 15.0'.
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	ROY F. WESTON, INC.	**Borehole/Well Id**	MND33-0054
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/11/91	**North (ft)**	598807.20
Date Completed	11/11/91	**East (ft)**	1497685.31
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	820.7
Checked By	RICHARD LEY	**Total Depth (ft)**	15.0

Comments: Building 61 - Former Heavy Equipment Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	4 4	0001		MLSC	SANDY CLAYEY SILT - upper 5"; silty clay, lower 5", wood fragments, moist, firm, 10YR 3/3, dark brown.
				BL	No sample interval. Auger to 3.0'.
	12 21 29 18	0002		MLSC	SANDY CLAYEY SILT - 60% silt, 25% clay, 12% fine to coarse subrounded sand, 3% medium-coarse subrounded gravel, firm, slightly moist, organic 10YR 5/2, grayish brown.
5				BL	No sample interval. Auger to 8.0'.
	4 18 20 29	0003		MLSC	SANDY CLAYEY SILT - trace gravel, 55% silt, 25% clay, 18% fine sand, 2% medium coarse subrounded limestone gravel, firm, 10YR 6/3, pale brown.
10				BL	No sample interval. Auger to 13.0'.
	4 9 18 22	0004		ML	SANDY CLAYEY SILT - trace gravel, 75% silt, 15% clay, 9% fine sand, 1% subrounded, medium-fine gravel, moist, hard, some gravels oxidized, 10YR 5/3 brown.
15					TOTAL DEPTH = 15.0'.
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0055
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/11/91	**North (ft)**	598805.22
Date Completed	11/11/91	**East (ft)**	1497407.89
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	807.4
Checked By	RICHARD LEY	**Total Depth (ft)**	17.0

Comments: Building 61 - Former Heavy Equipment Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		ML	GRAVELLY SANDY CLAYEY SILT - 70% silt, 15% clay, 10% fine sand, 5% fine-medium subrounded gravel, mottled, slightly moist, 10YR 4/3, brown.
				BL	No sample interval. Auger to 3.0'.
	7 14 12 21	0002		ML	CLAYEY SANDY SILT - trace gravel, 70% silt, 18% fine to medium sand, 10% clay, 2% fine to course subrounded gravel, moist, firm, mottled, 2.5Y 4/2, dark grayish brown.
5				BL	Lost spoon in hole. Did not sample. Recovered spoon when augering to 8.0'.
	10 14 13 9	0003		MLC	SANDY CLAYEY SILT - silt, trace gravel, 65% silt, 20% clay, 14% fine sand, 1% fine subrounded gravel, moist, firm, mottled, 10YR 5/4, yellowish brown.
10				BL	No sample interval. Auger to 13.0'.
	7 12 13 18	0004		MLS	CLAYEY SANDY SILT - trace gravel, 75% silt, 19% fine sand, 5% clay, 1% fine to coarse subrounded gravel, firm, slightly moist, 10YR, 5/3, brown.
15	8 14 21 24				
					TOTAL DEPTH = 17.0'.
20					

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GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0056	
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**		NAD 87 COORS.
Date Started	11/12/91	**North (ft)**	597186.46	599101.111
Date Completed	11/12/91	**East (ft)**	1497085.40	1466951.676
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	816.2	816.425
Checked By	RICHARD LEY	**Total Depth (ft)**	9.9	

Comments: Building 61 - Former Heavy Equipment Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				ML	SANDY CLAYEY SILT - Trace of gravel. 80% silt, 15% clay, 4% fine sand, 1% fine to coarse gravel, organics, dry, soft, lower portion of spoon is hard. 5YR 6/1 gray. (Lower 8" of spoon; 10YR 5/3 brown (top 4" of spoon).
				BL	No sample interval.
	13 50/3			ML	GRAVELLY CLAYEY SILT - 75% silt, 15% clay, 10% fine to coarse angular gravel limesand. Dry, stiff, moderate sorting. 5YR 5/2 olive gray.
5	13 21 28 22				
				BL	No sample interval.
	50/3			LS	LIMESTONE - Highly weathered, fossiliferous, dry, very stiff. 5YR 6/2 gray.
	31 50/4				
10					TOTAL DEPTH = 9.9'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0057
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/12/91	**North (ft)**	597186.46
Date Completed	11/13/91	**East (ft)**	1497085.40
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	873.9
Checked By	RICHARD LEY	**Total Depth (ft)**	12.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	35 55 35 45	0001a 0001b 0001c 0001d		SM	GRAVELLY SILTY SAND - 60% fine to coarse subrounded to rounded sand, 30% silt, 10% medium to coarse subangular gravel, dry, mostly sorted, coarse, firm, 7.5YR 5/2, brown.
				BL	No sample interval.
	4 9 8 21	0002a 0002b 0002c 0002d		MLC	GRAVELLY CLAYEY SILT TRACE SAND - 50% silt, 40% clay, 10% medium to coarse angular sand, slightly plastic, soft, moist, blue green (no Munsell page for these shades), moderate sorting, soft.
5				BL	No sample interval.
	4 11 14 28	0003a 0003b 0003c 0003d		MLSC	SILT CLAYEY - 40% silt, 30% clay, 20% medium grained subrounded sand, 10% coarse, angular gravel, 10YR 4/4, dark yellowish brown.
10	2 4 6 8				
					TOTAL DEPTH = 12.0'
15					
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WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0058A
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/13/91	**North (ft)**	597137.72
Date Completed	11/14/91	**East (ft)**	1497094.07
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	876.0
Checked By	RICHARD LEY	**Total Depth (ft)**	10.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	7 7 5 4	0001a		ML	GRAVELLY SILT - 85% silt, 15% fine to coarse, angular gravel, moist, very slightly plastic, well sorted, firm, 10YR 5/4, yellowish brown.
				BL	
	13 15 19 10	0002a		MLC	GRAVELLY CLAYEY SILT - 50% silt, 40% clay, 10% fine to coarse, angular gravel, plastic, soft, moist, well sorted, 10YR 6/6, yellowish brown and 5YR 6/1, gray (mottled)
5				BL	
	15 23 50/3			MLSC	GRAVELLY CLAYEY SANDY SILT - 40% silt, 30% clay, 20% fine grained, subangular sand, 10% coarse, angular gravel, soft, slightly plastic, poorly sorted, moist, 5YR 6/3, pale olive.
10					TOTAL DEPTH = 10.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0058B
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/13/91	**North (ft)**	597135.61
Date Completed	11/14/91	**East (ft)**	1497066.70
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	874.6
Checked By	RICHARD LEY	**Total Depth (ft)**	10.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	7 5 4 9	0001b		CLML GP	GRAVELLY CLAYEY SILT - 50% silt, 40% clay, 10% fine to coarse angular gravel, trace tar/asphalt like substance, firm, well sorted, slightly plastic, moist, 10YR 5/4 yellowish brown.
				BL	
	7 10 19 25	0002b		CLG SM	GRAVELLY SANDY CLAYEY SILT - 50% silt, 30% clay, 10% fine grained subangular sand, 10% medium to coarse angular gravel, slightly plastic, moist, 10YR 5/6 yellowish brown and 5YR 6/1 gray (mottled).
5				BL	
	17 21 50/2	0003b		CLML GP	GRAVELLY SILTY CLAY - 50% clay, 40% silt, 10% coarse angular gravel, soft, moderate plasticity, moist, 5YR 3/2 dark olive gray.
10					TOTAL DEPTH = 10.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0058C
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/13/91	**North (ft)**	597160.89
Date Completed	11/14/91	**East (ft)**	1497066.54
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	873.2
Checked By	RICHARD LEY	**Total Depth (ft)**	10.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	32 39 49 37	0001c		CLML SPGP	GRAVELLY CLAYEY SILT - 70% silt, 20% clay, 10% fine to coarse angular gravel, dry, well sorted, slight plastic, 10YR 4/6 yellowish brown. Will composite this with sample 0001A, 0001B, 0001D and will be submitted for analysis as MND33-0058-0001.
				BL	
	15 8 17 22	0002c		CLML SPGP	GRAVELLY SILTY CLAY - 50% clay, 40% silt, 10% medium to coarse, rounded to angular gravel, moderate plastic, firm, moist, moderate sorting, 5Y 6/2 light olive gray.
5				BL	
	20 25 28 30	0003c		MLGS	GRAVELLY SANDY SILT - trace clay, fine to coarse rounded to angular gravel, dry, non-plastic, poorly sorted, trace asphalt, 10YR 6/2 light brownish gray.
10					TOTAL DEPTH = 10.0'.
15					
20					

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GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0058D
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/13/91	**North (ft)**	597163.41
Date Completed	11/14/91	**East (ft)**	1497089.43
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	873.8
Checked By	RICHARD LEY	**Total Depth (ft)**	10.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	21 29 38 17	0001d		CLML SPGP	GRAVELLY SANDY CLAYEY SILT - 50% silt, 30% clay, 10% fine to grained subangular to subrounded sand, 10% rounded to angular fine to coarse gravel, firm, moist, poorly sorted, (mottled) 10YR 4/4, dark yellowish brown and 5Y 6/1, gray. Will composite this with sample 0001A, 0001B, 0001C and will be submitted for analysis as MND33-0058-0001.
				BL	
	11 13 19 21	0002d		MLSC	SANDY CLAYEY SILT - trace gravel, 45% silt, 45% clay, 8% coarse grained subrounded sand, 2% coarse angular gravel, moist, soft, highly plastic, moderate sorting, 5Y 5/2 olive gray.
5				BL	
	7 12 14 13	0003d		CH	SILTY CLAY - trace sand, trace gravel, 60% clay, 35% silt, 2.5% medium gravel, rounded sand, 2.5% medium to coarse angular gravel, highly plastic, soft, well sorted, moist, 5YR 4/2 olive gray.
10					TOTAL DEPTH = 10.0'.
15					
20					

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GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0059A
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/13/91	**North (ft)**	597087.52
Date Completed	11/18/91	**East (ft)**	1497099.86
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	877.5
Checked By	RICHARD LEY	**Total Depth (ft)**	7.5

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	7 9 13 12	0001a		MLS	GRAVELLY SANDY SILT - 70% silt, 20% fine grained, subangular sand, 10% medium to coarse grained, rounded and angular gravel, stiff, nonplastic, mottled, 10YR 4/4, dark yellowish brown, and 5YR 6/1 gray, moist.
				BL	No sample interval.
				BL	No recovery.
5	8 11 15 26	0002a		MLC	CLAYEY SILT - 10YR 3/1, very dark gray, 5% coarse to fine gravel, subangular, 5% fine sand, 25% clay, 65% silt, mottled color, wood fragments. Could not auger to 8 feet.
					TOTAL DEPTH = 7.5'.
10					
15					
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WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0059B
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/13/91	**North (ft)**	597084.34
Date Completed	11/18/91	**East (ft)**	1497074.70
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	876.5
Checked By	RICHARD LEY	**Total Depth (ft)**	10.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	26 13 12 31	0001b		MLGS	GRAVELLY SANDY SILT - 50% silt, 30% fine grained, subangular sand, 20% fine to coarse gravel, (gravel composed of rock and asphalt chips), trace of organics (piece of wood), stiff, moist, poorly sorted, variegated, 10YR 4/4 dark yellowish brown and 5YR 6/1 gray.
				BL	No sample interval.
		0002b		MLC	CLAYEY SILT - 5YR 5/1, gray - more bluish color, medium to fine gravel, 2% subangular (mainly limestone), 3% fine sand, 30% clay, 65% silt, slightly moist, soft, clay, silt.
5	1 16 60/2				
				BL	No sample interval.
	41 60/2	0003b		MLC	CLAYEY SILT - 3% medium to fine gravel, subangular, 2% fine sand, 20% clay, 75% silt, mottled color, 5YR 4/2 olive gray.
10	60/0				TOTAL DEPTH = 10.0'.
15					
20					

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GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0059C
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/13/91	**North (ft)**	597109.69
Date Completed	11/18/91	**East (ft)**	1497071.45
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	875.8
Checked By	RICHARD LEY	**Total Depth (ft)**	10.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	24 12 13 9	0001c		MLS	GRAVELLY SANDY SILT - 70% silt, 20% very fine grained, subangular to subrounded sand, 10% fine to coarse subangular gravel. Dry, stiff, moderate sorting, variegated, 10YR dark yellowish brown, 5YR 6/1 gray and blue green.
				BL	No sample interval.
	5 9 23 21	0002c		MLC	CLAYEY SILT - 5YR 5/2 olive gray, 5% medium to fine gravel, subangular, 10% fine sand, 28% clay, 65% silt, mottled color, firm, clayey silt.
5				BL	No sample interval.
	20 23 41 44	0003c		MLC	CLAYEY SILT - Mottled color, 10YR 5/3 brown, 5% coarse to fine, subangular gravel, 5% fine sand, 35% clay, 55% silt. *Upper portion of spoon is 5YR 5/2 olive gray.*
10					TOTAL DEPTH = 10.0'.
15					
20					

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GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0059D
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/13/91	**North (ft)**	597113.48
Date Completed	11/18/91	**East (ft)**	1497095.58
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	876.5
Checked By	RICHARD LEY	**Total Depth (ft)**	9.7

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	25 20 35 15	0001d		ML	GRAVELLY SANDY SILT - 80% silt, 10% very fine, subrounded sand, 10% very fine gravel, 10YR 5/4 yellowish brown, well sorted, moist, stiff.
				BL	No sample interval.
	4 10 11 10	0002d		ML	SILT - 10YR 5/4 yellowish brown, burnt wood pieces, 2% coarse to fine gravel, 13% coarse to fine, subangular sand, 15% clay, 70% silt, sandy, clayey silt, mottled color.
5				BL	No sample interval.
	60/3 15	0003d		LS	LIMESTONE - 8.0' to 10.0' rock fragments (limestone) 98% coarse gravel, subangular, 2% fine sand, 10YR 7/3 very pale brown, 9.0' to 11.0' 50% coarse to fine gravel, subangular (mainly limestone), 10YR 5/3 brown, 5% fine sand, 10% clay, 35% silt, silty gravel, mottled color.
10	60/2				TOTAL DEPTH = 9.7'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0060
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/19/91	**North (ft)**	596697.09
Date Completed	11/19/91	**East (ft)**	1496478.05
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	887.10
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Area H - Pyrotechnic Waste Disposal Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	14 21 17 30	0001		MLS	SANDY SILT - 70% silt, 25% very fine gravel, subangular sand, 2.5% coarse angular gravel, 2.5% clay, dry, stiff, well sorted. 10YR 9/4 dark yellowish brown.
					TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0061
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/16/91	**North (ft)**	596696.83
Date Completed	12/16/91	**East (ft)**	1496437.71
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.6
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Area H - Pyrotechnic Waste Disposal Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	9 19 21 25	0001a 0001b		MLC	CLAYEY SILT - 10YR 3/3, very dark brown, organic, firm, 5% fine sand, 35% clay, 60% silt, clayey silt.
					TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

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GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0062	
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**		NAD83 COORS,
Date Started	11/19/91	**North (ft)**	596696.83	1599085.134
Date Completed	11/19/91	**East (ft)**	1496437.71	1465289.552
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	877.7	875.872
Checked By	RICHARD LEY	**Total Depth (ft)**	11.0	

Comments: Paint Shop.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	12 28 30 35	0001 1001		MLGS	CLAYEY GRAVELLY SANDY SILT - 40% silt 30% fine to medium gravel subangular sand, 20% fine to coarse angular gravel, 10% clay, slightly moist, stiff, poorly sorted, 10YR 7/4, very pale brown.
				BL	No sample interval. Auger to 3.0'.
	29 37 39 60/3	0002 1002		MLS	GRAVELLY CLAYEY SANDY SILT - 50% silt, 20% fine grained subangular sand, 15% coarse angular gravel, 15% clay, stiff, moist, poorly sorted, 10YR 6/4, light yellowish brown.
5				BL	No sample interval. Auger to 8.0'.
	25 41 60 60	0003		ML	GRAVELLY SANDY SILT - 80% silt, 18% fine subangular sand, 2% fine to medium angular gravel, dry, moderately well sorted, loose, 5Y 6/3, pale olive.
10	25 31 60/0			ML	GRAVELLY SANDY SILT - 80% silt, 18% fine subangular sand, 2% fine to medium angular gravel, dry, moderately well sorted, loose, 5Y 6/3, pale olive.
					TOTAL DEPTH = 11.0'
15					
20					

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GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	ROY F. WESTON, INC.	**Borehole/Well Id**	MND33-0063
Drilling Method	HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	11/20/91	**North (ft)**	598585.40
Date Completed	11/20/91	**East (ft)**	1496380.82 ~~1496348.82~~
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	877.1 880
Checked By	RICHARD LEY	**Total Depth (ft)**	0.5

Comments: Paint Shop.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		ML	SILT - 98% silt, 2% fine gravel, subangular sand, trace fine subrounded gravel, moist, nonplastic, well sorted, 10YR 3/3 dark brown, trace roots.
					TOTAL DEPTH = 0.5'.
5					
10					
15					
20					

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GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0064
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/21/91	**North (ft)**	597922.60
Date Completed	11/21/91	**East (ft)**	1497537.92
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	885.0
Checked By	RICHARD LEY	**Total Depth (ft)**	6.7

Comments: Underground Sewer Lines - Grids G6 and G7.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				BL	No sample interval.
5	18 23 49 60/0	0001		ML	SILT - 10YR 6/3 pale brown; mottled color; 8% coarse to fine sub-angular gravel; 17% coarse to fine sand-subrounded; 15% clay; 60% silt; clayey sandy silt; fill material; asphalt at surface.
	27 60/2			GP	GRAVEL - Coarse gravel (mainly limestone) about 98%; 1% fine sand; 1% silt.
					TOTAL DEPTH = 6.7'.
10					
15					
20					

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GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0065
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/21/91	**North (ft)**	597935.87
Date Completed	11/21/91	**East (ft)**	1497531.02
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	885.1
Checked By	RICHARD LEY	**Total Depth (ft)**	6.5

Comments: Underground Sewer Lines - Grids G6 and G7.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				BL	
5	28 60/2	0001		GP	CLEAN GRAVEL - 95% coarse fine rounded gravel (fill); 5% coarse to fine sand, wet, 10YR 5/4.
				GMS	SILTY SANDY GRAVEL - 95% fine rounded gravel (fill), 5% coarse to fine sand, wet. Auger refusal at 6.5'. TOTAL DEPTH = 6.5'
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0066
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/21/91	**North (ft)**	597883.77
Date Completed	11/21/91	**East (ft)**	1497424.58
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	881.1
Checked By	RICHARD LEY	**Total Depth (ft)**	4.1

Comments: Underground Sewer Lines - Grids G6 and G7.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				BL	
	100/1			LS	LIMESTONE ROCK - 100% fossil fragments and calcite filled fractures, weathered bedrock, no sample collected.
5					TOTAL DEPTH = 4.1'.
10					
15					
20					

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GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0067A
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/22/91	**North (ft)**	597901.34
Date Completed	11/22/91	**East (ft)**	1497271.06
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	873.0
Checked By	RICHARD LEY	**Total Depth (ft)**	8.8

Comments: Underground Sewer Lines - Grids G6 and G7.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				BL	
5					
	47 60/3	0001		MLS	GRAVELLY SANDY SILT - 60% silt, 30% very fine gravel, subangular sand, 10% fine to medium, subangular to angular gravel, moist, poorly sorted, firm, 5YR 6/3 pale olive.
10					TOTAL DEPTH = 8.8'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0067B
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/22/91	**North (ft)**	597900.97
Date Completed	11/22/91	**East (ft)**	1497268.99
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	873.1
Checked By	RICHARD LEY	**Total Depth (ft)**	10.0

Comments: Underground Sewer Lines - Grids G6 and G7.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				BL	
5					
	60/2	0001		LS	LIMESTONE - Bedrock, dry, dark gray.
10					TOTAL DEPTH = 10.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0068A
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/22/91	**North (ft)**	597919.06
Date Completed	11/22/91	**East (ft)**	1497500.57
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	884.0
Checked By	RICHARD LEY	**Total Depth (ft)**	6.9

Comments: Underground Sewer Lines - Grids G6 and G7.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				BL	No sample interval.
5	27 37 41 60/0	0001a		ML GS	GRAVELLY SANDY SILT - 60% silt, 20% very fine gravel subangular sand, 20% medium to coarse gravel (angular), moist, stiff, poorly sorted, 2.5YR 6/3 light yellowish brown, some oxidation or soil.
	60/5	0001b		MLS	SANDY SILT - 60% silt, 40% very fine gravel, subangular sand, moist, stiff, moderately well sorted, 2.5YR 6/3 light yellowish brown, some soil oxidation.
					TOTAL DEPTH = 6.9'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0068B
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/22/91	**North (ft)**	597916.97
Date Completed	11/22/91	**East (ft)**	1497501.34
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	884.1
Checked By	RICHARD LEY	**Total Depth (ft)**	6.1

Comments: Underground Sewer Lines - Grids G6 and G7.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				BL	No sample interval.
5	13 21 27 60/1	0001		ML	GRAVEL - coarse, stiff, moist, poorly sorted, 2.5Y 6/2, light yellowish brown.
					TOTAL DEPTH = 6.1'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0069
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/22/91	**North (ft)**	597383.35
Date Completed	11/22/91	**East (ft)**	1495650.40
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	743.8
Checked By	RICHARD LEY	**Total Depth (ft)**	8.9

Comments: Area C - Waste Storage Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	8	0001		MLS	GRAVELLY CLAYEY SANDY SILT - 50% silt, 30% fine to very fine grained, subangular sand, 10% clay, 10% fine to coarse grained subrounded to rounded gravel, 2.5YR 6/4, light yellowish brown grading into highly weathered saprolite limestone. 5YR 5/1, gray, moist, firm, poorly sorted.
				BL	No sample interval.
	21 16 31 34	0002		MLSC	GRAVELLY CLAYEY SANDY SILT - 40% silt, 30% very fine to medium, subangular sand, 25% clay, 5% subrounded to rounded gravel, with coarse fragments, dry stiff, poorly sorted, 10YR 5/6, yellowish brown.
5	14 31 37 50			MLSC	GRAVELLY CLAYEY SANDY SILT - 40% silt, 30% very fine to medium, subangular sand, 25% clay, 5% subrounded to rounded gravel, with coarse fragments, dry stiff, poorly sorted, 10YR 5/6, yellowish brown.
				BL	No sample interval.
	30 90/5	0003		MLS	SANDY SILT - 10YR 5/6, yellowish brown. 5% coarse to fine, subangular gravel (mainly limestone), 25% fine sand, 70% silt, fill?, uniform color, dry.
10					TOTAL DEPTH = 8.9'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0070
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	11/23/91	**North (ft)**	597338.32
Date Completed	11/23/91	**East (ft)**	1495574.65
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	743.0
Checked By	RICHARD LEY	**Total Depth (ft)**	10.0

Comments: Area C - Waste Storage Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLS	SANDY SILT - organic, dry, 5% subangular gravel, 45% medium fine sand, subangular, 50% silt, sandy silt, mottled color, wire pieces in spoon. 10YR 5/4 yellowish brown.
				BL	No sample interval.
				MLC	CLAYEY SILT - 1% coarse to fine gravel, subrounded, 9% fine sand, 20% clay, 70% silt, mottled color, slightly moist, hard, pieces of metal. 10YR 6/4 light yellowish brown.
5	10 15 18 24	0002		MLC	CLAYEY SILT - 1% coarse to fine gravel subrounded, 9% fine sand, 20% clay, 70% silt, mottled color, slightly moist, hard, pieces of metal.
				BL	No sample interval.
	17 19 20 21	0003		ML	CLAYEY SILT - 2% fine subrounded gravel, 8% coarse fine sand, 20% clay, 70% silt, clayey silt, mottled color, firm slightly moist, oxidized, 10YR 5/6 yellowish brown.
10					TOTAL DEPTH = 10.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0071
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/3/91	**North (ft)**	596991.07
Date Completed	12/3/91	**East (ft)**	1497215.01
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	884.5
Checked By	RICHARD LEY	**Total Depth (ft)**	5.2

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	8 15 23 50/3	0001		ML	TWO LITHOLOGIES: SILT - Upper 1 feet, 10YR 3/3, dark brown, organic, moist, 5% coarse to fine sand, subrounded, 15% clay, 80% silt, clayey silt. Lower 6 inches, 10YR 5/3, brown, 15% coarse to fine gravel, angular (limestone), 5% coarse to fine, subangular sand; 15% clay; 65% silt, slightly moist, gravelly, clayey silt, weathered rock, bedrock, limestone, light gray color.
				BL	No sample interval.
5	18 31 60/0 60/2	0002		MLG	GRAVELLY SILT - 10YR 6/4, light yellowish brown, 20% coarse to fine, angular gravel, 10% coarse to fine sand, angular, 10% clay, 60% silt.
					TOTAL DEPTH = 5.2'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0072B
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/3/91	**North (ft)**	596976.57
Date Completed	12/3/91	**East (ft)**	1497144.00
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	885.1
Checked By	RICHARD LEY	**Total Depth (ft)**	6.5

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	9 10 10 11	0001		ML	SILT - Upper Lithology 6 inches soil, 10YR 4/3 brown, organic, wet, 25% clay, 75% silt.
				BL	No sample interval.
	8 7 10 10	0002 1002			SHALE - Lower Lithology 1 feet 2 inches, bedrock, shale & limestone, blue gray color.
5	21 29 49			SH/ LS	Wet section in upper spoon about 1 feet 2 inches, weathered rock, some oxidization, bluish gray color.
	60/0				TOTAL DEPTH = 6.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0072C
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/3/91	**North (ft)**	597011.45
Date Completed	12/3/91	**East (ft)**	1497145.93
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	883.7
Checked By	RICHARD LEY	**Total Depth (ft)**	6.5

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	13 12 8 10	0001		MLC	CLAYEY SILT - Upper Lithology 4 inches soil, 10YR 6/3 brown, organic, wet, 25% clay, 75% silt.
				BL	No sample interval.
	12 13 30 60/2	0002		MLC	CLAYEY SILT - 10YR 6/3 brown, organic, wet, 25% clay, 75% silt.
5	25 31 60/2			MLC	CLAYEY SILT - 10YR 6/3 brown, organic, wet, 25% clay, 75% silt. Auger refused at 6.5'.
					TOTAL DEPTH = 6.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0072D
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/3/91	**North (ft)**	597021.02
Date Completed	12/3/91	**East (ft)**	1497154.66
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	883.6
Checked By	RICHARD LEY	**Total Depth (ft)**	3.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	31 25 27 42	0001		MLC	CLAYEY SILT - Upper Lithology 4 inches soil, 10YR 6/3 brown, organic, wet, 25% clay, 75% silt.
				SH/ LS	SHALE AND LIMESTONE - blue gray in color. Spoon refusal at 3.0', no sample collected.
		0002			TOTAL DEPTH = 3.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0073A
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/4/91	**North (ft)**	597048.58
Date Completed	12/4/91	**East (ft)**	1497206.34
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	882.1
Checked By	RICHARD LEY	**Total Depth (ft)**	3.5

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	14 60/2	0001a		LS	0-4" CLAYEY SILT - 90% silt, 10% clay, moist, soft, 10YR 3/3, Dark brown. 4"-1.0' LIMESTONE - lightly weathered (mottled), 2.5YR ?/6 olive yellow and 2.5YR N/7, light gray. No sample collected. Terminated boring at 3'6".
	41 60/0				TOTAL DEPTH = 3.5'
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0073B
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/4/91	**North (ft)**	597047.42
Date Completed	12/4/91	**East (ft)**	1497182.07
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	882.1
Checked By	RICHARD LEY	**Total Depth (ft)**	3.5

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	21 35 60/2	0001b		MLC	GRAVELLY SANDY CLAYEY SILT - 60% silt, 20% clay, 10% subrounded gravel, fine to medium, 10% fine to medium subangular sand, very stiff, poorly sorted, mottled, 2.5YR N/6 olive yellow and 2.5YR N/7 light gray.
	38 60/0				LIMESTONE - No sample. Terminated boring at 3'6".
					TOTAL DEPTH = 3.5'
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0073C
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/4/91	**North (ft)**	597071.53
Date Completed	12/4/91	**East (ft)**	1497187.53
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	881.1
Checked By	RICHARD LEY	**Total Depth (ft)**	3.5

Comments: Old Firing Range Drum Storage Site.

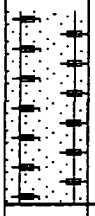
Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	25 32	0001c		SMG	SILTY GRAVELLY SAND - 50% sand, 30% gravel, 20% silt. Sand medium to coarse grained, subangular. Gravel fine to medium, subangular, loose, 2.5YR 7/7 light yellow, moist.
	28				LIMESTONE - No sample.
	60/3				TOTAL DEPTH = 3.5'
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0073D
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/4/91	**North (ft)**	597076.22
Date Completed	12/4/91	**East (ft)**	1497205.18
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	881.7
Checked By	RICHARD LEY	**Total Depth (ft)**	3.5

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	32 28 13 12	0001d		SMG	SILTY GRAVELLY SAND - 50% sand, 30% gravel, 20% silt. Sand medium to coarse, subangular. Gravel fine to medium, subangular, loose, 2.5YR 7/7 light yellow, moist.
	25				LIMESTONE - No sample. Terminated boring at 3'6".
	60/0				TOTAL DEPTH = 3.5'
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0074
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/4/91	**North (ft)**	597044.63
Date Completed	12/5/91	**East (ft)**	1497156.83
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	882.3
Checked By	RICHARD LEY	**Total Depth (ft)**	5.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	17 31 36 39	0001a 0001c 0001d		CL	SILTY CLAY - Trace of gravel, gravels, (angular), moist, firm, well sorted. Mottled 10YR 6/2 light brownish gray, 10YR 6/1 gray. Upper 4 inches soil, 10YR 4/3 dark brown, organic, silt, clayey silt, lower 1 feet 8 inches shale and limestone, blue gray color.
				BL	No sample interval.
	60/2	0001b		LS	LIMESTONE - Limestone core.
5					TOTAL DEPTH = 5.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0075A
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/6/91	**North (ft)**	597100.62
Date Completed	12/6/91	**East (ft)**	1497200.36
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	880.3
Checked By	RICHARD LEY	**Total Depth (ft)**	3.3

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	35 23 18 20	0001a		MLGS	GRAVELLY SANDY SILT - 50% silt, 30% medium to coarse angular sand, 20% medium to coarse subangular gravel, stiff, moist, poorly sorted, 2.5YR 7/4 pale yellowish, 5YR 3/1 dark gray staining.
				BL	
	60/3			GM	SILTY SANDY GRAVEL - 90% gravel, 5% silt, 5% angular medium to coarse sand, loose, moist, 2.5YR 7/4 pale yellow.
5					TOTAL DEPTH = 3.3'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0075B
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/6/91	**North (ft)**	597100.09
Date Completed	12/6/91	**East (ft)**	1497186.07
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	879.8
Checked By	RICHARD LEY	**Total Depth (ft)**	3.5

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	27 8 10 16	0001b		ML	GRAVELLY SANDY SILT - 50% silt, 30% medium to coarse angular sand, 20% medium to coarse subangular gravel, stiff, moist poorly sorted, 2.5YR 7/4 pale yellowish. 5YR 3/1 dark gray staining.
				BL	
	40 60/0			LS	LIMESTONE - No sample.
					TOTAL DEPTH = 3.5'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0075C
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/6/91	**North (ft)**	597127.00
Date Completed	12/6/91	**East (ft)**	1497182.49
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	878.2
Checked By	RICHARD LEY	**Total Depth (ft)**	3.8

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	10 18 10 16	0001c		MLS	SANDY SILT - 80% silt, 20% fine sand, moist, stiff, 10YR 4/4 dark yellowish brown.
				MLGS	SANDY GRAVELLY SILT - 60% silt, 40% subangular gravel to fine sand, moist, stiff, 10YR 4/4 dark yellowish brown.
				BL	
	25 60/3			LS	LIMESTONE - No sample collected.
					TOTAL DEPTH = 3.8'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0075D
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/6/91	**North (ft)**	597125.50
Date Completed	12/6/91	**East (ft)**	1497195.28
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	879.1
Checked By	RICHARD LEY	**Total Depth (ft)**	3.8

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	6 10 18 13	0001d		ML	SILT - 80% silt, 10% fine sand, 10% medium to coarse angular gravel, stiff, moist, 10YR, 4/4 dark yellowish brown. Second Spoon - Limestone plug. No sample collected.
				BL	
	25 60/3			MLGS	SANDY GRAVELLY SILT - 80% silt, 10% fine sand, 10% medium to coarse angular gravel, stiff, moist, 10YR, 4/4 dark yellowish brown. Second Spoon - Limestone plug. No sample collected.
5					TOTAL DEPTH = 3.8'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0076
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/6/91	**North (ft)**	597094.98
Date Completed	12/6/91	**East (ft)**	1497147.36
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	878.1
Checked By	RICHARD LEY	**Total Depth (ft)**	5.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	17 21 33 21	0001		MLGS	SANDY GRAVELLY SILT - 85% silt, 10% medium to coarse, subangular to subrounded gravel, 5% fine subangular sand, moist, stiff. 5YR 6/2 light olive gray.
				BL	
	25 60/2	0002		MLGS	SANDY GRAVELLY SILT - 85% silt, 10% medium to coarse, subangular to subrounded gravel, 5% fine subangular sand, moist, stiff. 5YR 6/2 light olive gray, with limestone plug in shoe of spoon.
5					TOTAL DEPTH = 5.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0077A
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/7/91	**North (ft)**	597139.15
Date Completed	12/7/91	**East (ft)**	1497142.50
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	877.6
Checked By	RICHARD LEY	**Total Depth (ft)**	5.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	60/2	0001a		LS	LIMESTONE BEDROCK - Gray color, crystalline limestone, fossils upper 1'4".
				BL	
	9 10 10 10	0002a		LS	LIMESTONE - Gravel 5%, 25% clay, 70% silt; clayey silt, mottled, moist, soft, 5Y 5/4, olive.
5					TOTAL DEPTH = 5.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0077B
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/7/91	**North (ft)**	597137.33
Date Completed	12/7/91	**East (ft)**	1497117.47
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	877.2
Checked By	RICHARD LEY	**Total Depth (ft)**	4.2

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	14 20 22 23	0001b		MLC	CLAYEY SILT - 5Y 5/4 olive, 10% limestone gravel, coarse to fine, angular, 25% clay, 65% silt, firm, mottled, clayey silt.
				BL	
	13 10 60/2	0002b		ML	CLAYEY SILT - 5Y 5/4 olive, 10% limestone gravel, coarse to fine, angular, 25% clay, 65% silt, firm, mottled, clayey silt.
5					TOTAL DEPTH = 4.2'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0077C
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/7/91	**North (ft)**	597165.47
Date Completed	12/7/91	**East (ft)**	1497114.87
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	876.1
Checked By	RICHARD LEY	**Total Depth (ft)**	9.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	18 20 20 23	0001c		ML	SILT - Fill, 10YR 6/4, light, mottled, yellowish brown, 15% coarse to fine, subrounded gravel, 10% sand, coarse to fine, 15% clay, 60% silt, gravelly silt.
				BL	
	28 21 18 10	0002c		ML	SILT - Fill, 10YR 6/4, light, mottled, yellowish brown, 15% coarse to fine, subrounded gravel, 10% sand, coarse to fine, 15% clay, 60% silt, gravelly silt, plus asphalt is present.
5				BL	
	13 21 60/0	0003c		MLC	CLAYEY SILT - 10YR 4/3, brown, hard, 5% coarse to fine gravel, subangular, 25% clay, 70% silt, clayey silt, uniform color.
10					TOTAL DEPTH = 9.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0077D
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/7/91	**North (ft)**	597173.63
Date Completed	12/7/91	**East (ft)**	1497124.71
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	876.4
Checked By	RICHARD LEY	**Total Depth (ft)**	3.7

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	16 18 60/2	0001d		MLC	CLAYEY SILT - 5Y 5/4 olive, 10% limestone gravel, coarse to fine, angular, 25% clay, 65% silt, firm mottled, clayey silt.
				BL	
	27 60/2	0002d		MLC	CLAYEY SILT - Fill, 10YR 6/4, light, mottled, yellowish brown, 15% coarse to fine, subrounded gravel, 10% sand, coarse to fine, 15% clay, 60% silt, gravelly silt, plus asphalt is present, bedrock.
5					TOTAL DEPTH = 3.7'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0078
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/7/91	**North (ft)**	597150.86
Date Completed	12/7/91	**East (ft)**	1497208.06
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	878.5
Checked By	RICHARD LEY	**Total Depth (ft)**	4.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	21 31 18 12	0001		MLGS	GRAVELLY SILT - 65% silt, 20% coarse to fine, subrounded gravel, 10% clay, 5% coarse to fine sand, hard, uniform color, 5YR 5/4, olive. Top two inches organic rich soil. 75% silt, 20% coarse to fine sand, 5% clay, 10YR 5/3, brown.
				BL	
	17 41 60/0	0002		MLC/ LIMESTL	GRAVELLY CLAYEY SILT - 40% silt, 35% clay, 25% shale and limestone gravel, mottled, 5YR 5/4, olive.
5					TOTAL DEPTH = 4.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0079A
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/8/91	**North (ft)**	597039.58
Date Completed	12/8/91	**East (ft)**	1497104.34
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	880.9
Checked By	RICHARD LEY	**Total Depth (ft)**	3.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	14 21 19 17	0001a		MLGS	SANDY GRAVELLY SILT - 50% silt, 30% fine sand, 20% medium to coarse gravel, firm, moist. 5YR 4/2 olive gray.
				BL	
5					Auger refusal at 3 feet TOTAL DEPTH = 3.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0079B
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/8/91	**North (ft)**	597035.53
Date Completed	12/8/91	**East (ft)**	1497084.26
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	881.3
Checked By	RICHARD LEY	**Total Depth (ft)**	8.4

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	14 60/4	0001B		SH	SHALE - Highly weathered, moist, stiff, 5YR 6/2 light olive gray.
				BL	
	8 11 10 14	0002B		MLC	CLAYEY SILT - Trace of gravel, 60% silt, 30% clay, 10% fine sand. Less than 1% medium to coarse subangular gravel, firm, trace of leaf/wood fragments, moist, 5YR 4/2 olive gray.
5				BL	
	60/4			LS	LIMESTONE - Plug in shoe of spoon.
					TOTAL DEPTH = 8.4'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0079C
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/8/91	**North (ft)**	597059.81
Date Completed	12/8/91	**East (ft)**	1497079.69
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	878.5
Checked By	RICHARD LEY	**Total Depth (ft)**	5.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	13 22 27 31	0001c		MLS	SANDY SILT - 60% silt, 40% fine to very coarse, rounded sand, stiff, moist, 2.5YR 6/3 light yellowish brown.
				BL	
	7 5 18 11	0002c		LS	LIMESTONE - Plug in shoe of spoon. Limestone gravel constitutes 100% of bottom 1" of spoon. Advanced augers to 6.5 feet only, terminated boring.
5					TOTAL DEPTH = 5.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0079D
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/8/91	**North (ft)**	597063.45
Date Completed	12/8/91	**East (ft)**	1497104.54
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	879.2
Checked By	RICHARD LEY	**Total Depth (ft)**	5.0

Comments: Old Firing Range Drum Storage Site.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	18 45 27 25	0001d		MLS	SANDY SILT - 60% silt, 35% fine grained sand, 5% medium to coarse gravel (subangular), stiff, moist, 2.5YR 6/3 light yellowish brown.
				BL	
	10 60/2	0002d		MLGS	SANDY GRAVELLY SILT - 40% silt, 20% sand, 40% gravel sand fine grained, gravel medium to coarse, rounded to angular, firm, moist, 5YR 4/6 olive gray.
5					TOTAL DEPTH = 5.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0080
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/9/91	**North (ft)**	597412.73
Date Completed	12/9/91	**East (ft)**	1495200.94
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	726.7
Checked By	RICHARD LEY	**Total Depth (ft)**	2.3

Comments: Underground Sewer Lines - Grid G5.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				MLC	CLAYEY SILT - 10YR 4/2 dark grayish brown; upper 9"; 5% coarse to fine sand - subrounded; 35% clay; 60% silt; mottled; firm; lower 4" - 5YR 6/1 gray; 10% coarse to fine angular gravel; 5% coarse to fine sand; 30% clay; 55% silt.
		0001		MLC	SILT - 5YR 6/1 gray; 10% coarse to fine angular gravel; 5% coarse to fine sand; 30% clay; 55% silt.
					TOTAL DEPTH = 2.3'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0081A
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/9/91	**North (ft)**	597493.39
Date Completed	12/9/91	**East (ft)**	1495298.81
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	729.2
Checked By	RICHARD LEY	**Total Depth (ft)**	7.5

Comments: Underground Sewer Lines - Grid 5.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				MLC	CLAYEY SILT - 10YR 3/3 very dark brown, uniform color; 5% coarse to fine sand; 35% clay; 60% silt; firm; clayey silt.
5				BL	
	13 9 5 7	0001		MLC	CLAYEY SILT - Trace sand, 55% silt, 43% clay, 2% coarse, subangular sand, firm, moist, 5YR 6/3 pale olive.
10					TOTAL DEPTH = 7.5'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0081B
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/9/91	**North (ft)**	597493.82
Date Completed	12/9/91	**East (ft)**	1495300.34
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	729.2
Checked By	RICHARD LEY	**Total Depth (ft)**	7.5

Comments: Underground Sewer Lines - Grid 5.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				MLC	CLAYEY SILT - 10YR 3/3 very dark brown; uniform color; 5% coarse to fine sand; 35% clay; 60% silt; firm; clayey silt.
5				BL	
	7 8 6 5	0001		MLC	CLAYEY SILT - Trace sand, 55% silt, 43% clay, 2% coarse, subangular sand, firm, moist, 5YR 6/3 pale olive.
10					TOTAL DEPTH = 7.5'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0082
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/16/91	**North (ft)**	596795.23
Date Completed	12/16/91	**East (ft)**	1496431.26
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	885.9
Checked By	RICHARD LEY	**Total Depth (ft)**	0.5

Comments: Area H - Pyrotechnics Waste Disposal Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	2 40/0	0001		MLC	CLAYEY SILT - Plug at shoe end; 10YR 6/3 pale brown, 5% C-F gravel angular; 10% C-F sand; 25% clay; 60% silt uniform color; organic; clayey silt.
					TOTAL DEPTH = 0.5'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0083
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/16/91	**North (ft)**	596784.99
Date Completed	12/16/91	**East (ft)**	1496402.43
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	885.3
Checked By	RICHARD LEY	**Total Depth (ft)**	2.6

Comments: Area H - Pyrotechnics Waste Disposal Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	7 11 37 40	0001a 0001b 0001c		MLC	CLAYEY SILT - 10YR dark brown; firm; 10% C-F gravel; 5% C-F sand; 25% clay; 60% silt; clayey silt; uniform color.
	15 50/1	0002		SH/ LS	SHALE AND LIMESTONE - Saprolite; 25% C-F gravel (limestone); 5% C-F sand; 10% clay; 60% silt, gravelly silt; 10YR 6/6.
					TOTAL DEPTH = 2.6'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0084
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/16/91	**North (ft)**	596728.38
Date Completed	12/16/91	**East (ft)**	1496306.93
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.6
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Area H - Thermal Treatment Unit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	5 7 7 14	0001a 0001b		MLS	SANDY SILT - little clay, 65% silt, 20% c-f sand, 10% c-f gravel, 5% clay, asphalt, loose, uniform color, 10YR 5/3, brown.
					TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0085
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/16/91	**North (ft)**	596724.20
Date Completed	12/16/91	**East (ft)**	1496294.40
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.7
Checked By	RICHARD LEY	**Total Depth (ft)**	7.5

Comments: Area H - Thermal Treatment Unit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	7 8 7 9	0001		ML	SILT - 60% silt, 15% coarse to fine sand, 15% clay, 10% m-f rounded gravel, loose, uniform color, 10YR 5/4, yellowish brown, asphalt-like material encompasses approximately 1/3 of spoon (upper).
	5 9 13 50/0	0002		ML	SILT - 60% silt, 15% coarse to fine sand, 15% clay, 10% m-f rounded gravel, loose, uniform color, 10YR 5/4, yellowish brown, asphalt-like material encompasses approximately 1/5 of spoon (upper).
	10 50/0			LS	SHALE AND LIMESTONE - saprlite, loose.
5				BL	No sample interval. Spoon refusal at 4.5'. Auger to 7.0'.
	20 50/0	0003		LS	SHALE AND LIMESTONE - saprolite.
					TOTAL DEPTH = 7.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0086
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/17/91	**North (ft)**	596700.54
Date Completed	12/17/91	**East (ft)**	1496332.47
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.5
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0
Comments:	Area H - Trash Burner Area.		

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	6 8 14 8	0001		ML	CLAYEY SILT - HORIZON 1 - 70% silt, 30% clay, moist moderate plasticity, well sorted, firm, 10YR 5/4, yellowish brown. SANDY SILT - HORIZON 2 - 50% medium to very coarse sand, asphalt, 50% silt, loose, moist, 2.5YR N/3 very dark gray. TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0087
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/17/91	**North (ft)**	596702.60
Date Completed	12/17/91	**East (ft)**	1496341.77
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.8
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Area H - Trash Burner Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	4 6 8 8	0001		ML	CLAYEY SILT - HORIZON 1 - 70% silt, 30% clay, moderate plasticity, well sorted, firm, 10YR 5/4, yellowish brown. SANDY SILT - HORIZON 2 - 50% medium to very coarse sand, 50% silt, asphalt, loose, moist, 2.5Y N/3, very dark gray.
					TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0088
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/17/91	**North (ft)**	596715.55
Date Completed	12/17/91	**East (ft)**	1496340.09
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.9
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Area H - Trash Burner Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	7 7 8 15	0001		ML	CLAYEY SILT - HORIZON 1 - 70% silt, 30% clay, moist, moderate plasticity, well sorted, firm, 10YR 5/4, yellowish brown. SANDY SILT - HORIZON 2 - medium to coarse angular sand, silt, asphalt, loose, moist, 2.5Y N/3, very dark gray.
					TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0089
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/17/91	**North (ft)**	596712.59
Date Completed	12/17/91	**East (ft)**	1496330.26
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.3
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Area H - Trash Burner Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	8 6 5 9	0001		ML	CLAYEY SILT - HORIZON 1 - 70% silt, 30% clay, moderate plasticity, well sorted, firm, 10YR 5/4, yellowish brown.
					SANDY SILT - HORIZON 2 - 50% medium to very coarse grained, 50% silt, asphalt, loose, moist, 2.5Y N/3, very dark gray.
					TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0090
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/17/91	**North (ft)**	596782.26
Date Completed	12/17/91	**East (ft)**	1496299.66
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.2
Checked By	RICHARD LEY	**Total Depth (ft)**	4.5

Comments: Area H - Pyrotechnic Waste Disposal Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	6 8 13 15	0001 1001		MLSC	HORIZON 1: CLAYEY SILT - 70% silt, 30 % clay, moist, moderate plasticity well sorted. 10YR 5/4 yellowish brown green. HORIZON 2: SANDY SILT - 50% medium coarse angular sand and asphalt, 50% silt, loose, moist, 2-5YR N/3, very dark.
	18 32 37 50/0			MLG	GRAVELLY SILT - 60% silt, 40% medium to coarse angular to subangular graded limestone gravels, stiff, moist 2.5YR 6/4 light yellowish.
				BL	No sample interval.
5					TOTAL DEPTH = 4.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0091
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/17/91	**North (ft)**	596783.16
Date Completed	12/17/91	**East (ft)**	1496283.91
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.0
Checked By	RICHARD LEY	**Total Depth (ft)**	4.0

Comments: Area H - Pyrotechnic Waste Disposal Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	5 7 7 15	0001		ML	HORIZON 1: GRAVELLY SANDY SILT - 40% silt, 30% fine to medium sand, 30% fine angular gravel, loose, moist, 10YR 4/1, dark gray. HORIZON 2: SILTY SAND - 60% medium to coarse sand, 40% silt, 2.5YR N/3, very dark gray, moist, loose.
	17 21 50/1	0002		GP BL	HORIZON 3: GRAVELLY SILT - 60% silt, 40% coarse, angular, limestone gravel, moist, stiff, 10YR 6/4, light yellowish brown. GRAVELLY SILT - 90% silt, 10% medium to coarse limestone, gravel stiff, 10YR 6/4, light yellowish brown.
					No sample interval. Auger to refusal (4.0').
5					TOTAL DEPTH = 4.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0092
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/17/91	**North (ft)**	596770.36
Date Completed	12/17/91	**East (ft)**	1496261.43
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.3
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Area H - Pyrotechnic Waste Shed.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	5 9 6 13	0001		MLC	HORIZON 1: SANDY SILT - medium to coarse sand and asphalt, loose, moist, 10YR 4/1, dark gray. HORIZON 2: GRAVELLY, CLAYEY SILT - 50% silt, 40% clay, 10% medium angular gravel, stiff, moist, 10YR 6/4, light yellowish brown.
					TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0093
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/17/91	**North (ft)**	596759.73
Date Completed	12/17/91	**East (ft)**	1496251.86
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.4
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Area H - Pyrotechnic Waste Shed.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	4 7 12 30	0001		MLC	CLAYEY SILT - 70% silt, 20% clay, 10% fine subrounded gravel, silt, moist, 10yr 4/6, dark yellowish brown.
					TOTAL DEPTH = 2.0'
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0094
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/17/91	**North (ft)**	596734.28
Date Completed	12/17/91	**East (ft)**	1496208.79
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.3
Checked By	RICHARD LEY	**Total Depth (ft)**	4.5

Comments: Area H - Pyrotechnic Waste Disposal Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	4 8 8 10	0001 1001		MLG	GRAVELLY SILT - 70% silt, 30% fine to medium grained angular gravel, stiff, slightly moist, slight plasticity, 10YR 6/4, light yellowish brown.
	11 17 23 17	0002		MLG	GRAVELLY SILT - 70% silt, 30% fine to medium grained angular gravel, stiff, slightly moist, slight plasticity, 10YR 6/4, light yellowish brown.
	13 50/0			MLG	GRAVELLY SILT - 70% silt, 30% fine to medium grained angular gravel, stiff, slightly moist, slight plasticity, 10YR 6/4, light yellowish brown.
5					TOTAL DEPTH = 4.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0095
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/18/91	**North (ft)**	596704.24
Date Completed	12/18/91	**East (ft)**	1496214.81
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.1
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Area H - Pyrotechnic Waste Disposal Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	28 8 9 17	0001		CLML SPGP	GRAVELLY CLAYEY SILT - 55% silt, 30% clay, 10% coarse to fine, angular gravel, 5% coarse to fine sand, uniform color, stiff, 10YR 5/4, yellowish brown.
					TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0096
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/18/91	**North (ft)**	596799.38
Date Completed	12/18/91	**East (ft)**	1496280.62
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.1
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Area H - Pyrotechnic Waste Disposal Area.

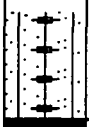
Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	13 4 9 21	0001		CLML SPGP	CLAYEY SILT - HORIZON 1 - (Top 4" of spoon) 60% silt, 40% clay, uniform color, moist, organic material at top of spoon. CLAYEY GRAVELLY SILT - HORIZON 2 - (lower 15" of spoon) 55% silt, 30% c-f gravel 10% clay, 5% sand, gravel composed of weathered limestone.
					TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0097
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/18/91	**North (ft)**	596859.94
Date Completed	12/18/91	**East (ft)**	1496365.24
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	882.5
Checked By	RICHARD LEY	**Total Depth (ft)**	3.5

Comments: Area H - Pyrotechnic Waste Disposal Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	17 23 32 60/2	0001 0001b 1001		ML GS	SANDY GRAVELLY SILT - 50% silt, 40% coarse to fine angular gravel (limestone), 10% coarse to fine sand, 10YR 6/3, pale brown.
	27 47 50/0			BL	No recovery, no sample taken. 3.5' auger refused.
5					TOTAL DEPTH = 3.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0098
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/18/91	**North (ft)**	596733.78
Date Completed	12/18/91	**East (ft)**	1496286.34
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	886.7
Checked By	RICHARD LEY	**Total Depth (ft)**	5.5

Comments: Area H - Thermal Treatment Unit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	4 6 6 8	0001		GM	SILTY GRAVEL - 5" top fill, 45% c-f rounded gravel, 40% silt, 15% c-f sand, silty gravel, some asphalt, 10YR 4/1, dark gray, loose lower 11", 10YR 3/4, dark yellowish brown, 55% silt, 45% clay, firm, uniform color.
	5 19 35 27	0002		GS MC	GRAVEL - 75% gravel, 10% clay, 10 % silt, 5% sand, wet.
5	7 8 50/3			SH	SHALE AND LIMESTONE - saprolite 40% angular gravel, 10% c-f sand, 20% clay, 30% silt, dry.
					TOTAL DEPTH = 5.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0099A
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/19/91	**North (ft)**	598113.42
Date Completed	12/19/91	**East (ft)**	1495542.40
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	805.8
Checked By	RICHARD LEY	**Total Depth (ft)**	8.0

Comments: Underground Sewer Lines - Grid G24.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				BL	
5					Auger refusal at 8.0'.
					TOTAL DEPTH = 8.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0099B
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	12/19/91	**North (ft)**	598115.02
Date Completed	12/19/91	**East (ft)**	1495534.79
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	806.6
Checked By	RICHARD LEY	**Total Depth (ft)**	6.5

Comments:

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001b		BL	
5					Auger refusal at 6.5'.
					TOTAL DEPTH = 6.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0101
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/15/92	**North (ft)**	597570.73
Date Completed	1/17/92	**East (ft)**	1495892.45
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	736.3
Checked By	RICHARD LEY	**Total Depth (ft)**	15.0

Comments: Area I, Building 1 - Leach Pit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	4 4 10	0001 1001		SM	SILTY SAND - Dark grayish brown (2.5YR 4/2). Fine to coarse sand, little silt, little coarse gravel, wet.
	1 4			SM	SILTY SAND - Dark grayish brown (2.5YR 4/2). Fine to coarse sand, little silt, little coarse gravel, wet.
	1 1 1 4	0002		CLM	SILTY CLAY - Light olive gray (5YR 6/2), silty clay, stiff, high plasticity, moist.
5	11 6 2 2			CLM	SILTY CLAY - Light olive gray (5YR 6/2), silty clay, stiff, high plasticity, moist.
				BL	No sample interval.
	17 11 6 9	0003		MLC	CLAYEY SILT - Dark olive gray (5YR 3/2) clayey silt trace fine sand, moist, wet.
10	11 4 6			MLC	CLAYEY SILT - Very dark gray (2.5YR N/3) clayey silt, trace fine sand.
	11 14 24			MLC	CLAYEY SILT - Light olive brown (2.5YR 5/6), clayey silt, little fine to coarse sand, trace gravel,– apparent water table at about 8 feet BGS.
	13 17 25 31	0004		MLC	CLAYEY SILT - Light olive brown (2.5YR 5/6) clayey silt, mild high plasticity, little sand, trace gravel, stiff.
15					TOTAL DEPTH = 15.0'.
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	ROY F. WESTON, INC.	**Borehole/Well Id**	MND33-0102
Drilling Method	HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	1/16/92	**North (ft)**	594621.18
Date Completed	1/16/92	**East (ft)**	1495529.64
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	731.1
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Farm Trash Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLGS	GRAVELLY SANDY SILT - 20% fine to coarse angular gravel, 20% fine to medium sand, 60% silt, highly compacted, moist, stiff, 7.5YR 5/3.
		1001		BL	No sample interval.
		0002		MLGS	GRAVELLY SANDY SILT - 20% fine to coarse angular gravel, 20% fine to medium sand, 60% silt, highly compacted, moist, stiff, 7.5YR 5/3.
					TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	ROY F. WESTON, INC.	**Borehole/Well Id**	MND33-0103
Drilling Method	HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	1/16/91	**North (ft)**	594632.72
Date Completed	1/16/91	**East (ft)**	1495540.08
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	731.8
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Farm Trash Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		ML	GRAVELLY SANDY SILT - 10% gravel, 20% fine to medium sand, 70% silt, gravel, fine to medium subangular sand, subrounded, fine to medium, moist, 75YR 5/4, brown.
				BL	No sample interval.
		1002		ML	GRAVELLY SANDY SILT - 10% gravel, 20% fine to medium sand, 70% silt, gravel, fine to medium subangular sand, subrounded, fine to medium, moist, 75YR 5/4, brown.
					TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	ROY F. WESTON, INC.	**Borehole/Well Id**	MND33-0104
Drilling Method	HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	1/16/92	**North (ft)**	594642.38
Date Completed	1/16/92	**East (ft)**	1495521.62
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	731.0
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Farm Trash Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		MLC	CLAYEY SILT - 5% fine to medium subrounded to rounded gravel, 10% fine to medium subrounded sand, 25% clay, 60% silt, moist, firm, 7.5YR 5/3 brown.
				BL	No sample interval.
		0002 1002		MLC	CLAYEY SILT - 5% fine to medium subrounded to rounded gravel, 10% fine to medium subrounded sand, 25% clay, 60% silt, moist, firm, 7.5YR 5/3 brown.
					TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0105A
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/17/92	**North (ft)**	597568.71
Date Completed	1/20/92	**East (ft)**	1495885.59
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	736.2
Checked By	RICHARD LEY	**Total Depth (ft)**	5.0

Comments: Area I, Building 1 - Leach Pit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	13 10 9 13	0001		GM	SILTY GRAVEL - With clay at bottom of spoon. Gravel from Leach pit. Bluish green, clay.
	23 19 9 9	0002		CL	SANDY SILTY GRAVELLY CLAY - fine to medium sand and silt, angular to subangular, medium to coarse gravel, stiff, moist. Light olive brown, (2.5YR 5/3). Clay is bluish gray.
5					TOTAL DEPTH = 5.0'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0105B
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/17/92	**North (ft)**	597570.41
Date Completed	1/20/92	**East (ft)**	1495887.60
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	736.4
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Area I, Building 1 - Leach Pit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	12 13 13 15	0001		CLS	SANDY SILTY GRAVELLY CLAY - fine to coarse sand, rounded to subrounded gravel, stiff, moist. Yellowish brown (10YR 5/4).
					TOTAL DEPTH = 2.0'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0105C
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/17/92	**North (ft)**	597573.49
Date Completed	1/20/92	**East (ft)**	1495884.34
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	735.8
Checked By	RICHARD LEY	**Total Depth (ft)**	20.0

Comments: Area I, Building 1 - Leach Pit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	17 11 7 13	0001		SM	GRAVELLY SILTY SAND - subangular to subrounded, fine to coarse, angular to subangular gravel, very moist, loose.
	19 12 7 10			S	CLAYEY SILTY GRAVELLY SAND - 60% sand, 15% gravel, 15% silt, 10% clay, moist, loose.
	23 19 5 5	0002		CL	CLAY WITH SOME GRAVEL - Trace sand, 90% clay, 10% gravel, moist, firm. Olive green, 2.5YR 5/3.
5	60/1			LS	LIMESTONE COBBLE
				CL	CLAY - Trace of sand and some gravel, soft, moist. Bluish green in color.
	2 4 8 10	0003 1003		CL	SANDY CLAY - With some gravel, sand, soft, moist. Bluish green. Bottom 6 inches dark gray. Sandy gray with trace of rounded gravel.
10	5 7 4 10			CLS	SANDY GRAVELLY CLAY - 20% fine to coarse sand, 15% gravel, subrounded to angular gravel. 40% clay, 25% silt. Firm, moist. Bluish green and dark gray.
	17 28 60/2	0004		SMG	SILTY SAND - angular to subangular gravel. Very fine to fine sands. Firm, very moist. Light yellowish brown (2.5YR 6/3)
15	17 28 41 47			SM	SILTY SAND - With some clay and gravel, 5% clay, 15% silt, 5% subangular, medium to coarse gravel. Stiff, moist, light olive brown. 2.5YR 5/4. Very fine to fine sand.
	12 21 27	0005		SM	SILTY SAND - With 15% rounded gravel, 80% very fine to fine sand with trace of coarse sand, firm, moist, very dark gray, (10YR 3/1). TOTAL DEPTH = 20.0'.
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0106
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/18/92	**North (ft)**	598633.97
Date Completed	1/18/92	**East (ft)**	1497182.81
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	807.2
Checked By	RICHARD LEY	**Total Depth (ft)**	19.5

Comments: Underground Sewer Lines - Grid 15.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				BL	No sample interval. Auger to 13.5 feet.
5					
10					
	8 20 5 7	0001 1001		ML	SANDY SILT - Trace gravel, 3% fine to medium rounded gravel, dark fibrous substance at top of spoon, stiff, moist, 2.5YR 5/2 Light olive brown.
15	17 14 18 20			ML	GRAVELLY SANDY CLAYEY SILT - Trace gravel, 10% fine to medium sand, 5% angular to subangular gravel, stiff, moist, 2.5YR 5/2 Light olive brown.
		0002		CLM	GRAVELLY SANDY SILTY CLAY - 50% clay, 35% silt, 10% fine to medium sand, 5% medium rounded gravel, stiff, moist, 2.5Y 5/2 Light olive brown. TOTAL DEPTH = 19.5'
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0107
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/18/92	**North (ft)**	598604.58
Date Completed	1/19/92	**East (ft)**	1497157.89
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	806.2
Checked By	RICHARD LEY	**Total Depth (ft)**	14.5

Comments: Underground Sewer Lines - Grid G15.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				BL	
5					
10					
	17 20 23 15	0001		ML-GS	GRAVELLY SANDY SILT - With 5% clay, 15% fine to coarse, angular to subangular gravel, 10% fine to coarse sand, stiff, slightly moist. (2.5YR 5/4), Light olive brown.
15					TOTAL DEPTH = 14.5'.
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0108
Drilling Method	BACKHOE	**STATE PLANE COORDINATES**	
Date Started	1/19/92	**North (ft)**	598512.49
Date Completed	1/19/92	**East (ft)**	1497080.53
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	804.6
Checked By	RICHARD LEY	**Total Depth (ft)**	1.2

Comments: Underground Sewer Lines - Grid G15. (No sample taken from this boring, eventually replaced by boring MND33-0116.)

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				BL	Auger refusal at 2.0 feet. No samples taken.
					TOTAL DEPTH = 1.2'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0108A
Drilling Method	BACKHOE	**STATE PLANE COORDINATES**	
Date Started	1/19/92	**North (ft)**	598512.49
Date Completed	1/19/92	**East (ft)**	1497080.53
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	804.6
Checked By	RICHARD LEY	**Total Depth (ft)**	2.5

Comments: Underground Sewer Lines - Grid G15. (No sample taken from this boring, eventually replaced by boring MND33-0116.)

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				BL	Auger refusal at 2.5 feet. No samples taken.
					TOTAL DEPTH = 2.5'.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0109
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/20/92	**North (ft)**	597567.99
Date Completed	1/21/92	**East (ft)**	1495896.63
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	737.6
Checked By	RICHARD LEY	**Total Depth (ft)**	8.0

Comments: Area I, Building 1 - Leach Pit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	21 60/2			GP	2" SANDY GRAVEL - No sample retrieved, insufficient recovery, 3" concrete.
				BL	No sample interval.
	23 13 5 5	0002		SMG	SILTY GRAVELLY SAND - With little clay. Fine to coarse angular gravel, 25% fine to coarse sand, stiff clay at bottom of spoon, firm, moist, large gravel from Leach pit, olive gray (5YR 5/2)
5	23 17 13 60/0			CLS	SANDY GRAVELLY CLAY - 20% fine to medium sand, angular to subangular, coarse gravel with few cobbles (trace), olive gray, (5YR 5/2), firm, moist.
	60/0			BL	No sample interval.
10					TOTAL DEPTH = 8.0'. No recovery. Spoon refusal at 8.0 feet. Unable to offset due to clay pipes next to hole. Drilling discontinued by K.Bate.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0110
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/21/92	**North (ft)**	597232.45
Date Completed	1/22/92	**East (ft)**	1495309.81
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	717.0
Checked By	RICHARD LEY	**Total Depth (ft)**	20.0

Comments: Building 34 - Fire Fighting Training Pit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	31 12 9 9	0001		GP CL	TOP 6 INCHES GRAVELLY SAND - rounded, subrounded coarse gravel, fine to coarse sand, moist and loose, remainder of spoon silty clay with trace of sand, firm, moist, olive brown (2.5YR 4/4).
				BL	No sample interval.
	7 19 12 21	0002		CLG-SM	SANDY GRAVELLY SILTY CLAY - fine to coarse sand, silt, medium gravel, angular, subangular gravel, firm, moist, olive brown (2.5YR 4/4), limestone cobble at bottom of spoon, firm, moist (less moist than above) olive brown (2.5YR 4/4).
5				CLG-SM	SANDY GRAVELLY SILTY CLAY - fine to coarse sand, silt, medium gravel, angular, subangular gravel, firm, moist, olive brown (2.5YR 4/4), limestone cobble at bottom of spoon, firm, moist (less moist than above) olive brown (2.5YR 4/4).
				BL	No sample interval.
		0003		CLM	SANDY GRAVELLY SILTY CLAY - Fine to medium sand, medium gravel, silt, remainder clay, firm, moist, olive brown (2.5YR 4/4).
10				BL	No sample interval.
				MLS	SANDY SILT - 5% fine to medium, subangular, subrounded gravel, 45% silt, 50% fine to coarse sand, firm, moist, grayish brown (10YR 5/2).
				BL	No sample interval.
		0004		MLS	SANDY SILT - 5% fine to medium, subangular, subrounded gravel, 45% silt, 50% fine to coarse sand, firm, moist, grayish brown (10YR 5/2)
15				MLS	SANDY SILT - 5% fine to medium, subangular, subrounded gravel, 45% silt, 50% fine to coarse sand, firm, moist, grayish brown (10YR 5/2).
		0005		MLS	SANDY SILT - 5% fine to medium, subangular, subrounded gravel, 45% silt, 50% fine to coarse sand, firm, moist, grayish brown (10YR 5/2). TOTAL DEPTH = 20.0'.
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0111
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/22/92	**North (ft)**	597208.00
Date Completed	1/22/92	**East (ft)**	1495297.04
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	716.5
Checked By	RICHARD LEY	**Total Depth (ft)**	10.0

Comments: Building 34 - Fire Fighting Training Pit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		CC	GRAVELLY SAND - subangular, subrounded, medium gravel, fine to coarse sand, slightly moist, loose, light yellowish brown, (2.5YR 6/4).
				BL	No sample interval.
		0002		CLS	SANDY SILTY CLAY - With some gravel, 5% medium gravel. Fine to coarse sand (30%). 30% silt, 35% clay. Moist, firm, yellowish brown (10YR 5/8)
5	10 18 19 19			CLS	SANDY SILTY CLAY - With some gravel, 5% medium gravel, fine to coarse sand (30%), 30% silt, 35% clay, moist, firm, yellowish brown (10YR 5/8)
				BL	No sample interval.
	17 21 25 21	0003		ML-SC	SANDY CLAY SILT - With some gravel, 30% fine to coarse sand, 30% clay, 35% silt. Medium subangular, subrounded gravel, approximately 5%. Moist, firm. Yellowish brown (10YR 5/8)
10					TOTAL DEPTH = 10.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0112
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/22/92	**North (ft)**	597192.91
Date Completed	1/22/92	**East (ft)**	1495289.99
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	716.2
Checked By	RICHARD LEY	**Total Depth (ft)**	12.0

Comments: Building 34 - Fire Fighting Training Pit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001 1001		MLGS	SILTY GRAVELLY SAND - 15% silt, 20% fine to medium angular to subangular gravel, 65% fine to coarse angular to subangular sand, moist, firm, trace black staining in upper 2", trace concrete, 10YR 6/4, light yellowish brown.
		0002		MLGS	SILTY GRAVELLY SAND - 10% silt, 30% fine to coarse angular gravel, 60% fine to coarse, angular to subangular sand, moist, loose, 10YR 6/4, light yellowish brown.
5	17 15 8 13			CC	GRAVELLY SAND - trace silt, 10% silt, 40% fine to coarse, angular to subangular gravel, 50% fine to coarse, angular to subangular sand, wet, petroleum odor, sheen, loose, 10YR 6/4, light yellowish brown
	6 8 12 9	0003		CC	GRAVELLY SANDY CLAY - 5% fine angular gravel, 30% fine and very fine sand, 65% clay, moist, soft, free product starting at ~ 9' BG-S, 2.5Y N/4, dark gray.
10	17 22 23 24			CC	GRAVELLY SANDY CLAY - 5% fine angular gravel, 30% fine and very fine sand, 65% clay, moist, soft, free product throughout spoon, 2.5Y N/4, dark gray.
					TOTAL DEPTH = 12.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 2

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0113
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/27/92	**North (ft)**	597225.57
Date Completed	1/27/92	**East (ft)**	1495283.89
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	716.2
Checked By	RICHARD LEY	**Total Depth (ft)**	20.0

Comments: Building 34 - Fire Fighting Training Pit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0		0001		SP	SAND - Trace fine to medium gravel, subangular sand, moist, soft, 2.5Y 4/4, olive brown.
				BL	
		0002		CL	SANDY SILTY CLAY - Trace gravel, 20% medium sand, 35% silt, 45% clay, gravel medium subangular, firm, mottled, 10YR 6/4, light yellowish brown, 10YR 7/1, light gray.
5				CL	SANDY SILTY CLAY - Trace gravel, 20% medium sand, 35% silt, 45% clay, gravel medium subangular, firm, mottled, 10YR 6/4, light yellowish brown, 10YR 7/1, light gray.
				CL	SANDY SILTY CLAY - Trace gravel, 20% medium sand, 35% silt, 45% clay, gravel medium subangular, firm, mottled, 10YR 6/4, light yellowish brown, 10YR 7/1, light gray. Bottom 12 inches stained gray munsell, 10YR 4/2, dark grayish brown.
		0003		CL	1. SANDY SILTY CLAY - Trace gravel, 20% medium sand, 35% silt, 45% clay, trace medium, subangular sand, firm, moist, 10YR 5/3, brown. 2. SANDY SILTY CLAY - Trace gravel, 30% medium subangular sand, 30% silt, 40% clay, trace fine, subangular gravel, moist, firm, 5Y, dark gray.
10				CL	GRAVELLY SANDY SILTY CLAY - 40% clay, 35% silt, 20% fine to medium sand, 5% fine rounded gravel, moist, firm, 5Y 4/1, dark gray.
		0004		CL	GRAVELLY SANDY SILTY CLAY - 45% clay, 35% silt, 15% medium, sand, 5% subrounded gravel, firm, dry, 2.5Y 5/2, grayish brown.
15	7 8 8 10	0005		CL	GRAVELLY SANDY SILTY CLAY - 40% clay, 25% silt, 25% subrounded sand, 10% subrounded gravel, firm, dry, 5Y 4/1, dark gray.
	6 16 16 20	0006		CL	GRAVELLY SANDY SILTY CLAY - 40% clay, 25% silt, 25% subrounded sand, 10% subrounded gravel, firm clay, 5Y 4/1, dark gray.
20	5 7			CL	GRAVELLY SANDY SILTY CLAY - 40% clay, 35% silt, 20% subrounded sand, 5% subrounded

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 2 of 2

Borehole/Well Id MND33-0113

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
20					gravel, firm clay, 2.5Y 4/2, dark grayish brown.
					TOTAL DEPTH = 20.0'.
25					
30					
35					
40					
45					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0114
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/25/92	**North (ft)**	597238.41
Date Completed	1/25/92	**East (ft)**	1495163.50
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	714.7
Checked By	RICHARD LEY	**Total Depth (ft)**	11.0

Comments: Building 34 - Oil Burn Structure.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				CLG-SM	GRAVELLY SANDY SILTY CLAY - 50% clay, 25% silt, 25% gravel sand, fine to coarse, subrounded sand, fine to coarse, subrounded gravels, firm, moist, 10YR 5/4, yellow-brown.
				CL	CLAY - 90% clay, sticky, 10% fine to medium, angular, silt, slightly firm, moist, 5YR 3/2, dark reddish-brown.
		0001 1001		CLM	SILTY CLAY - 80% clay, sticky, 20% medium to coarse, angular to subangular silt, sticky, moist, 10YR 3/3, dark brown.
5	7 9 13 16			BL	Description not available.
	7 18 13 9				
10					
					TOTAL DEPTH = 11.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0115
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/28/92	**North (ft)**	597262.40
Date Completed	1/28/92	**East (ft)**	1495181.59
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	715.0
Checked By	RICHARD LEY	**Total Depth (ft)**	11.0

Comments: Building 34 - Oil Burn Structure.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	2, 18, 12, 13	0001		CLGSM	GRAVELLY SANDY SILTY CLAY - 10% gravel, 15% sand, 20% silt, 55% clay, gravel is coarse to medium, sand is angular to subangular, fine to medium, clay is firm, moist, 8" down is 5" seam of gravelly sand, 5YR 4/2 dark grayish brown, gravelly seam is 2.5Y 6/4 light yellowish brown.
	15, 17			CLGS	GRAVELLY SILTY SANDY CLAY - 5% gravel, 10% silt, 30% sand, 55% clay, gravel is coarse to medium, subangular, sand is medium to coarse, angular to subangular, clay is moist, firm, 10YR 3/2 very dark gray brown.
	4, 5, 11, 20			OL-CL	GRAVELLY CLAY - top 4", 15% gravelly, 85% clay, gravel is subangular to subrounded, sand medium to coarse, clay is damp to moist, firm, bottom 18" is organic-rich clay, no sign of silt, sand, or gravel, 10YR 4/2 dark gray brown.
5	3, 12, 14, 20			CLM	SILTY CLAY - 40% silt, 60% clay, clay is firm, moist, 10YR 3/1 very dark gray.
	3, 4, 4, 14	0002		CLM	SILTY CLAY - top 4", 30% silt , 70% clay, next 4" is silty clay - 40% silt, 60% clay, next 6" is gravelly clay - 10% gravel, 90% sticky clay, gravel is medium to fine, subangular to subrounded, last 5" is gravelly silty clay - gravel is coarse to medium, subangular to rounded, clay is firm, moist, 10YR 3/1 very dark gray - top 4" , 2.4Y 5/4 light olive brown middle 6" - 10YR 5/6 yellowish brown, bottom.
10	7, 13, 18, 24			CLG	GRAVELLY CLAY - gravel is fine to medium, subangular to subrounded, 2.5Y 5/4 light olive brown.
					TOTAL DEPTH = 11.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0116
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/29/92	**North (ft)**	598483.80
Date Completed	1/29/92	**East (ft)**	1497052.91
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	803.7
Checked By	RICHARD LEY	**Total Depth (ft)**	14.2

Comments: Underground Sewer Line - Grid 15.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				MLGS	Augered to 12.0'.
5					
10					
	13 49 47 60/2				SANDY GRAVELLY SILTY CLAY - 10% sand, 15% gravel, 25% silt, 50% clay, sand is angular (f-m) to subangular, gravel is m-course, subangular to angular, clay is stiff, damp, mottled, 2.5Y 6/6, olive yellow and 5Y 6/2 light olive gray.
15					TOTAL DEPTH = 14.2'.
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0117
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/29/92	**North (ft)**	597552.17
Date Completed	1/29/92	**East (ft)**	1495328.59
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	731.1
Checked By	RICHARD LEY	**Total Depth (ft)**	15.0

Comments: Underground Sewer Lines - Grid G19/14.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				CLM	SILTY CLAY - 40% silt, 60% clay. Clay is sticky to moist. 5YR 3/1, very dark gray.
5					
10	5 8 13 9	0001 1001			
	5 7 13 26			CLM	SILTY CLAY - Top 4 inches 30% silt, 70% clay. Clay is moist, firm, mottled, 5YR 3/1, very dark gray and bottom 19 inches is mottled silty clay, 45% silt, 55% clay. Clay is damp to moist, firm, 2.5YR 6/6, olive yellow.
15	9 11 17 23			CLS	WATER encountered at 13.0 feet. SILTY SAND GRAVELLY CLAY - 10% silt, 20% sand, 35% gravel, 35% clay. Sand is subangular to subrounded, gravel is medium to coarse, subrounded to rounded; clay is wet, sticky. 2.5YR 6/6, olive yellow.
					TOTAL DEPTH = 15.0'.
20					

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GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0119
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/31/92	**North (ft)**	597196.83
Date Completed	1/31/92	**East (ft)**	1495277.54
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	715.8
Checked By	RICHARD LEY	**Total Depth (ft)**	12.0

Comments: Building 34 - Fire Fighting Training Pits.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	16, 27, 31, 20, 9, 13, 17, 20			SM SP	SILTY GRAVELLY SAND - 20% silt, 30% medium diameter subangular gravel, 50% fine to coarse sand, firm, moist, 2.5Y 5/3, light yellowish brown.
5	19, 34, 38, 94			SM SP	SILTY GRAVELLY SAND - 20% silt, 30% medium diameter subangular gravel, 50% fine to coarse sand, firm, moist, 2.5Y 6/4, light olive brown, Grading into a gravelly sand (based on cuttings and limited sample collected in sample barrel) at approximately 5 to 6 ft. below grade.
	24, 36, 31, 50			SM SP	Subangular gravel / cobble lodged in sample barrel shoe. No sample collected.
	13, 16, 21, 19			CL	SANDY CLAY - trace gravel, 30% fine sand, 10% gravels, fine subangular, 60% clay, moist, firm, 5Y 4/4, olive.
10	12, 15, 16, 19			CL	SANDY CLAY - trace gravel, 30% fine sand, 10% gravels, fine subangular, 60% clay, moist, firm, 5Y 4/4, olive. Color change at approximately 11 ft. below grade to 5Y 5/2, olive gray.
15					TOTAL DEPTH = 12.0'.
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0120
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/31/92	**North (ft)**	597191.63
Date Completed	1/31/92	**East (ft)**	1495283.07
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	716.1
Checked By	RICHARD LEY	**Total Depth (ft)**	14.0

Comments: Building 34 - Fire Fighting Training Pits.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	21, 19, 17, 21	0001		SMG	SILTY GRAVELLY SAND - 50% fine to coarse grained sand, 30% medium subangular gravel, 20% silt, firm, moist, 10YR 5/6, yellowish brown.
	15, 32, 18, 20			SMG	SILTY GRAVELLY SAND - trace clay, 50% fine to coarse grained sand, 30% medium angular and subangular gravel, 20% silt, trace clay, firm, moist 10YR 5/6, yellowish brown grading to 2.5YR 5/2, grayish brown with depth in the core sample.
5	16, 28, 14, 20			SMG	SILTY GRAVELLY SAND - trace clay, 50% fine to coarse grained sand, 30% medium angular and subangular gravel, 20% silt, trace clay, firm, moist 10YR 5/6, yellowish brown grading to 2.5YR 5/2, grayish brown with depth in the core sample.
	7, 9, 42, 49			SM	SILTY SAND - trace gravel and clay, 60% fine to medium grained sand, 30% silt, 5% clay, 5% medium subangular gravel, firm, moist, 2.5Y 6/3, light yellow brown.
	19, 26, 24, 21			CLGS	GRAVELLY SANDY CLAY - trace gravel, 60% clay, 30% fine to medium grained sand, 10% medium subangular gravel, firm, moist, 5Y 5/2, olive gray.
10	12, 28, 31, 27			CLGS	GRAVELLY SANDY CLAY - trace gravel, 60% clay, 30% fine to medium grained sand, 10% medium subangular gravel, firm, moist, 5Y 5/2, olive gray.
	9, 24, 28, 25			CLGS	GRAVELLY SANDY CLAY - trace gravel, 60% clay, 30% fine to medium grained sand, 10% medium subangular gravel, firm, moist, 5Y 5/2, olive gray color changing with depth to dark gray.
15					TOTAL DEPTH = 14.0'.
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0121
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	1/31/92	**North (ft)**	597185.85
Date Completed	1/31/92	**East (ft)**	1495287.14
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	716.4
Checked By	RICHARD LEY	**Total Depth (ft)**	12.0

Comments: Building 34 - Fire Fighting Training Pits.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	5, 10, 12, 9	0001		SM SP	SILTY GRAVELLY SAND - 50% fine to medium grained sand, 30% medium, subangular gravel, 20% silt, soft, moist, 10YR 5/6, yellowish brown.
	14, 13, 21, 25			SP SM	SILTY GRAVELLY SAND - 50% fine to medium grained sand, 30% medium subangular gravel, 20% silt, firm, moist, 2.5Y 6/4, light olive brown.
5	9, 24, 31, 50			SM SP	SILTY GRAVELLY SAND - 50% fine to medium grained sand, 30% medium subangular gravel, 20% silt, firm, moist, 2.5Y 6/4, light olive brown. Gravel fragment caught in shoe of spoon.
	24, 17, 31, 28			CL-GS	GRAVELLY SANDY CLAY - trace gravel and silt, 60% clay, 30% fine grained sand, 5% medium subangular gravels, 5% silt, firm moist, 5Y 5/2, olive gray.
	19, 26, 24, 21			CL-GS	GRAVELLY SANDY CLAY - trace gravel and silt, 60% clay, 30% fine grained sand, 5% medium subangular gravels, 5% silt, firm moist, 5Y 5/2, olive gray, color change to 5Y 4/4 olive.
10	9, 13, 16, 24			CL-GS	GRAVELLY SANDY CLAY - trace gravel and silt, 60% clay, 30% fine grained sand, 5% medium subangular gravels, 5% silt, firm moist, 5Y 5/2, olive gray.
					TOTAL DEPTH = 12.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0122
Drilling Method	BACKHOE	**STATE PLANE COORDINATES**	
Date Started	1/31/92	**North (ft)**	597307.98
Date Completed	1/31/92	**East (ft)**	1495437.22
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	726.8
Checked By	RICHARD LEY	**Total Depth (ft)**	8.0

Comments: Area C - Waste Storage Area.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				CLMS	SANDY SILTY CLAY - 65% clay, 20% silt, 15% fine to medium, angular to subangular sand, moist, fairly firm, tan to brown.
				CLS	SILTY SANDY CLAY - 65% clay, 20% fine to medium sand, 15% silt, moist, firm, tan to brown.
5				CLGS	GRAVELLY SANDY CLAY - medium to coarse, angular to subangular sand, gravel rounded, firm, moist, tan to brown.
				CLGS	SANDY GRAVELLY CLAY - 65% clay, 25% medium to coarse, rounded gravel, 20% medium to coarse, subangular sand, moist, firm, tan to brown.
					TOTAL DEPTH = 8.0'.
10					
15					
20					

WESTON

TEST PIT LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Excavation Company	BURLINGTON ENV.	**Test Pit Id**	MND33-0122TP
Excavation Method		**STATE PLANE COORDINATES**	
Date Started	1/31/92	**North (ft)**	
Date Completed	1/31/92	**East (ft)**	
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	
Checked By	RICHARD LEY	**Total Depth (ft)**	10.0
Comments:	Test Pit #5		

Depth	Sample ID	Lith	USCS or Rock Type	Lithologic Description / Comments
0	0001			0.0 to 2.0' - SANDY SILTY CLAY - Sand is angular to subangular, fine to medium, 15% sand, 20% silt, 65% clay. Moist, fairly firm clay. Tan to brown. Note: Rebar 1.5' long 1/2" in diameter was unearthed, operator will dig around it. Additional rebar pulled from 1.5' deep in NW corner of area 1' long, 1/2" in diameter. Third piece of rebar located and extracted from NW corner, 1' long, 1/2" diameter. 1' long piece of wire (barbed wire) pulled from NW corner of the pit.
	0001			2.0 to 4.0 - SILTY SANDY CLAY - 15% silt, 20% sand, 65% clay, fine to medium sand; clay is moist, firm. Tan to brown. No change in color from last description.
	0001			4.0 to 6.0' - GRAVELLY SANDY CLAY - Gravel is rounded, medium to coarse, sand is medium to coarse, angular to subangular. Clay is firm, moist and somewhat sticky. Tan to brown. No change in color since last description.
5	0001			6.0 to 8.0' - SANDY GRAVELLY CLAY - 20% sand, 25% gravel, 65% clay. Sand is medium to coarse, subangular; gravel is medium to coarse, rounded. Clay is moist to damp, firm. Tan to brown. No change in color since last description.
	0001			8.0 to 10.0' - SANDY GRAVELLY CLAY - 15% sand, 30% gravel, 55% clay. Sand is medium to coarse, subangular. Gravel is rounded, medium to coarse. Clay is moist, firm. Tan to brown. No change in color since last description/interval.
10				TOTAL DEPTH = 8.0'.
15				
20				

WESTON

TEST PIT LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Excavation Company	BURLINGTON ENV.	**Test Pit Id**	MND33-0123TP
Excavation Method	DUG WITH BACKHOE	**STATE PLANE COORDINATES**	
Date Started	2/1/92	**North (ft)**	
Date Completed	2/1/92	**East (ft)**	
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	
Checked By	RICHARD LEY	**Total Depth (ft)**	8.0
Comments:	Test Pit #1		

Depth	Sample ID	Lith	USCS or Rock Type	Lithologic Description / Comments
0	0001			0.0 to 2.0' - GRAVEL FILL AND SANDY GRAVELLY CLAY - Gravel is angular to subangular and coarse to medium. 20% sand, 30% gravel, 50% clay. At center of pit, approximately 1' down, metal pipe 1' long 1" diameter was excavated. Clay is moist, firm. Tan to brown. Small pieces (6" strips) of plastic also taken out. West central portion - strip of metal 6" long, flat, pulled out. SW corner - piece of charred wood
	0001			1.5' deep, 6" long. Approximately 1.5' deep new wooden stake 1' long excavated from NE corner. Drum lid found. 2.0 to 4.0' - SILTY CLAY - 40% silt, 60% clay. No gravel present. Color is dark gray below 3' depth.
	0001			4.0 to 6.0' - SILTY CLAY - 30% silt, 70% clay. The clay is moist and firm. Dark gray to black. No gravel. Few small charred pieces of wood.
5				A small (3") piece of duct tape is found from 5' BGS.
	0001			6.0 to 8.0' - SILTY CLAY - 20% silt, 80% clay. Clay is moist and firm. Dark gray-green. 6.0 to 8.0' - SILTY CLAY - 15% silt, 85% clay. Clay is moist, firm. Dark tan to gray. Groundwater encountered at 7.5' at south end of pit along south wall.
				TOTAL DEPTH = 8.0'.
10				
15				
20				

WESTON

TEST PIT LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Excavation Company	BURLINGTON ENV.	**Test Pit Id**	MND33-0124TP
Excavation Method	DUG WITH BACKHOE	**STATE PLANE COORDINATES**	
Date Started	2/2/92	**North (ft)**	
Date Completed	2/2/92	**East (ft)**	
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	
Checked By	RICHARD LEY	**Total Depth (ft)**	8.0

Comments: Test Pit #7

Depth	Sample ID	Lith	USCS or Rock Type	Lithologic Description / Comments
0	0001			0.0 TO 2.0' - SANDY CLAY - 30% sand, 70% clay. Subrounded to rounded sand, fine to medium. Clay is moist, fairly well consolidated. Tan to gray-green. 1.5' metal post found. Metal chain 1.5' long found in west 1/2 of pit 0.5' BGS. 2 more pieces of metal wire found at depth of 0.5' BGS. Some wood fragments and rounded boulders as fill. Also, angular blocks as fill. There were several bricks encountered also. At 2' BGS encountered wood with wires around it, as it is excavated further 20 to 30 entangled wires are pulled out (rusted). Barbed wire fence section pulled out from 2' BGS. 1" diameter steel cable pulled out from 2' BGS in NW corner.
	0001			2.0 to 4.0' - SANDY GRAVELLY CLAY AND FILL - 20% sand, 25% gravel, 65% clay. Gravel is medium to coarse, angular. Sand is subangular to subrounded. Clay is moist. Gray-green to tan. Two more pieces of barbed wire, each 1' long, exhumed from center (3'BGS). Several more bricks taken out. Concrete slab with metal taken out. 3' on a side. 2" thick, from S. end. Numerous bricks, wires pulled out as buried fill material. Metal pipe 1" diameter, 1' long from SW corner @ 3.5' BGS pulled out.
	0001			4.0 to 6.0' - SANDY CLAY - 40% sand, 60% clay. Sand is medium to coarse, subrounded. Clay is moist, sticky. Tan to gray-green. Cinder blocks taken out firm SW corner (6' deep).
5	0001			6.0 to 8.0' - SILTY, SANDY, CLAY - 15% silt, 25% sand, 60% clay. Sand is rounded, medium to fine. Clay is moist, fairly well consolidated. Tan. Natural soil - Not fill.
				TOTAL DEPTH = 8.0'.
10				
15				
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WESTON

TEST PIT LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Excavation Company	BURLINGTON ENV.	**Test Pit Id**	MND33-0125TP
Excavation Method	DUG WITH BACKHOE	**STATE PLANE COORDINATES**	
Date Started	2/2/92	**North (ft)**	
Date Completed	2/2/92	**East (ft)**	
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Test Pit #3

Depth	Sample ID	Lith	USCS or Rock Type	Lithologic Description / Comments
0	0001			0.0 to 2.0' - SILTY SANDY CLAY - 15% silt, 30% sand, 55% clay. Still in fill from foundation, much concrete fill. Sand is subangular fine to coarse. Clay is firm, moist. Color is tan to brown. Foundation concrete slab pulled out at center portion of pit 3' on side. Large chunk of cement slab, 4' per side (contains metal rebar). Several more large blocks of foundation with rebar pulled out depth is approximately 2' BGS. Rusted metal can in about 2' BGS. It was determined that foundation with reinforced bars was the cause of the geophysical anomoly. It was plain that there was native soil just beneath the foundation thus, it was decided to backfill. Final readings taken.
				TOTAL DEPTH = 2.0'
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WESTON

TEST PIT LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Excavation Company	BURLINGTON ENV.	**Test Pit Id**	MND33-0126TP
Excavation Method	DUG WITH BACKHOE	**STATE PLANE COORDINATES**	
Date Started	2/2/92	**North (ft)**	
Date Completed	2/2/92	**East (ft)**	
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	
Checked By	RICHARD LEY	**Total Depth (ft)**	2.0

Comments: Test Pit #4

Depth	Sample ID	Lith	USCS or Rock Type	Lithologic Description / Comments
0	0001			0.0 to 2.0' - SILTY, SANDY, GRAVELLY CLAY - 20% silt/sand, 30% gravel, 50% clay. Subangular to angular, medium to coarse, moist, soft. Find barbed wire fence post in NW corner of pit. It is 3' long 1 1/2" in diameter - rusted. Reinforcement bars (rebar) at 2.5' BGS. Pipe 3' long steel oriented N-S from 2.5'BGS. Building foundation found.
				TOTAL DEPTH = 2.0'.
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WESTON

TEST PIT LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Excavation Company	BURLINGTON ENV.	**Test Pit Id**	MND33-0127TP
Excavation Method	DUG WITH BACKHOE	**STATE PLANE COORDINATES**	
Date Started	2/3/92	**North (ft)**	
Date Completed	2/3/92	**East (ft)**	
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	
Checked By	RICHARD LEY	**Total Depth (ft)**	8.0
Comments:	Test Pit #8		

Depth	Sample ID	Lith	USCS or Rock Type	Lithologic Description / Comments
0	0001			0.0 to 2.0' - SILT CLAY - 40% silt, 60% clay. Clay is moist, firm. Tan to brown in color. No evidence of gravel although there is some fill material (concrete) and metal present. L-shaped 2.5' piece of rebar found approximately 6" BGS. Large block of concrete pulled from SW corner. Several bricks present at approximately 1.5' BGS. Metal fence post 1' long taken from 1.5' BGS in middle of pit. Excavated several cinder blocks and bricks. Down to approximately 3.5' BGS.
	0001			2.0 to 4.0' - SANDY SILTY CLAY - 10% sand, 20% silt, 65% clay. Sand is fine, subangular. Clay is moist, firm. Tan to brown. Several more bricks pulled out from 4.5' BGS.
	0001			4.0 to 6.0' - SILTY CLAY - 40% silt, 60% clay. Clay is moist, firm. Looks like natural soil - no fill. Tan to gray.
5	0001			6.0 to 8.0' - SILT CLAY - 40% silt, 60% clay. Clay is moist and firm. Native soil all sides of excavation. Tan to gray. No fill present.
				TOTAL DEPTH = 7.8'.
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WESTON

TEST PIT LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Excavation Company	BURLINGTON ENV.	**Test Pit Id**	MND33-0128TP
Excavation Method	DUG WITH BACKHOE	**STATE PLANE COORDINATES**	
Date Started	2/3/92	**North (ft)**	
Date Completed	2/3/92	**East (ft)**	
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	
Checked By	RICHARD LEY	**Total Depth (ft)**	5.0

Comments: Test Pit #6

Depth	Sample ID	Lith	USCS or Rock Type	Lithologic Description / Comments
0	0001			0.0 to 2.0' - SANDY CLAY - 40% sand, 60% clay. Sand is subangular, fine to medium. Clay is firm, moist. Some fill present as wire, bricks, and concrete. Tan to gray-brown. Several pieces of foundation, cement approximately 1' long x 6" wide, 1' BGS, in central portion of pit #6. No readings. Several pieces of 1' long reinforcement bars (rebar) pulled from SW and North central portion of pit at 1' BGS. Large concrete slab (2' per side) taken out of NE corner of pit with at least 20 pieces of rebar present from 1' BGS. Sheet metal pieces (1'x1') taken out. Flat, rusted, no readings. From NE corner about 1' BGS. Pulled out drum lid from 1.5' BGS, SW side, no readings.
	0001			2.0 to 4.0' - GRAVELLY SANDY CLAY - 10% gravel, 15% sand, 65% clay. Gravel is fine to medium, subangular. Sand is fine to medium, subangular. Clay is moist, firm. Tan to brown. Fill material present. 15' long piece of rebar pulled out from NE corner 1.5' BGS. Approximately 25 to 30 pieces of rebar pulled out from center portion of pit at a depth of 3' BGS.
	0001			4.0 to 6.0' - SILTY CLAY - 40% silt, 60% clay. Clay is firm, moist. Tan to gray. No evidence of fill at this interval. Native soil only.
5				
				TOTAL DEPTH = 5.0'
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WESTON

TEST PIT LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Excavation Company	BURLINGTON ENV.	**Test Pit Id**	MND33-0129TP
Excavation Method	DUG WITH BACKHOE	**STATE PLANE COORDINATES**	
Date Started	2/4/92	**North (ft)**	
Date Completed	2/4/92	**East (ft)**	
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	
Checked By	RICHARD LEY	**Total Depth (ft)**	5.0
Comments:	Test Pit #2		

Depth	Sample ID	Lith	USCS or Rock Type	Lithologic Description / Comments
0	0001			0.0 to 2.0' - SILTY CLAY - 15% silt, 85% clay. Clay is soft, moist, firm. Tan to red-brown. Rebar found (6" long)in center of pit 0.5' BGS. Native soil @ 2.0' BGS.
				TOTAL DEPTH = 2.0'.
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15				
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WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0131
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	2/10/92	**North (ft)**	597448.95
Date Completed	2/10/92	**East (ft)**	1495396.12
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	726.8
Checked By	RICHARD LEY	**Total Depth (ft)**	13.0

Comments: Building 27 - Leach Pit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	2, 5, 6, 9	0001		CL	CLAY - 10% silt, 90% clay, clay is moist, firm, olive green, some mottling, red-orange.
	4, 8			CL	CLAY - 10% sand, 15% silt, 75% clay, sand is medium to fine, subangular; clay is moist, firm, olive to tan gray.
	2, 12, 13, 17	0002		CL	CLAY - 15% silt, 85% clay, clay is moist, firm, olive to tan gray, some crushed limestone.
5	3, 19, 9, 13			CLGS	GRAVELLY SANDY CLAY - 20% gravel, 20% sand, 60% clay, gravel is fine to medium, subangular, sand is medium to coarse, subangular, clay is moist, firm, olive to tan gray.
	7, 13, 19, 21	0003		CL	CLAY - 10% silt, 90% clay, clay is moist at top 8 inches, wet at bottom, groundwater encountered at depth of 8.8', olive to gray at base.
10	9, 7, 31, 22			CLM	SILTY CLAY - 15% gravel, 20% silt, 65% clay, gravel is fine to medium, subangular to angular, clay is saturated, rubbly, gray. Interval is within groundwater zone.
	13, 7, 7, 9			CL	CLAY - clay is saturated, firm inside, olive to dark gray, within saturated zone.
					TOTAL DEPTH = 13.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0132
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	2/11/92	**North (ft)**	597463.91
Date Completed	2/11/92	**East (ft)**	1495405.78
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	727.0
Checked By	RICHARD LEY	**Total Depth (ft)**	12.0

Comments: Building 27 - Leach Pit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	2, 3, 4, 4	0001		CL	GRASSY SOIL - roots at top 1-2 inches. CLAY - 15% SILT, 85% clay, clay is dry, but firm, light gray green to brown.
	7, 13			CL	CLAY - 10% silt, 90% clay, clay is moist, firm, light gray green, brown mottling at top 6 inches.
	2, 7, 16, 10	0002		CL	CLAY - 15% silt, 85% clay, clay is moist, firm, olive to light gray green.
5	7, 9, 11, 11			CL	CLAY - 15% silt, 85% clay, clay is moist, firm, light tan, gray green, small (5mm) rock in middle of spoon, bedrock (limestone) subangular.
	9, 17			CLG	GRAVELLY CLAY - Gravel is angular limestone (bedrock), medium to coarse, clay is firm to hard and wet, gray-green.
	7, 13, 15, 18	0003		CL	GRAVELLY CLAY - 15% gravel, 85% clay, gravel is medium to coarse, limestone (bedrock), clay is saturated, plastic, gray. Hit groundwater at 8.8 feet.
10	8, 16, 28, 10			CL	GRAVELLY CLAY - 15% gravel, 85% clay, gravel is medium to coarse, bedrock (1st), clay is saturated, plastic, gray, saturated zone, dark olive gray clay inside.
					TOTAL DEPTH = 12.0'.
15					
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WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0133
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	2/11/92	**North (ft)**	597454.13
Date Completed	2/11/92	**East (ft)**	1495409.69
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	726.7
Checked By	RICHARD LEY	**Total Depth (ft)**	10.0

Comments: Building 27 - Leach Pit.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	2 5 6 10	0001 1001		CLG	GRAVELLY CLAY - at top 8", gravel is rounded, fine to medium, clay is moist, firm, next 13" is sandy clay with pebble, sand is angular to subangular, fine to medium, clay is moist, firm, tan to gray.
	6 9			CL	CLAY - 10% gravel, subangular, medium to fine, clay is moist, firm, gray green to brown with red-brown mottling.
	3 7 11 9	0002		CLG	GRAVELLY CLAY - 20% gravel, 80% clay, gravel is medium to coarse, subangular, clay is moist, firm, tan to gray-green.
5	5 10 9 9			CL	CLAY - 10% gravel, 90% clay, gravel is medium to fine, subangular to angular, clay is moist, firm, bottom 6 inches is dark gray, rest is light gray-green.
	8 16 9 10	0003		CLG	GRAVELLY CLAY - Gravel is fine to medium, bedrock, angular, clay is saturated, muddy, gray to dark gray inside.
	11 63/2			BL	GRAY WATER - Very soupy, no sample.
10					TOTAL DEPTH = 10.0'.
15					
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WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0134
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	2/12/92	**North (ft)**	597518.50
Date Completed	2/12/92	**East (ft)**	1495334.57
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	730.0
Checked By	RICHARD LEY	**Total Depth (ft)**	15.0

Comments: Underground Sewer Lines - Grid 19/14.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				CLG	GRAVELLY CLAY to 6 feet then dark clay.
5					
	4 8 11 12	0001		CLM	SILTY CLAY - Organic-rich, clay is moist, firm, dark gray to black, 10% silt, 90% clay.
10	4 11 9 8			OH	CLAY - Organic-rich, 10% gravel, 90% clay, gravel is fine to medium, subangular, clay is moist, firm, dark gray to black.
	7 9 11 13	0002		OH	CLAY - 10% silt, 90% organic-rich clay, 1 rounded pebble, dirt is organic-rich, dark gray to black clay.
	5 11 12 20			CL	SILTY CLAY - 25% silt, 75% clay, clay is moist, very firm, water encountered at 14.5', clay saturated below 14.5', mottling at base, red-brown, elsewhere tan to olive.
15					TOTAL DEPTH = 15.0'.
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0135
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	2/12/92	**North (ft)**	597270.47
Date Completed	2/12/92	**East (ft)**	1495156.31
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	714.2
Checked By	RICHARD LEY	**Total Depth (ft)**	10.0

Comments: Building 34 - Historical Fire Fighting Training Pits.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	15 15 22 10			CL	CLAY - 15% gravel, 85% clay, gravel is medium to coarse, subangular to angular, clay is moist, firm, brown to tan.
	8 7 5 5	0001		CLG	GRAVELLY CLAY - 20% gravel, 80% clay, gravel is fine to medium, subangular, clay is moist, firm, dark gray to black.
5	5 11 8 5			CLG	GRAVELLY CLAY - 25% gravel, 75% clay, hit clay pipe at 4.0 ", groundwater at 4.2", dark gray to black, clay is saturated, hard.
	3 5 9 14			CL	CLAY - 15% gravel, 85% clay, gravel is fine to medium, angular, clay is saturated, sticky, brown to tan.
	2 10 11 14	0002		CH	CLAY - 100%. No evidence of silt, sand, or gravel, very sticky, wet, tan color.
10					TOTAL DEPTH = 10.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0136
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	2/13/92	**North (ft)**	597283.48
Date Completed	2/13/92	**East (ft)**	1495167.98
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	714.5
Checked By	RICHARD LEY	**Total Depth (ft)**	12.0

Comments: Building 34 - Historical Fire Fighting Training Pits.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0	3, 10, 14, 12			CLG	GRAVELLY CLAY - 25% gravel, 75% clay, gravel is angular, medium to coarse, clay is moist to wet, firm, brown to tan.
	8, 12, 16, 14	0001, 1001		CL	CLAY - 15% sand, 85% clay, sand is rounded, fine to medium, clay is moist, firm, tan to gray green.
5	5, 9, 13, 16			OH	ORGANIC-RICH CLAY - 100%, clay is moist, firm, dark gray to black, no silt, sand, or gravel present, dark horizon.
	5, 7, 7, 10			OH	CLAY - 100%, no silt, sand, or gravel, clay is organic-rich, dark gray to black.
	3, 3, 4, 4	0002		CL	CLAY - Saturated, hit cobble at 8.1', no silt or sand, gray to tan.
10	2, 5, 9, 16			CL	CLAY - Saturated, no silt or sand, gray to tan, saturated, light clay.
					TOTAL DEPTH = 12.0'.
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	ROY F. WESTON, INC.	**Borehole/Well Id**	MND33-0137
Drilling Method	HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	2/14/92	**North (ft)**	597435.02
Date Completed	2/14/92	**East (ft)**	1495232.97
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	727.3
Checked By	RICHARD LEY	**Total Depth (ft)**	4.5

Comments: Underground Sewer Lines - Grid 5.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				CC	GRAVELLY SAND - Gravel fill medium to coarse, rounded. Sand is fine to medium, no clay present. Did not reach sampling depth. Refusal 4.5'.
5					TOTAL DEPTH = 4.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 1

Drilling Company	ROY F. WESTON, INC.	**Borehole/Well Id**	MND33-0138
Drilling Method	HAND AUGER	**STATE PLANE COORDINATES**	
Date Started	2/14/92	**North (ft)**	597458.72
Date Completed	2/14/92	**East (ft)**	1495261.66
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	728.0
Checked By	RICHARD LEY	**Total Depth (ft)**	4.5

Comments: Underground Sewer Lines - Grid 5.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				CC	GRAVELLY SAND - Gravel fill is medium to coarse, rounded. Sand is fine to medium, no clay present. Did not get to sampling depth. Refusal at 4.5'.
5					TOTAL DEPTH = 4.5'.
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 1 of 2

Drilling Company	BURLINGTON ENV.	**Borehole/Well Id**	MND33-0139
Drilling Method	HOLLOW STEM AUGER	**STATE PLANE COORDINATES**	
Date Started	2/15/92	**North (ft)**	597966.45
Date Completed	2/15/92	**East (ft)**	1496736.91
Logged By	ROY F. WESTON, INC.	**Ground Surface Elev. (ft)**	777.4
Checked By	RICHARD LEY	**Total Depth (ft)**	24.0

Comments: Underground Sewer Lines - Grid 12.

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
0				CLG	GRAVELLY CLAY - Gravel is medium to coarse, well-rounded. Clay is moist, firm. Tan to gray. 20% gravel.
5					
10					
15					
20					

WESTON

GEOLOGIC LOG	MOUND PLANT	OU-3 LFIR	PAGE: 2 of 2

Borehole/Well Id MND33-0139

Depth	Blow Counts	Sample ID	Lith	USCS or Rock Type	Lithologic Description
20	10 13 21 42 32 41 41 38	0001 1001		CLS	SILTY SANDY CLAY - 20% silt, 20% sand, 60% clay, sand is fine to medium, subangular, clay is wet, slimy, light tan to brown, took duplicate sample 1001 here also.
25					TOTAL DEPTH = 24.0'.
30					
35					
40					
45					

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