# APPENDIX A

# SOIL BORING LOGS

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Quonset Hut "C" AOC) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-1 | 8/26/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 13.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-1 (5 - 6) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Ground-water sample SB-1 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.5 - 1 | | Asphalt/base; fill material (cinders). |
| - | | | (4.9 - 9.0) | | Gray/brown silty clay; soft; moist. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 5.0 | 0.4 - 1.1 | SB-1 | 5 - 7.5 feet: Saturated brown silt and clay with coarse gravel. |
| - | | | (1.6 - 2.1) | (5 - 6) | 7.5 - 10: Brown clayey silt with coarse gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2.5 | 0 - 1.0 | | Gray/brown clayey site with coarse gravel (1/4 - 1-inch) |
| - | | | (1.9 - 2.2) | | |
| - | | | | | Refusal at 13 feet. |
| - | | | | | |
| - | | | | | **Boring SB-1 terminated at 13 feet (refusal)** |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Quonset Hut "C" AOC) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-2 | 8/26/2003 | Bob Zei |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 13.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-2 (10 - 11) submitted for laboratory analysis (TOC).
Soil sample SB-2 (11 - 12) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.0 | 0.2 - 0.5 | | Upper 1 foot: Flakes of red epoxy-like material; asphalt and cinders |
| - | | | (2.5 - 2.9) | | Whitish sandy layer to gray/brown silty clay; damp. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 5.0 | 0.3 - 0.6 | | Gray gravel. Brown clay with minor silt (Top 1 foot). |
| - | | | (2.0 - 4.0) | | Moist from 6.5 - 8 feet. |
| - | | | | | Clayey silt, drier to bottom. Gravel at base. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 3.0 | 0.4 - 0.5 | SB-2 | Brown clay to silty clay/clayey silt; wet |
| - | | | (2.2 - 3.3) | (10 - 11) | Gray rock fragments at base. |
| - | | | | SB-2 | |
| - | | | | (11 - 12) | |
| - | | | | | **Boring SB-2 terminated at 13 feet (refusal).** |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Solvent Recovery Room AOC) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-3 | 8/26/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-3 (10 - 11) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1.5 | 0 - 0.1 | | 6" asphalt at top. |
| - | | | (2.5 - 3.1) | | Saturated brown fine to coarse sand and gravel |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.0 | 0 - 0.3 | | Brown to gray fine sand with silt and coarse gravel (1/4 - 1-inch); |
| - | | | (2.0 - 2.5) | | moist. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 5.0 | 0 - 0.3 | SB-3 | Saturated. Upper 12": fine to coarse sand and gravel (1/4 - 1/2-inch). |
| - | | | (2.7 - 4.7) | (10 - 11) | Gray fine sand with silt and gravel (1/8 - 1/4-inch). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-3 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Solvent Recovery Room AOC) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-4 | 8/26/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-4 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1.5 | 0.3 - 0.4 | | 6" asphalt at top. |
| - | | | (2.8 - 3.2) | | Brown fine to coarse sand and silt; 1/4 - 1-inch gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 5.0 | 0 - 0.4 | | Upper 18": Brown fine to coarse sand and silt; 1/4 - 1-inch gravel. |
| - | | | (4.2 - 4.5) | | 12 inches: Brown/gray fine sand with silt. |
| - | | | | | Gray fine sand and silt and gravel (1/8 - 1/4-inch). |
| - | | | | SB-4 | |
| - | | | | (9 - 10) | |
| 10 | 10 - 15 | 5.0 | 0.2 - 0.4 | | Saturated. |
| - | | | (4.2 - 4.6) | | Upper 12": Brown fine to coarse sand and silt, 1/8-1/4-inch gravel. |
| - | | | | | Gray fine to coarse sand with silt and 1/4 - 1-inch gravel. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-4 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Building #61 Doorway Spill AOC) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-5 | 8/26/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-5 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.0 | 0.2 - 0.4 | | 6" asphalt at top. |
| - | | | (2.2 - 2.5) | | Brown fine to coarse sand with silt and 1/4 - 1/2-inch gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.0 | 0.1 - 0.4 | | Brown fine to coarse sand with silt and 1/4 - 1/2-inch gravel. |
| - | | | (3.5 - 4.5) | | Lower 4": Gray fine to coarse sand with gravel. |
| - | | | | | |
| - | | | | SB-5 | |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 5.0 | 0.1 - 0.4 | | Saturated. |
| - | | | (3.0 - 4.3) | | 10 - 12': medium to coarse sand and gravel (1/8 - 1/4-inch). |
| - | | | | | 12 - 14': fine to coarse sand. |
| - | | | | | 14 - 14.5': Gray silty clay. |
| - | | | | | 14.5 - 15': Gray silty clay with 1/2 - 1-inch gravel. |
| 15 | | | | | |
| - | | | | | **Boring SB-5 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Beartex Sump Pit SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-6 | 8/27/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 11.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-6 (9 - 10) and SB-6 (10 - 11) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.0 | 0.0 | | 3" concrete at top. |
| - | | | (0.4 - 0.6) | | Fill materiel silts, sands, gravel, brick and cobbles. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.0 | 0.0 | | Silts, sands and gravel (1/8 - 1/4-inch). Brick material at bottom. |
| - | | | (0.0) | | |
| - | | | | | |
| - | | | | SB-6 | |
| - | | | | (9 - 10) | |
| 10 | 10 - 15 | 1.0 | 29 - 35 | SB-6 | Saturated silts, sands, and gravel; brick fragments |
| - | | | (50 - 69.8) | (10 - 11) | **Boring SB-6 terminated at 11 feet (refusal).** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Beartex Sump Pit SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-7 | 8/27/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 10.5 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-7 (9 - 10) submitted for laboratory analysis (VOC, TICs, heptane). Insufficient sample volume for SVOC analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.0 | 0.0 | | 3" concrete at top. |
| - | | | (0.2 - 0.9) | | Silts, sands and gravel (1/2 - 1/2-inch). Brick material at bottom. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 1.5 | 0.0 | | Same as above (SAME AS ABOVE). |
| - | | | (0.0 - 0.1) | | Wet at bottom. |
| - | | | | | |
| - | | | | SB-7 | |
| - | | | | (9 - 10) | |
| 10 | 10 - 15 | | 0.0 | | |
| - | | | (12 - 14.7) | | **Boring SB-7 terminated at 10.5 feet (refusal).** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Beartex Sump Pit SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-8 | 8/27/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 10.5 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-8 (9 - 10) submitted for laboratory analysis (SVOC, TICs).
Soil sample SB-8 (10 - 11) submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.0 | 0.0 | | 3" concrete. |
| - | | | (0.2 - 1.5) | | Silts, sands and gravel (1/2 - 1/2-inch). Brick material at bottom. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 1.5 | 0.0 | | Sands, silts, gravel, and brick material. |
| - | | | (0.0 - 2.1) | | Lower 3": large cobbles; wet. |
| - | | | | | |
| - | | | | SB-8 | |
| - | | | | (9 - 10) | |
| 10 | 10 - 15 | 0.5 | 8 - 11 | SB-8 | Poor recovery. Concrete-like material (fine to coarse grained); wet. |
| - | | | (6 - 8) | (10 - 11) | **Boring SB-8 terminated at 10.5 feet (refusal).** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Beartex Sump Pit SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-9 | 8/27/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 10.5 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-9 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1.5 | 0.0 | | 3" concrete at top. |
| - | | | (1.2 - 3.9) | | Tan - dark brown silts, sands, and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.5 | 0 - 0.5 | | Tan - dark brown silts, sands, and gravel. |
| - | | | (2 - 5.5) | | Brick material present in lower 12" of sample. |
| - | | | | | Lower 3": Wet. |
| - | | | | SB-9 | |
| - | | | | (9 - 10) | |
| 10 | 10 - 15 | 0.25 | 0 - 1 | | Poor recovery. Sands, silts, gravel (1/2 - 1"). |
| - | | | (1.5 - 2.9) | | **Boring SB-9 terminated at 10.5 feet (refusal).** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Quonset Hut "B" AOC) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-10 | 8/27/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-10 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.0 | 0 - 2.5 | | Brown fine to coarse sands; silts and gravel intermixed. |
| - | | | (2 - 4.7) | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.0 | 2 - 13.5 | | Upper 12": Dark brown fine to medium sands with some silt. |
| - | | | (5 - 8) | | Lower 12": Saturated; fine to medium sands; silts and 1/4 - 1/8- |
| - | | | | | inch gravel intermixed. |
| - | | | | SB-10 | Wet at 9 feet. |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 5.0 | 0 - 0.8 | | Saturated. |
| - | | | (2 - 4.1) | | Upper 2': Brown silts, sands, and gravel; 1/8 - 1-inch pebbles |
| - | | | | | Middle 12": Brown silt with fine sand. |
| - | | | | | Lower 12": fine to coarse gravel (1/2 - 1-inch) |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-10 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Quonset Hut "B" AOC) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-11 | 8/27/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-11 (4 - 5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1.5 | 0.2 - 0.5 | | Brown fine to coarse sand; silt and gravel intermixed. |
| - | | | (2.5 - 5.5) | SB-11 | |
| - | | | | (4 - 5) | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 1.5 | 0.0 | | Upper 6": Brown fine to medium sands and gravel (1/4 - 1/2-inch) |
| - | | | (1.5 - 1.8) | | Lower 12": Saturated; fine to coarse sands and gravel |
| - | | | | | (1/2 - 1-inch). |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 4.5 | 0.0 | | Saturated. Upper 2.5': fine to coarse sands and gravel (1/8 - 1/4") |
| - | | | (1.5 - 2.7) | | 6": Brown silts with fine sand. |
| - | | | | | 6": Fine to coarse sand and gravel. |
| - | | | | | 12": Gray silt with fine sand. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-11 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Quonset Hut "B" AOC) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-12 | 8/27/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-12 (7.5 - 8.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.0 | | Brown fine to coarse sand; silt and gravel intermixed. |
| - | | | (0.5 - 1.9) | | |
| - | | | | | |
| - | | | | SB-12 | |
| - | | | | (7.5 - 8.5) | |
| 5 | 5 - 10 | 2.5 | 0.0 | | Brown fine to coarse sand; silt and gravel intermixed. |
| - | | | (1.5 - 2.9) | | Increased silt content in lower 6" of sample. Wet at 8.5'. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | | | | | |
| - | | | | | **Boring SB-12 terminated at 10 feet.** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Filter Room AOC) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-13 | 8/28/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-13 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.0 | 0.0 | | 3": Concrete; Brown fine to medium sands with silt; 1/4 - 1-inch |
| - | | | (0.0) | | pebbles present. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.0 | 0.0 | | Brown fine to medium sand with gravel (1/4 - 1/2"); increased |
| - | | | (0.1 - 0.5) | | gravel content in lower 6" of sample. Wet in lower 3". |
| - | | | | | |
| - | | | | SB-13 | |
| - | | | | (9 - 10) | |
| 10 | 10 - 15 | 5.0 | 0.0 | | Saturated; Upper 2': gray silty clay. |
| - | | | (0.5 - 0.9) | | Lower 3': Gray silt with fine sand |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-13 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Filter Room AOC) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-14 | 8/28/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-14 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Soil sample SB-14A (20 - 25) is a duplicate sample of SB-14 (9 - 10).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.0 | 0.0 | | 3": Concrete; Brown fine to medium sands with silt; 1/8 - 1/4-inch pebbles present. |
| - | | | (0.0) | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.0 | 0.0 | | SAME AS ABOVE; increased gravel content. Wet in lower 3". |
| - | | | (1.8 - 2.3) | | |
| - | | | | | |
| - | | | | SB-14 | |
| - | | | | (9 - 10) | |
| 10 | 10 - 15 | 4.0 | 0.0 | (Duplicate) | Upper 6": Brown fine to coarse sand and gravel; silts and fine sands intermixed. |
| - | | | (1.5 - 2.2) | | |
| - | | | | | Lower 2': Gray silt with fine sand; 1 - 2-inch pebbles present. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-14 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-15 | 8/28/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-15 (6 - 7) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 0.0 | | 3" concrete. |
| - | | | (3 - 4) | | Brown to dark brown fine sands and silt; 1/8 - 1-inch pebbles. |
| - | | | | | Brick material at 3.5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4.0 | 70 - 80 | SB-15 | Black cinder-like material present from 6 - 7' (PID: 70 - 80 ppm). |
| - | | | (65 - 70) | (6 - 7) | Lower 2.5': Gray silty clay; soft; low to medium plasticity. |
| - | | | (Upper) | | PID in lower 2.5': 5 - 6 ppm. |
| - | | | (5 - 6) | | |
| - | | | (lower) | | |
| 10 | 10 - 15 | 2.5 | 0.5 - 3 | | Saturated; gray fine to coarse sands with silt; 1/4 - 1-inch pebbles. |
| - | | | (3 - 4) | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-15 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-16 | 8/28/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-16 (6.5 - 7.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.0 | 1 - 3 | | 3": Concrete. |
| - | | | (3 - 3.1) | | Light brown/brown to gray fine sand and silt; 1/4 - 1-inch |
| - | | | | | gravel intermixed. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4.0 | 0 - 3 | SB-16 | Upper 12": Dark brown fine sand and silt. |
| - | | | (4 - 15) | (6.5 - 7.5) | 3": Cinder-like material. |
| - | | | | | Slightly moist at 7'. |
| - | | | | | Brown to gray silty clay; medium plasticity. |
| - | | | | | |
| 10 | 10 - 15 | 3.0 | 0.0 | | Saturated; gray coarse sand/coarse gravel (1/4 - 1-inch); |
| - | | | (1.5 - 2) | | increased silt/clay content in lower 6" of sample. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-16 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-17 | 8/28/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-17 (13 - 14) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Ground-water sample SB-17 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 0 - 0.5 | | 3": Concrete. |
| - | | | (2.5 - 3) | | Brown to dark brown silts and fine sands; 1/4 - 1/2 pebbles present. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.0 | 1 - 6 | | Upper 1.5': Dark brown silts and fine sands; cinder-like material |
| - | | | (8 - 9) | | present at 6.5'. |
| - | | | | | Lower 1.5': Grey silty clay; medium plasticity. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 3.0 | 120 - 193 | | Saturated; gray coarse sand/coarse gravel; 1/4 - 1-inch angular |
| - | | | (280) | SB-17 | rock fragments. Increased silt/clay content in lower 6" of sample. |
| - | | | | (13 - 14) | Toluene odor present. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-17 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-18 | 8/29/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | NM | 0.0 | | 3": Concrete. |
| - | | | (0.3 - 1) | | Light brown fine sands and silt; 1/2 - 1-inch gravel present. |
| - | | | | | Brick material present at 4.5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4.0 | 20 - 40 | | Upper 2': Dark brown silts and fine sands; 1/8 - 1/4-inch pebbles; |
| - | | | (5 - 10) | | Cinder material also present. |
| - | | | | | Lower 1.5': Brown to gray clay; medium to high plasticity. |
| - | | | | | Angular quartz fragments present in lower 3" of sample. |
| - | | | | | Cinder material also present at 7'. |
| 10 | 10 - 15 | 3.0 | 100 - 300 | | Saturated; fine to coarse sand and gravel. Increased silt and |
| - | | | (400 - 500) | | clay content in lower 6". |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-18 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-19 | 8/29/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-11) | PVC - 1-1/2-inch (Pre-Pack) | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-19 (13.5 - 14.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Ground-water sample SB-19 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.0 | 0.5 - 1 | | 3": Concrete. |
| - | | | (4 - 5.1) | | Light brown fine sands and silt; 1/8 - 1/2-inch gravel present. |
| - | | | | | Brick material present at 3.5'. |
| - | | | | | Lower 1': silty clay with fine sand and gravel; loose |
| - | | | | | |
| 5 | 5 - 10 | 2.5 | 10 - 20 | | Upper 4": Brown fine sands and silts; 1/4 - 1/2-inch pebbles. |
| - | | | (9 - 11) | | 6": Concrete-like material. |
| - | | | | | 9": Dark brown cinder-like material; loose; silt to gravel size; |
| - | | | | | 1/2 - 1-inch pebbles. |
| - | | | | | Gray clay; medium to high plasticity; increased silt in lower 3" |
| 10 | 10 - 15 | 3.0 | >1,000 | | Saturated; fine to coarse sand and gravel; 1 - 2-inch pebbles; |
| - | | | | | strong toluene odor. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-19 | |
| 15 | | | | (13.5 - 14.5) | |
| - | | | | | **Boring SB-19 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-20 | 8/29/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-20 (4 - 5) and (11 - 12) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 4.0 | 0.5 - 15 | | 3": Concrete. |
| - | | | (25 - 35) | | Light brown - dark brown fine sands and silts; 1/4 - 1/2-inch |
| - | | | | | pebbles present. |
| - | | | | SB-20 | Cinder material present from 4 - 5 feet. |
| - | | | | (4 - 5) | |
| 5 | 5 - 10 | 5.0 | 2 - 5 | | Upper 2 - 3 ": Brown silty clay. |
| - | | | (7.5 - 9.5) | | 3": Brown fine sand and silt with gravel. |
| - | | | | | 6 - 10': Light brown to gray silty clay; soft; low to medium |
| - | | | | | plasticity. Silts and fine sands in lower 3" of sample. |
| - | | | | | |
| 10 | 10 - 15 | 4.0 | 0 - 20 | | Upper 6": Brown silty clay; medium to high plasticity. |
| - | | | (25 - 35) | SB-20 | Wet at 12'. |
| - | | | | (11 - 12) | 12 - 15': Gray fine to coarse sand with gravel. 0.5 - 2" angular |
| - | | | | | rock fragments. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-20 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-21 | 9/2/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-21 (13 - 14) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.0 | 0.5 - 3 | | 3": Concrete. |
| - | | | (3.5 - 4.5) | | Light tan fine sands and silts. |
| - | | | | | 2': Silty clay/clayey silt; 1/4 - 1-inch gravel. |
| - | | | | | Lower 3": Brown fine sands and silt with gravel. |
| - | | | | | |
| 5 | 5 - 10 | 4.0 | 1 - 10 | | Upper 6": Light tan fine sands and silts. |
| - | | | (3 - 7) | | 3": 1/2 - 2-inch angular rock fragments. |
| - | | | | | 3": fine to coarse grained cinder material. |
| - | | | | | Lower 2': Dark gray silty clay; soft; slightly moist. |
| - | | | | | 1/4 - 1-inch angular rock fragments. |
| 10 | 10 - 15 | 3.0 | 0.5 - 7 | | 10 - 13.5': Silty clay - clayey silt; silts and gravel intermixed. |
| - | | | (2 - 20) | | Lower 12": Saturated; gray fine to medium sands with gravel; |
| - | | | | | 1/4 - 1/2-inch pebbles. |
| - | | | | SB-21 | |
| - | | | | (13 - 14) | |
| 15 | | | | | |
| - | | | | | **Boring SB-21 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-22 | 9/2/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-22 (6.5 - 7.5) and (12.5 - 13.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 0.5 - 6 | | 3": Concrete. |
| - | | | (1.5 - 3) | | Light tan fine sands and silts; 1/8 - 1/2-inch pebbles. |
| - | | | | | Lower 2': Light tan - dark brown silt with trace gravel. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4.0 | 150 - 180 | | Upper 12": Brown silt with gravel. |
| - | | | (40 - 100) | SB-22 | 6.5 - 7.5': Dark brown fine to coarse cinder material (1/4 - 1/2-inch). |
| - | | | | (6.5 - 7.5) | 8 - 9.5': Gray clay; soft; medium to high plasticity. |
| - | | | | | Lower 2": 1/4 - 2" angular rock fragments. |
| - | | | | | |
| 10 | 10 - 15 | 3.5 | 3 - 60 | | 11.5 - 12.5': Gray clay; soft; medium plasticity. |
| - | | | (140 - 150) | SB-22 | 12.5 - 13.5': Gray clay; Brown fine sands/silts intermixed. |
| - | | | (@ water) | (12.5 - 13.5) | Wet at 13'. |
| - | | | (4 - 5) | | Lower 18": Fine to coarse sands and gravel; 1/4 - 1-inch pebbles. |
| - | | | (at bottom) | | |
| 15 | | | | | |
| - | | | | | **Boring SB-22 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-23 | 9/2/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 10 - 13 | | 3": Concrete. |
| - | | | (10 - 13) | | Light tan to dark brown fine sands and silts; 1/8 - 1/4-inch gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4.0 | >1,000 | | Upper 2': Fine sands and silts. |
| - | | | (5,000) | | Cinder material present from 7 - 7.5'. |
| - | | | | | Lower 2': Gray clay; strong toluene odor. |
| - | | | | | PID increasing with depth: 10 - 15 - >1,000 ppm. |
| - | | | | | |
| 10 | 10 - 15 | 3.0 | 1,000 - 5,000 | | Saturated; fine to coarse sand with silt. Coarser grained in |
| - | | | (20 - 30) | | lower 1.5' of sample. |
| - | | | (at bottom) | | PID decreasing with depth: 5,000 - 700 - 100 ppm. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-23 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-24 | 9/2/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.
Auger refusal at 4 feet on first two attempts (brick material).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.0 | 5 - 10 | | 3": Concrete. |
| - | | | (14 - 16) | | Fine sands and silts with 1/8 - 1/4-inch gravel; cinder material |
| - | | | | | present in lower 6 inches of sample. Brick material at 4'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.0 | 10 - 20 | | 7 - 9': Black fine to coarse grained cinder material |
| - | | | 500 - 700 | | Lower 12": Gray silty clay; soft; moist; toluene odor. |
| - | | | (700 - 900) | | PID higher in lower 12" of sample. |
| - | | | | | PID increasing with depth. |
| - | | | | | |
| 10 | 10 - 15 | 3.0 | 200 - 500 | | Fine to medium sand with silt; coarser grained with depth; |
| - | | | (800 - 900) | | 1/4 - 1/2-inch gravel in lower 12"; saturated. |
| - | | | (5 - 10) | | |
| - | | | (at bottom) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-24 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-25 | 9/2/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-10) | PVC - 1-1/2-inch (Pre-Pack) | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-25 (7.5 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
MS and MSD QA/QC samples also collected from SB-25 (7.5 - 10).
Ground-water sample SB-25 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 4 - 7 | | 3": Concrete. |
| - | | | (5 - 9) | | Light tan to dark brown fine sands and silts; 1/4 - 1-inch gravel. |
| - | | | | | Brick material present at 4'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4.0 | 500 - 1,200 | | 6 - 7': Brown fine sands and silts; 1/2 - 1-inch gravel present. |
| - | | | (1,500 - 1,600) | SB-25 | 7 - 10': Gray silty clay; soft; medium plasticity; moist. |
| - | | | | (7.5 - 10) | Lower 6": clayey silt; moist. |
| - | | | | MS/MSD | Strong toluene odor. |
| - | | | | | |
| 10 | 10 - 15 | 4.0 | 1,000 - 1,500 | | PID decreasing with depth. |
| - | | | (1,500 - 1,700) | | Saturated; fine to medium sand with silt. |
| - | | | (5 - 9) | | Coarser sand and gravel in lower 12" of sample |
| - | | | (at bottom) | | Strong toluene odor present. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-25 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-26 | 9/3/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-26 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Ground-water sample SB-26 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 15 - 21 | | 3": Concrete. |
| - | | | (2.5 - 3.5) | | Light tan - dark brown fine sands and silts; 1/8 - 1/4-inch pebbles. |
| - | | | | | Brick material present at 4 feet (3 inches). |
| - | | | | | Concrete-like material in lower 6" of sample (silts - gravel). |
| - | | | | | |
| 5 | 5 - 10 | 2.0 | 0.1 - 0.5 | | Upper 3": Light tan fine sands and silts and 1/4 - 1-inch gravel. |
| - | | | (2 - 4.5) | | Dark brown silt with fine sand and gravel. |
| - | | | | | Brick material in lower 3 inches of sample (wet). |
| - | | | | | |
| - | | | | SB-26 | |
| 10 | 10 - 15 | 2.0 | >1,000 | (9 - 10) | Strong toluene odor. |
| - | | | (>9,999) | | Gray fine to coarse sands and gravel (1/2 - 1-inch) |
| - | | | | | PID reading at 15 feet - 11 - 16 ppm. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-26 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-27 | 9/3/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.
Obstruction at 10 feet.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1.5 | 15 - 25 | | 3": Concrete. |
| - | | | (25 - 30) | | Light tan - dark brown fine sands and silts. 1 - 2-inch rock/ |
| - | | | | | brick fragments present. Brick material in lower 3" of sample. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 0.5 | 25 - 30 | | Poor recovery; loose material - brick, rock fragments. |
| - | | | (25 - 30) | | **Boring SB-27 terminated at 10 feet.** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | | | | No Recovery. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-28 | 9/3/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 15 - 20 | | 3": Concrete. |
| - | | | (15 - 20) | | Light tan - brown fine sands and silts with 1/8 - 1/4-inch gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.0 | 15 - 23 | | Upper 6": Light gray fine sands and silts; 1/4 - 1/2-inch gravel. |
| - | | | (15 - 20) | | Gray silty clay; medium plasticity; increased silt content in |
| - | | | | | lower 6" of sample. 1/2 - 1-inch pebbles present. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 4.0 | >1,000 | | Upper 6": Grayish brown silty clay; soft; medium to high plasticity. |
| - | | | (>9,999) | | Strong toluene odor. |
| - | | | | | 11.5 - 12.5': Silty clay with gravel (1/4 - 1/2-inch) |
| - | | | | | Lower 2': Saturated; fine to coarse sand and gravel. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-28 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-29 | 9/3/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-29 (11 - 12) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.0 | 15 - 20 | | 3": Concrete. |
| - | | | (20 - 25) | | Upper 6": fine to coarse sand and gravel. |
| - | | | | | Lower": Light brown clayey silt with 1/4 - 1/2-inch pebbles. |
| - | | | | | Wet at 4 feet. |
| - | | | | | |
| 5 | 5 - 10 | 3.0 | 20 - 25 | | 7 - 8.5': Light brown silty clay; moist; soft; medium to high |
| - | | | (20 - 25) | | plasticity; 1/8 - 1/4-inch gravel. |
| - | | | | | Lower 1.5': Light brown - gray clayey silt; soft; moist. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 4.0 | (15 - 25) | | Gray fine to coarse sand with silt; wet; coarser material in lower |
| - | | | (20 - 25) | SB-29 | 1.5' of sample. |
| - | | | | (11 - 12) | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-29 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-30 | 9/3/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 15 - 20 | | 3": Concrete. |
| - | | | (20 - 23) | | Light tan - dark brown fine sands and silts and 1/8 - 1/4 pebbles. |
| - | | | | | Cinder material present at 3.5 - 4'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.0 | 100 - 300 | | Gray silty clay; soft to stiff; strong toluene odor. |
| - | | | >1000 | | PID increasing with depth (100 - 1,000 - 9,999 ppm). |
| - | | | (>9,999) | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2.5 | >1,000 | | Upper 6": Silty clay with 1 - 2-inch rock fragments. |
| - | | | (>9,999) | | 13 - 15': Saturated; gray fine to coarse sand and gravel; 1 - 2-inch |
| - | | | (300 - 400) | | rock fragments present. |
| - | | | (at bottom) | | Lower 8": Gray silty clay; stiff; medium plasticity. |
| - | | | | | |
| 15 | 15 - 20 | 1.5 | >1,000 | | Miscellaneous material (gray fine to coarse sand and gravel). |
| - | | | (>9,999) | | **Boring SB-30 terminated at 16 feet (refusal).** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 20 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-31 | 9/4/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-4) | PVC - 1-1/2-inch (Pre-Pack) | 20.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-31 (11 - 13) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
MS and MSD QA/QC samples also collected from SB-31 (11 - 13).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 4.0 | 7 - 9 | | Brown silty clay with gravel; soft; wet; 1/4 - 1/2-inch gravel. |
| - | | | (12 - 13) | | Lower 12": Brown silty clay; soft; wet; medium to high plasticity; |
| - | | | | | 1/4 - 1/2-inch pebbles present. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4.0 | 5 - 80 | | Upper 16": Light brown/gray silty clay; trace gravel; medium to |
| - | | | | | high plasticity. |
| - | | | | | 5": Coarse gravel/shale material |
| - | | | | | 3": Light brown/gray silty clay; trace gravel. |
| - | | | | | 9": Gray fine to coarse sands and gravel (silts/clays intermixed). |
| - | | | | | Lower 15": Gray silty clay to fine to medium sands and silt. |
| 10 | 10 - 15 | 3.5 | 200 - 500 | SB-31 | Saturated; Gray fine sand with silt. |
| - | | | (400 - 1300) | (11 - 13) | 13'8" - 14'4": Fine to coarse sand and gravel (1/8 - 1/2-inch). |
| - | | | (15 - 20) | MS/MSD | Lower 6": Gray silty clay with gravel (1/4 - 1/2-inch). |
| - | | | (at bottom) | | Toluene odor. |
| 15 | 15 - 20 | 4.0 | 7 - 50 | | 16 - 17': Gray silty clay with gravel (1/8 - 1/4-inch); stiff. |
| - | | | (20 - 23) | | Gray silts and clay with gravel; 1 - 3-inch shale material. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 20 | | | | | |
| - | | | | | **Boring SB-31 terminated at 20 feet (refusal).** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-32 | 9/4/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-3) | PVC - 1-1/2-inch (Pre-Pack) | 20.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1.5 | 5 - 9 | | Brown mix of sands, silts, and gravel (2 - 3-inch); moist. |
| - | | | (18 - 20) | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 1.5 | >1,000 | | same as above. Strong toluene odor. |
| - | | | (1,000 - 4,000) | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 3.0 | 1,000 - 3,000 | | Saturated. |
| - | | | (>9,999) | | Upper 6": Saturated. Fine to coarse sands with silt; 1 - 3" pebbles. |
| - | | | (40 - 50) | | Lower 12": Gray silty clay; trace gravel. |
| - | | | (at bottom) | | |
| 15 | 15 - 20 | 4.0 | 1,000 - 4,000 | | Saturated. |
| - | | | (800 - 1,200) | | Gray silty clay with gravel (1/4 - 1-inch). |
| - | | | | | Lower 3': Clayey silt with trace gravel; stiff. |
| - | | | | | |
| - | | | | | |
| 20 | | | | | |
| - | | | | | **Boring SB-32 terminated at 20 feet (refusal).** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-33 | 9/4/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-2) | PVC - 1-1/2-inch (Pre-Pack) | 21.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-33 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.0 | 14 - 22 | | Brown mix of sands, silts, and gravel (1/2 - 1-inch); moist. |
| - | | | (15 - 20) | | Moist at 4 - 5 feet. |
| - | | | | | Lower 12": Clayey silt to silty clay; trace gravel. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4.0 | 50 - 1,000 | | Wet. |
| - | | | (>9,999) | | Upper 12": Gray silty clay; soft; medium to high plasticity. |
| - | | | | | 6": Fine to coarse sands and gravel. |
| - | | | | | Lower 12": Gray silty clay with gravel (1/4 - 1/2-inch). |
| - | | | | SB-33 | |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 5.0 | >1,000 | | Saturated; strong toluene odor throughout. |
| - | | | (>9,999) | | Mix of sands, silts, and gravel. |
| - | | | | | 13 - 14': Coarse gravel (1/8 - 1/2-inch) |
| - | | | | | 14 - 15': Gray fine sands and silts with gravel (1/4 - 1-inch). |
| 15 | 15 - 20 | 4.0 | 60 - 500 | | Upper 3': Coarse sand and gravel (1/4 - 1/2-inch). |
| - | | | (20 - 1,000) | | Lower 12": gray fine sands/silts. Hole collapsing. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 20 | | | | | |
| - | | | | | **Boring SB-33 terminated at 21 feet (refusal).** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-34 | 9/5/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-1) | PVC - 1-1/2-inch (Pre-Pack) | 21.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-34 (7 - 8) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.0 | 0.0 | | Brown - dark brown silty clay with 1/4 - 1/2" pebbles; moist |
| - | | | (5 - 7) | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.0 | 0 - >5,000 | | 7 - 8': Brown - gray silty clay; soft; medium to high plasticity. |
| - | | | | | 8 - 8'3": fine to medium sand |
| - | | | | SB-34 | 8'3" - 9': Gray silty clay with gravel. |
| - | | | | (7 - 8) | 9 - 10': fine to coarse sand and gravel (1/2 - 1-inch). |
| - | | | | | PID increasing with depth. |
| - | | | | | |
| 10 | 10 - 15 | 3.0 | 100 - 1500 | | Upper 12": coarse gravel; saturated. |
| - | | | (5,000 - 6,500) | | Lower 2': Gray fine to coarse sand and gravel (1/4 - 1/2-inch). |
| - | | | | | |
| - | | | | | |
| 15 | 15 - 20 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 20 | | | | | |
| - | | | | | **Boring SB-34 terminated at 21 feet (refusal).** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-35 | 9/5/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 20 - 30 | | Upper 1.5': Brown fine sands and silt with 1/8 - 1/4 pebbles. |
| - | | | (25 - 28) | | Brick material present at 3'. |
| - | | | | | Lower 12": gray silty clay; stiff to soft. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4.0 | 5 - 95 | | Upper 2.5': Gray silty clay; stiff; medium to high plasticity. |
| - | | | (17 - 250) | | Lower 12": Dark gray fine sand and silt; 1/2 - 1-inch gravel/shale. |
| - | | | | | Slight toluene odor at base. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 5.0 | 20 - 50 | | Saturated. |
| - | | | (900 - 1,000) | | 10 - 11.5': Gray fine to coarse sands and gravel (1/2 - 1/2-inch). |
| - | | | (15 - 20) | | 11.5 - 13': Gray fine to medium sands with silt. |
| - | | | (at bottom) | | 13 - 13.5': Gray fine to coarse sand and gravel. |
| - | | | | | 13.5 - 15': Gray silty clay; trace gravel. |
| 15 | | | | | |
| - | | | | | **Boring SB-35 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-36 | 9/5/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-36 (7 - 8) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Ground-water sample SB-36 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Upper 12": Brown fine to coarse sands with gravel. |
| - | | | (10 - 16) | | Middle 12": Dark brown fine sands/silts; 1/8 - 1/4-inch gravel. |
| - | | | | | Lower 12": Gray to light brown silty clay; soft; medium to high |
| - | | | | | plasticity. |
| - | | | | | |
| 5 | 5 - 10 | 4 | 10 - 17 | | Upper 3': light brown silty clay; trace gravel (1/2 - 1-inch). |
| - | | | (15 - 20) | | Lower 12": Dark brown/gray silty clay with 1/2 - 1-inch pebbles. |
| - | | | | SB-36 | |
| - | | | | (7 - 8) | |
| - | | | | | |
| 10 | 10 - 15 | 3 | 10 - 15 | | Upper 2.5': fine to coarse gravel (1/4 - 2-inch) |
| - | | | (10 - 15) | | Lower 6": Gray clayey silt; trace gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-36 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-37 | 9/5/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 5 - 10 | | 3": concrete. |
| - | | | | | Upper 12": Light tan fine to medium sands; 1/8 - 1/4-inch gravel. |
| - | | | | | Lower 12": brick material. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | | | | No Recovery. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2 | 50 - 600 | | Saturated. Gray fine to medium sands and silt. |
| - | | | (1,400 - 1,500) | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-37 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-38 | 9/5/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-38 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 5 - 10 | | 3": concrete. |
| - | | | (10 - 13) | | Light tan to brown fine sands and silt; brick material at 3.5'. |
| - | | | | | Lower 12": Brown silty clay to clayey silt. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2 | 5 - 10 | | Upper 12": Brown silty clay; trace gravel |
| - | | | (25 - 30) | | Lower 12": Gray silty clay to clayey silt; moist. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-38 | |
| 10 | 10 - 15 | 4 | 200 - 600 | (9 - 10) | Upper 3': Gray fine sand and silt; saturated. |
| - | | | (1,900 - 2,100) | | Lower 12": fine to coarse sand and gravel (1/8 - 1/4-inch). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-38 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-39 | 9/5/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 2.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.
Refusal at 2 feet.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1 | 0.0 | | 3": concrete. |
| - | | | (0.0) | | Light tan fine sands and silts; brick material in lower 6" of sample. |
| - | | | | | **Boring SB-39 terminated at 2 feet. (Refusal)** |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-39 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-40 | 9/8/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-40 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 25 - 32 | | 3": concrete. |
| - | | | (30 - 37) | | Light tan to brown fine sands and silts; brick material at 3.5'. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 25 - 30 | | Light tan to brown fine sands and silts; |
| - | | | (30 - 37) | | cinder material present at 7.5'. |
| - | | | | | Lower 12": Silty clay to clayey silt. |
| - | | | | | |
| - | | | | SB-40 | |
| 10 | 10 - 15 | 2 | 20 - 25 | (9 - 10) | Saturated. |
| - | | | (30 - 32) | | Upper 12": gray clayey silt. |
| - | | | | | Fine to coarse sands and silt. Coarser sand and gravel in lower 3". |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-40 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Building #59) |
| **Boring Number:** SB-41 | **Date Drilled:** 9/8/2003 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-41 (7.5 - 8.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Soil sample SB-41A (20 - 25) is a duplicate sample of SB-41 (7.5 - 8.5).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 30 - 35 | | 3": concrete. |
| - | | | (30 - 36) | | Light tan - dark brown fine sands and silts; brick material present |
| - | | | | | at 2.5 - 3.5'. |
| - | | | | | Lower 6": Brown clayey silt. |
| - | | | | | |
| 5 | 5 - 10 | 4 | 20 - 25 | | Light brown silty clay; trace gravel; soft; low to medium plasticity |
| - | | | (30 - 33) | SB-41 | Lower 1.5': Light brown to gray fine sand and silt; wet. |
| - | | | | (7.5 - 8.5) | |
| - | | | | (Duplicate) | |
| - | | | | | |
| 10 | 10 - 15 | 3 | 15 - 20 | | Saturated. |
| - | | | (25 - 30) | | Upper 12": Gray fine sand with silt. |
| - | | | | | Middle 12": Gray coarse sand and gravel (1/4 - 1/2-inch). |
| - | | | | | Lower 12": Gray silty clay with 1/4 - 1/2-inch gravel/shale. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-41 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-42 | 9/8/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-42 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 20 - 25 | | Fine to medium sands with silt and 1/4 - 1-inch pebbles. |
| - | | | (30 - 37) | | Cinder material present at 3.5 - 4'. |
| - | | | | | Lower 6": Brown silty clay with gravel (1/4 - 1-inch). |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 25 - 54 | | Upper 12": Brown silty clay with gravel (1/4 - 1-inch). |
| - | | | (50 - 57) | | Brick material present at 7'. |
| - | | | | | Middle 12": Gray silty clay with gravel (1/2 - 1-inch).; wet. |
| - | | | | SB-42 | Lower 3": Gray fine to coarse sand and gravel (1/2 - 1-inch). |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 3 | 20 - 23 | | Saturated. Coarse sand and gravel (1/2 - 1-inch). |
| - | | | (45 - 48) | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-42 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58 AOC - West Cutout) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-43 | 9/8/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-43 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Soil sample SB-43 (9 - 10) submitted for laboratory analysis (TOC).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 25 - 30 | | 3": Concrete |
| - | | | (15 - 50) | | Brown - dark brown fine to medium sands with silt and gravel |
| - | | | | | (1/4 - 1-inch). |
| - | | | | | Lower 6": gray silty clay; soft; medium plasticity. |
| - | | | | | |
| 5 | 5 - 10 | 3.5 | 30 - 37 | | Upper 12": Fine to medium sands with silt and gravel |
| - | | | (45 - 47) | | Lower 2.5': Gray silty clay; soft; medium plasticity. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-43 | |
| 10 | 10 - 15 | 2.5 | 25 - 40 | (9 - 10) | Fine to coarse sand and gravel (1/4 - 1-inch); wet at 13.5'. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-43 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Building #58 AOC - West Cutout) |
| **Boring Number:** SB-44 | **Date Drilled:** 9/8/2003 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-44 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 30 - 39 | | 3": Concrete |
| - | | | (40 - 47) | | Light tan - gray fine sands and silts; 1/4 - 1/2-inch rock fragments. |
| - | | | | | Brick material present from 3.5 - 5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.5 | 35 - 45 | | Brown - gray silty clay; soft; medium to high plasticity; |
| - | | | (58 - 61) | | trace gravel; moist at 9'. |
| - | | | | | Lower 3": Gray fine to medium sand and silt. |
| - | | | | SB-44 | |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 4 | 15 - 20 | | Upper 12": fine to medium sand and silt. |
| - | | | | | Middle 12": Fine to coarse sand and gravel (1/8 - 1/4-inch). |
| - | | | | | Lower 12": Fine to medium sand. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-44 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Building #58 AOC - West Cutout) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-45 | 9/8/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-45 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 30 - 37 | | 3": Concrete |
| - | | | (40 - 47) | | Light tan - gray fine sands and silts; 1/4 - 1/2-inch rock fragments. |
| - | | | | | Brick material present from 3.5 - 5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 5 | 40 - 45 | | Brown - gray silty clay; trace gravel. |
| - | | | (40 - 45) | | Moist at bottom of sample. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-45 | |
| 10 | 10 - 15 | 2 | 40 - 50 | (9 - 10) | Upper 12": Saturated; gray silt with fine sand. |
| - | | | | | Middle 6": Gray silty clay with gravel. |
| - | | | | | Lower 6": fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-45 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Building #58 AOC - West Cutout) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-46 | 9/8/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-46 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 35 - 40 | | 3": Concrete |
| - | | | (45 - 50) | | Light tan - brown fine sands and silts; trace gravel (1/8 - 1/4-inch). |
| - | | | | | Brick material present at 3'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.5 | 30 - 35 | | Upper 12": Brown silty clay with gravel; loose. |
| - | | | (42 - 45) | | Gray silty clay; trace gravel; soft; medium plasticity. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-46 | |
| 10 | 10 - 15 | 3 | 30 - 35 | (9 - 10) | Saturated. |
| - | | | (38 - 40) | | Upper 3": Gray silty clay; trace gravel. |
| - | | | | | Fine to coarse sand and gravel |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-46 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Building #58 AOC - West Cutout) |
| **Boring Number:** SB-47 | **Date Drilled:** 9/8/2003 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 2.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.
Refusal at 2 feet.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | | | | | |
| - | | | | | |
| - | | | | | **Boring SB-47 terminated at 2 feet. (Refusal)** |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58 AOC - East Cutout) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-48 | 9/9/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-48 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0 - 1 | | 3": Concrete |
| - | | | (3.3) | | Light tan - brown fine sands and silts; 1/4 - 1/2-inch pebbles. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | 0.0 | | Upper 6": Brown silty clay; trace gravel; loose. |
| - | | | (4 - 4.5) | | Light brown silty clay; soft; medium to high plasticity. |
| - | | | | | Lower 12": Gray clayey silt; wet |
| - | | | | SB-48 | |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 2 | 0.0 | | Saturated. |
| - | | | (4.5 - 5.5) | | Gray clayey silt. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-48 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58 AOC - East Cutout) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-49 | 9/9/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-49 (8.5 - 9.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | 3": Concrete |
| - | | | (5 - 5.7) | | Light tan - brown fine sands and silts; 1/4 - 1/2-inch pebbles. |
| - | | | | | Brick material present in lower 12" of sample. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.5 | 0.0 | | Upper 3": Brick material |
| - | | | (6 - 6.3) | | Brown to gray silty clay; soft; medium to high plasticity. |
| - | | | | | Lower 3": wet; gray fine to medium sands with silt. |
| - | | | | SB-49 | |
| - | | | | (8.5 - 9.5) | |
| 10 | 10 - 15 | 4 | 0.0 | | Saturated. |
| - | | | (6 - 6.7) | | Gray clayey silt; 1-inch gravel present; shale material at 14.5'. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-49 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58 AOC - East Cutout) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-50 | 9/9/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-50 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | 3": Concrete |
| - | | | (7 - 7.6) | | Light tan - brown fine sands and silts; 2-inch rock fragments at 4.5'. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | 0.0 | | Upper 6": Cinder material. |
| - | | | (5 - 6) | | Gray silty clay; soft; medium to high plasticity. |
| - | | | | | Lower 12": Gray clayey silt; wet. |
| - | | | | SB-50 | |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 4 | 0.0 | | Gray clayey silt; wet; stiff. |
| - | | | (3.5 - 4) | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-50 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Building #58 AOC - East Cutout) |
| **Boring Number:** SB-51 | **Date Drilled:** 9/9/2003 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-51 (11.5 - 12.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 1 - 2 | | 3": Concrete |
| - | | | 500 - 700 | | Brown - dark brown fine sands and silts; trace gravel. |
| - | | | (1500 - Wood) | | Wood material at 4'; creosote odor; elevated PID. |
| - | | | (1 - 3) | | Brick and concrete material. |
| - | | | (at bottom) | | |
| 5 | 5 - 10 | 3 | 2.5 - 3 | | Upper 12": Brown silty clay; fine to coarse sand and gravel |
| - | | | (6 - 6.5) | | intermixed. |
| - | | | | | Lower 2': Gray silty clay; soft; medium plasticity; wet at 9.5' |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 4 | 6 - 7 | | Gray silty clay; trace gravel; saturated at 12.5' |
| - | | | | SB-51 | Lower 15": fine to coarse sand and gravel. |
| - | | | | (11.5 - 12.5) | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-51 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58 AOC - East Cutout) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-52 | 9/9/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-52 (6 - 7) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 4 | 0.0 | | 3": Concrete |
| - | | | (4 - 5) | | Light tan - dark brown fine sands and silts; brick material present |
| - | | | | | Slight creosol odor at 1.5 - 2.5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | (100 - 120) | | Find sands and silts. |
| - | | | | SB-52 | Brown - gray silty clay; soft; medium to high plasticity. |
| - | | | | (6 - 7) | 1/4 - 1/2-inch quartz fragments at 8'. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | | | | No Recovery. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-52 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58 AOC - East Cutout) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-53 | 9/9/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-53 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | 3": Concrete |
| - | | | (3 - 3.6) | | Gray - dark brown fine sands and silts with gravel (1/2 - 1-inch). |
| - | | | | | Brick material present at 4'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.5 | 0.0 | | Upper 6": Brick material. |
| - | | | (4 - 7) | | Lower 15": Gray clayey silt; trace gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-53 | |
| 10 | 10 - 15 | 3 | 0.0 | (9 - 10) | Upper 6": Brown silty clay; trace coarse sand and gravel. |
| - | | | (4 - 4.5) | | Lower 2.5': Saturated; fine to coarse sands and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-53 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Building #58 AOC - East Cutout) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-54 | 9/9/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-54 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | 3": Concrete |
| - | | | (4 - 4.3) | | Brown - dark brown fine sands and silts; |
| - | | | | | 1/4 - 1-inch pebbles present. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 1.5 | 0.0 | | Poor recovery. |
| - | | | (5 - 5.6) | | Brown silty clay with gravel; loose. |
| - | | | | | Lower 2": Gray clayey silt. |
| - | | | | | |
| - | | | | SB-54 | |
| 10 | 10 - 15 | 3 | 0.0 | (9 - 10) | Saturated. |
| - | | | (3.9 - 4.4) | | Gray fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-54 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Building #58 AOC - East Cutout) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-55 | 9/10/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-55 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0 - 1 | | 3": Concrete |
| - | | | (1.5 - 2) | | Brown - dark brown fine sands and silts; 1/4 - 1/2-inch pebbles. |
| - | | | | | Brick material present at 3'2" - 3'9". Concrete-like material at 4'. |
| - | | | | | Lower 3": brown silty clay with gravel. |
| - | | | | | |
| 5 | 5 - 10 | 4 | 0 - 1 | | Brown to gray silty clay; trace gravel; medium to high plasticity. |
| - | | | (3.5 - 4) | | wet at 9'. |
| - | | | | | Lower 12": clayey silt with gravel. |
| - | | | | | |
| - | | | | SB-55 | |
| 10 | 10 - 15 | 4 | 0 - 1 | (9 - 10) | Brown to gray clayey silt; fine to coarse sand intermixed; loose. |
| - | | | (2 - 3) | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-55 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58 AOC - East Cutout) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-56 | 9/10/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-56 (8 - 8.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 1 - 3 | | 3": Concrete |
| - | | | (3 - 4) | | Brown fine to coarse sands and silt; 1/4 - 1/2-inch pebbles. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2 | 4 - 5 | | Brown silty clay; fine to coarse sand and gravel intermixed; |
| - | | | (3 - 4.5) | | loose; 1 - 2-inch rock fragments present. |
| - | | | | SB-56 | Lower 12": silty clay - clayey silt; wet at bottom |
| - | | | | (8 - 8.5) | Purple-colored material at 8 - 8.5'. |
| - | | | | | |
| 10 | 10 - 15 | 3.5 | 0.5 - 1.2 | | Upper 1.5': gray fine to medium sand with silt; saturated. |
| - | | | (5 - 6) | | Lower 2': Gray fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-56 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Building #58 AOC - East Cutout) |
| **Boring Number:** SB-57 | **Date Drilled:** 9/10/2003 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** None |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 15.0 |

**Notes:** PID values in "()" are headspace readings.
Ground-water sample SB-57 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Boring installed for collection of ground-water sample. Soil samples not collected.
MS/MSD QA/QC samples also collected from SB-57 ground- water sample.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | | | | Boring installed for collection of ground-water sample. |
| - | | | | | Soil samples not collected. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-57 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Building #58 AOC - West Cutout) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-58 | 9/10/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | None |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Ground-water sample SB-58 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Boring installed for collection of ground-water sample. Soil samples not collected.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | | | | Boring installed for collection of ground-water sample. |
| - | | | | | Soil samples not collected. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-58 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-59 | 9/10/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-59 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 1 - 3 | | 3": Concrete |
| - | | | (12 - 13) | | Light tan - dark brown fine to coarse sand and silt; 1/4 - 1-inch |
| - | | | | | pebbles. Brick material present at 3.5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | 1 - 3 | | Brick material at 8'. |
| - | | | (10 - 12) | | Gray silty clay; soft; medium to high plasticity |
| - | | | | | Gray fine sand and silt; wet. |
| - | | | | | |
| - | | | | SB-59 | |
| 10 | 10 - 15 | 4 | 0.5 - 9 | (9 - 10) | Saturated. |
| - | | | (30 - 39) | | Upper 2.5': Gray silt with fine sand. |
| - | | | | | Middle 6": fine to coarse sand and gravel. |
| - | | | | | Lower 12": clayey silt. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-59 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-60 | 9/10/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-60 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | NA | 0.5 | | 3": Concrete |
| - | | | (3.5 - 4) | | Brown silty clay with gravel (1/4 - 1/2-inch). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 0 - 5 | | Silty clay with fine to coarse sands and |
| - | | | (4 - 5) | | gravel (1/4 - 1-inch pebbles). |
| - | | | | | |
| - | | | | | |
| - | | | | SB-60 | |
| 10 | 10 - 15 | 2.5 | 20 - 30 | (9 - 10) | Saturated. |
| - | | | (40 - 50) | | Gray fine to coarse sands and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-60 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** SB-61 | **Date Drilled:** 9/10/2003 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 3 - 5 | | Brown to dark gray fine to coarse sands ands silt; |
| - | | | | | 1/4 - 1-inch gravel. |
| - | | | | | Lower 12": Gray silty clay; trace gravel; moist; soft; medium |
| - | | | | | to high plasticity. |
| - | | | | | |
| 5 | 5 - 10 | NA | 3,000 - 4,000 | | Gray silty clay; trace gravel; 1 - 2-inch rock fragments at 8.5 - 9'. |
| - | | | | | Lower 3": gray fine sand and silt; wet; toluene odor. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 3 | 500 - 1,000 | | Saturated. |
| - | | | (1,800 - 1,900) | | Upper 6": Silty clay |
| - | | | (75) | | Middle 12": fine sand and silt. |
| - | | | (at bottom) | | Lower 12": fine to coarse sand and gravel; strong toluene odor. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-61 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-62 | 9/11/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Water sample SB-62 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Water sample SB-62A is a duplicate sample of SB-62.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 100 - 170 | | 3": Concrete. |
| - | | | (100 - 150) | | Light - dark brown fine to coarse sands and silt; 1/4 - 1/2-inch |
| - | | | | | pebbles. Gray silty clay present from 3.5 - 4'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | 5,000 - 6,000 | | Light tan - dark brown fine to coarse sands and silt; |
| - | | | | | 1/4 - 1/2-inch pebbles. Cinder material present from 8 - 8.5'. |
| - | | | | | 8.5 - 10': Gray silty clay; trace gravel; soft; medium to high |
| - | | | | | plasticity; strong toluene odor. |
| - | | | | | |
| 10 | 10 - 15 | 2.5 | >9,999 | | Saturated. |
| - | | | | | Upper 6": Gray silty clay; trace gravel. |
| - | | | | | Lower 2': fine to coarse sands and gravel. |
| - | | | | | Coarser grained with depth. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-62 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-63 | 9/11/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 35 - 50 | | 3": Concrete. |
| - | | | (35 - 40) | | Brown - dark brown fine to medium sands with silt; |
| - | | | | | 1/4 - 1/2-inch pebbles present; cinder material present at 3'. |
| - | | | | | |
| - | | | | | Fine sands and silts; 1/4 - 1/2-inch pebbles; |
| 5 | 5 - 10 | 3 | 2,000 - 3,000 | | cinder material throughout. |
| - | | | (lower) | | Lower 12": brown to gray silty clay; soft; medium to high |
| - | | | (10 - 15) | | plasticity; strong toluene odor and elevated PID |
| - | | | (upper) | | in lower 12" of sample. |
| - | | | | | |
| 10 | 10 - 15 | 2.5 | 3,000 - 4,000 | | Saturated. |
| - | | | (upper) | | Gray fine to coarse sand and gravel. Finer grained sands/silts |
| - | | | (15 - 20) | | in upper portion of sample. |
| - | | | (lower) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-63 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-64 | 9/11/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 3 - 6 | | 3": Concrete. |
| - | | | (8 - 10) | | Brown fine to coarse sands and silt; 1/8 - 1/4 gravel. |
| - | | | | | 4 - 4.5': fine sand and silt; brown to gray slate clay at bottom. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.5 | 1,000 - 7,000 | | Brown - dark brown fine sands and silt; |
| - | | | | | Lower 18": Dark gray silty clay (strong toluene odor). |
| - | | | | | PID increasing with depth. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2 | 2,000 - 4,000 | | Upper 12": fine sands and silt. |
| - | | | (upper) | | Middle 6": Gray silty clay. |
| - | | | 200 - 300 | | Lower 12": fine to coarse sand and gravel (1/4 - 1/2-inch). |
| - | | | (lower) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-64 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-65 | 9/11/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 2 - 4 | | 3": Concrete. |
| - | | | (7 - 8) | | Dark brown - black fine sands and silt. |
| - | | | | | Cinder material present at 4 feet. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.5 | 1,500 - 1,700 | | Dark brown - black fine sands and silt. |
| - | | | | | 8.5 - 10': Brown - dark gray silty clay. |
| - | | | 1,700 - 2,200 | | Cinder material present at 9.5'. |
| - | | | (lower 12") | | |
| - | | | | | |
| 10 | 10 - 15 | 0.5 | 1,600 - 1,700 | | Poor recovery. |
| - | | | | | Gray silty clay; fine to coarse sands and silt also present. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-65 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-66 | 9/11/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-66 (9 - 12) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
MS and MSD QA/QC samples also collected from SB-66 (9 - 12).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | NM | 2 - 3 | | 3": Concrete; 3" brick material. |
| - | | | (6 - 8) | | Dark brown fine to medium sands and silt. |
| - | | | | | Cinder material present in lower 2" of sample. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 6 - 8 | | Dark brown - maroon - light gray fine to medium sands and silt. |
| - | | | (upper 2') | | Cinder material present from 8.5 - 9 feet |
| - | | | 1,700 - 2,200 | | Lower 12": Dark brown clayey silt; strong toluene odor. |
| - | | | (lower 12") | | |
| - | | | | | |
| 10 | 10 - 15 | 3 | 2,500 - 3,000 | SB-66 | Saturated. |
| - | | | | (9 - 12) | Upper 12": gray fine sand and silt. |
| - | | | (100 - 125) | MS/MSD | Lower 2': Gray fine to coarse sand and gravel (1/8 - 1/4-inch) |
| - | | | (bottom) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-66 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** SB-67 | **Date Drilled:** 9/11/2003 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 0.5 - 1 | | 3": Concrete. |
| - | | | | | Light gray - light brown fine sand and silt. |
| - | | | | | Cinder material present at 4.5'. |
| - | | | | | Lower 3" tan clayey silt and gravel (1/8 - 1/4-inch). |
| - | | | | | |
| 5 | 5 - 10 | 2.5 | 0 - 1 | | Brown - gray silty clay. brick material present at 3.5'. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 0.5 | 2,800 - 3,000 | | Poor recovery. |
| - | | | | | Brown to gray silty clay; strong toluene odor. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-67 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-68 | 9/11/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil samples SB-68 (4 - 5) and SB-68 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 90 - 105 | | 3": Concrete. |
| - | | | (100 - 126) | | Light tan - dark brown fine sands and silt. |
| - | | | | | Cinder material present in lower 6" of sample. |
| - | | | | SB-68 | |
| - | | | | (4 - 5) | |
| 5 | 5 - 10 | 4 | 50 - 60 | | Light brown silty clay with gravel (1/4 - 1/2-inch). |
| - | | | (35 - 40) | | Lower 12": wet; gray fine to coarse sands. |
| - | | | (7 - 8) | | |
| - | | | (at bottom) | | |
| - | | | | SB-68 | |
| 10 | 10 - 15 | 3 | 9 - 10 | (9 - 10) | Saturated. |
| - | | | (7 - 8) | | Brown to gray fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-68 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-69 | 9/12/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.5 - 0.6 | | 3": Concrete. |
| - | | | (3.0) | | Brown fine sand and silt; trace gravel; moist at 4'. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2 | 2 - 10 | | Moist. Upper 12": brown fine sands with silt |
| - | | | (4 - 5) | | and 1/8 - 1/4-inch gravel. |
| - | | | | | Lower 12": silty clay with gravel (1/4 - 1-inch). |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 4' | >9,999 | | Saturated; fine to coarse sand and gravel. |
| - | | | | | Strong toluene odor. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-69 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-70 | 9/12/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 3 - 10 | | 3": Concrete. |
| - | | | (7 - 8) | | Brown to dark brown fine sands and silt and 1/8 - 1/4-inch gravel. |
| - | | | | | Cinder material present at lower 6" of sample. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2 | 2 - 3 | | Upper 2": Cinder material (fine to coarse grained). |
| - | | | (3.5 - 4) | | Gray silty clay with gravel (1/8 - 1/2-inch). |
| - | | | | | Slightly moist at bottom. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 3 inches | 200 - 400 | | No recovery |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-70 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-71 | 9/12/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-12) | PVC - 1-1/2-inch (Pre-Pack) | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Water sample SB-71 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 15 - 20 | | 3": Concrete. |
| - | | | (25 - 30) | | Upper 2': Dark brown fine sands and silt with 1/4 - 1/2-inch gravel. |
| - | | | | | Middle 12": tan silt and fine sand. |
| - | | | | | Lower 6": fine to coarse grained cinder material. |
| - | | | | | |
| 5 | 5 - 10 | 4 | 5 - 12 | | Upper 6": cinder material. |
| - | | | (20 - 25) | | 6 - 8.5': Gray/brown silty clay; trace gravel. |
| - | | | | | Lower 18": Gray fine to coarse sand and gravel; wet. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 4 | >9,999 | | Saturated; fine to coarse sand and gravel (1/4 - 1-inch). |
| - | | | | | Strong toluene odor. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-71 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-72 | 9/12/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-72 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane and TOC).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 8 - 10 | | 3": Concrete. |
| - | | | (10 - 16) | | Upper 10": tan fine sands and silt with gravel; loose. |
| - | | | | | Lower 18": Light to dark brown fine sand and silt. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | >9,999 | | Upper 6": Black to dark brown cinder material (fine to coarse). |
| - | | | (lower 12") | | Remainder: Gray/tan silty clay; trace gravel (1/4 - 1/2-inch). |
| - | | | 200 - 300 | | Strong toluene odor in lower 12" of sample; slightly moist. |
| - | | | (middle) | | |
| - | | | | SB-72 | |
| 10 | 10 - 15 | 3 | >9,999 | (9 - 10) | Saturated. |
| - | | | | | Fine to coarse sands and gravel. |
| - | | | | | Lower 12": fine sand and silt. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-72 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-73 | 9/12/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-73 (3.5 - 4.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 4 | 50 - 99 | | 3": Concrete. |
| - | | | (3.5 feet) | | Light tan - dark brown fine sands and silt. |
| - | | | (50 - 70) | SB-73 | Cinder material present in lower 12" of sample. |
| - | | | | (3.5 - 4.5) | |
| - | | | | | |
| 5 | 5 - 10 | 4 | 15 - 20 | | Tan to gray silty clay; soft to firm; medium plasticity. |
| - | | | | | Rock fragments (2-inch) present at 8.5 - 9.5 feet. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 4 | 20 - 30 | | Upper 12": silty clay/fine sand and silt. |
| - | | | | | Lower 2.5': Saturated; gray fine to coarse sand |
| - | | | | | and gravel (1/8 - 1/4-inch). |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-73 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-74 | 9/12/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 20 - 25 | | 3": Concrete. |
| - | | | (38 - 40) | | Light to dark brown fine sands and silt. |
| - | | | | | Cinder material present from 4 - 4.5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 25 - 30 | | Upper 2": dark brown fine sand and silt. |
| - | | | (25 - 30) | | Middle 12": Gray/brown clayey silt. |
| - | | | | | Remainder: Brown fine sand and silt with 1/4 - 1/2-inch gravel. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 1.5 | 2,000 - 3,000 | | Poor recovery. |
| - | | | | | Strong toluene odor. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-74 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-75 | 9/12/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil samples SB-75 (3.5 - 4.5) and SB-75 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 4 | 15 - 25 | | 3": Concrete. |
| - | | | (25 - 31) | | Light tan/brown fine sands and silt with 1/8 - 1/2-inch gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-75 | |
| 5 | 5 - 10 | 5 | 20 - 23 | (3.5 - 4.5) | Tan/light brown clayey silt; trace gravel. |
| - | | | (15 - 19) | | Slightly moist in lower 3" of sample. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-75 | |
| 10 | 10 - 15 | | | (9 - 10) | No Recovery. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-75 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit/Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-76 | 9/12/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-76 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 20 - 27 | | 3": Concrete. |
| - | | | (13 - 15) | | Upper 18": Light brown fine sands and silt; trace gravel. |
| - | | | | | Middle 12": Black cinder material (fine to coarse grained). |
| - | | | | | Lower 12": Brown clayey silt. |
| - | | | | | |
| 5 | 5 - 10 | 3 | 20 - 30 | | Fine to coarse sand, silt, 1/4 - 1-inch gravel. |
| - | | | (25 - 30) | | wet at 9.5'. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-76 | |
| 10 | 10 - 15 | 3 | 10 - 20 | (9 - 10) | Gray/brown coarse sand and gravel (1/2 - 1-inch). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-76 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-77 | 9/15/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 4 - 10 | | Asphalt. |
| - | | | (0.0) | | Dark brown/gray fine sands and silt with gravel (1/8 - 1/2-inch). |
| - | | | | | Moist from 3.5 - 4.5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | 0.0 | | Brown to gray silty clay with gravel (1/4 - 2-inch); loose. |
| - | | | (9 - 11) | | Wet at 9': gray fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 3.5 | >9,999 | | Saturated. |
| - | | | | | Upper 6": Brown to gray silty clay. |
| - | | | | | Remainder: Fine to coarse sand and gravel (1/8 - 1/2-inch). |
| - | | | | | Strong toluene odor. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-77 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** SB-78 | **Date Drilled:** 9/15/2003 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-78 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 0 - 0.2 | | Asphalt. |
| - | | | (0.0) | | Brown fine sands and silt with gravel (1/8 - 2-inch). |
| - | | | | | 3 - 3.5': Black fine sands and silt |
| - | | | | | 3.5 - 5': Orange/brown to brown silt and fine sand. |
| - | | | | | |
| 5 | 5 - 10 | 3 | 0.0 | | Brown fine sands and silt with gravel (1/4 - 1-inch). |
| - | | | | | Coarser grained with depth. |
| - | | | | | Wet at 8.5'. |
| - | | | | SB-78 | |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 5 | 0.0 | | Saturated. |
| - | | | | | Brown fine to coarse sands and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-78 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-79 | 9/15/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 0.0 | | Asphalt. Dark brown fine to |
| - | | | (1 - 3) | | medium sand and gravel; cinder material present. |
| - | | | | | 3": gray silty clay - clayey silt. |
| - | | | | | 4 - 5': gray silty clay. Brick material present at 4.5'. |
| - | | | | | |
| 5 | 5 - 10 | 5 | 0.0 | | Tan silty clay to clayey silt; soft; low to medium plasticity |
| - | | | (3.5 - 4.5) | | Wet at 9.5'. |
| - | | | 700 - 800 | | |
| - | | | (lower 6") | | |
| - | | | | | |
| 10 | 10 - 15 | 3 | 20 -30 | | Saturated. |
| - | | | (100 - 130) | | Gray fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-79 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-80 | 9/15/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Asphalt. |
| - | | | (0.5 - 1.5) | | Brown fine to medium sands and silt, 1/4 - 1/2-inch gravel. |
| - | | | | | Brick material present at 3.5'. |
| - | | | | | Lower 12": light brown clayey silt; moist. |
| - | | | | | |
| 5 | 5 - 10 | 3 | 25 - 35 | | Upper 12": Tan clayey silt. |
| - | | | (350 - 450) | | Brown to gray fine sand and silt; clayey silt; |
| - | | | | | 1/8 - 1/2-inch gravel. |
| - | | | | | Lower 6": Wet; fine to coarse sand and gravel (1/4 - 1/2-inch). |
| - | | | | | |
| 10 | 10 - 15 | 3 | 10 - 15 | | Saturated. |
| - | | | (45 - 60) | | Coarse sand and coarse gravel. |
| - | | | | | Finer grained with depth. |
| - | | | | | Lower 12": Gray clayey silt; stiff. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-80 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-81 | 9/15/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-81 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Asphalt/gravel. |
| - | | | (10 - 13) | | Brown to dark brown fine sands and silt |
| - | | | | | with gravel (1/4 - 1/2-inch). |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 8 - 14 | | Slightly moist |
| - | | | (14 - 16) | | Upper 12": tan fine sand and silt |
| - | | | | | Lower 2': fine sand and silt with 1/4 - 1-inch gravel. |
| - | | | | | |
| - | | | | SB-81 | |
| 10 | 10 - 15 | 3 | 0.0 | (9 - 10) | Saturated. |
| - | | | (9 - 10) | | Coarse sand and gravel (1/4 - 1-inch). |
| - | | | | | Finer grained with depth. |
| - | | | | | Lower 12": gray clayey silt; trace gravel. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-81 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-82 | 9/15/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-82 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Water sample SB-82 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0 - 1 | | Asphalt. Dark brown/light brown |
| - | | | (10 - 12) | | fine sands and silt with gravel (1/8 - 1/4-inch). |
| - | | | | | 1 - 2-inch angular rock fragments present at 3'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | NM | 500 - 1,100 | | Fine to coarse sands and silt with 1/8 - 1-inch gravel. |
| - | | | | | Lower 12": fine to coarse sand and gravel; wet. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-82 | |
| 10 | 10 - 15 | 4 | 0.0 | (9 - 10) | Upper 2': Saturated; fine to coarse sand and coarse gravel. |
| - | | | | | Lower 2': Gray clayey silt; stiff; 1/8 - 1/4-inch gravel present. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-82 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** SB-83 | **Date Drilled:** 9/15/2003 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-83 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.0 | | Dark brown - brown fine sands and silt |
| - | | | (10 - 12) | | with 1/4 - 1/2-inch gravel. |
| - | | | | | Rock and wood fragments at 3 - 3.5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 2.5 | | Fine to coarse sands with silt and gravel (1/4 - 1-inch) |
| - | | | (upper 2.5') | | Lower 6": wet; gray fine to medium sand. |
| - | | | 400 - 500 | | Petroleum-like odor in lower 6": |
| - | | | (lower 3") | | |
| - | | | | SB-83 | |
| 10 | 10 - 15 | 4 | 10 - 15 | (9 - 10) | Saturated. |
| - | | | (7 - 10) | | Upper 2': Gray fine to coarse sand and gravel (1/8 - 1/2-inch). |
| - | | | | | Lower 2': Gray clayey silt; trace gravel. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-83 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Tank Farm SWMU) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-84 | 9/15/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-84 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 0.0 | | Asphalt. |
| - | | | (15 - 16) | | Brown fine sands and silt with gravel; loose gravelly silt. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.5 | 0.0 | | Upper 2': same as above - gravelly silt. |
| - | | | (4 - 5) | | Lower 12": Saturated; gray silt with fine sand |
| - | | | | | and gravel (1/4 - 1-inch). |
| - | | | | SB-84 | |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 4 | 0.0 | | Saturated. |
| - | | | (4 - 7) | | Upper 12": Fine to coarse sand and gravel (1/8 - 1/4-inch). |
| - | | | | | Lower 3': gray clayey silt; trace gravel (1/2 - 1-inch). |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-84 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-85 | 9/16/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 10 - 15 | | 3" Concrete. |
| - | | | (10 - 15) | | Brown - dark brown fine sands and silt. |
| - | | | | | Cinder material present throughout. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.5 | 10 - 45 | | Cinder material (fine to coarse grained). |
| - | | | (35 - 50) | | Lower 12": Brown fine silt; septic odor; very soft; organic-like. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 1.5 | 20 - 27 | | Poor recovery. |
| - | | | (9 - 10) | | Lower 12": wet; gray silt with 1/2 - 2-inch gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-85 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-86 | 9/16/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 9 - 10 | | 3" Concrete. |
| - | | | (15 - 20) | | Light to dark brown fine sand and silt; |
| - | | | | | trace gravel (1/8 - 1/4-inch). Cinder material present at 3.5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 15 - 20 | | Brown to black fine sand and silt; trace gravel (1/4 - 1-inch). |
| - | | | (15 - 20) | | Cinder material present in lower 12" (moist). |
| - | | | | | Brick material present at 9'. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2 | 1,000 - 1,500 | | Saturated. |
| - | | | (1,500) | | Fine to coarse sand and gravel. |
| - | | | (15 - 20) | | |
| - | | | (at bottom) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-86 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-87 | 9/16/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | NM | 20 - 60 | | 3" Concrete. |
| - | | | (50 - 55) | | Light to dark brown fine sand and silt; trace |
| - | | | | | gravel (1/8 - 1/4-inch). Brick material present at 2.5 - 3'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2 | 15 - 20 | | Upper 12": Brown fine sand and silt; 1/4 - 1/2-inch pebbles. |
| - | | | (15 - 20) | | Cinder material present at 9;. |
| - | | | | | Gray clayey silt; wet. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 3 | >9,999 | | Clayey silt to fine to coarse sand and gravel; strong toluene odor. |
| - | | | | | Saturated at 13'. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-87 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-88 | 9/16/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 18 - 20 | | 3" Concrete. |
| - | | | (15 - 20) | | Upper 9": Light tan fine sand and silt; trace gravel (1/8 - 1-inch). |
| - | | | | | Remainder: Cinder and brick material. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 4,000 - 5,000 | | Upper 12": fine sands and silts with brick and concrete material. |
| - | | | | | 6": Gray fine to medium sand and silt; wet. |
| - | | | | | 10": Dark brown silt/clay; soft |
| - | | | | | 9 - 10': Gray clayey silt (high PID). |
| - | | | | | |
| 10 | 10 - 15 | 3 | 1,200 - 1,700 | | Upper 12": Gray clayey silt; trace gravel (1/4 - 1/2-inch). |
| - | | | (top) | | Lower 2': Saturated; fine to coarse sand and gravel. |
| - | | | (15 - 25) | | |
| - | | | (bottom) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-88 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-89 | 9/16/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 20 - 27 | | 3" Concrete. |
| - | | | (20 - 25) | | Light tan - dark brown fine sands and silt with 1/4 - 1/2-inch |
| - | | | | | pebbles. Brick/concrete material present from 3.5 - 4.5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.5 | 18 - 20 | | Upper 4": Concrete material (fine to coarse grained). |
| - | | | (20 - 25) | | Middle 12": Black fine sand and silt; brick material at 7.5'. |
| - | | | | | Lower 2': Gray silty clay to clayey silt; moist. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2.5 | 4,000 - 7,000 | | Upper 12": Gray clayey silt. |
| - | | | (23 - 27) | | Remainder: fine to coarse sand and gravel; saturated. |
| - | | | (bottom) | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-89 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-90 | 9/16/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 20 - 25 | | 3" Concrete. |
| - | | | (20 - 47) | | Light brown - brown - gray fine sand and silt with |
| - | | | | | 1/4 - 1/2-inch gravel. Brick material present at 3.5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.5 | 5,000 - 7,000 | | Upper 10": gray fine sand and silt; trace gravel; moist |
| - | | | | | Middle 3": Brown fine silt; soft; toluene odor. |
| - | | | | | Lower 12": Gray clayey silt; moist; strong toluene odor. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 3 | 2,000 - 5,000 | | Upper 12": gray clayey silt; saturated strong toluene odor. |
| - | | | (60 - 85) | | Lower 2': fine to coarse sand and gravel. |
| - | | | (bottom) | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-90 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-91 | 9/16/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-91 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 15 - 20 | | 3" Concrete. |
| - | | | (20 - 25) | | Light tan - brown fine sands and silt; trace gravel (1/4 - 1/2-inch). |
| - | | | | | Lower 6": larger gravel (1/2 - 1-inch). |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.5 | 10 - 15 | | Upper 6": fine sands and silt with 1/2 - 2-inch gravel. |
| - | | | (20 - 25) | | Brown - gray silty clay; soft; medium to high plasticity; |
| - | | | | | increasing silt content in lower 12" of sample. |
| - | | | | | |
| - | | | | SB-91 | |
| 10 | 10 - 15 | 3 | 0 - 1 | (9 - 10) | Saturated. |
| - | | | | | Gray silt/clayey silt. |
| - | | | | | Lower 6": fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-91 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-92 | 9/16/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 15 - 20 | | 3" Concrete. |
| - | | | (20 - 25) | | Upper 12": Brown fine sand and silt; 1/4 - 1-inch gravel; present. |
| - | | | | | Brick material present |
| - | | | | | Maroon to yellowish tan silt to coarse sand. |
| - | | | | | |
| 5 | 5 - 10 | 1.5 | 15 - 20 | | Yellowish tan - maroon brick material (silt to coarse grained sand ). |
| - | | | (20 - 21) | | Brown clayey silt. Large 2-inch gravel in lower 6" of sample. |
| - | | | | | Brick material present in lower end of sample. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | NM | (700 - 900) | | No recovery |
| - | | | | | Some gray clayey silt in tip of sleeve. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-92 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-93 | 9/17/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-93 (7 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Soil sample SB-93A (20 - 25) is a duplicate sample of SB-93 (7 - 9).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | 3" Concrete. |
| - | | | (0.0) | | Upper 8": Yellowish tan fine to coarse sand and silt. |
| - | | | | | 7": black cinder material (fine to coarse grained). |
| - | | | | | 12": Brown fine sands with silt and gravel. |
| - | | | | | Lower 12": Brown clayey silt; trace gravel. |
| 5 | 5 - 10 | 3.5 | 0.0 | | Brown fine sands and silt; 1/4 - 1/2-inch gravel; wet at 9'. |
| - | | | (0.0) | | |
| - | | | | SB-93 | |
| - | | | | (7 - 9) | |
| - | | | | (Duplicate) | |
| 10 | 10 - 15 | 4 | 0.0 | | Upper 12": Brown fine sand and silt with gravel. |
| - | | | | | 16": Gray fine sand and silt. |
| - | | | | | Lower 16": gray clayey silt; stiff. |
| - | | | | | 3" of coarse sand and gravel in lower 6" of sample. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-93 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-94 | 9/17/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | NM | 3 - 5 | | 3" Concrete. |
| - | | | (3 - 6) | | Upper 12": Brick material. |
| - | | | | | Brown fine sand and silt; trace gravel (1/4 - 1/2-inch). |
| - | | | | | Cinder material present. |
| - | | | | | |
| 5 | 5 - 10 | 4 | 2,000 - 5,000 | | Upper 18": Dark brown fine sand and silt with cinder material. |
| - | | | | | 8 - 10': Gray clayey silt with gravel. |
| - | | | | | Strong toluene odor in lower 2' of sample. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 4 | 1,500 - 2,000 | | Upper 18": clayey silt with gravel. |
| - | | | (upper 12") | | Lower 2.5': saturated; gray fine to coarse sand and gravel. |
| - | | | (0.0) | | |
| - | | | (bottom) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-94 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-95 | 9/17/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 10 - 15 | | 3" Concrete. |
| - | | | (15 - 17) | | Brown - dark brown - black fine sand and silt with gravel. |
| - | | | | | Brick material at 2 - 3.5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 20 - 40 | | Dark brown fine sand and silt; wet from 8 - 9'. |
| - | | | (20 - 37) | | Lower 12": gray clayey silt. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 3 | 3,000 - 5,000 | | Upper 12": gray clayey silt. |
| - | | | | | Middle 18": gray fine to coarse sand and gravel; saturated. |
| - | | | | | Lower 12": gray clayey silt. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-95 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-96 | 9/17/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 10 - 15 | | 3" Concrete. |
| - | | | (15 - 20) | | Brown - dark brown fine sand and silt |
| - | | | | | with gravel (1/8 - 1/4-inch). |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 15 - 20 | | Upper 12": Brown fine sands and silt with gravel. |
| - | | | (19 - 20) | | Lower 2.5': Dark brown clayey silt; soft; septic odor. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2.5 | 60 - 125 | | Saturated. |
| - | | | | | Silt with fine to coarse sand and gravel (1/4 - 1-inch). |
| - | | | | | Slight toluene odor. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-96 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-97 | 9/17/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 10 - 15 | | 3" Concrete. |
| - | | | (18 - 20) | | Brown fine to medium sands and silt; 1/8 - 1/2 gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 15 - 20 | | Upper 12": Brown fine sand and silt with gravel. |
| - | | | (50 - 52) | | Lower 2': Dark brown clayey silt; soft; septic odor. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2.5 | 1,000 - 3,000 | | Saturated. |
| - | | | (900 - 1,500) | | Silt and fine to coarse sand; 1/4 - 1-inch gravel. |
| - | | | (15 - 20) | | Slight toluene odor. |
| - | | | (bottom) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-97 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-98 | 9/17/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-98 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 4 | 10 - 15 | | 3" Concrete. |
| - | | | (20 - 25) | | Brown fine sands and silt with gravel (1/4 - 1/2-inch). |
| - | | | | | Brick material present at 2.5'. |
| - | | | | | Lower 6": clayey silt with gravel. |
| - | | | | | |
| 5 | 5 - 10 | 5 | 10 - 18 | | Light brown clayey silt with gravel (1/4 - 1-inch); moist. |
| - | | | (25 - 30) | | Increasing gravel content in lower 2" of sample. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-98 | |
| 10 | 10 - 15 | 5 | 10 - 50 | (9 - 10) | Saturated. |
| - | | | (20 - 25) | | Gray clayey silt with gravel (1 - 2-inch); stiff; upper 2' wet. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-98 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-99 | 9/17/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-99 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 15 - 20 | | 3" Concrete. |
| - | | | (20 - 25) | | Dark brown - brown fine sand and silt with |
| - | | | | | gravel (1/4 - 1/2-inch). Cinder material present at 2.5 - 3.5 '. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | NM | 15 - 20 | | Grayish brown clayey silt with gravel; wet at 10'. |
| - | | | (25 - 30) | | |
| - | | | | | |
| - | | | | | |
| - | | | | SB-99 | |
| 10 | 10 - 15 | 5 | 15 - 17 | (9 - 10) | Saturated. |
| - | | | | | Gray clayey silt; 1/2 - 1-inch pebbles in lower 2'. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-99 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-100 | 9/18/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-100 (9 - 11) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
MS and MSD QA/QC samples also collected from SB-100 (9 - 11).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 5 | 3 - 7 | | 3" Concrete. |
| - | | | (8 - 10) | | Light - dark brown fine sands and silt. |
| - | | | | | Cinder material present in lower 12" of sample. |
| - | | | | | |
| - | | | | | Upper 12": Brown fine sand and silt |
| 5 | 5 - 10 | 2.5 | 2,000 - 3,000 | | with 1/2 - 1-inch gravel; moist. |
| - | | | (lower 12") | | Middle 6": Brown silty clay; soft; medium to high plasticity. |
| - | | | | | Lower 12": gray clayey silt; strong toluene odor. |
| - | | | | | |
| - | | | | SB-100 | |
| 10 | 10 - 15 | 3 | 2,000 - 3,000 | (9 - 11) | Upper 6": gray clayey silt; moist. |
| - | | | (upper) | MS/MSD | Lower 2': fine to coarse sand and gravel; saturated. |
| - | | | (0.0) | | |
| - | | | (lower) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-100 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Building #58) |
| **Boring Number:** SB-101 | **Date Drilled:** 9/18/2003 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 4 | 5 - 11 | | 3" Concrete. |
| - | | | | | Brown fine sands and silt with gravel (1/4 - 1-inch). |
| - | | | | | Brick material present at 3'. |
| - | | | | | Cinder material present in lower 12" of sample. |
| - | | | | | |
| 5 | 5 - 10 | 0.5 | (1,100 - 1,600) | | Poor recovery. |
| - | | | | | Brown fine sand and silt with gravel. |
| - | | | | | Lower 3" gray clayey silt; toluene odor; large rock fragments in |
| - | | | | | bottom of sample. |
| - | | | | | |
| 10 | 10 - 15 | 3 | 1,000 - 1,500 | | Upper 9": 2 - 3-inch quartz fragments |
| - | | | (1,000 - 1,700) | | Middle 3": gray clayey silt; wet. |
| - | | | (13 - 15) | | Lower 2': saturated; gray fine to medium sands and gravel. |
| - | | | (bottom) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-101 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-102 | 9/18/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil samples SB-102 (4 - 5) and SB-102 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 4 | (25 - 30) | | 3" Concrete. |
| - | | | (top) | | Brown fine sands and silt with gravel (1/4 - 1-inch). |
| - | | | (200 - 400) | | Brick material present at 3' to 4'. |
| - | | | (lower 6") | | |
| - | | | | SB-102 | |
| 5 | 5 - 10 | 3 | 2,000 - 3,500 | (4 - 5) | Upper 12": Brown fine sands and silt with gravel (1/4 - 1-inch). |
| - | | | | | Lower 2': gray clayey silt; wet; strong toluene odor. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-102 | |
| 10 | 10 - 15 | 2.5 | 1,000 - 2,100 | (9 - 10) | Upper 6": gray clayey silt with gravel; strong toluene odor. |
| - | | | (top) | | Lower 2': saturated; fine to coarse sand and gravel (1/2 - 1-inch). |
| - | | | (20 - 25) | | |
| - | | | (bottom) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-102 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-103 | 9/18/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 4 | 15 - 17 | | 3" Concrete. |
| - | | | (25 - 30) | | Light - dark brown fine sand and silt with gravel (1/4 - 1/2-inch). |
| - | | | | | Brick material present at 2.5 - 3'. |
| - | | | | | Cinder material present in lower 2' of sample. |
| - | | | | | |
| 5 | 5 - 10 | NM | 100 - 300 | | Upper 12": Dark brown/black cinder material (fine to |
| - | | | (cinders) | | coarse grained). 12": Brown fine sand and silt with gravel. |
| - | | | (45 - 65) | | 8": Brown silty clay; soft; medium to high plasticity. |
| - | | | (bottom) | | 8": gray clayey silt with 2 - 3-inch rock fragments. |
| - | | | | | |
| 10 | 10 - 15 | 2 | 600 - 800 | | Upper 6": gray clayey silt; wet. |
| - | | | (upper) | | Lower 1.5': saturated; fine to coarse sand and gravel; 1/2 - 1-inch |
| - | | | (15 - 20) | | pebbles. |
| - | | | (lower) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-103 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-104 | 9/18/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 15 - 25 | | 3" Concrete. |
| - | | | (25 - 30) | | Brown fine sand and silt with gravel. |
| - | | | | | Cinder material present from 2.5 - 3'; brick material from 3 - 3.5'. |
| - | | | | | 6": light gray concrete-like material (fine to coarse grained). |
| - | | | | | Lower 6": dark brown fine sands and silt with cinders. |
| 5 | 5 - 10 | 0.5 | 50 - 150 | | Poor recovery. |
| - | | | | | Brown fine sands and silt; wet. |
| - | | | | | Brown to gray clayey silt; soft; wet. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2 | 1,600 - 1,800 | | Upper 12": gray clayey silt with 1/4 - 1/2-inch gravel. |
| - | | | | | Lower 12": saturated; gray fine to coarse sand and gravel |
| - | | | | | (1/4 - 1/2-inch). |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-104 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-105 | 9/18/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 20 - 115 | | 3" Concrete. |
| - | | | (38 - 105) | | Gray - dark brown fine sands and silt with gravel. |
| - | | | | | Lower 12": gray clayey silt with gravel. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 5 | (25 - 35) | | Gray silty clay to clayey silt; low to medium plasticity. |
| - | | | (upper) | | |
| - | | | 160 - 175 | | |
| - | | | (180 - 182) | | |
| - | | | (lower) | | |
| 10 | 10 - 15 | 3 | (18 - 85) | | Saturated. |
| - | | | | | Upper 6": gray clayey silt with gravel. |
| - | | | | | Lower 2': fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-105 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-106 | 9/18/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 4 | 30 - 50 | | 3" Concrete. |
| - | | | (35 - 45) | | Light brown - gray fine sand and silt and 1/8 - 1/2-inch gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.5 | 35 - 45 | | Brown to gray clayey silt with gravel (1/4 - 2-inch); moist. |
| - | | | | | Lower 12": brown clayey silt with gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2 | 1,500 - 1,700 | | Upper 12": gray clayey silt with gravel (1/8 - 1/2-inch); wet. |
| - | | | | | Lower 12": saturated; fine to coarse sand with 2 - 3-inch |
| - | | | | | rock fragments. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-106 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-107 | 9/19/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-107 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Soil sample SB-107A (20 - 25) is a duplicate sample of SB-107 (9 - 10).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 18 - 23 | | 3" Concrete. |
| - | | | (23 - 25) | | Brown fine sand and silt with gravel (1/4 - 1-inch). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 0.5 | 20 - 25 | | Poor recovery. |
| - | | | | | Brown fine sand and silt with gravel (1/4 - 1-inch). |
| - | | | | | Large rock fragments present. |
| - | | | | SB-107 | |
| - | | | | (9 - 10) | |
| 10 | 10 - 15 | 3 | 19 - 20 | (Duplicate) | Gray clayey silt with gravel; wet. |
| - | | | (18 - 20) | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-107 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-108 | 9/19/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 10 - 15 | | 3" Concrete. |
| - | | | (20 - 25) | | Brick material present at 2.5 - 3'. |
| - | | | | | Lower 2': Dark brown/black cinder material (fine to coarse grained). |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | | | | Refusal at 5'. |
| - | | | | | **Boring SB-108 terminated at 5 feet (refusal).** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-109 | 9/19/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | | | | 3" Concrete. Refusal at 6 inches. |
| - | | | | | **Boring SB-109 terminated at 0.5 feet (refusal).** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-110 | 9/19/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-110 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 19 - 20 | | 3" Concrete. |
| - | | | (25 - 30) | | Brown fine sand and silt with gravel (1/8 - 1/2-inch). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | 300 - 500 | | Upper 12": gray silty clay. |
| - | | | 1,000 - 1,500 | | Middle 12": gray fine sand and silt. |
| - | | | (9 feet) | | Lower 12": gray clayey silt. |
| - | | | | SB-110 | |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 2.5 | 500 - 1,000 | | Upper 8": gray clayey silt with gravel. |
| - | | | | | Remainder: fine to coarse sand and coarse gravel (1/4 - 1-inch). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-110 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-111 | 9/19/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-111 (7 - 8) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 4 | 15 - 20 | | 3" Concrete. |
| - | | | (25 - 27) | | Brown fine sand and silt with gravel (1/8 - 1-inch). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | 15 - 20 | | Upper 2': fine sand and silt with gravel (1/4 - 1/2-inch). |
| - | | | (25 - 30) | SB-111 | Middle 9": silty clay with gravel (1/4 - 1/2-inch). |
| - | | | | (7 - 8) | Lower 12": fine sand and silt. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2 | 20 - 25 | | Upper 6": gray clayey silt with gravel. |
| - | | | | | Lower 1.5': saturated; fine sand and silt with 1/4 - 1/2-inch gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-111 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-112 | 9/19/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-112 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Soil sample SB-112A (20 - 25) is a duplicate sample of SB-112 (8 - 9).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 15 - 22 | | 3" Concrete. |
| - | | | (19 - 22) | | Upper 12": brown fine sandy silt. |
| - | | | | | Lower 12": dark brown fine sand and silt with 1/4 - 1-inch gravel. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 10 - 15 | | Upper 8": fine sand and silt with gravel. |
| - | | | (40 - 50) | | 12": dark brown clayey silt; soft; septic odor. |
| - | | | | | 6": dark brown silty clay; soft; medium to high plasticity. |
| - | | | | SB-112 | Lower 12": gray clayey silt. |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 4 | 10 - 15 | (Duplicate) | Gray clayey silt with gravel; wet. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-112 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-113 | 11/24/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID screening not conducted due to malfunctioning PID.
Soil samples SB-113 (3 - 4) and SB-113 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | NM | | 3" Concrete. |
| - | | | | | Light brown to black fine sands and silt. |
| - | | | | | Fine to coarse-grained cinder-like material present at 2.5 - 3.5'. |
| - | | | | SB-113 | Lower 12": Brown clayey silt with 1/8 - 1/4" gravel. |
| - | | | | (3 - 4) | No odors or staining present. |
| 5 | 5 - 10 | 4 | NM | | Brown to gray clayey silt to silty clay with gravel. |
| - | | | | | 1 - 2" rock fragments present at 7 - 8.5'. |
| - | | | | | No odors or staining present. |
| - | | | | | |
| - | | | | SB-113 | |
| 10 | 10 - 15 | 4 | NM | (9 - 10) | Upper 6": brown clayey silt with 1/8 - 1/4" gravel; soft. |
| - | | | | | Middle 18": wet; silts and gravel; loose; 1 - 2" angular fragments. |
| - | | | | | Lower 18": Saturated; gray fine to coarse sand and gravel. |
| - | | | | | No odors or staining present. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-113 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-114 | 11/24/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID screening not conducted due to malfunctioning PID.
Soil sample SB-114 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | NM | | 3" Concrete. |
| - | | | | | Brown fine sands and silt with gravel (1/8 - 1/4"). |
| - | | | | | No odors or staining present. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.5 | NM | | Brown fine sands and silt with gravel. |
| - | | | | | 1 - 2" rock fragments present in lower 18" of sample. |
| - | | | | | Lower 12": wet. |
| - | | | | SB-114 | No odors or staining present. |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 3 | NM | | Upper 12": brown fine sand and silt with gravel. |
| - | | | | | Lower 2': Saturated. Brown coarse sand and coarse gravel. |
| - | | | | | No odors or staining present. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-114 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-115 | 11/24/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID screening not conducted due to malfunctioning PID.
Soil sample SB-115 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | NM | | 3" Concrete. |
| - | | | | | Upper 18": brown fine sand and silt with gravel. |
| - | | | | | Lower 6": Brick material. |
| - | | | | | No odors or staining present. |
| - | | | | | |
| 5 | 5 - 10 | 3 | NM | | Upper 12": brick/concrete-like material (1 - 2" diameter). |
| - | | | | | Middle 12": Brown fine sand and silt with gravel. |
| - | | | | | Lower 12": Silts to fine to coarse sand and gravel; wet; 1/4 - 1/2" |
| - | | | | SB-115 | angular rock fragments. |
| - | | | | (8 - 9) | No odors or staining present. |
| 10 | 10 - 15 | 3 | NM | | Saturated. |
| - | | | | | Upper 6": brown to gray fine to coarse sand and gravel. |
| - | | | | | Middle 6": Coarse gravel; 1 - 2" angular rock fragments. |
| - | | | | | Lower 18": gray fine to coarse sand and gravel. |
| - | | | | | No odors or staining present. |
| 15 | | | | | |
| - | | | | | **Boring SB-115 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-116 | 11/24/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID screening not conducted due to malfunctioning PID.
Soil sample SB-116 (8.5 - 9.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | NM | | 3" Concrete. |
| - | | | | | Brown fine sand and silt; 1/8 - 1" gravel/angular rock fragments. |
| - | | | | | No odors or staining present. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | NM | | Brown fine sand and silt; 1/2 - 1" gravel/angular rock fragments. |
| - | | | | | Lower 3": wet; silt to fine to coarse sand and gravel; trace clay at 4'. |
| - | | | | | No odors or staining present. |
| - | | | | SB-116 | |
| - | | | | (8.5 - 9.5) | |
| 10 | 10 - 15 | 3 | NM | | Saturated. |
| - | | | | | Upper 12": coarse sand and coarse gravel (1/2 - 3/4"). |
| - | | | | | Lower 2': gray fine to coarse sand and gravel; slight toluene odor. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-116 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-117 | 11/24/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID screening not conducted due to malfunctioning PID.
Soil sample SB-117 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | NM | | 3" Concrete. |
| - | | | | | Brown silty fine sand; brick material present at 4'. |
| - | | | | | 1/4 - 1/2" pebbles present in lower 10". |
| - | | | | | No odors or staining present. |
| - | | | | | |
| 5 | 5 - 10 | 3 | NM | | Upper 12": brown fine sand and silt with gravel; 1/4 - 1/2" pebbles. |
| - | | | | | Lower 18": brown silty fine sand; wet in lower 12". |
| - | | | | | No odors or staining present. |
| - | | | | SB-117 | |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 3 | NM | | Saturated. |
| - | | | | | Upper 12": brown silty fine sand; increasing coarse sand and |
| - | | | | | gravel content with depth. |
| - | | | | | Lower 14": gray coarse sand and gravel (1/8 - 1/4"). |
| - | | | | | No odors or staining present. |
| 15 | | | | | |
| - | | | | | **Boring SB-117 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-118 | 11/24/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID screening not conducted due to malfunctioning PID.
Soil sample SB-118 (8.5 - 9.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | NM | | 3" Concrete. |
| - | | | | | Brown to gray fine sand and silt with gravel; black cinder-like |
| - | | | | | material present from 3 to 4'. |
| - | | | | | No odors or staining present. |
| - | | | | | |
| 5 | 5 - 10 | 3 | NM | | Gravelly silty clay; loose; wet in lower 6": |
| - | | | | | No odors or staining present. |
| - | | | | | |
| - | | | | SB-118 | |
| - | | | | (8.5 - 9.5) | |
| 10 | 10 - 15 | 4 | NM | | Saturated. |
| - | | | | | Brown to gray fine to coarse sand and gravel. |
| - | | | | | Gravelly clayey silt present from 13 to 14'. |
| - | | | | | Lower 12": gray fine to coarse sand and gravel. |
| - | | | | | No odors or staining present. |
| 15 | | | | | |
| - | | | | | **Boring SB-118 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-119 | 11/24/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID screening not conducted due to malfunctioning PID.
Soil sample SB-119 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1 | NM | | 3" Concrete. |
| - | | | | | Fine sand and silt with gravel; poor recovery. |
| - | | | | | No odors or staining present. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 5 | NM | | Upper 6": fine sands, silts, and gravel (1/2 - 1") |
| - | | | | | Brown/gray clayey silt; trace gravel. |
| - | | | | | Lower 18": silty fine sand; wet in lower 12". |
| - | | | | SB-119 | No odors or staining present. |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 5 | NM | | Fine sands and silt with gravel (1/8 - 1/2"). |
| - | | | | | Wet at 12.5'. |
| - | | | | | No odors or staining present. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-119 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #59) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-120 | 11/25/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-120 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Soil sample SB-120A (20 - 25) is a duplicate sample of SB-120 (9 - 10).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | 3" Concrete. |
| - | | | (0.2) | | Brown fine sand and silt with gravel (1/8 - 1/2"). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | 0.0 | | Upper 12": same as above. |
| - | | | (0.0) | | Brown silty clay; soft; medium to high plasticity; wet. |
| - | | | | | Lower 6": brown to gray clayey silt. |
| - | | | | | |
| - | | | | SB-120 | |
| 10 | 10 - 15 | 4 | 0.0 | (9 - 10) | Wet; gray clayey silt; trace gravel. |
| - | | | (0.0) | (Duplicate) | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-120 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #61 - by MH-12) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-121 | 11/25/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MW-11) | PVC/2-inch | 22.5 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-121 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | 3" Concrete. |
| - | | | | | Upper 12": brown clayey silt with gravel; loose. |
| - | | | | | 4": light tan fine to coarse sand. |
| - | | | | | 4": brick material. |
| - | | | | | Lower 10": brown fine sand and silt with gravel. |
| 5 | 5 - 10 | 3.5 | 0.0 | | Upper 6": loose fine-grained concrete material. |
| - | | | | | 2': brown to dark brown fine to medium sand with silt and |
| - | | | | | gravel; loose. |
| - | | | | | Lower 12": brown silts and clay with gravel; brick material present. |
| - | | | | SB-121 | |
| 10 | 10 - 15 | 3.5 | 0.0 | (8 - 9) | Upper 6": brown fine to medium sand with silt and gravel; moist. |
| - | | | | | 12'1" - 13'1": gray concrete-like material. |
| - | | | | | Lower 2': saturated; gray coarse sand and gravel (1/4 - 1"); trace shale. |
| - | | | | | |
| - | | | | | |
| 15 | 15 - 20 | 5 | 0.0 | | Saturated. |
| - | | | | | Upper 17": gray coarse sand and gravel (1/8 - 1/4"). |
| - | | | | | 12": gray clayey silt; stiff; trace gravel. |
| - | | | | | Lower 2': shale material; silt and gravel present. |
| - | | | | | |
| 20 | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | **SB-121 terminated at 22.5' (refusal)** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Building #59) |
| **Boring Number:** SB-122 | **Date Drilled:** 11/25/2003 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** Yes (MP-8) | **Casing Material / Diameter:** PVC - 1-1/2-inch (Pre-Pack) | **Total Depth (feet):** 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-122 (8.5 - 9.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Soil samples collected to a depth of 15 feet. Point driven to bedrock refusal (23 feet).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | 3" Concrete. |
| - | | | (0.0) | | Brown to dark brown fine sand and silt with gravel. |
| - | | | | | Brick material present from 3 to 3.5' (1/4 - 1/2"). |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 0.0 | | Upper 18": brown fine sand and silt with gravel; trace clay. |
| - | | | (0.0 | | Lower 18": gray silty clay; soft; medium to high plasticity. |
| - | | | | | |
| - | | | | SB-122 | |
| - | | | | (8.5 - 9.5) | |
| 10 | 10 - 15 | 4 | 0.0 | | Saturated. |
| - | | | | | Upper 2': gray fine sand and silt. |
| - | | | | | Lower 2': coarse sand and coarse gravel. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-122 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-123 | 11/26/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-123 (8.5 - 9.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.9 - 1.0 | | 3" Concrete. |
| - | | | (0.9 - 1.1) | | Light brown to gray fine sand and silt with gravel. |
| - | | | | | Black fine to coarse grained cinder-like material in lower 8". |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 40 - 200 | | Upper 3": black fine to coarse grained cinder-like material. |
| - | | | >9,999 | | 3": gray fine to coarse grained concrete-like material. |
| - | | | (lower 12") | | Lower 2': brown to gray silty clay with gravel; coarser grained |
| - | | | | | with depth. |
| - | | | | SB-123 | Strong toluene odor in lower 12" of sample. |
| 10 | 10 - 15 | 2 | >9,999 | (8.5 - 9.5) | Saturated. |
| - | | | | | Fine to coarse sand and gravel (1/8 - 1/4"); trace silt. |
| - | | | | | Strong toluene odor. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-123 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Former Solvent Lines - Building #61) |
| **Boring Number:** SB-124 | **Date Drilled:** 11/26/2003 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil samples SB-124 (4 - 5) and SB-124 (9 - 10) submitted for laboratory analysis (grain size).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 10 - 17 | | 3" Concrete. |
| - | | | | | Light gray to dark brown fine sand and silt with gravel. |
| - | | | | | Lower 6": brownish gray silt; trace cinder-like material. |
| - | | | | | |
| - | | | | SB-124 | |
| 5 | 5 - 10 | 4 | 1 - 3 | (4 - 5) | Upper 3": brown silt. |
| - | | | (1.5 - 2) | | Lower 3.5': brown to gray clayey silt to silty clay; trace gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-124 | |
| 10 | 10 - 15 | 1 | 90 - 200 | (9 - 10) | Poor recovery. |
| - | | | | | Toluene odor present. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-124 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-125 | 11/26/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-125 (8.5 - 9.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Soil sample SB-125 (14 - 15) submitted for laboratory analysis (grain size).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 5 - 11 | | 3" Concrete. |
| - | | | (10 - 11) | | Light gray to dark brown fine sand and silt with gravel. |
| - | | | | | Trace brick material at 4'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.5 | 2 - 9 | | Upper 6": dark brown fine sand and silt; trace cinder material. |
| - | | | (2.5 - 3.0) | | Lower 3': brown to gray clayey silt to silty clay with gravel. |
| - | | | | | Wet in lower 3". |
| - | | | | | |
| - | | | | SB-125 | |
| 10 | 10 - 15 | 3 | >9,999 | (8.5 - 9.5) | Saturated. Strong toluene odor. |
| - | | | | | Gray fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | SB-125 | |
| - | | | | (14 - 15) | **Boring SB-125 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-126 | 11/26/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-126 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Soil samples SB-126 (4 - 5), SB-126 (8 - 9), and SB-126 (14 - 15) submitted for laboratory analysis (grain size).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 3 - 4 | | 3" Concrete. |
| - | | | (0.5 - 1) | | Brown fine sand and silt; trace gravel. |
| - | | | | | Brick material present at 2.5'. |
| - | | | | | |
| - | | | | SB-126 | |
| 5 | 5 - 10 | 5 | 80 - 5,000 | (4 - 5) | Upper 6": brown fine sand and silt; trace gravel. |
| - | | | (>9,999) | | 3": fine to coarse grained concrete-like material. |
| - | | | | | 8": dark brown fine sand and silt. |
| - | | | | SB-126 | 6": fine to coarse sand and gravel (1/4 - 1/2"). |
| - | | | | (8 - 9) and | Lower 2.5': brown to gray clayey silt; trace 1/2 - 1" pebbles. |
| 10 | 10 - 15 | 3 | >9,999 | (9 - 10) | Saturated. |
| - | | | | | Upper 12": gray clayey silt; trace gravel. |
| - | | | | | Lower 2': fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| 15 | | | | SB-126 | |
| - | | | | (14 - 15) | **Boring SB-126 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-127 | 11/26/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-9) | PVC - 1-1/2-inch (Pre-Pack) | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Water sample SB-127 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 1.5 - 1.7 | | 3" Concrete. |
| - | | | (1.3 - 1.6) | | Brown fine sand and silt with gravel (1/4 - 1/2"). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 1 - 2 | | Brown fine to coarse sand and silt; trace clay; loose. |
| - | | | (4 - 4.5) | | Lower 3": 1/8 - 1/4" gravel; wet. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2.5 | 4000 - 5000 | | Saturated. |
| - | | | (top) | | Fine to coarse sand and gravel. |
| - | | | 5 - 10 | | |
| - | | | (bottom) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-127 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Railroad right-of-way - Southern Tracks) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-128 | 12/1/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-128 (10.5 - 11.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.5 - 1.0 | | 3" Concrete. |
| - | | | (0.9 - 1.3) | | Brown to gray silty clay; trace gravel; moist; soft; medium to |
| - | | | | | high plasticity. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.5 | 1 - 3 | | Upper 2': brown to gray silty clay; trace gravel; soft; medium to |
| - | | | (0.5 - 0.7) | | high plasticity; moist. |
| - | | | | | Lower 1.5': saturated; gray fine to medium sand. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 5 | 30 - 85 | SB-128 | Saturated. |
| - | | | (200 - 300) | (10.5 - 11.5) | Gray fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-128 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Railroad right-of-way - Southern Tracks) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-129 | 12/1/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-129 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0 - 0.1 | | Brown silt to fine to medium sand and gravel (1/8 - 1/4"). |
| - | | | (30 - 33) | | Lower 6": brown silty clay; soft; medium to high plasticity. |
| - | | | | | Moist to wet. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 200 - >9,999 | | Saturated; strong toluene odor. |
| - | | | | | Upper 10": gray silty clay; trace coarse sand and gravel. |
| - | | | | | Lower 2': fray fine to medium sand. |
| - | | | | SB-129 | PID increasing with depth. |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 3 | 100 - >1,000 | | Saturated. |
| - | | | | | Fine to medium sand and gravel. |
| - | | | | | PID decreasing with depth. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-129 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Railroad right-of-way - Southern Tracks) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-130 | 12/1/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-130 (4 - 5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 1 - 3 | | Upper 1.5': brown fine sand and gravel; moist to wet. |
| - | | | (10 - 12) | | Lower 2': brown to gray silty clay; trace gravel; soft; medium |
| - | | | | | to high plasticity. |
| - | | | | | |
| - | | | | SB-130 | |
| 5 | 5 - 10 | 3.5 | 1 - 3 | (4 - 5) | Upper 2': gray silty clay; soft; medium plasticity; trace gravel. |
| - | | | (0.2 - 0.3) | | Lower 1.5': fine to coarse sand and gravel; trace clay and shale |
| - | | | | | material (1/2 - 1"). |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 3 | 0 - 0.5 | | Saturated. |
| - | | | (0.5 - 1) | | Fine to coarse sand and coarse gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-130 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Railroad right-of-way - Southern Tracks) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-131 | 12/1/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-131 (4.5 - 5.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1 | 0.0 | | Poor recovery. |
| - | | | (0.1) | | Brown clayey silt; trace gravel; moist. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-131 | |
| 5 | 5 - 10 | 3 | 0.0 | (4.5 - 5.5) | Same as above. Increased gravel content in lower 6" of sample |
| - | | | (0.0) | | (1/4 - 1/2"). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2.5 | 1.5 - 2.1 | | Saturated. |
| - | | | (2 - 2.5) | | Coarse sand and coarse gravel (1/8 - 1/2"). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-131 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Railroad right-of-way - Southern Tracks) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-132 | 12/1/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 4 | 0 - 0.1 | | Brown silty clay; medium to high plasticity; soft. |
| - | | | (0 - 0.1) | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 5 | 50 - 4,500 | | Upper 3': brown to gray silty clay. |
| - | | | | | Lower 2': gray fine to medium sand and silt. |
| - | | | | | PID increasing with depth. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 5 | 4000 - 5000 | | Saturated. |
| - | | | (top) | | Fine to medium sand and silt. |
| - | | | 50 - 80 | | PID decreasing with depth. |
| - | | | (bottom) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-132 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Railroad right-of-way - Northern Tracks) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-133 | 12/1/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Water sample SB-133 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0 - 1 | | Fine to medium sand and silt; trace gravel (1/8 - 1/4"); moist. |
| - | | | (0.2) | | 1 - 2" angular rock fragments at 4'. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 1.5 - 2.5 | | Brown fine to medium sand and silt. |
| - | | | (0.5 - 1) | | Lower 12" moist. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2 | 200 - 688 | | Saturated. |
| - | | | (1,000 - 1,300) | | Upper 12": fine to coarse sand and gravel. |
| - | | | | | Lower 12": fine to medium sand and gravel. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-133 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Railroad right-of-way - Northern Tracks) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-134 | 12/2/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-134 (7 - 8) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | (0.0 - 1.0) | | Dark brown to brown silt to fine to medium sand and gravel (1/4 - 1/2"); wet. |
| 5 | 5 - 10 | 4.5 | (2.5 - 3.0) | | Upper 6": brown fine sand and silt.<br>Middle 2.5': brown silty clay with gravel (1/4 - 1/2").<br>Lower 1.5': brown silty clay with gravel (1/4 - 1/2"). |
| | | | | SB-134 (7 - 8) | |
| 10 | 10 - 15 | 4 | 1,00 - 4,000 (upper)<br>80 - 200 (lower) | | Saturated.<br>Upper 12": gray fine sand and silt.<br>Lower 3': gray fine to coarse sand and gravel.<br>Toluene odor present. |
| 15 | | | | | **Boring SB-134 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Railroad right-of-way - Northern Tracks) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-135 | 12/2/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-5) | PVC - 1-1/2-inch (Pre-Pack) | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-135 (4 - 5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Water sample SB-135 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Soil samples collected to a depth of 15 feet. Point driven to bedrock refusal (21 feet).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 15 - 40 | | Upper 1.5': dark brown to brown fine sand and silt; trace gravel; |
| - | | | (0.9 - 3) | | moist. |
| - | | | | | Middle 6": brown clayey silt. |
| - | | | | | Lower 6": brown fine sand and silt. |
| - | | | | SB-135 | PID increasing with depth. |
| 5 | 5 - 10 | 3 | 10 - 40 | (4 - 5) | Upper 6": brown clayey silt. |
| - | | | (upper) | | Middle 12": brown fine sand and silt; trace gravel. |
| - | | | 1 - 3 | | Lower 2': brown fine to coarse sand and gravel (1/4 - 1/4"). |
| - | | | (lower) | | |
| - | | | | | |
| 10 | 10 - 15 | 4 | 1.5 - 7 | | Saturated. |
| - | | | (1.5 - 2) | | Brown to gray fine to coarse sand and gravel. |
| - | | | | | Increased gravel content in lower 2.5' (1/8 - 1/2"). |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-135 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Railroad right-of-way - Northern Tracks) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-136 | 12/2/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-7) | PVC - 1-1/2-inch (Pre-Pack) | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-136 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Water sample SB-136 submitted for laboratory analysis (VOC, TICs and heptane).
SB-136A is a duplicate of water sample SB-136.
Soil samples collected to a depth of 15 feet. Point driven to bedrock refusal (23.5 feet).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.5 - 0.8 | | Fine to coarse sand and gravel; trace silt. |
| - | | | | | Lower 6": clayey silt; trace gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2 | 0.5 - 1.1 | | Brown fine to coarse sand and gravel; wet. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 1 | 0.5 - 1 | | Poor recovery. |
| - | | | (0.8 - 0.9) | | Fine to coarse sand and gravel (1/2 - 1"). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-136 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Railroad right-of-way - Northern Tracks) |
| **Boring Number:** SB-137 | **Date Drilled:** 12/3/2003 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** Yes (MP-6) | **Casing Material / Diameter:** PVC - 1-1/2-inch (Pre-Pack) | **Total Depth (feet):** 15.0 |

**Notes:** Monitoring well installed in boring; soil samples not collected.
Soil samples collected to a depth of 15 feet. Point driven to bedrock refusal (22 feet).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | | | | No soil samples collected during well installation. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-137 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Adjacent to MH-1 (SAN)) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-138 | 12/3/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MW-13) | PVC/2-inch | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil samples SB-138 (4 - 5) and SB-138 (7.7 - 8.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Soil sample SB-138 (8.5 - 8.8) submitted for laboratory analysis (SVOC and TICs).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.1 - 0.2 | | Asphalt. |
| - | | | (0.3 - 0.4) | | Brown fine sand and silt with gravel and |
| - | | | | | 1/8 - 1/2" rock fragments; moist; trace clay. |
| - | | | | | 4 - 4.5': silty clay; trace gravel. |
| - | | | | SB-138 | |
| 5 | 5 - 10 | 3 | 40 - 80 | (4 - 5) | Upper 15": brown to gray silty clay with gravel; soft. |
| - | | | (above concrete) | | Concrete bedding material from 8'9" to 9'3". |
| - | | | 50 - 60 | SB-138 | Wood material (slightly elevated PID) present at 8'6" to 8'9". |
| - | | | (wood material) | (7.7 - 8.5) and | Lower 6": saturated; gray fine to coarse sand and gravel. |
| - | | | | (8.5 - 8.8) | |
| 10 | 10 - 15 | 5 | 0.2 - 0.5 | | Saturated. |
| - | | | (0.1 - 0.2) | | Upper 12": silt and clay with gravel; soft. |
| - | | | | | Lower 18": silt and gravel (1/4 - 1/2"). |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-138 terminated at 15 feet (refusal).** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Adjacent to MH-5) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-139 | 12/4/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MW-12) | PVC/1-1/4-inch (pre-pack) | 21.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-139 (4 - 5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
SB-139A is a duplicate sample of SB-139 (4 - 5).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0 - 0.8 | | Asphalt. |
| - | | | (0.2) | | Brown fine sand and silt with gravel; moist. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-139 | |
| 5 | 5 - 10 | 2 | 0 - 0.1 | (4 - 5) | Brown fine to coarse sand and gravel; wet. |
| - | | | (0 - 0.1) | (Duplicate) | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 4 | 0 - 0.1 | | Upper 12": brown fine to coarse sand and gravel. |
| - | | | (0 - 0.1) | | 13": brown to gray clayey silt; stiff to soft. |
| - | | | | | 6": gray silty clay; soft. |
| - | | | | | Lower 6": fine to coarse sand and gravel. Shale material (1/2 - 1"). |
| - | | | | | |
| 15 | 15 - 20 | | | | No Recovery. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 20 | | | | | |
| - | | | | | |
| - | | | | | **SB-139 terminated at 21 feet (refusal).** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Proximal to MH6) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-140 | 12/4/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes | PVC/2-inch | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-140 (6 - 8) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
MS and MSD QA/QC samples also collected from SB-140 (6 - 8).
Soil samples collected to a depth of 15 feet. Point driven to bedrock refusal (19.5 feet).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.2 - 0.3 | | Brown fine sand and silt with gravel. |
| - | | | (0.1 - 0.2) | | Wet from 3'4" to 3'10". |
| - | | | | | 1/2 - 1" rock fragments present from 4' - 4'3". |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | 0.1 - 0.3 | | Brown fine sand and silt with gravel (1/4 - 1/2"). |
| - | | | (0.1 - 0.30) | SB-140 | Increased silt content and trace clay in lower 18". |
| - | | | | (6 - 8) | |
| - | | | | MS/MSD | |
| - | | | | | |
| 10 | 10 - 15 | 5 | 0.2 - 0.4 | | Upper 6": brown fine sand and silt; trace clay. |
| - | | | (0.3 - 0.4) | | Lower 4.5': brown to gray fine sand and silt with gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-140 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (East of Former Tank Farm) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-141 | 12/4/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MW-15) | PVC/4-inch | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-141 (14 - 15) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Soil samples collected to a depth of 15 feet. Point driven to bedrock refusal (23 feet).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1 | 1.8 - 2.1 | | Poor recovery. |
| - | | | (2.9) | | Brown fine sand and silt with gravel. |
| - | | | | | Brick and cinder material in lower 6". |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 1 | 7 - 9 | | Poor recovery. |
| - | | | (50 - 55) | | Clayey silt; wet. |
| - | | | 1200 - 1300 | | |
| - | | | (bottom) | | |
| - | | | | | |
| 10 | 10 - 15 | 5 | 20 - 70 | | Upper 3': gray fine to coarse sand and gravel. |
| - | | | | | Lower 2': gray clayey silt with gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-141 | |
| 15 | | | | (14 - 15) | |
| - | | | | | **Boring SB-141 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Tank Farm) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-142 | 12/4/2003 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MW-14) | PVC/4-inch | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-142 (10 - 12) submitted for miscellaneous parameters (physical testing).
Soil samples collected to a depth of 15 feet. Point driven to bedrock refusal (20.5 feet).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.4 - 5 | | Brown fine sand and silt with gravel (1/8 - 1/4"); wet at 3.5'. |
| - | | | (5 - 8) | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.5 | 30 - 35 | | Upper 6": brown fine sand and silt with gravel (1/2 - 1"). |
| - | | | (top) | | Gray gravelly silty clay; toluene odor present. |
| - | | | 400 - 600 | | Coarser grained with depth. |
| - | | | (bottom) | | |
| - | | | | | |
| 10 | 10 - 15 | 5 | >9,999 | SB-142 | Upper 6": gray fine to coarse sand and gravel. |
| - | | | | (10 - 12) | Sample from 10 to 12 feet kept intact in sleeve for physical testing. |
| - | | | | | Gray silt. |
| - | | | | | Strong toluene odor and free-phase toluene product present. |
| - | | | | SB-141 | |
| 15 | | | | (14 - 15) | |
| - | | | | | **Boring SB-142 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Building #58) |
| **Boring Number:** SB-143 | **Date Drilled:** 12/5/2003 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** Yes (MW-17) | **Casing Material / Diameter:** PVC/2-inch | **Total Depth (feet):** 15.0 |

**Notes:** Monitoring well (MW-17) installed in boring; soil samples not collected.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | | | | No soil samples collected during well installation. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-143 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-144 | 1/19/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Concrete. |
| - | | | (0.0) | | Fine to coarse sand and gravel (1/8 - 1/2"). |
| - | | | | | Cinder material in upper 6". Brick material in lower 12". |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | 795 - 1,100 | | Upper 6": fine to coarse grained cinder material (1/8 - 1/4"). |
| - | | | | | 8": dark gray fine sand and silt. |
| - | | | | | 18": gray silty clay; medium to high plasticity. |
| - | | | | | Lower 6": gray fine to coarse sand and silt; trace medium sand. |
| - | | | | | Strong toluene odor. |
| 10 | 10 - 15 | 3 | 630 | | Saturated. |
| - | | | (upper) | | Gray fine to coarse sand and gravel. Increased gravel content in |
| - | | | 30 - 35 | | lower 12" (1/8 - 1/4"); slight toluene odor. |
| - | | | (lower) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-144 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Former Test Pit - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-145 | 1/19/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Concrete. |
| - | | | (0.0) | | Light tan/brown silt to fine to coarse sand and gravel (1/4 - 1/2"). |
| - | | | | | Lower 2': dark brown silt with coarse sand and gravel intermixed; |
| - | | | | | cinder material present. |
| - | | | | | Lower 2": yellowish tan fine to coarse sand and gravel. |
| 5 | 5 - 10 | 3 | 20 - 25 | | Upper 12": brown silt to coarse sand and gravel cinder |
| - | | | (8 - 9) | | material present. |
| - | | | | | Lower 2': gray silty clay; soft; medium plasticity; 1" gravel in |
| - | | | | | lower 6". |
| - | | | | | |
| 10 | 10 - 15 | 2 | 180 - 190 | | Saturated. |
| - | | | (upper) | | Upper 6": gray shale material. |
| - | | | 8 - 10 | | Clayey silt with gravel |
| - | | | (lower) | | Fine to coarse sand and gravel. |
| - | | | | | Slight toluene odor. |
| 15 | | | | | |
| - | | | | | **Boring SB-145 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Solvent Lines - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-146 | 1/19/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0 - 9 | | Concrete. |
| - | | | (3 - 6) | | Upper 6": gray fine to coarse sand with silt and gravel. |
| - | | | | | Brownish gray silt; trace clay. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | 1000 - 2500 | | Wet. |
| - | | | | | Upper 6": silt; trace clay. |
| - | | | | | 2': gray gravelly silty clay. |
| - | | | | | Lower 12": gray fine sand and silt; trace medium sand. |
| - | | | | | Strong toluene odor. |
| 10 | 10 - 15 | 2 | >2,000 | | Saturated. |
| - | | | | | Gray fine to coarse sand and gravel. |
| - | | | | | Strong toluene odor. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-146 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #56) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-147 | 1/19/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-147 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 4 - 5 | | Concrete. |
| - | | | (0.6 - 0.8) | | Brown to dark brown silt to coarse sand and gravel (1/4 - 1/2"). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 1 | 6 - 8 | | Poor recovery. |
| - | | | (0.0) | | Brown silt, fine sand, and gravel. Large (1 - 2") rock fragments. |
| - | | | | | |
| - | | | | | |
| - | | | | SB-147 | |
| 10 | 10 - 15 | 4 | 0.3 - 0.9 | (9 - 10) | Saturated. |
| - | | | | | Fine to coarse sand. Coarse gravel in lower 12". |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-147 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #56) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-148 | 1/19/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-148 (7 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
SB-148A (20 - 25) is a duplicate sample of SB-148 (7 - 9)
Water sample SB-148 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Concrete. |
| - | | | (0.0) | | Brown to dark brown fine sand with silt and gravel (1/8 - 1/4"). |
| - | | | | | Cinder material present at 3.5' and 5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 0.0 | | Light brown silt and fine sand; 1/4 - 1/2" pebbles present. |
| - | | | (0.0) | | Lower 12": brown to gray clayey silt; saturated. |
| - | | | | SB-148 | Wet at 8.5 - 9'. |
| - | | | | (7 - 9) | |
| - | | | | (Duplicate) | |
| 10 | 10 - 15 | 3 | 0.0 | | Saturated. |
| - | | | (0.0) | | Gray clayey silt with gravel; soft to stiff. |
| - | | | | | Lower 16": fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-148 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #56) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-149 | 1/20/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-149 (6 - 7) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.0 | | Concrete. |
| - | | | (0.0) | | Fine sand and silt with gravel (1/8 - 1/2"). |
| - | | | | | Brick material at 3.5; concrete material at 4 - 4.5'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | 0.0 | | Upper 12": light brown silt and fine sand. |
| - | | | (0.0) | SB-149 | Middle 2': brown fine to medium sand and silt. |
| - | | | | (6 - 7) | Lower 12": brown to gray clayey silt; saturated. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 4 | 0.0 | | Upper 12": fine sand and silt with gravel. |
| - | | | (0.0) | | 12": brown clayey silt; wet. |
| - | | | | | 12": gray clayey silt with gravel. |
| - | | | | | Lower 12": fine to coarse sand and gravel and 1/4 - 1/2" pebbles. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-149 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #56) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-150 | 1/20/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-150 (7 - 8) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.0 | | Concrete. |
| - | | | (0.0) | | Brown fine sand and silt with gravel. |
| - | | | | | Lower 12": silt and fine sand. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 0.0 | | Upper 6": brown silt and fine sand. |
| - | | | (0.0) | | 12": brown fine to medium sand and silt. |
| - | | | | SB-150 | Lower 18": brown to gray clayey silt. |
| - | | | | (7 - 8) | Wet at 8'. |
| - | | | | | |
| 10 | 10 - 15 | 3 | 0.0 | | Saturated. |
| - | | | (0.0) | | Gray fine to coarse sand and gravel (1/8 - 1/2"). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-150 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-151 | 1/20/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-151 (9 - 10) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.0 | | Concrete. |
| - | | | (0.0) | | Upper 6": brown fine sand and silt with gravel. |
| - | | | | | 15": Dark brown to black cinder material (fine to coarse grained). |
| - | | | | | Lower 8": brown silt and gravel (1/8 - 1/2"). |
| - | | | | | |
| 5 | 5 - 10 | 3 | 2.5 | | Fine to coarse sand and gravel; trace silt. Increased silt content |
| - | | | (0.0) | | in lower 12 ". Wet in lower 3". |
| - | | | | | |
| - | | | | | |
| - | | | | SB-151 | |
| 10 | 10 - 15 | 3 | 400 - 600 | (9 - 10) | Saturated. |
| - | | | (upper) | | Fine to coarse sand and coarse gravel; slight toluene odor. |
| - | | | 20 - 80 | | |
| - | | | (lower) | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-151 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-152 | 1/20/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-152 (6.5 - 7.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.0 | | Concrete. |
| - | | | (0.0) | | Brown fine to medium sand with silt and gravel. |
| - | | | | | Lower 17": silt, coarse sand, gravel (1/8 - 1/2"). |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.5 | 0.0 | | Brown silt and fine sand. |
| - | | | (0.0) | SB-152 | Fine to medium sand with silt; trace gravel. |
| - | | | | (6.5 - 7.5) | Saturated at 7.5'. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 4 | 0.0 | | Saturated. |
| - | | | (0.0) | | Brown to gray fine to coarse sand and gravel. |
| - | | | | | Lower 6": coarse gravel. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-152 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-153 | 1/20/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-153 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1.5 | 0.0 | | Concrete. |
| - | | | (0.0) | | Brown fine sand and silt with gravel (1/2 - 1"). |
| - | | | | | Cinder material in lower 2". |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 0.0 | | Upper 12": brown silt and gravel; brick material at 7.5'. |
| - | | | (0.0) | | Lower 2': Dark brown to gray clay; high plasticity; moist. |
| - | | | | | Trace silt in lower 12". |
| - | | | | SB-153 | |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 3.5 | 0.0 | | Saturated. |
| - | | | (0.0) | | Upper 6": brownish gray silty clay with gravel. |
| - | | | | | Gray fine sandy silt. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-153 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #57) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-154 | 1/20/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-154 (8.5 - 9.5) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.0 | | Concrete. |
| - | | | (0.0) | | Brown to dark brown to gray fine sand and silt with gravel. |
| - | | | | | Cinder and brick material at 3.5 - 4.5' (1/4 - 1/2" fragments). |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 0.0 | | Upper 6": concrete-like material (fine to coarse grained). |
| - | | | (0.0) | | Brown fine to coarse sand with silt and gravel. |
| - | | | | | Wet in lower 3". |
| - | | | | SB-154 | |
| - | | | | (8.5 - 9.5) | |
| 10 | 10 - 15 | 3 | 0.0 | | Saturated. |
| - | | | (0.0) | | Brown fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-154 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Building #58) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-155 | 1/20/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-155 (7 - 8) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.0 | | Concrete. |
| - | | | (0.0) | | Upper 10": brown fine sand and silt with gravel. |
| - | | | | | 4": concrete-like material. |
| - | | | | | Lower 12": brown fine sand with silt and gravel (1/8 - 1/4"). |
| - | | | | | Brick material at 2.5' and 4'. |
| 5 | 5 - 10 | 3 | 0.0 | | Upper 12": silt to fine to coarse sand and gravel (1/4 - 1/2"). |
| - | | | (0.0) | | 3": clayey silt and gravel. |
| - | | | | SB-155 | Lower 18": fine to coarse sand with silt and gravel. |
| - | | | | (7 - 8) | Coarser grained in lower 8". |
| - | | | | | |
| 10 | 10 - 15 | 2.5 | 0.0 | | Saturated. |
| - | | | (0.0) | | Fine to coarse sand and coarse gravel (1/2 - 1"). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-155 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (West of former tank farm) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-156 | 1/20/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-156 (7 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
MS/MSD QA/QC samples also collected from SB-156 (7 - 9).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Concrete. |
| - | | | (0.0) | | Dark brown to black to light brown silt to fine to coarse sand |
| - | | | | | and gravel. Wet at 4'; dry below 4'3". |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 0.0 | | Orange-brown silty clay with gravel. |
| - | | | (0.0) | | 8 - 8.5': brown silt and fine sand. |
| - | | | | | 4": clayey silt. Saturated at 9'. |
| - | | | | SB-156 | Lower 6": gray fine to coarse sand and gravel. |
| - | | | | (7 - 9) | |
| 10 | 10 - 15 | 3.5 | 0.0 | MS/MSD | Saturated. |
| - | | | (0.0) | | Gray fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-156 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Former Test Pit - Building #61) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-157 | 1/21/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-157 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Concrete. |
| - | | | (0.0) | | Light brown to brown fine sand and silt with gravel. |
| - | | | | | Brick material at 3.5' |
| - | | | | | Lower 12": cinder material (1/8 - 1/2"). |
| - | | | | | |
| 5 | 5 - 10 | 4 | 0.0 | | Orange-brown to gray clayey silt with gravel. |
| - | | | (0.0) | | Moist to wet in lower 6". |
| - | | | | | |
| - | | | | SB-157 | |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 3 | 0.0 | | Saturated. |
| - | | | (0.0) | | Fine to coarse sand and coarse gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-157 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Railroad right-of-way - Southern Tracks) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-158 | 1/22/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 12.0 |

**Notes:** PID values in "()" are headspace readings.
Soil sample SB-158 (8 - 9) submitted for laboratory analysis (VOC, SVOC, TICs, heptane).
Water sample SB-158 submitted for laboratory analysis (VOC, SVOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.2 - 0.6 | | Brown fine sand and silt; trace gravel. |
| - | | | (0.5) | | Trace clay in lower 3"; moist. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.5 | 0.2 - 0.4 | | Brown fine to coarse sand and gravel; wet at 9'. |
| - | | | (0.4) | | |
| - | | | | | |
| - | | | | SB-158 | |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 2 | 0.7 - 0.9 | | Saturated. |
| - | | | (0.5) | | Brown to gray fine to coarse sand and gravel. |
| - | | | | | Coarser grained in lower 12". |
| - | | | | | **Boring SB-158 terminated at 12 feet (refusal).** |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-159 | 8/11/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-14) | PVC/1-1/4-inch (pre-pack) | 15.0 |

**Notes:** No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.5 - 1.5 | | Upper 6": Dark gray silt to fine to coarse sand and gravel |
| - | | | | | Middle 10": silty clay; trace gravel. |
| - | | | | | Lower 12": brown silt to fine to coarse sand; trace gravel. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2 | 5 - 1100 | | Wet at 9'. |
| - | | | | | Brown fine to coarse sand; coarse gravel |
| - | | | | | Faint toluene odor. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | NM | 100 - 1800 | | Saturated. |
| - | | | | | Fine to coarse sand; coarse gravel. |
| - | | | | | Slight toluene odor. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-159 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** SB-160 | **Date Drilled:** 8/11/2004 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** Yes (MP-16) | **Casing Material / Diameter:** PVC/1-1/4-inch (pre-pack) | **Total Depth (feet):** 15.0 |

**Notes:** No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.2 - 0.6 | | Brown silt to fine to coarse sand and gravel. |
| 5 | 5 - 10 | 2.5 | 2 - 4 | | Brown silt to fine to coarse sand and gravel.<br>Wet at 9.5'. No odors present. |
| 10 | 10 - 15 | 4 | 0 - 0.5 | | Saturated.<br>Fine to coarse sand and coarse gravel.<br>Lower 13": gray silty clay; trace gravel. |
| 15 | | | | | **Boring SB-160 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-161 | 8/11/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-15) | PVC/1-1/4-inch (pre-pack) | 15.0 |

**Notes:** No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.9 - 1.1 | | Brown silt to fine to coarse sand and |
| - | | | | | and gravel (1/8 - 1/4-inch fragments). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 1.5 | 1 - 2 | | Same as above. Wet in lower 3". |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 2.5 | 0.0 | | Saturated. |
| - | | | | | Silt to fine to coarse sand; coarse gravel. |
| - | | | | | No odors present. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-161 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-162 | 8/11/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-13) | PVC/1-1/4-inch (pre-pack) | 15.0 |

**Notes:** No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Brown silt to fine to coarse sand and gravel (1/8 - 1/4-inch fragments). |
| 5 | 5 - 10 | 1 | 0.0 | | Same as above. Wet in lower 3". Brick material present at bottom of sample. |
| 10 | 10 - 15 | 2 | 0.0 | | Saturated. Gray fine to coarse sand; coarse gravel (1/8 - 1-inch fragments). No odors present. |
| 15 | | | | | **Boring SB-162 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-163 | 8/11/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-17) | PVC/1-1/4-inch (pre-pack) | 15.0 |

**Notes:** Water sample MP-17 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | Gravelly clayey silt; moist. |
| 5 | 5 - 10 | 2 | 0.0 | | Light brown coarse sand and gravel (1/4 - 1/2-inch pebbles); trace silty clay; shell fragments in lower 6". |
| 10 | 10 - 15 | 3 | 3000 - 3500 | | Saturated. |
| | | | 80 - 120 | | Fine to coarse sand and gravel. |
| | | | (bottom) | | Toluene odor present. |
| 15 | | | | | **Boring SB-163 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** SB-164 | **Date Drilled:** 9/8/2004 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** Yes (VMP-1) | **Casing Material / Diameter:** PVC/1-inch (vapor monitoring point) | **Total Depth (feet):** 3.0 |

**Notes:** No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.0 | | Asphalt, gravel base.<br><br>Brown silt to fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | **Boring SB-164 terminated at 3 feet.** |
| 5 | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** SB-165 | **Date Drilled:** 9/8/2004 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** Yes (VMP-2) | **Casing Material / Diameter:** PVC/1-inch (vapor monitoring point) | **Total Depth (feet):** 7.5 |

**Notes:** No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Asphalt, gravel base. |
| - | | | | | Brown silt to fine to coarse sand and gravel; trace clay. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2 | 0.0 | | Brown silt to fine to coarse sand and gravel; trace clay. |
| - | | | | | |
| - | | | | | |
| - | | | | | **Boring SB-165 terminated at 7.5 feet.** |
| - | | | | | |
| 10 | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-166 | 9/8/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-18) | PVC/1-1/4-inch (pre-pack) | 15.0 |

**Notes:** No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | Brown silt to fine to coarse sand and gravel; moist. |
| 5 | 5 - 10 | 3 | 0.0 | | Brown coarse sand; coarse gravel.<br>Moist to wet to saturated.<br>No odors present. |
| 10 | 10 - 15 | 5 | 0.0 | | Saturated.<br>Upper 18": brown to gray coarse sand and gravel.<br>Lower 3.5': gray silt to fine sand.<br>No odors present. |
| 15 | | | | | **Boring SB-166 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-167 | 9/8/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-19) | PVC/1-1/4-inch (pre-pack) | 15.0 |

**Notes:** No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | Brown gravelly silty clay; moist. |
| - | | | | | Shale material at 4'. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 0.0 | | Brown silt to fine to coarse sand; wet to saturated. |
| - | | | | | Coarse gravel present. |
| - | | | | | No odors present. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 5 | 0.0 | | Saturated. |
| - | | | | | Coarse sand and coarse gravel. |
| - | | | | | Trace silt in lower 6". |
| - | | | | | No odors present. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-167 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-168 | 9/8/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-20) | PVC/1-1/4-inch (pre-pack) | 15.0 |

**Notes:** No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0 - 0.1 | | Brown silt to fine to coarse sand and gravel; moist. |
| 5 | 5 - 10 | 2 | 0 - 0.2 | | Wet at 9.5'<br>Gravelly silty clay. 1/2 - 1-inch gray rock fragments at 9' to 9'3".<br>No odors present. |
| 10 | 10 - 15 | 3 | 0.5 - 1.0 | | Saturated.<br>Gray coarse sand; coarse gravel (1 - 2-inch fragments). |
| 15 | | | | | **Boring SB-168 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-169 | 9/8/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 13 (Refusal) |

**Notes:** No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | Brown gravelly clayey silt; moist in lower 6". |
| 5 | 5 - 10 | 2 | 0.0 | | Coarse sand and gravel (1/2 - 1-inch fragments).<br>Trace silty clay intermixed.<br>No odors present. |
| 10 | 10 - 15 | 2 | 0.1 - 0.2 | | Saturated.<br>Brown fine to coarse sand and gravel.<br>Gray shale materiel. |
| 15 | | | | | **Boring SB-169 terminated at 13 feet (refusal).** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** SB-170 | **Date Drilled:** 9/8/2004 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** Yes (MP-21) | **Casing Material / Diameter:** PVC/1-1/4-inch (pre-pack) | **Total Depth (feet):** 15.0 |

**Notes:** No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.1 - 0.3 | | Brown gravelly clayey silt. |
| - | | | | | Brown silty clay from 3'3" to 3'1-". |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 0.1 | | Fine to coarse sand and gravel (1/8 - 2" fragments). |
| - | | | | | Moist to wet. |
| - | | | | | No odors present. |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 4 | 0.1 - 0.3 | | Saturated. |
| - | | | | | Brown fine to coarse sand and coarse gravel. |
| - | | | | | Lower 2'3": gray silt to fine to medium sand; 1 - 2" shale |
| - | | | | | fragments in lower 3". |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-170 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-171 | 9/10/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.1 | | Black to light brown silt to fine to coarse sand; trace gravel. |
| - | | | | | Moist to wet. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2 | 0 - 0.3 | | Fine to coarse sand; trace gravel; wet/saturated at 9.5'. |
| - | | | | | No odors present. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 0 | NM | | No recovery; all water. |
| - | | | | | No odors present. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-171 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Alden Street right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-172 | 9/10/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** No soil or ground-water samples submitted for laboratory analysis.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.1 | | Upper 12": black silt and gravel. |
| - | | | | | Lower 2': Brown gravelly clayey silt. |
| - | | | | | Moist to wet. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 10 - 40 | | Brown silt and gravel. |
| - | | | | | Lower 15": brown to gray gravelly clayey silt. |
| - | | | | | Slight toluene odor in lower 12". |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 4.5 | 100 - 4500 | | Saturated. |
| - | | | | | Upper 2': ray fine to coarse sand and gravel. |
| - | | | | | Middle 12": silt to fine to medium sand and gravel. |
| - | | | | | Lower 12": clayey silt. |
| - | | | | | Toluene odor present. |
| 15 | | | | | |
| - | | | | | **Boring SB-172 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-173 | 9/10/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 10.0 |

**Notes:** Soil sample SB-173 (3 - 3.5) submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 20 - 60 | | Brown to gray gravelly clayey silt. |
| - | | | | | Coarse gravel from 2.5 to 3'. |
| - | | | | | Lower 12": gray clayey silt. |
| - | | | | SB-173 | |
| - | | | | (3 - 3.5) | |
| 5 | 5 - 10 | NM | 0 - 7 | | Saturated. |
| - | | | | | Upper 15": brown clayey silt. |
| - | | | | | Silt to coarse sand and gravel. |
| - | | | | | Lower 6": 1/2 to 1.5" rock fragments. |
| - | | | | | No odors present. |
| 10 | | | | | |
| - | | | | | **Boring SB-173 terminated at 10 feet.** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-174 | 9/10/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:**

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3.5 | 0.0 | | Upper 8": black silt and gravel. |
| - | | | | | Middle 15": brown gravelly clayey silt. |
| - | | | | | Lower 16": brown silt to fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 0.0 | | Brown silt to fine to c coarse sand and gravel. |
| - | | | 400 - 950 | | Shale fragments at 8.5'. |
| - | | | (lower 3") | | Wet at 9.5' (toluene odor). |
| - | | | | | Lower 3": gravel. |
| - | | | | | |
| 10 | 10 - 15 | 0.5 | 500 - 1100 | | Coarse sand and gravel; toluene odor. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-174 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (Alden Street right-of-way) |
| **Boring Number:** SB-175 | **Date Drilled:** 9/10/2004 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 15.0 |

**Notes:**

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Black to light brown silt and gravel; wet at 3'. |
| - | | | | | Lower 12": brown silt to fine to coarse sand and gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 0.0 | | Brown to gray silt to fine to coarse sand and gravel. |
| - | | | | | Lower 12": brown gravelly clayey silt (1/2 to 1" fragments). |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | 5 | 0.0 | | Saturated. |
| - | | | | | Gray silt to fine to medium sand; trace gravel. |
| - | | | | | No odors present. |
| - | | | | | No odors present. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-175 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(Craig Street right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-176 | 10/25/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** Soil sample SB-176 (7.5 - 8) submitted for laboratory analysis (VOC, TICs, heptane).
Water sample SB-176 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 4 | 0.0 | | Dark brown to tan clayey silt; trace gravel (top soil). |
| 5 | 5 - 10 | 4 | 0.0 | | Silt to fine to coarse sand; trace gravel. |
| | | | | | Lower 10": brown to gray gravelly clayey silt. |
| | | | | SB-176 | Moist at 8'. |
| | | | | (7.5 - 8) | |
| 10 | 10 - 15 | 5 | 0.0 | | Saturated. |
| | | | | | Gray gravelly silty clay. |
| | | | | | Lower 2': silt to fine to coarse sand and gravel. |
| | | | | | No odors present. |
| 15 | | | | | |
| | | | | | **Boring SB-176 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Craig Street Right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-177 | 10/25/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MP-22) | PVC/1-1/4-inch (pre-pack) | 15.0 |

**Notes:** Soil sample SB-177 (8.5 - 9) submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | Dark brown to tan clayey silt; trace gravel (top soil). |
| - | | | | | Wood/organic material from 3'6" to 4'. |
| - | | | | | Quartz fragments at 4.7'. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 1.5 | 0.0 | | Silt to fine to coarse sand; trace gravel. |
| - | | | | | Moist at 9'; wet at 10'. |
| - | | | | | |
| - | | | | SB-177 | |
| - | | | | (8.5 - 9) | |
| 10 | 10 - 15 | 4 | 0.0 | | Upper 19": saturated. moist to dry below. |
| - | | | | | Silt to fine to coarse sand and gravel. |
| - | | | | | Shale material in lower 2'. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-177 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Craig Street Right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-178 | 10/25/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 14 (refusal) |

**Notes:** Soil sample SB-178 (9 - 10) submitted for laboratory analysis (VOC, TICs, heptane).
Water sample SB-178 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1 | 0.0 | | Dark brown to tan clayey silt; trace gravel (top soil). |
| 5 | 5 - 10 | 1 | 0.0 | | Sand, silt, and gravel; moist.<br>Shale fragments at 9'2". |
| | | | | SB-178 | |
| 10 | 10 - 15 | 2 | 0.0 | (9 - 10) | Saturated.<br>Silt, sand, and coarse gravel.<br>Lower 12": fine to coarse grained gray shale; dry. |
| 15 | | | | | **Boring SB-178 terminated at 14 feet (refusal).** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Craig Street Right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-179 | 10/25/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** Soil sample SB-179 (7.5 - 8) submitted for laboratory analysis (VOC, TICs, heptane).
Water sample SB-179 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Dark brown to tan clayey silt; trace gravel (top soil). |
| - | | | | | Cinder material at 3'. |
| - | | | | | 3'3" - 4'4": light brown clay; quartz fragments at 4 - 4.5'. |
| - | | | | | Lower 5": silt to fine sand; trace medium sand; slightly moist. |
| - | | | | | |
| 5 | 5 - 10 | 4 | 0.0 | | Upper 2': brown silt to fine sand; trace medium sand; trace |
| - | | | | | gravel from 8'2" to 8'8". |
| - | | | | SB-179 | Lower 14": gray gravelly clayey silt. |
| - | | | | (7.5 - 8) | Saturated at 8'4". |
| - | | | | | |
| 10 | 10 - 15 | 4 | 0.0 | | Saturated. |
| - | | | | | Fine to coarse grained weathered shale. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-179 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Craig Street Right-of-way) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-180 | 10/25/2004 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 14 (refusal) |

**Notes:** Soil sample SB-180 (8 - 9) submitted for laboratory analysis (VOC, TICs, heptane).
Soil sample SB-180A (20 - 25) is a duplicate sample of SB-180 (8 - 9).
Water sample SB-180 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1.5 | 0.0 | | Dark brown to tan clayey silt; trace gravel (top soil). |
| - | | | | | Silt to fine to coarse sand and gravel. |
| - | | | | | Lower 2": gravelly clayey silt. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2 | 0.0 | | Brown silt to fine to coarse sand and gravel (1.8 - 1/2" fragments). |
| - | | | | | Wet at 8.5'. |
| - | | | | | Quartz fragments at 9'3". |
| - | | | | SB-180 | |
| - | | | | (8 - 9) | |
| 10 | 10 - 15 | 1.5 | 0.0 | Dup. | Saturated. |
| - | | | | | Coarse sand and pebble gravel. |
| - | | | | | Lower 6": shale fragments. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | **Boring SB-180 terminated at 14 feet (refusal).** |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(21 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-181 | 12/6/2005 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** Soil sample SB-181 (9 - 9.5) submitted for laboratory analysis (VOC, TICs, heptane).
Water sample SB-181 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1 | 0.0 | | Brown silt, sand, and gravel; wet. |
| 5 | 5 - 10 | 2 | 0.0 | | Brown silt, sand, and gravel; moist to wet.<br>Saturated at 9.5 feet. |
| | | | | SB-181<br>(9 - 9.5) | |
| 10 | 10 - 15 | 4 | 0.0 | | Saturated.<br>Upper 1.5': gray silt to gravel (1/8 - 1/2").<br>Lower 2.5': fine to coarse sand; trace gravel. |
| 15 | | | | | **Boring SB-181 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(21 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-182 | 12/6/2005 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** Soil sample SB-182 (9.5 - 10) submitted for laboratory analysis (VOC, TICs, heptane).
Water sample SB-182 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Brown clayey silt to silty clay; moist. |
| 5 | 5 - 10 | 2 | 0.0 | | Brown clay to gravel.<br>Wet at 9'9".<br>Lower 1.5': gravelly silt. |
| 10 | 10 - 15 | 5 | 0.0 | SB-182<br>(9.5 - 10) | Saturated.<br>Gray fine to coarse sand; coarse gravel.<br>Lower 10": clayey silt to silty clay. |
| 15 | | | | | **Boring SB-182 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(21 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-183 | 12/6/2005 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** Soil sample SB-183 (9 - 9.5) submitted for laboratory analysis (VOC, TICs, heptane).
Water sample SB-183 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.0 | | Dark brown silt, sand, and gravel. |
| - | | | | | Lower 16": clayey silt to silty clay; trace gravel. |
| - | | | | | 1/4 - 1/2" shale fragments. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | 0.0 | | Upper 2': light brown silty clay medium plasticity; trace |
| - | | | | | gravel. |
| - | | | | | Wet at 9.5'. |
| - | | | | SB-183 | |
| - | | | | (9 - 9.5) | |
| 10 | 10 - 15 | 4 | 0.0 | | Saturated. |
| - | | | | | Upper 2': gray fine to coarse sand. |
| - | | | | | 8 - 9': gray angular rock fragments. |
| - | | | | | Lower 1': gray clayey silt with gravel. |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-183 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(21 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-184 | 12/6/2005 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 10.0 |

**Notes:** Soil sample SB-184 (8.5 - 9) submitted for laboratory analysis (VOC, TICs, heptane).
Water sample SB-184 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.0 | | Light brown silty clay; high plasticity; trace gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | 0.0 | | Upper 2': silty clay with gravel; loose. |
| - | | | | | Lower 12": silt to fine to coarse sand; coarse gravel. |
| - | | | | | Saturated at 9'. |
| - | | | | SB-184 | |
| - | | | | (8.5 - 9) | |
| 10 | 10 - 15 | | | | |
| - | | | | | **Boring SB-184 terminated at 15 feet.** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (23 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-185 | 12/6/2005 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 14.5 (refusal) |

**Notes:** No soil samples collected.
Water sample SB-185 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 1 | 0.0 | | Silt, sand, and gravel. |
| 5 | 5 - 10 | 0 | | | No Recovery. |
| 10 | 10 - 15 | 3 | 0.0 | | Saturated.<br>Silt and very fine sand; trace gravel.<br>Lower 3': gray clayey silt with gravel. |
| 15 | | | | | **Boring SB-185 terminated at 14.5 feet (refusal).** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York<br>(21 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-186 | 12/6/2005 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** Soil sample SB-186 (9.5 - 10) submitted for laboratory analysis (VOC, TICs, heptane).
Water sample not collected.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Light brown clayey silt with gravel' moist. |
| - | | | | | Lower 12": silt to fine to coarse gravel; loose. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3 | | | Silt to fine to coarse sand and gravel. |
| - | | | 0.0 | | Wet at 9'3". |
| - | | | | | Slight toluene odor present. |
| - | | | 0.5 | | |
| - | | | 15 | SB-186 | |
| 10 | 10 - 15 | 3.5 | 1,200 | (9.5 - 10) | Saturated. |
| - | | | | | Fine to coarse sand and coarse gravel. |
| - | | | 80 - 95 | | Lower 6": gray clayey silt. |
| - | | | 0 | | |
| - | | | 0 | | |
| 15 | | | 0 | | |
| - | | | | | **Boring SB-186 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (21 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-187 | 12/6/2005 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 10.0 |

**Notes:** Soil sample SB-187 (7.5 - 9.5) submitted for laboratory analysis (VOC, TICs, heptane). MS and MSD collected. Water sample not collected.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2.5 | 0.0 | | Top soil; sand, silt, gravel. |
| - | | | | | 3.5 - 4.5': light brown silty clay; trace gravel. |
| - | | | | | Lower 6": silt to gravel. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 3.5 | | | Upper 1.5': light brown silty clay with gravel. |
| - | | | | | 8 - 10': wet; silt to fine to coarse sand. |
| - | | | 0.0 | | |
| - | | | 0.0 | SB-187 | |
| - | | | 0.0 | (7.5 - 9.5) | |
| 10 | 10 - 15 | | 0.0 | | |
| - | | | | | **Boring SB-187 terminated at 10 feet.** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (23 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-188 | 12/6/2005 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** Soil sample SB-188 (9.5 - 10) submitted for laboratory analysis (VOC, TICs, heptane).
Duplicate soil sample collected.
Water sample SB-188 submitted for laboratory analysis (VOC, TICs, heptane). MS/MSD collected.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | Silt to fine to coarse sand; trace gravel; moist. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2 | | | Wet at 9.5' (toluene odor present). |
| - | | | | | Brown to gray silt to fine to coarse sand and gravel. |
| - | | | | | |
| - | | | 30 - 45 | | |
| - | | | 15 - 30 | SB-188 | |
| 10 | 10 - 15 | | 700 - 1,000 | (9.5 - 10) | Saturated. |
| - | | | | | Fine to coarse sand and coarse gravel. |
| - | | | | | |
| - | | | 2,000 | | |
| - | | | 115 | | |
| 15 | | | 20 - 30 | | |
| - | | | | | **Boring SB-188 terminated at 15 feet.** |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (25/29 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-189 | 12/6/2005 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 10.0 |

**Notes:** Soil sample SB-189 (9 - 9.5) submitted for laboratory analysis (VOC, TICs, heptane).
Water sample not collected.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | Top soil; sand, silt, gravel; moist. |
| - | | | | | Lower 12": silt to gravel; loose. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.5 | 0.0 | | Saturated at 9.5' |
| - | | | | | Clayey silt with gravel. |
| - | | | | | Lower 12": silt to coarse gravel. |
| - | | | | SB-189 | |
| - | | | | (9 - 9.5) | |
| 10 | 10 - 15 | | | | |
| - | | | | | **Boring SB-189 terminated at 10 feet.** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (25/29 Alden Street Property) |
| **Boring Number:** SB-190 | **Date Drilled:** 12/6/2005 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 10.0 |

**Notes:** Soil sample SB-190 (9 - 9.5) submitted for laboratory analysis (VOC, TICs, heptane).
Water sample SB-190 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | Top soil; silt, sand, and gravel; moist. |
| 5 | 5 - 10 | 2 | 0.0 | | Silt, sand, and gravel.<br>Wet at 9.5'. |
| 10 | 10 - 15 | | | | **Boring SB-190 terminated at 10 feet.** |
| 15 | | | | | |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (25/29 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-191 | 12/6/2005 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** Soil sample SB-191 (9 - 9.5) submitted for laboratory analysis (VOC, TICs, heptane).
Water sample SB-191 submitted for laboratory analysis (VOC, TICs, heptane). Duplicate water sample collected.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 3 | 0.0 | | Top soil; silt, sand, and gravel. |
| - | | | | | Lower 1.5': orange brown silty clay; trace gravel; medium to |
| - | | | | | high plasticity. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2.5 | | | Wet at 8.5' |
| - | | | | | Upper 12": brown silt, sand, and gravel. |
| - | | | | | Middle 8": gray silt to fine to coarse sand. |
| - | | | 5 - 10 | SB-191 | Lower 12": silt to fine to coarse sand to coarse gravel. |
| - | | | 20 - 25 | (9 - 9.5) | Toluene odor present at 9 to 10'. |
| 10 | 10 - 15 | | >2,000 | | Saturated. |
| - | | | | | Fine to coarse sand to coarse gravel. |
| - | | | | | Toluene odor present in upper portion of sample. |
| - | | | >1,000 | | |
| - | | | 70 | | |
| 15 | | | 0.0 | | |
| - | | | | | **Boring SB-191 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (25/29 Alden Street Property) |
| **Boring Number:** SB-192 | **Date Drilled:** 12/6/2005 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 7.0 (refusal) |

**Notes:** No soil or ground-water samples collected due to shallow refusal.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | Top soil. |
| - | | | | | 3'9" - 4'4": brick material. |
| - | | | | | Lower 6": brown clayey silt; loose; low plasticity. |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2 | 0.0 | | Clayey silt with gravel |
| - | | | | | |
| - | | | | | |
| - | | | | | **Boring SB-192 terminated at 7 feet (refusal).** |
| - | | | | | |
| 10 | 10 - 15 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| Project Name: | Project Number: | Location: |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (25/29 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-193 | 12/6/2005 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** Soil sample SB-193 (9 - 9.5) submitted for laboratory analysis (VOC, TICs, heptane).
Water sample SB-193 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | Top soil. |
| - | | | | | Clayey silt to silty clay. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 2 | 0.0 | | Orange brown silty clay with gravel. |
| - | | | | | Coarse gravel in lower 8". |
| - | | | | | Lower 3": wet. |
| - | | | | SB-193 | |
| - | | | | (9 - 9.5) | |
| 10 | 10 - 15 | 3 | 0.0 | | Saturated. |
| - | | | | | Fine to coarse sand and coarse gravel. |
| - | | | | | Lower 12": silt to gravel. |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-193 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (25/29 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-194 | 12/6/2005 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** Soil sample SB-194 (9 - 9.5) submitted for laboratory analysis (VOC, TICs, heptane).
Water sample SB-194 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | Top soil; moist gravelly silty clay. |
| 5 | 5 - 10 | 2 | 0.0 | | Gravelly clayey silt; moist to wet. |
| | | | | SB-194 (9 - 9.5) | |
| 10 | 10 - 15 | 2 | 0.1 | | Saturated.<br>Brown to gray coarse sand and gravel. |
| 15 | | | | | **Boring SB-194 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (25/29 Alden Street Property) |
| **Boring Number:** SB-195 | **Date Drilled:** 12/6/2005 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** No | **Casing Material / Diameter:** None | **Total Depth (feet):** 10.0 |

**Notes:** No soil or ground-water samples collected due to shallow refusal.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | Gravelly clayey silt; moist. |
| 5 | 5 - 10 | 2 | 0.0 | | Silt, sand, and gravel.<br>Wet at 9.5' |
| 10 | 10 - 15 | | | | **Boring SB-195 terminated at 10 feet.** |
| 15 | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (Mr. Forgette's property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-196 | 12/7/2005 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 10.0 |

**Notes:** Soil sample SB-196 (4.5 - 5) submitted for laboratory analysis (VOC, TICs, heptane).
Water sample SB-196 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | Top soil. |
| - | | | | | Clayey silt with gravel; loose. |
| - | | | | | Slightly moist at bottom of sample. |
| - | | | | | |
| - | | | | SB-196 | |
| 5 | 5 - 10 | 2 | 0.0 | (4.5 - 5) | Saturated. |
| - | | | | | Brown to gray silt to fine to coarse sand. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | | | | |
| - | | | | | **Boring SB-196 terminated at 10 feet.** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (25/29 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-197 | 1/23/2006 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | Macro-Core |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** Water sample SB-197 submitted for laboratory analysis (VOC, TICs, heptane).
SB-197 (4 - 5) and (14 - 15) submitted for grain size analysis.
SB-197 (9 - 10) submitted for laboratory analysis of TOC.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | 2 | 0.0 | | Brown clayey silt to silty clay with gravel. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | SB-197 | |
| 5 | 5 - 10 | 1 | 0.0 | (4 - 5) | Brown silt, sand, and gravel. |
| - | | | | | Wet in lower 6". |
| - | | | | | |
| - | | | | | |
| - | | | | SB-197 | |
| 10 | 10 - 15 | 2 | 0.0 | (9 - 10) | Saturated. |
| - | | | | | Brown to gray sand to coarse gravel (1/2 to 1"). |
| - | | | | | |
| - | | | | | |
| - | | | | SB-197 | |
| 15 | | | | (14 - 15) | |
| - | | | | | **Boring SB-197 terminated at 15 feet.** |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (25/29 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-198 | 1/23/2006 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | None |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| No | None | 15.0 |

**Notes:** Water sample SB-198 submitted for laboratory analysis (VOC, TICs, heptane).

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | | | | No soil samples collected; boring installed for collection of a ground-water sample. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-198 terminated at 15 feet.** |

**Log of Soil Boring**

| | | |
|---|---|---|
| **Project Name:** Former Norton/Nashua Site | **Project Number:** 029.08 | **Location:** Watervliet, New York (25/29 Alden Street Property) |
| **Boring Number:** SB-199 | **Date Drilled:** 1/23/2006 | **Logged by:** Bryan J. Machella |
| **Drilling Company:** Environmental Cleanup Solutions. Inc. | **Drilling Method:** Geoprobe™ | **Sampling Method:** Macro-Core |
| **Well Installed:** Yes (MW-18) | **Casing Material / Diameter:** None | **Total Depth (feet):** 10.0 |

**Notes:** SB-199 (8.5 - 9) submitted for laboratory analysis of TOC.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | | | | No Sample. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | 4 | | | Silty clay with gravel. |
| - | | | | | Saturated at 9'. |
| - | | | 0 | | Toluene odor present. |
| - | | | 0 - 1 | | Lower 1.5': gray fine to coarse sand and gravel. |
| - | | | 3000 - 5000 | | |
| 10 | | | 200 - 300 | | |
| - | | | | | **Boring SB-199 terminated at 10 feet.** |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | |

**Log of Soil Boring**

| **Project Name:** | **Project Number:** | **Location:** |
|---|---|---|
| Former Norton/Nashua Site | 029.08 | Watervliet, New York (25/29 Alden Street Property) |
| **Boring Number:** | **Date Drilled:** | **Logged by:** |
| SB-200 | 1/24/2006 | Bryan J. Machella |
| **Drilling Company:** | **Drilling Method:** | **Sampling Method:** |
| Environmental Cleanup Solutions. Inc. | Geoprobe™ | None |
| **Well Installed:** | **Casing Material / Diameter:** | **Total Depth (feet):** |
| Yes (MW-19) | None | 15.0 |

**Notes:** No soil samples collected see SB-195 for lithologic description.

| Depth (feet) | Sample Interval (feet) | Recovery (feet) | PID (ppm) | Sample Interval | Soil Classification / Description color, texture, structure |
|---|---|---|---|---|---|
| 0 | 0 - 5 | | | | No soil samples collected; boring installed for installation of ground-water monitoring well MW-19. |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 5 | 5 - 10 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 10 | 10 - 15 | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| - | | | | | |
| 15 | | | | | |
| - | | | | | **Boring SB-200 terminated at 15 feet.** |

**APPENDIX B**

**MONITORING POINT/WELL,**
**VAPOR MONITORING POINT CONSTRUCTION LOGS**

# MONITORING WELL CONSTRUCTION DIAGRAM

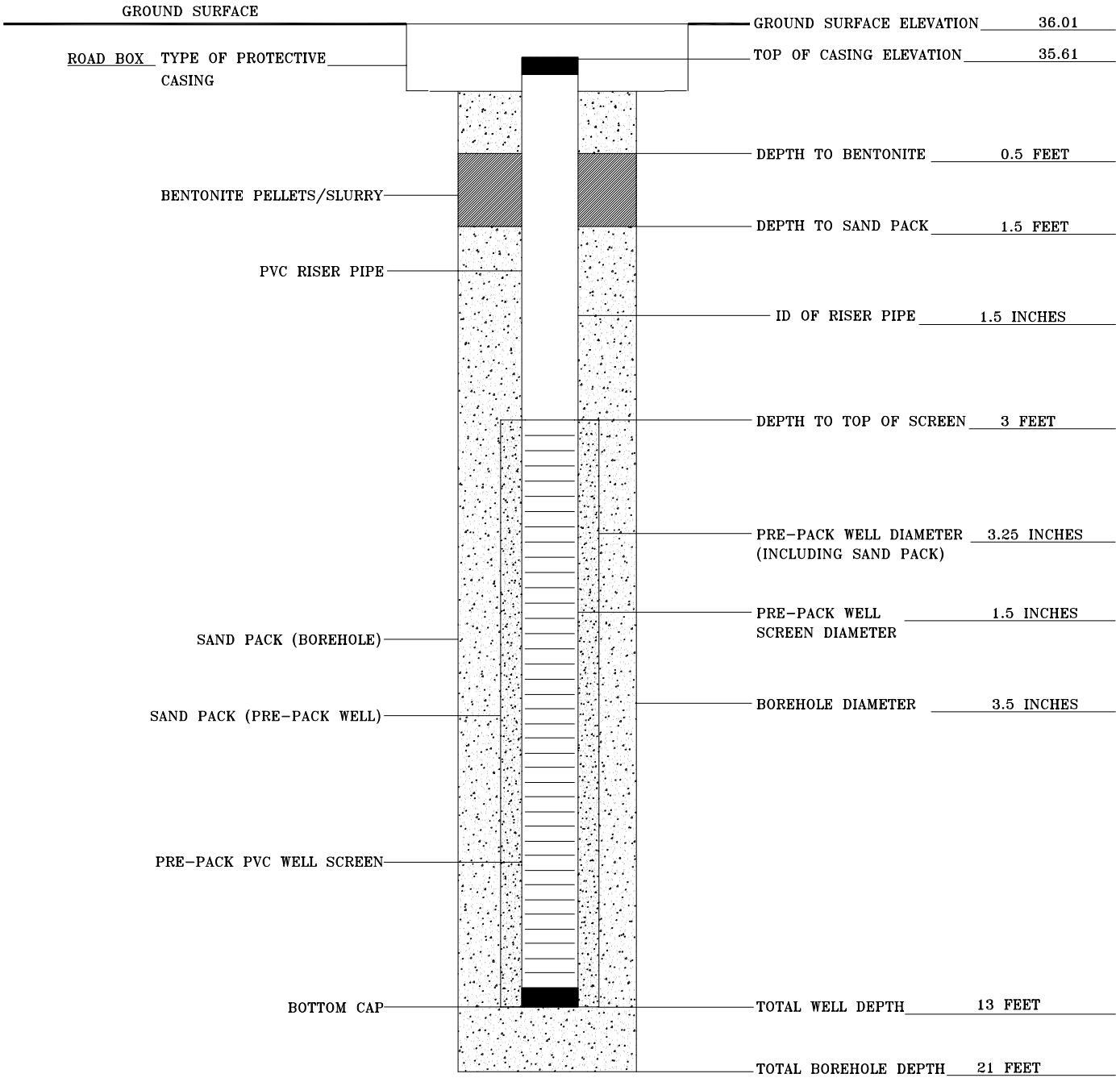
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: SEPTEMBER 5, 2003

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-1

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-1.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

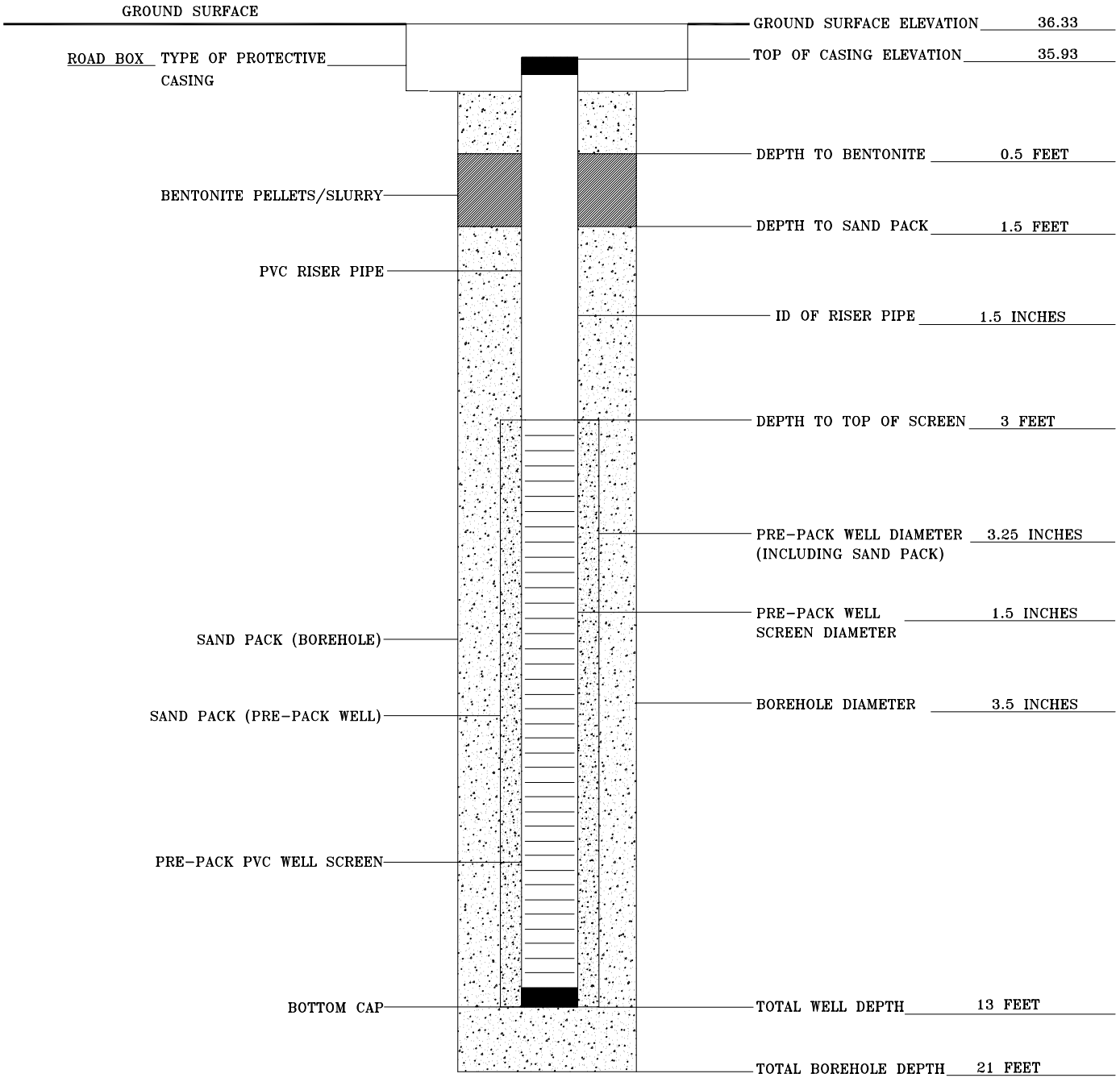
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: SEPTEMBER 4, 2003

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-2

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-2.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

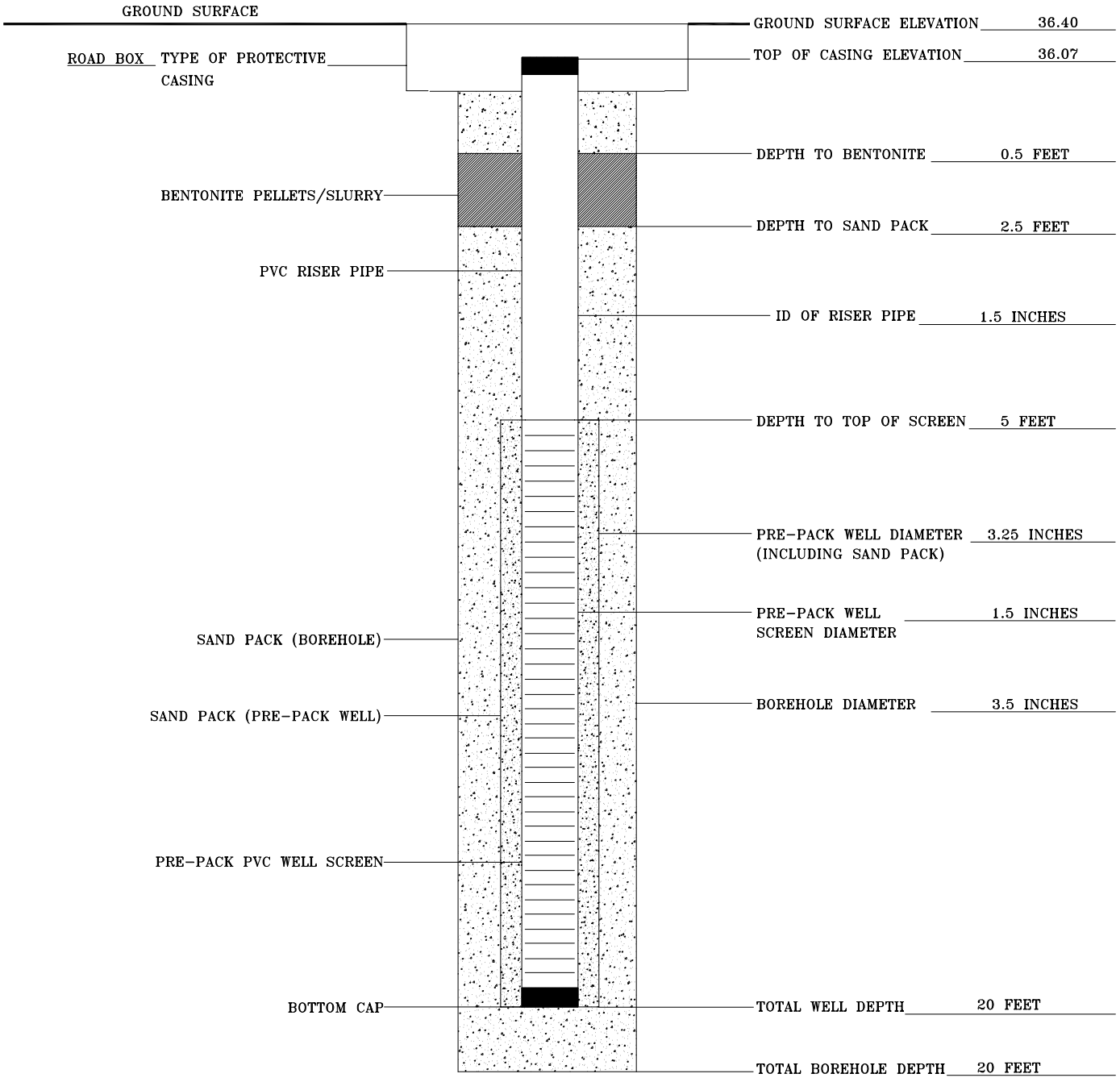
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: SEPTEMBER 4, 2003

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-3

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-3.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

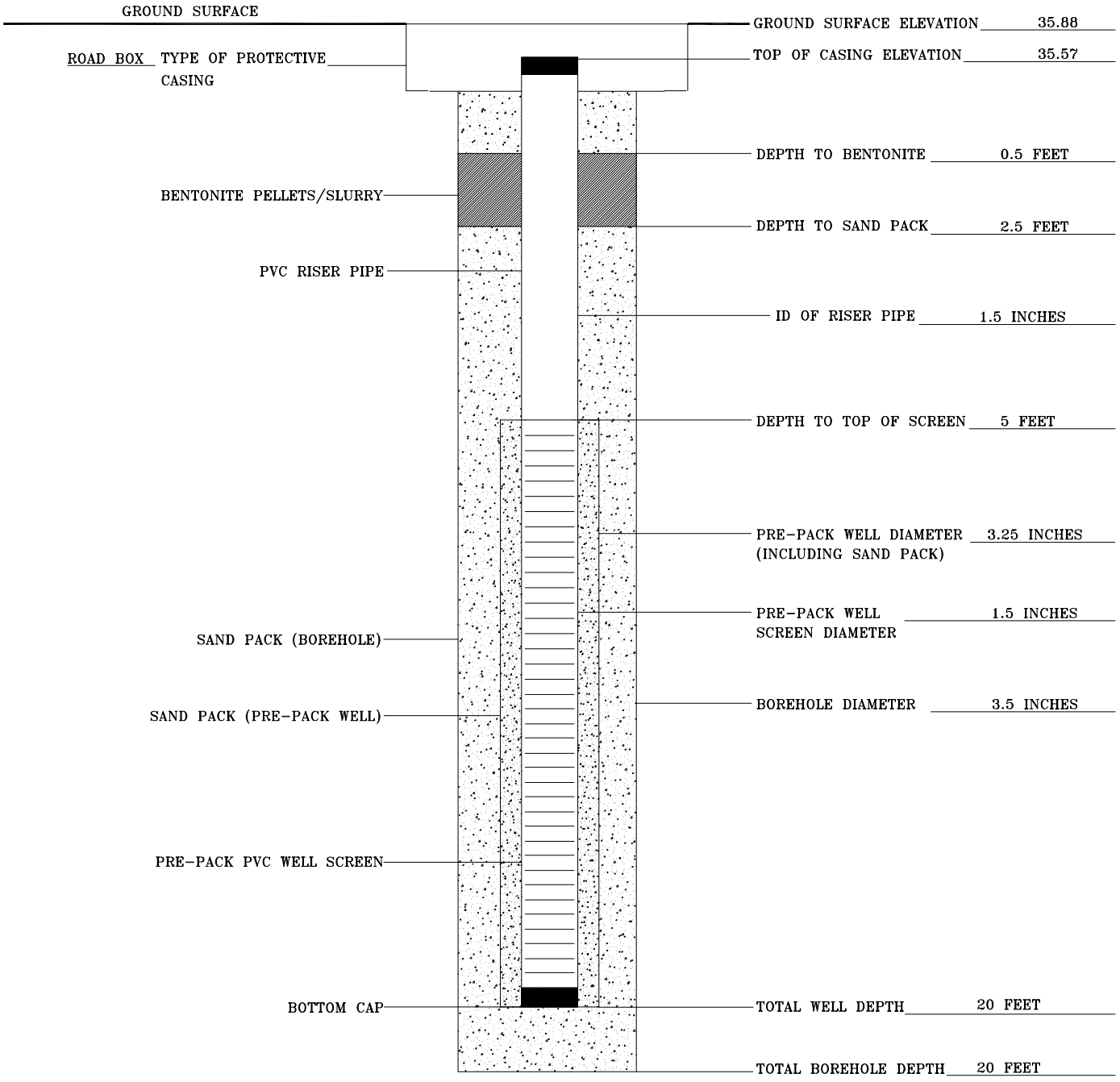
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: SEPTEMBER 4, 2003

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-4

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-4.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

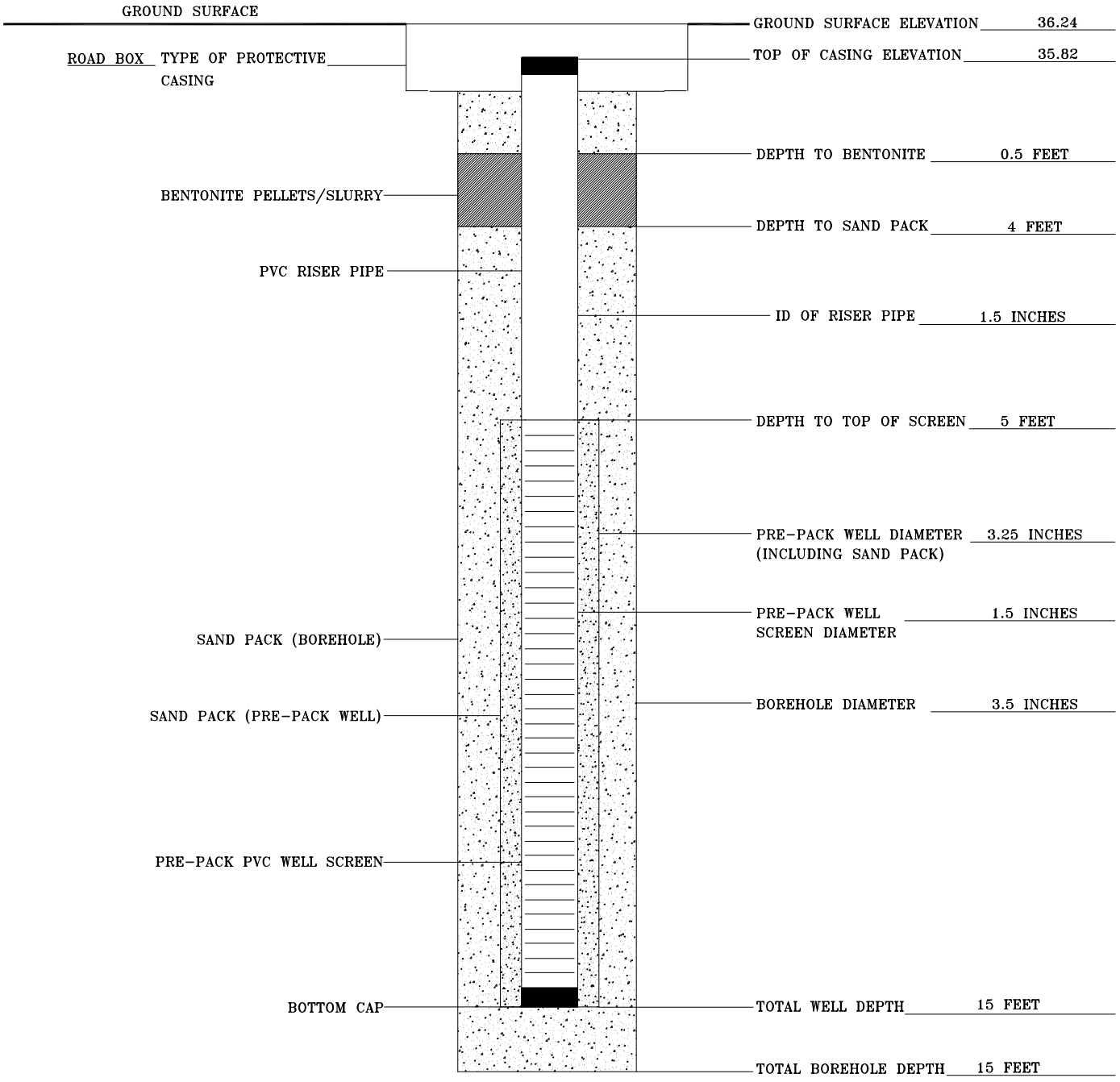
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: DECEMBER 3, 2003

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-5

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-5.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

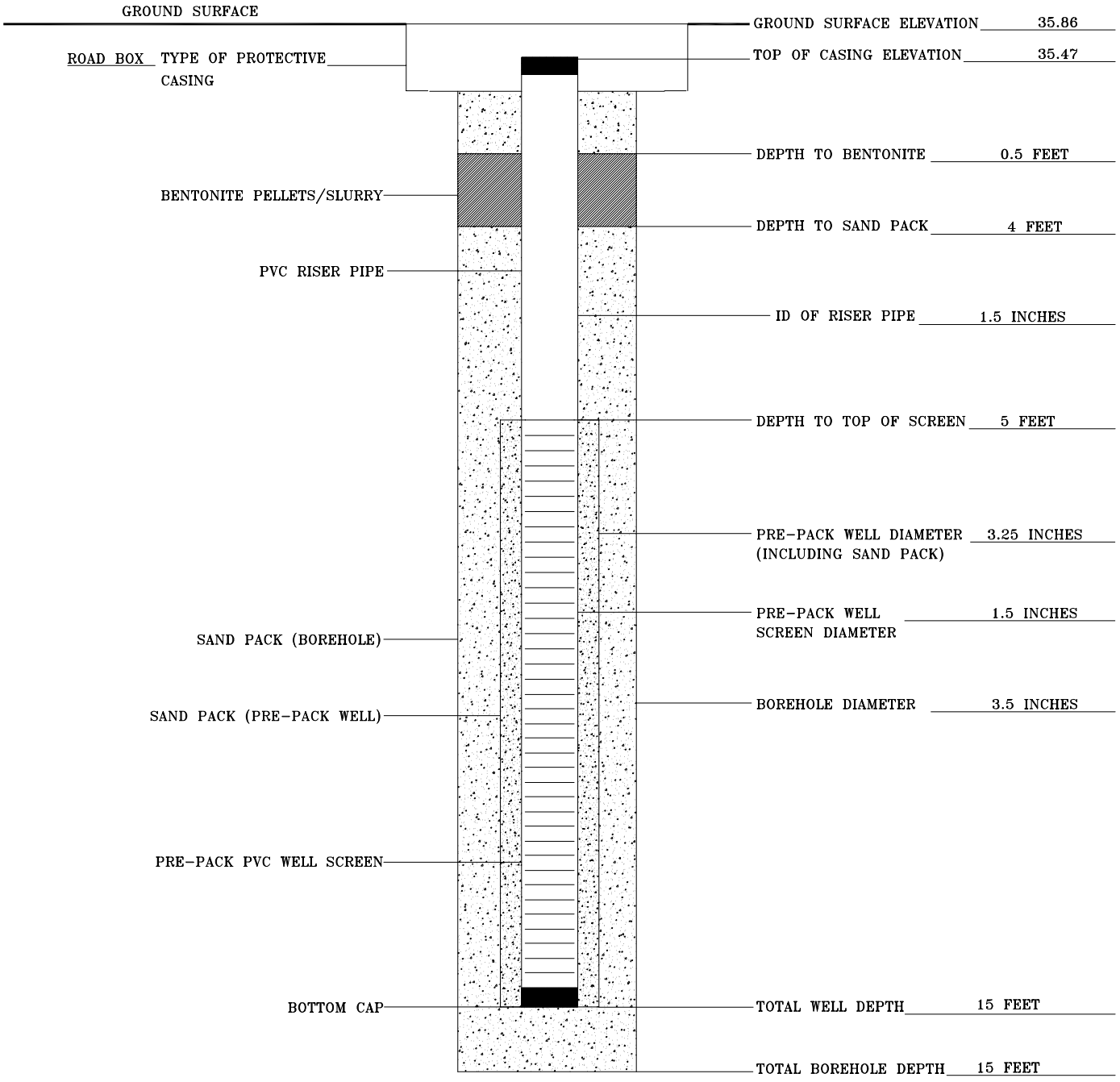
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: DECEMBER 3, 2003

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-6

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-6.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

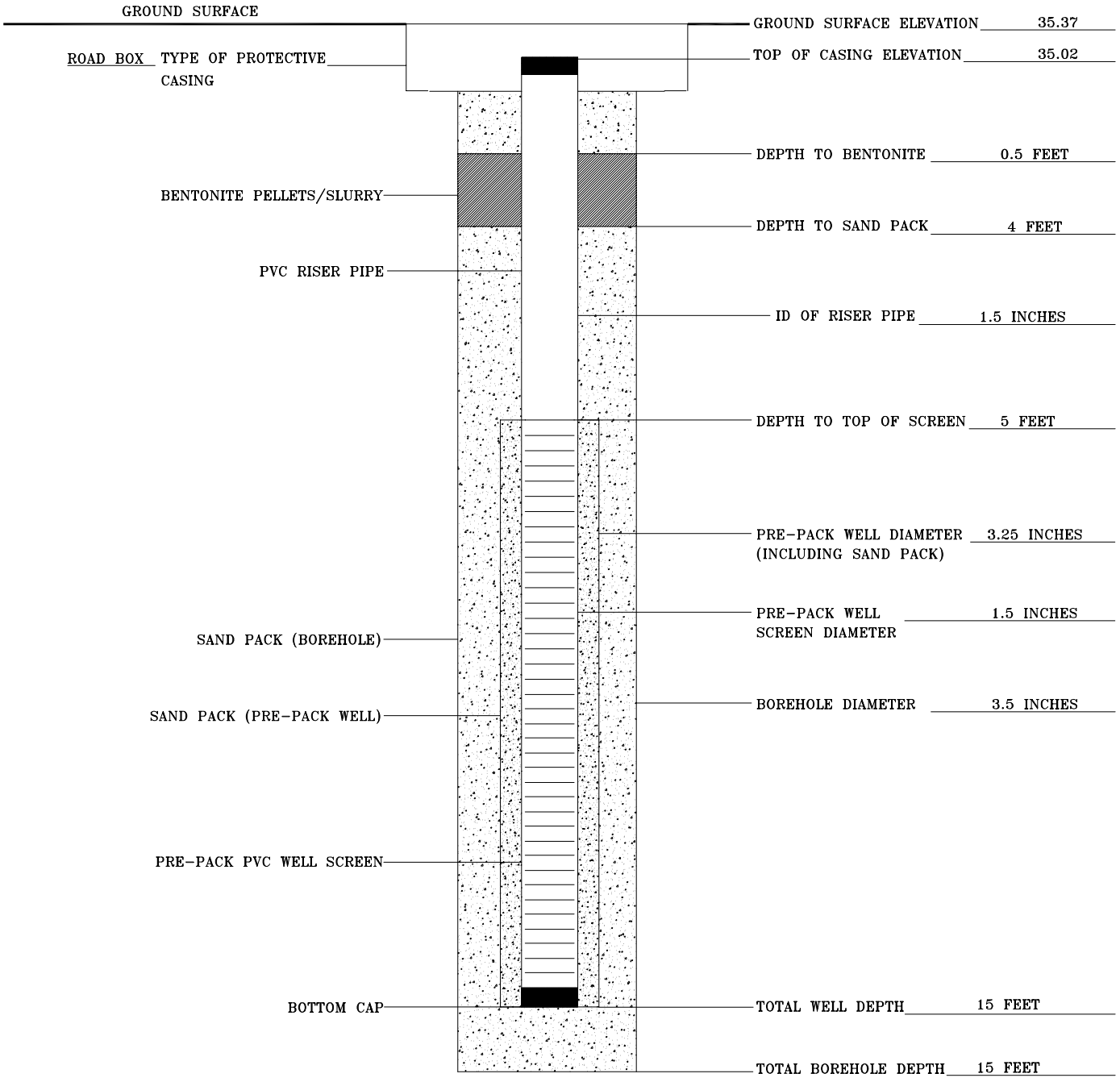
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: DECEMBER 2, 2003

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-7

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-7.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

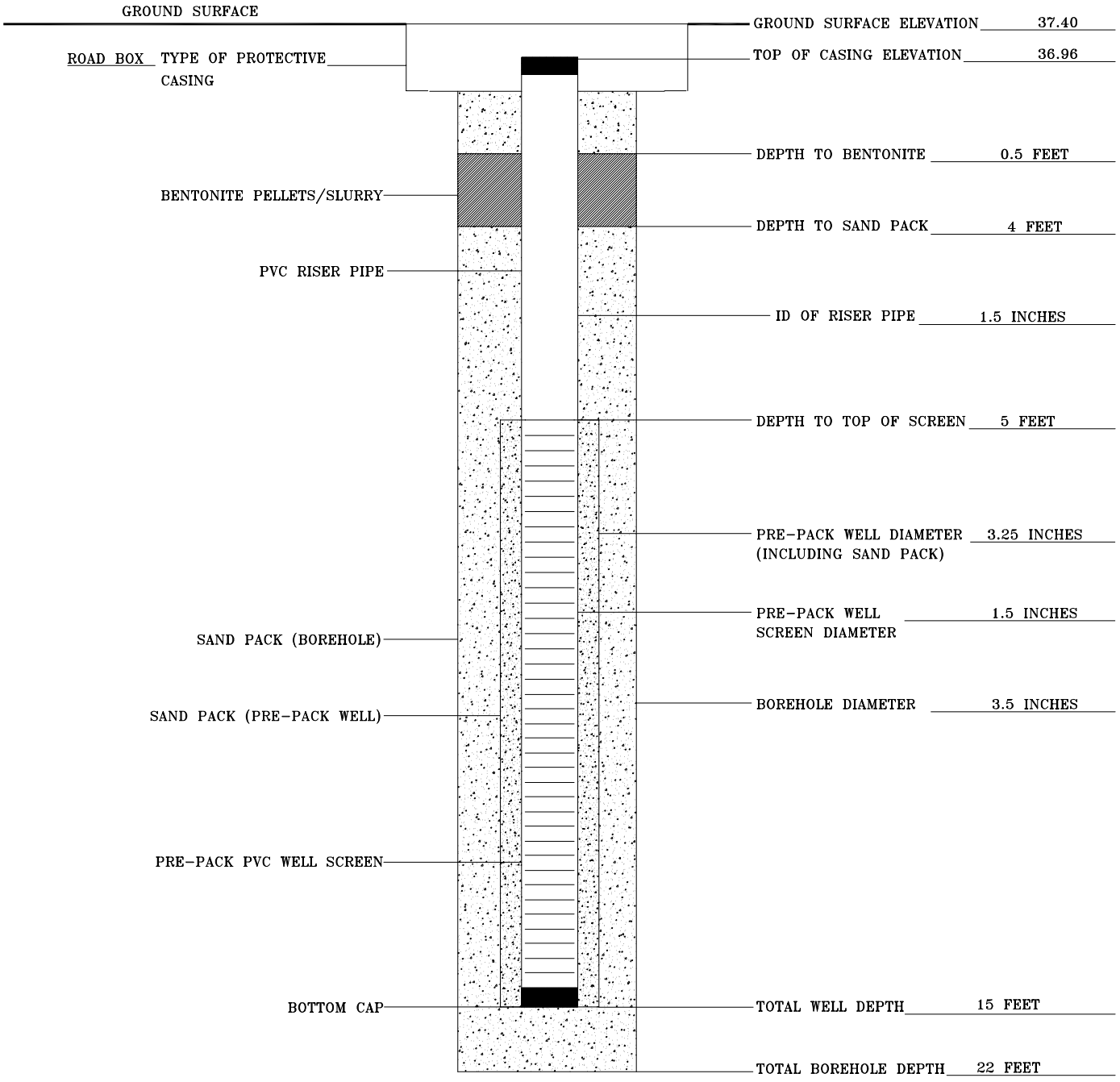
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: NOVEMBER 25, 2003

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-8

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-8.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

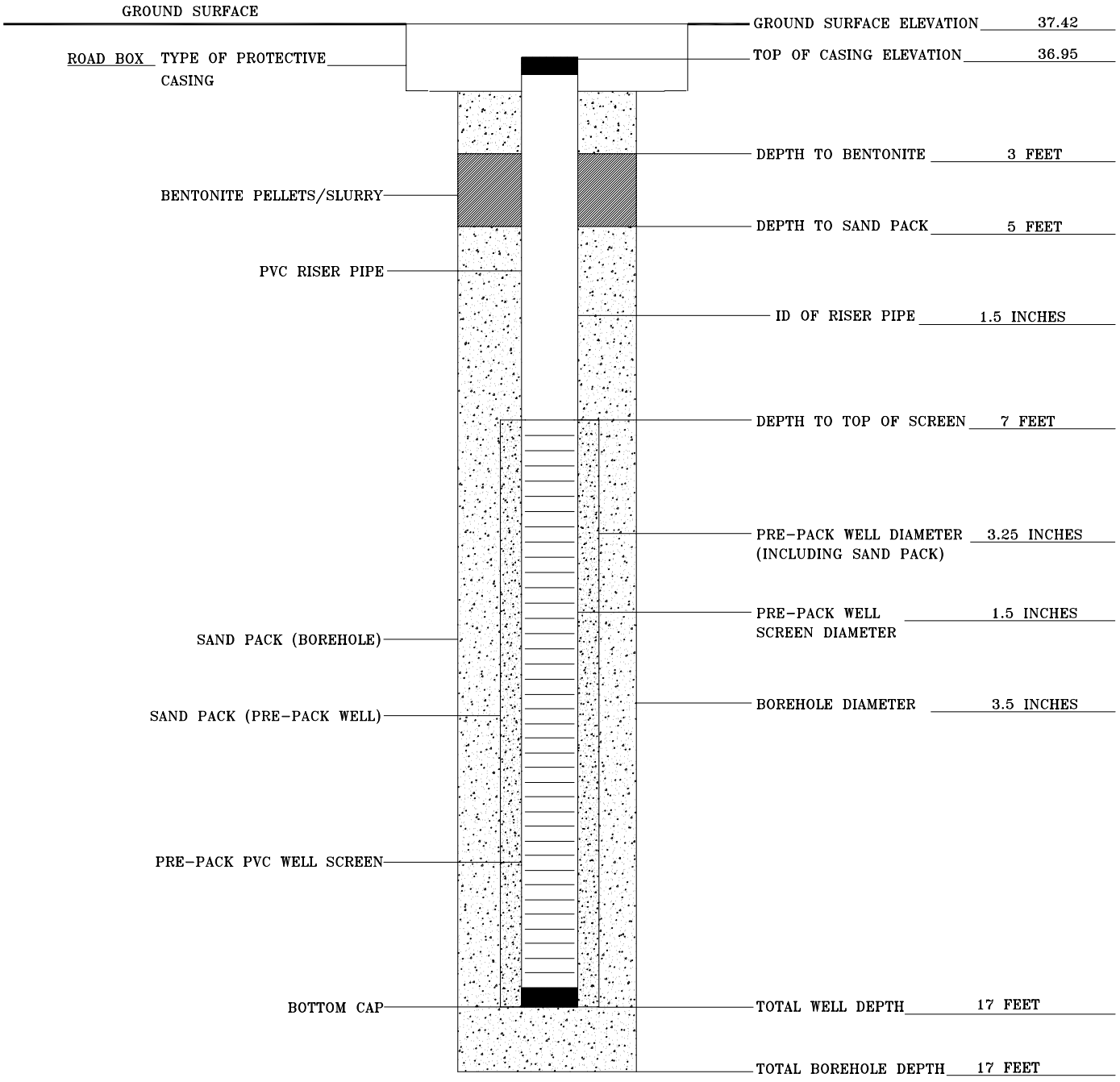
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: JANUARY 22, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-9

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-9.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

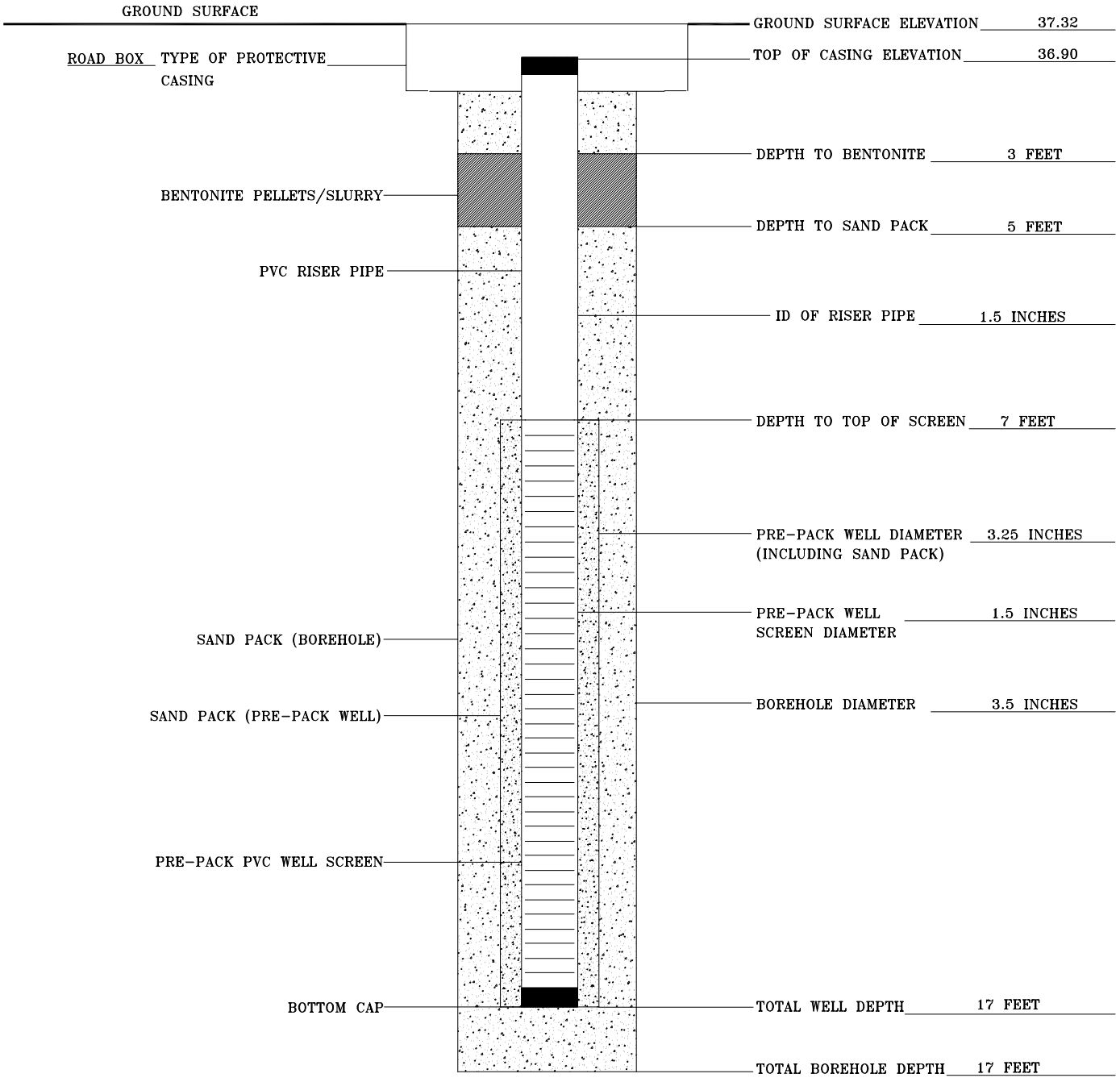
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: JANUARY 22, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-10

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-10.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

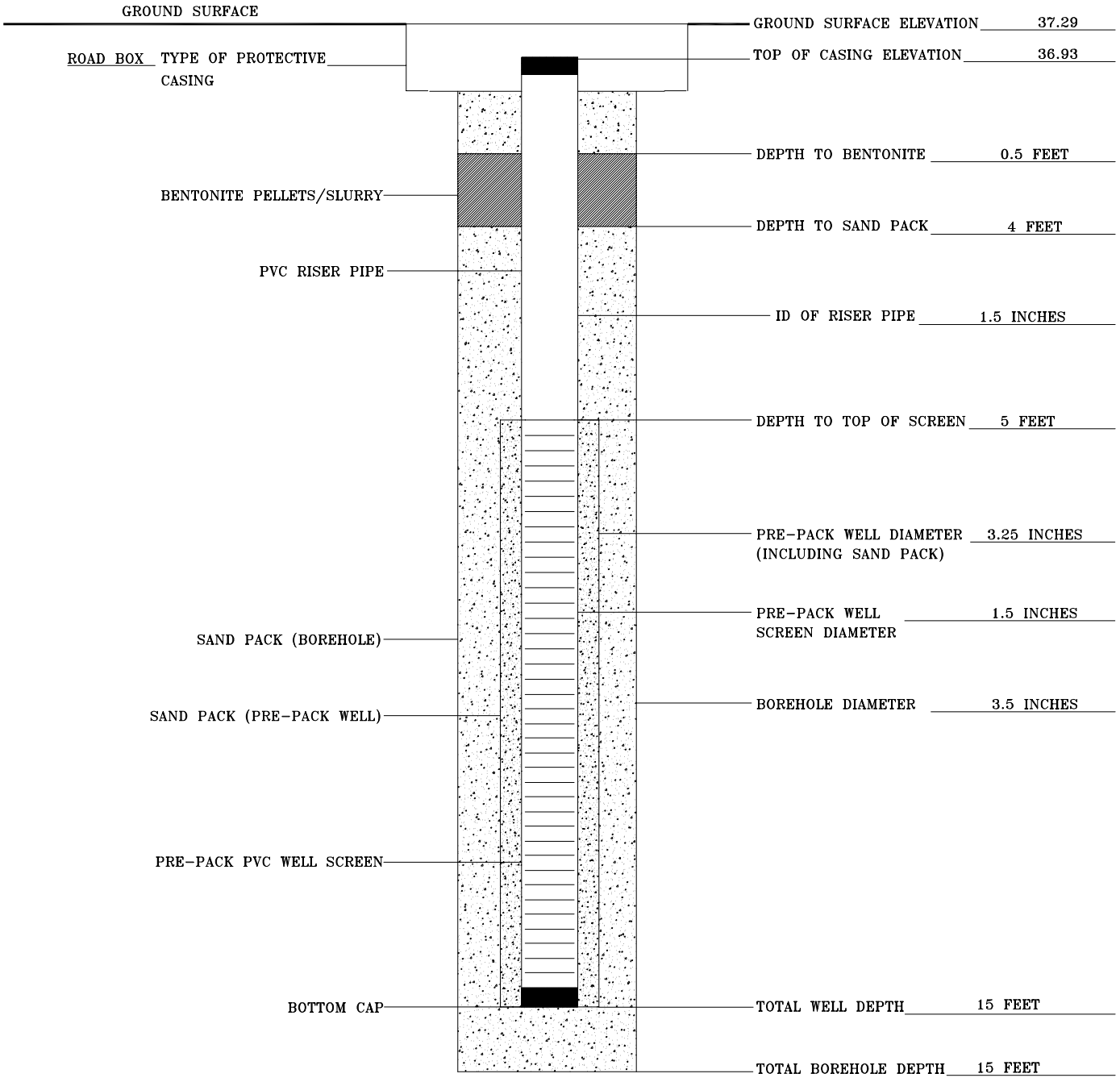
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: JANUARY 21, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-11

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-11.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

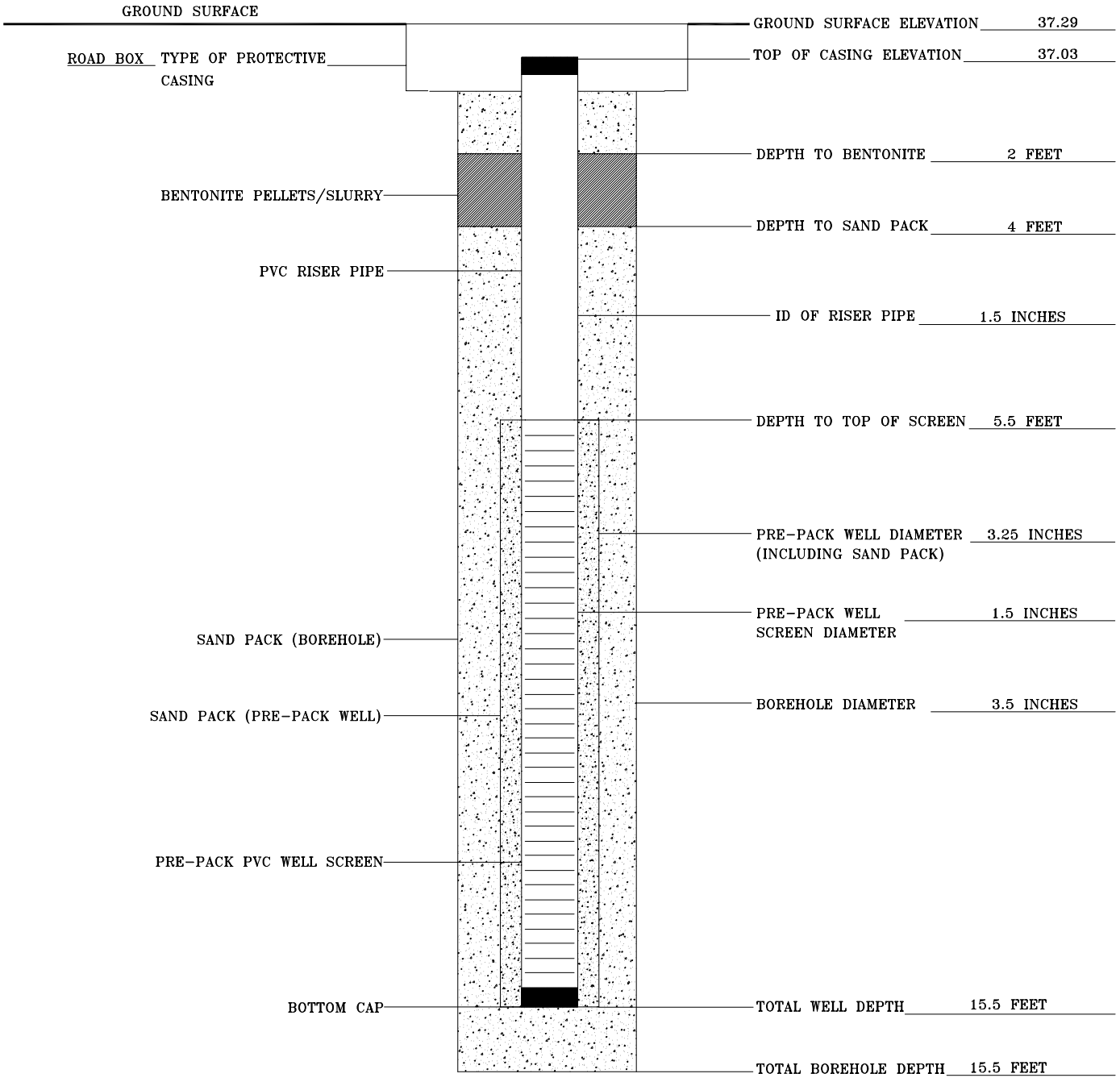
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: JANUARY 22, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-12

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-12.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

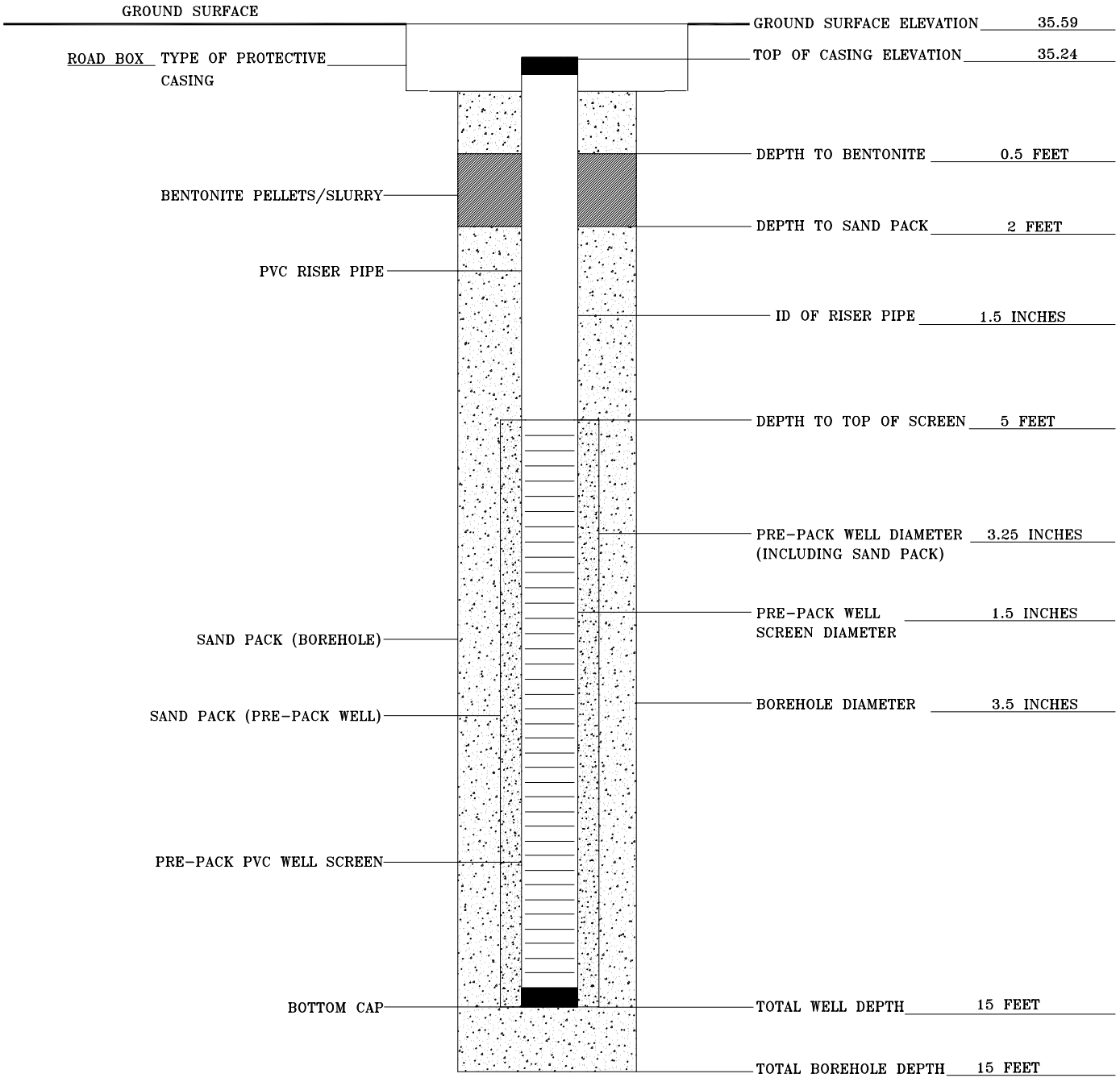
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: AUGUST 11, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-13

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-13.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

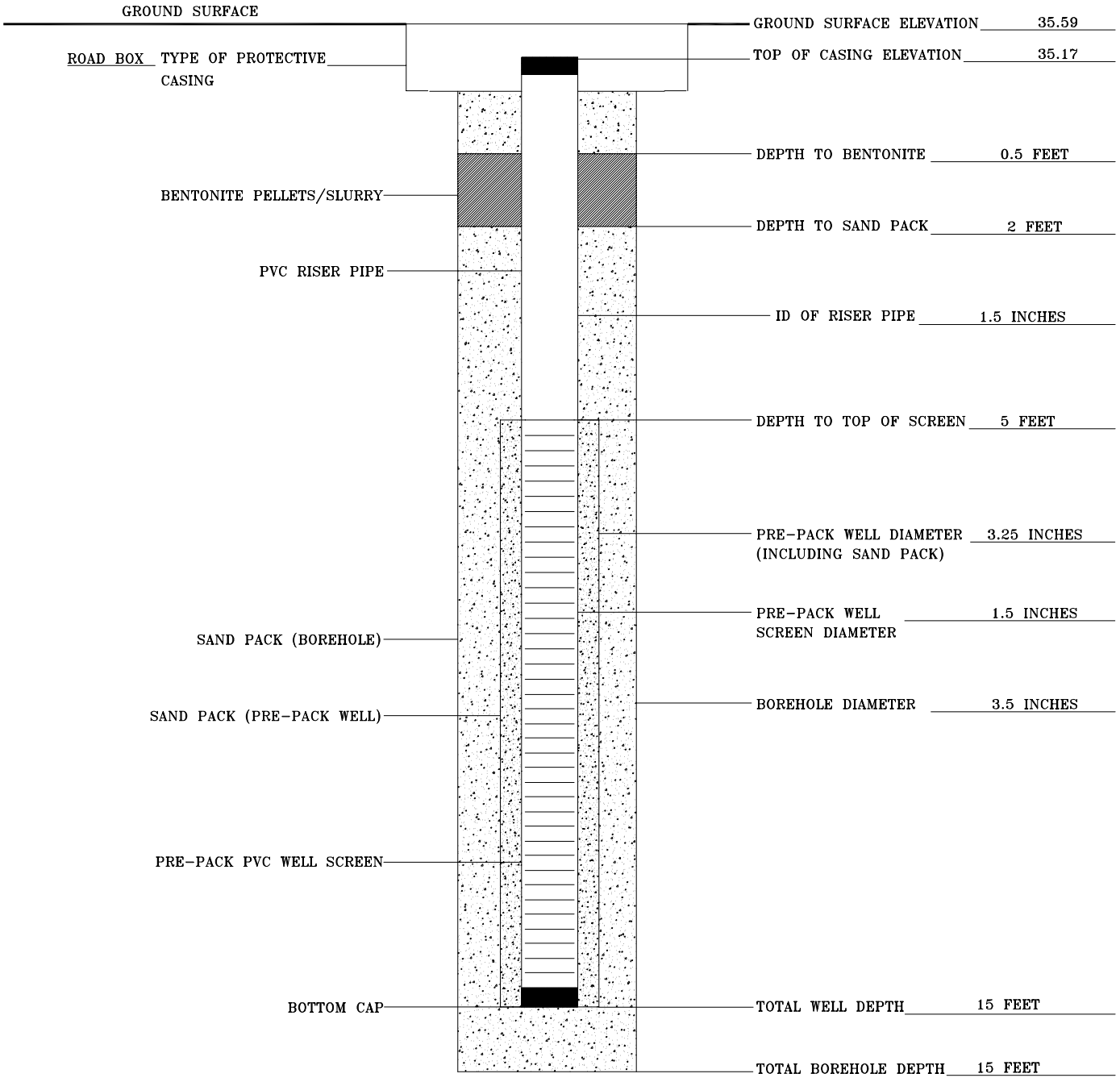
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: AUGUST 11, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-14

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-14.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

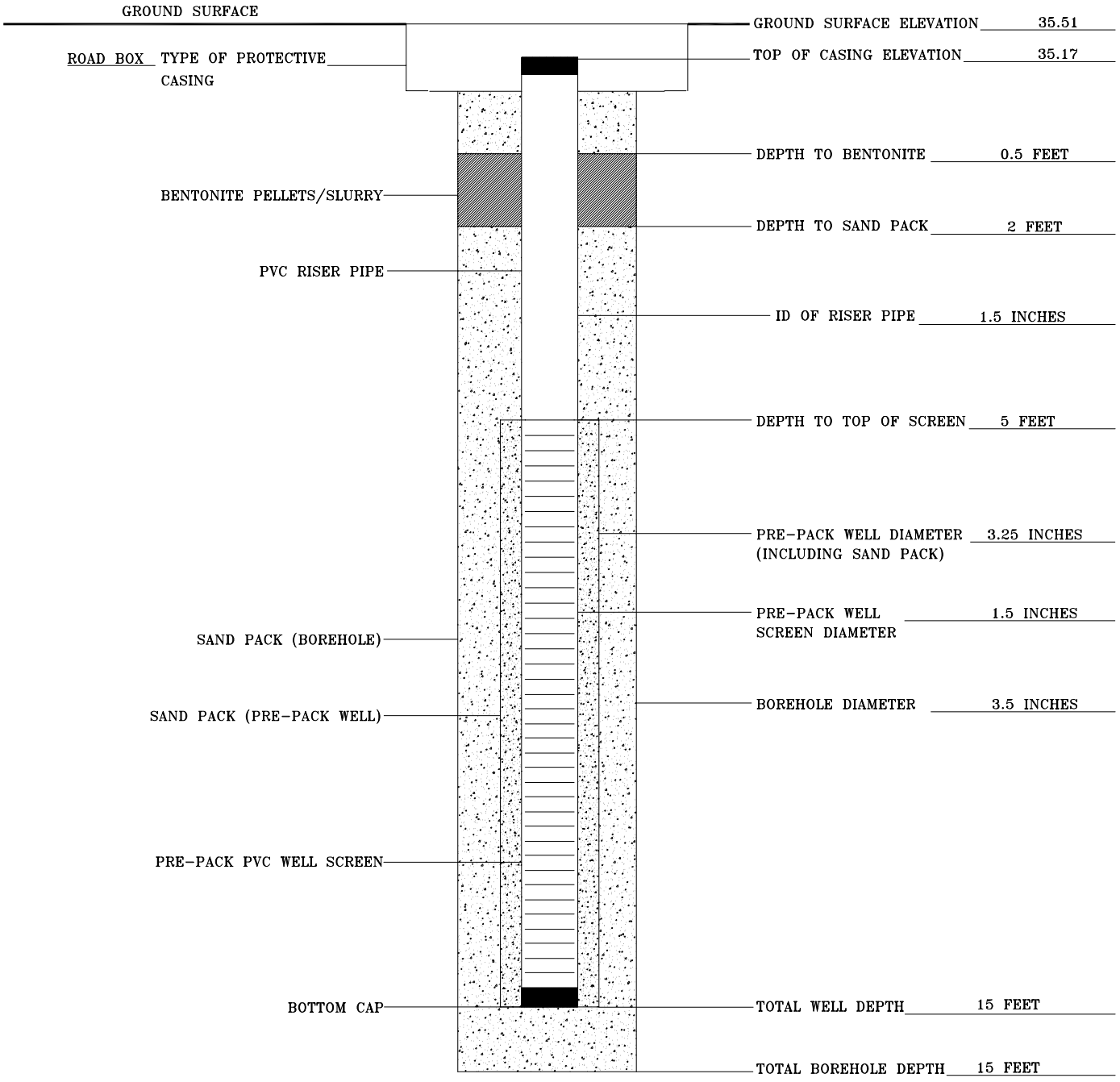
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: AUGUST 12, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-15

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-15.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

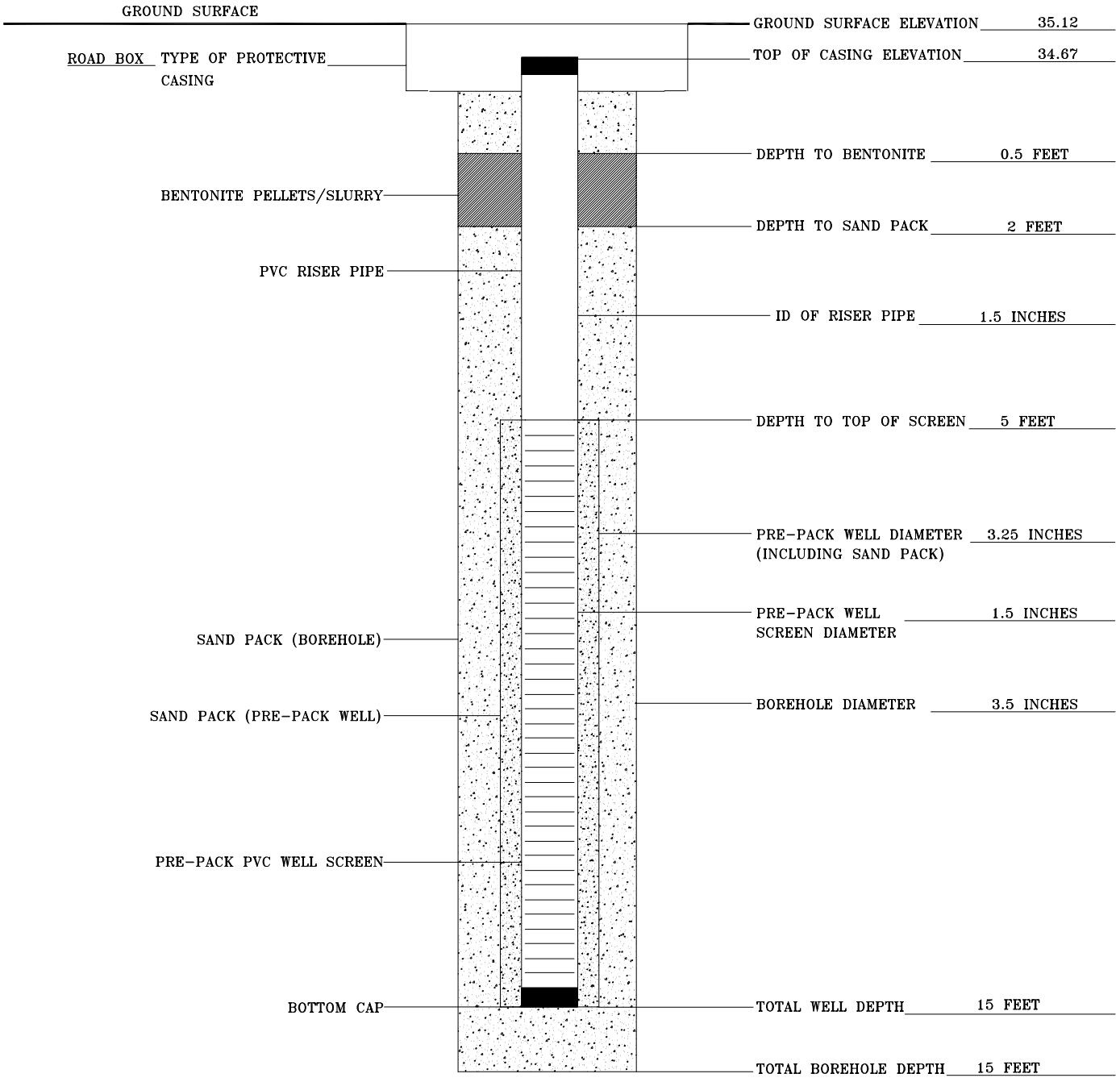
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: AUGUST 12, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-16

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-16.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

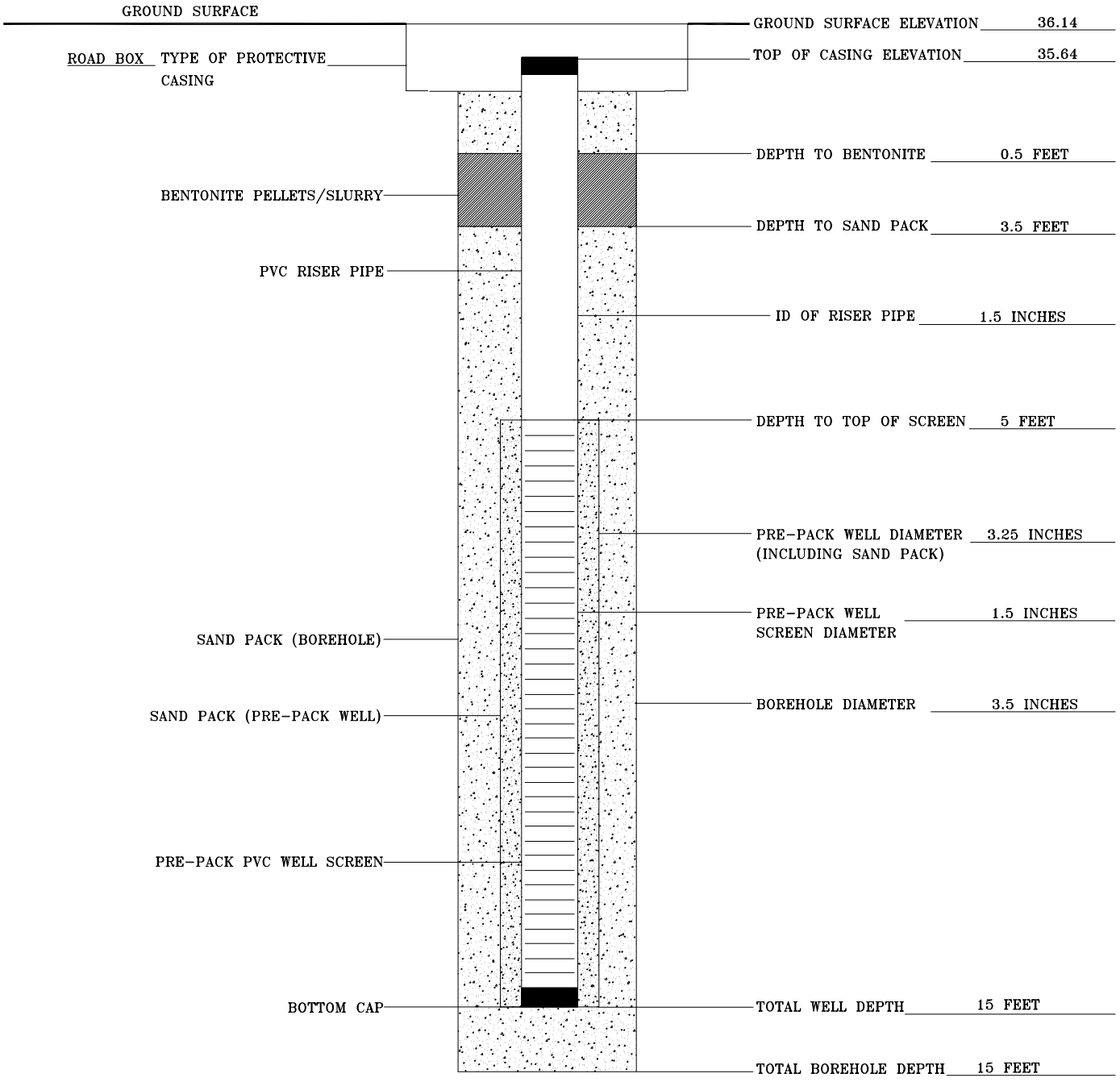
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: AUGUST 12, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-17

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-17.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

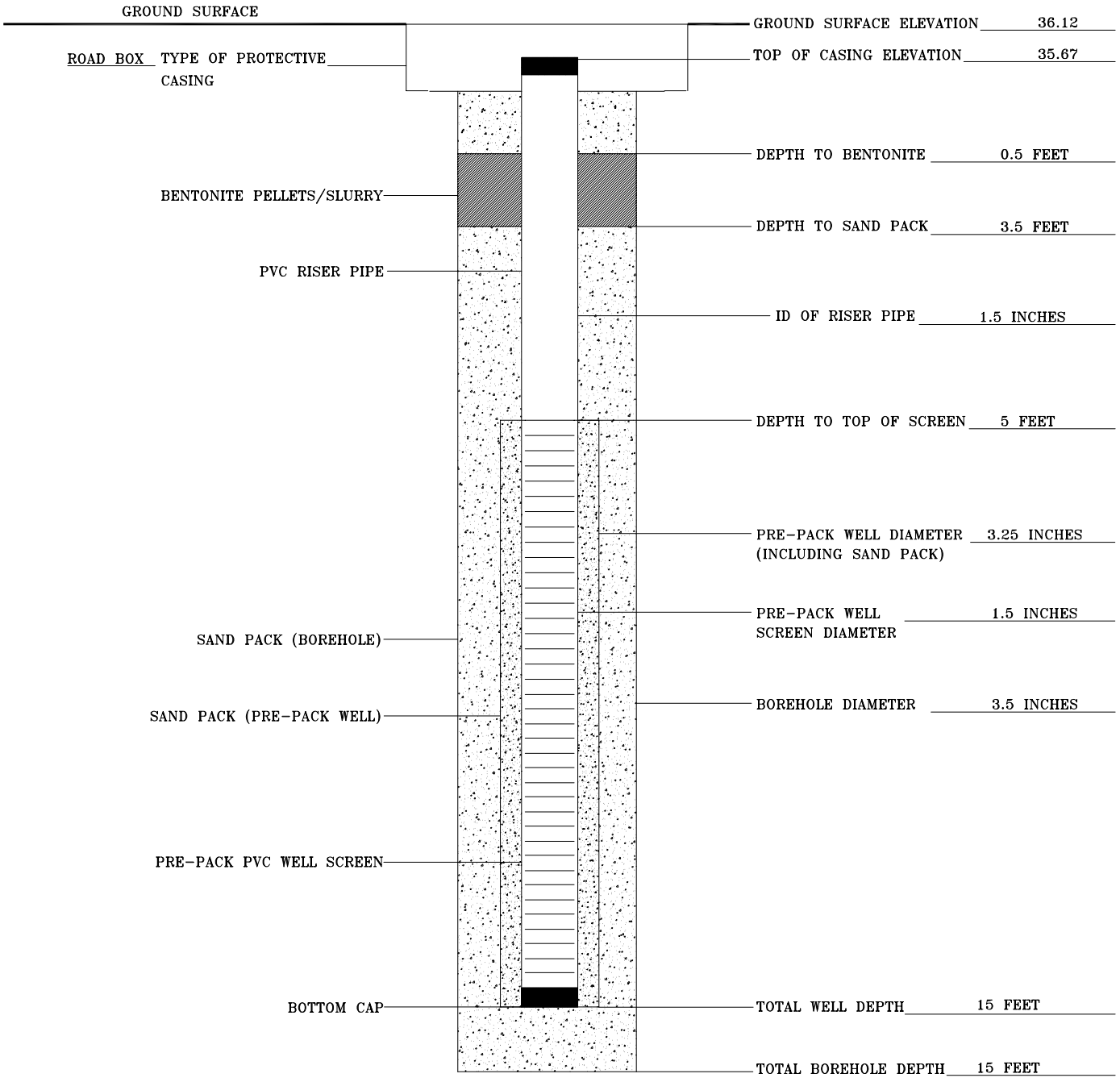
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: SEPTEMBER 8, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-18

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-18.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

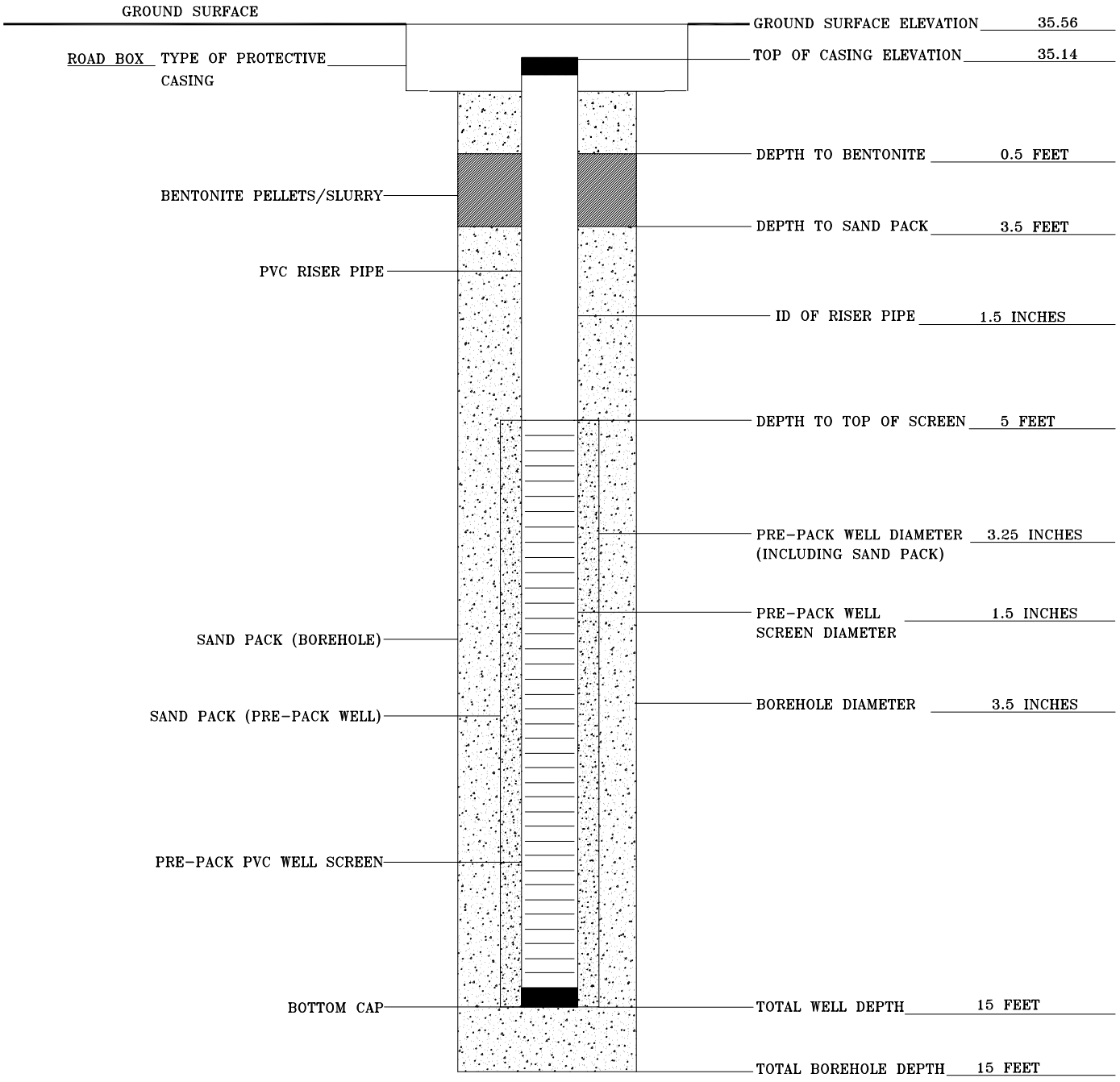
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: SEPTEMBER 8, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-19

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-19.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

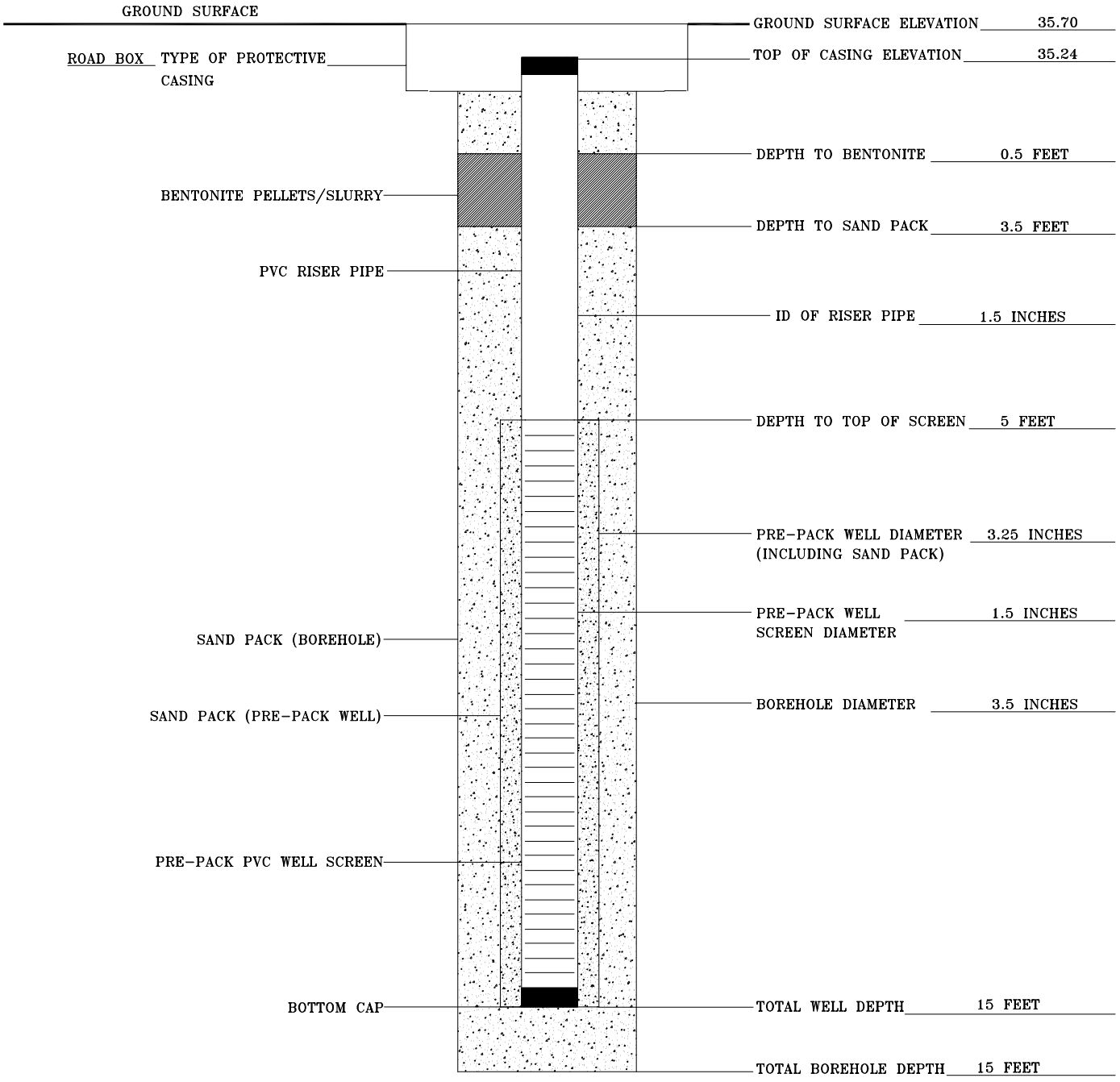
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: SEPTEMBER 10, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-20

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-20.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

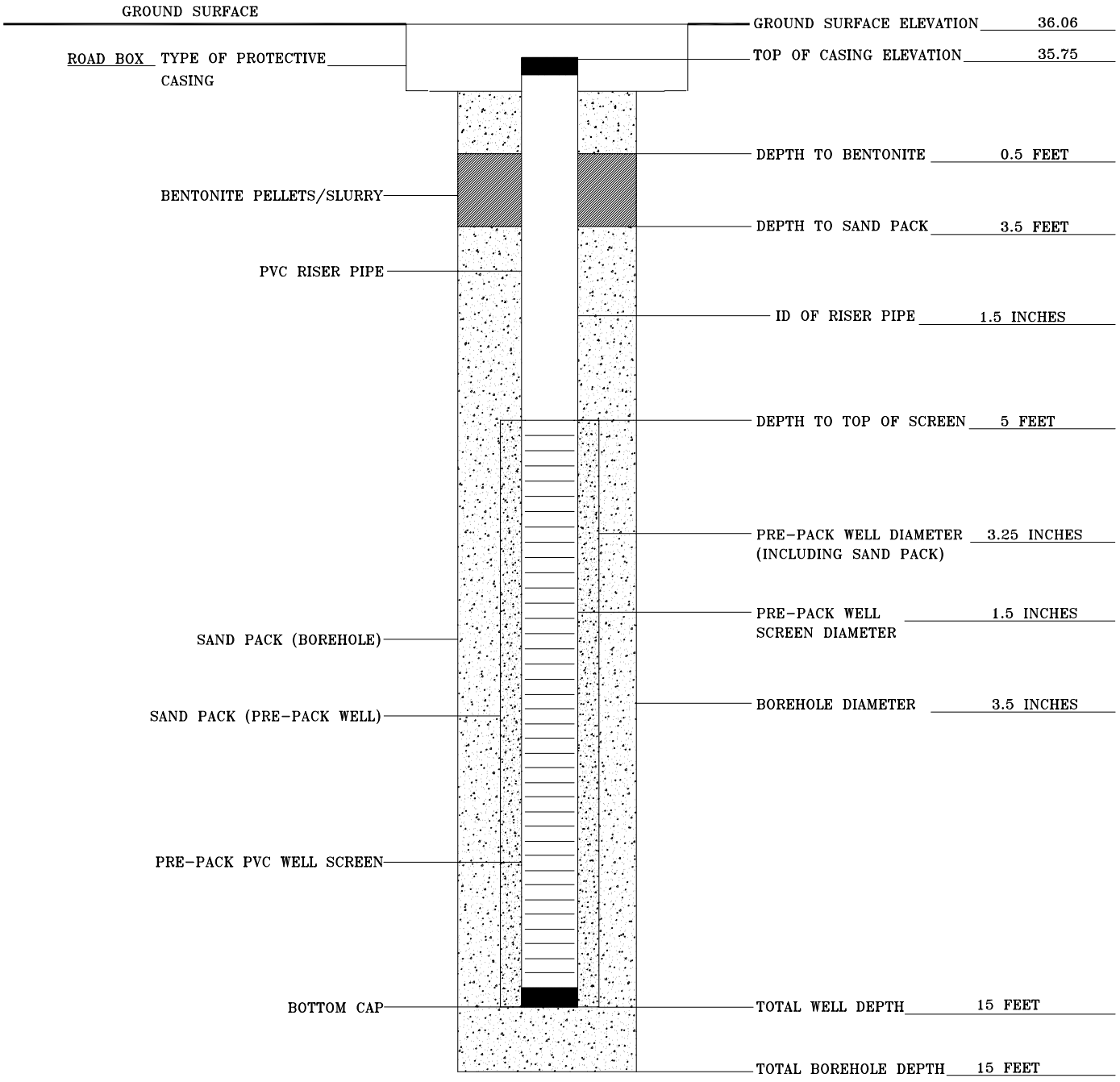
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: SEPTEMBER 8, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-21

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-21.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

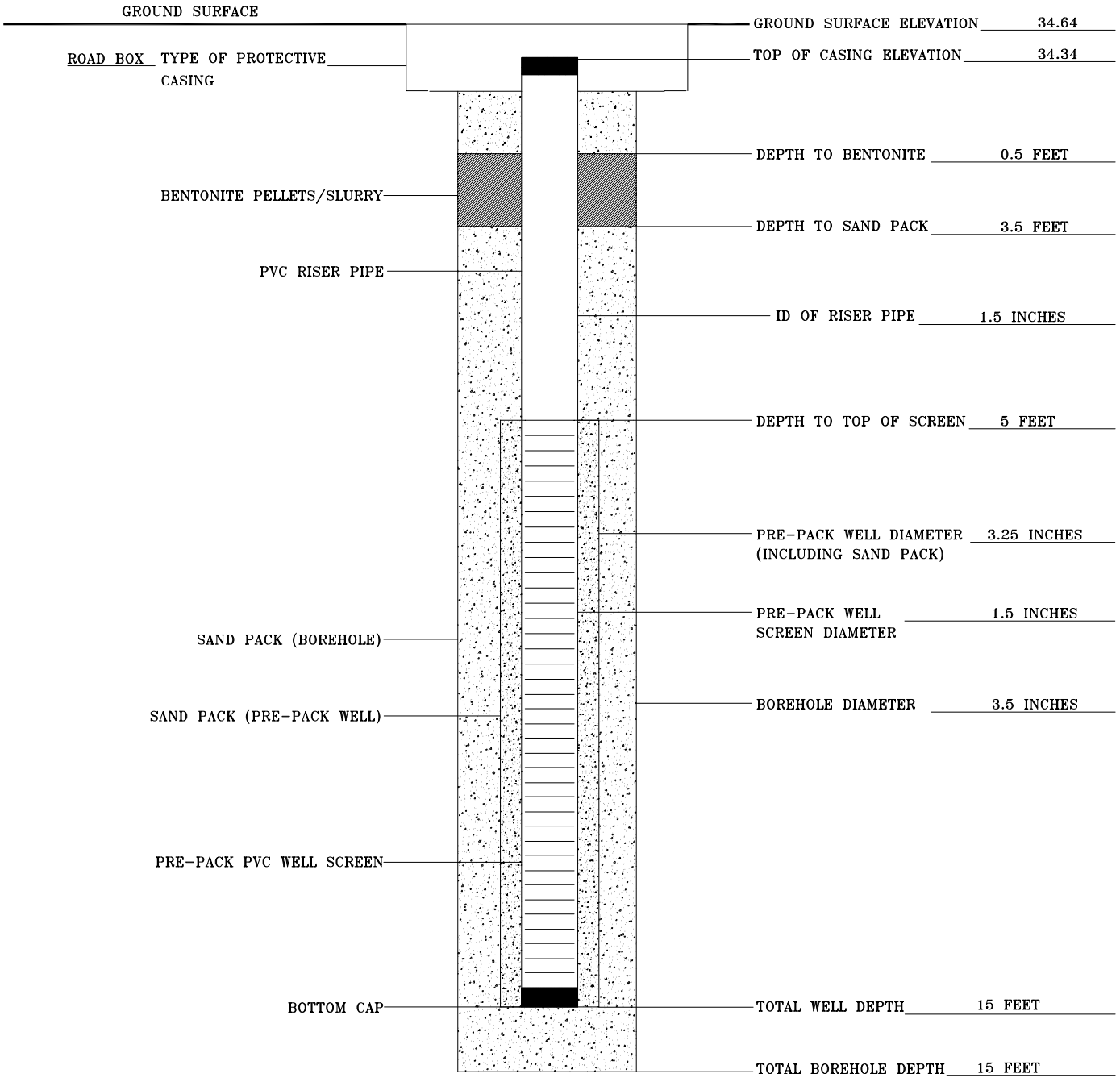
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: OCTOBER 26, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: MP-22

WELL DESCRIPTION: GROUND-WATER MONITORING




MP-22.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

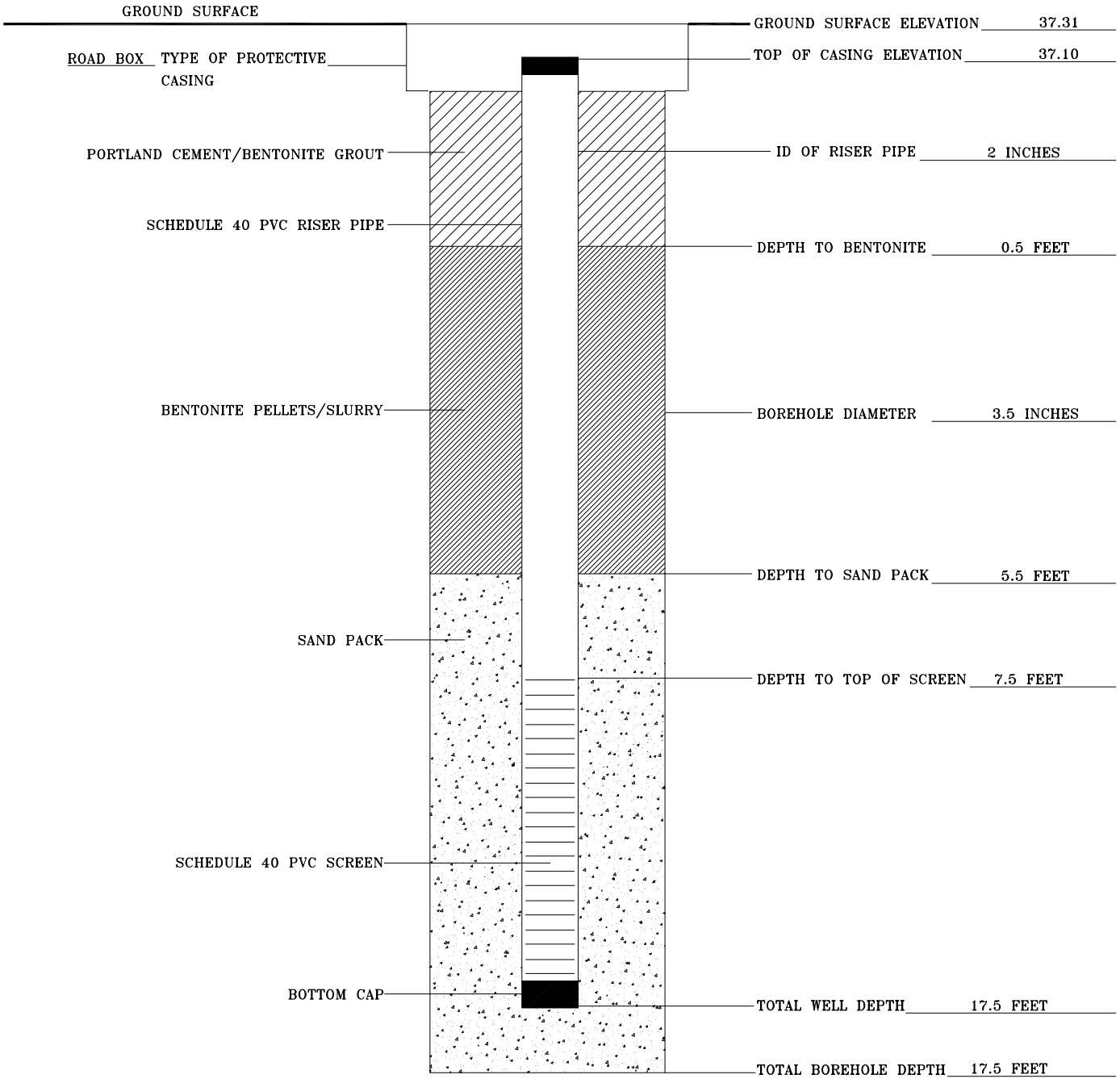
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: NOVEMBER 25, 2003

DRILLING COMPANY: ECSI

WELL DESIGNATION: MW-11

WELL DESCRIPTION: GROUND-WATER MONITORING




MW-11.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

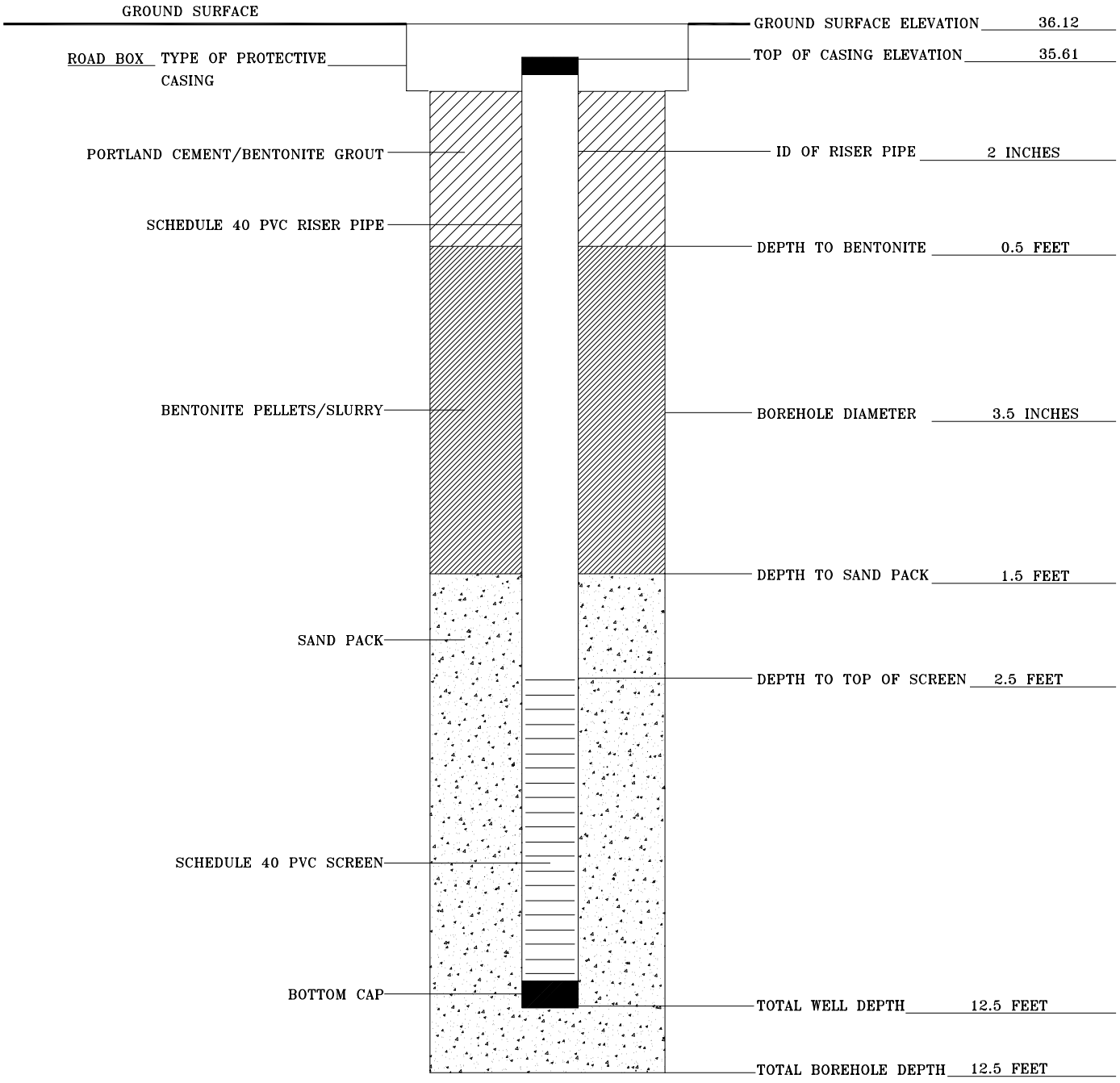
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: DECEMBER 4, 2003

DRILLING COMPANY: ECSI

WELL DESIGNATION: MW-12

WELL DESCRIPTION: GROUND-WATER MONITORING




MW-12.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

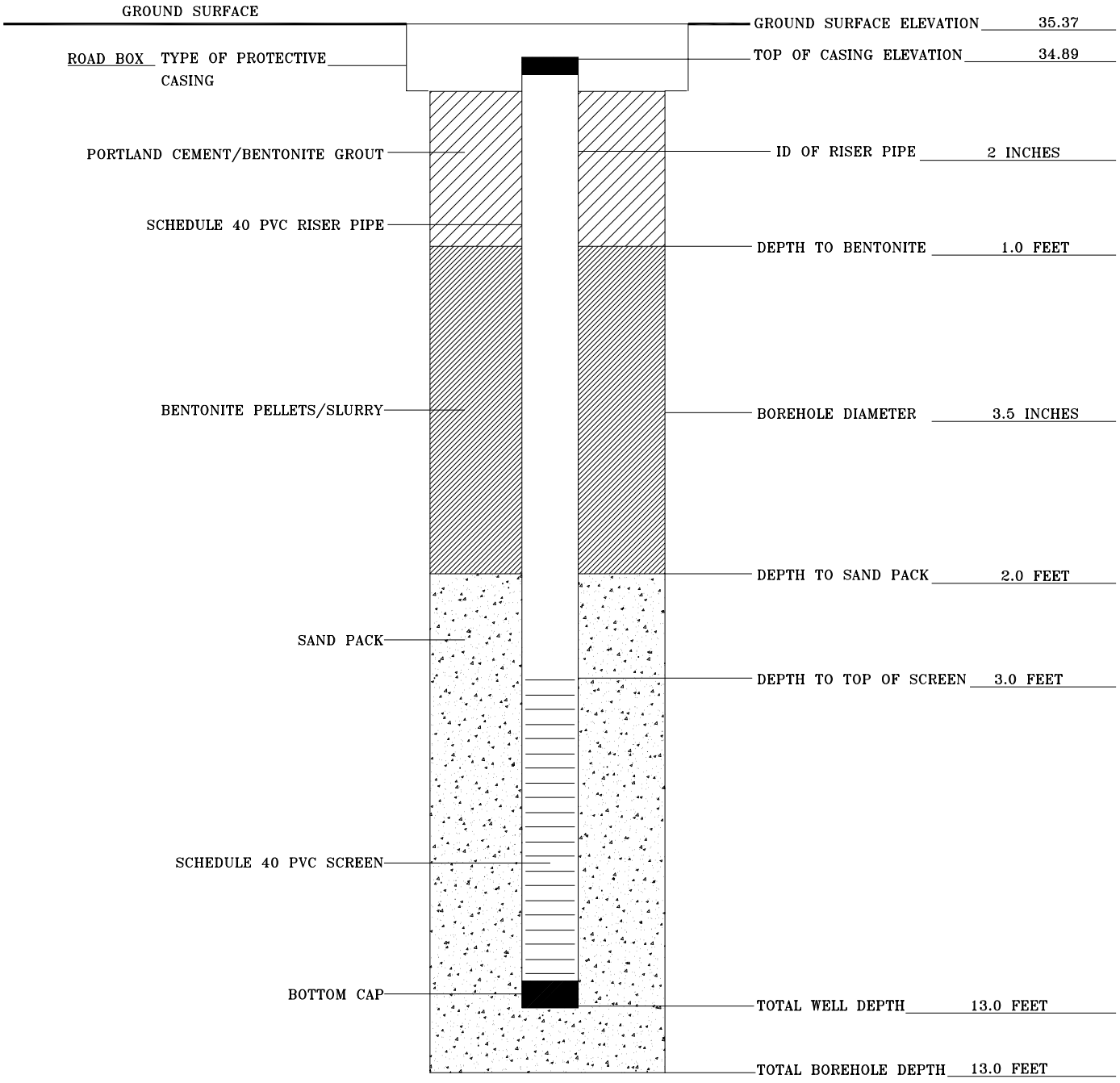
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: DECEMBER 3, 2003

DRILLING COMPANY: ECSI

WELL DESIGNATION: MW-13

WELL DESCRIPTION: GROUND-WATER MONITORING




MW-13.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

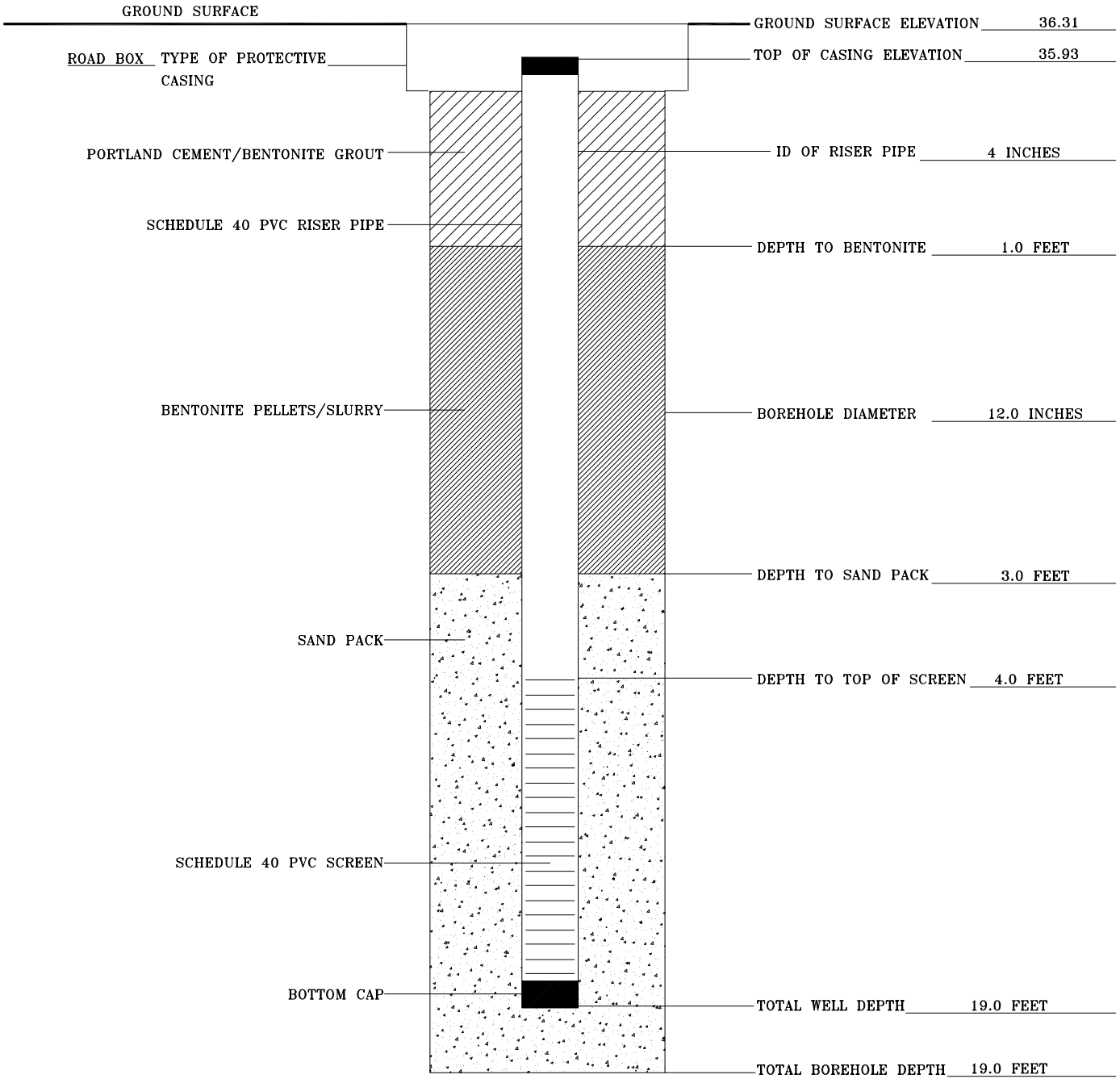
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: JANUARY 21, 2004

DRILLING COMPANY: B.L. MYERS BROTHERS, INC.

WELL DESIGNATION: MW-14

WELL DESCRIPTION: GROUND-WATER MONITORING




MW-14.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

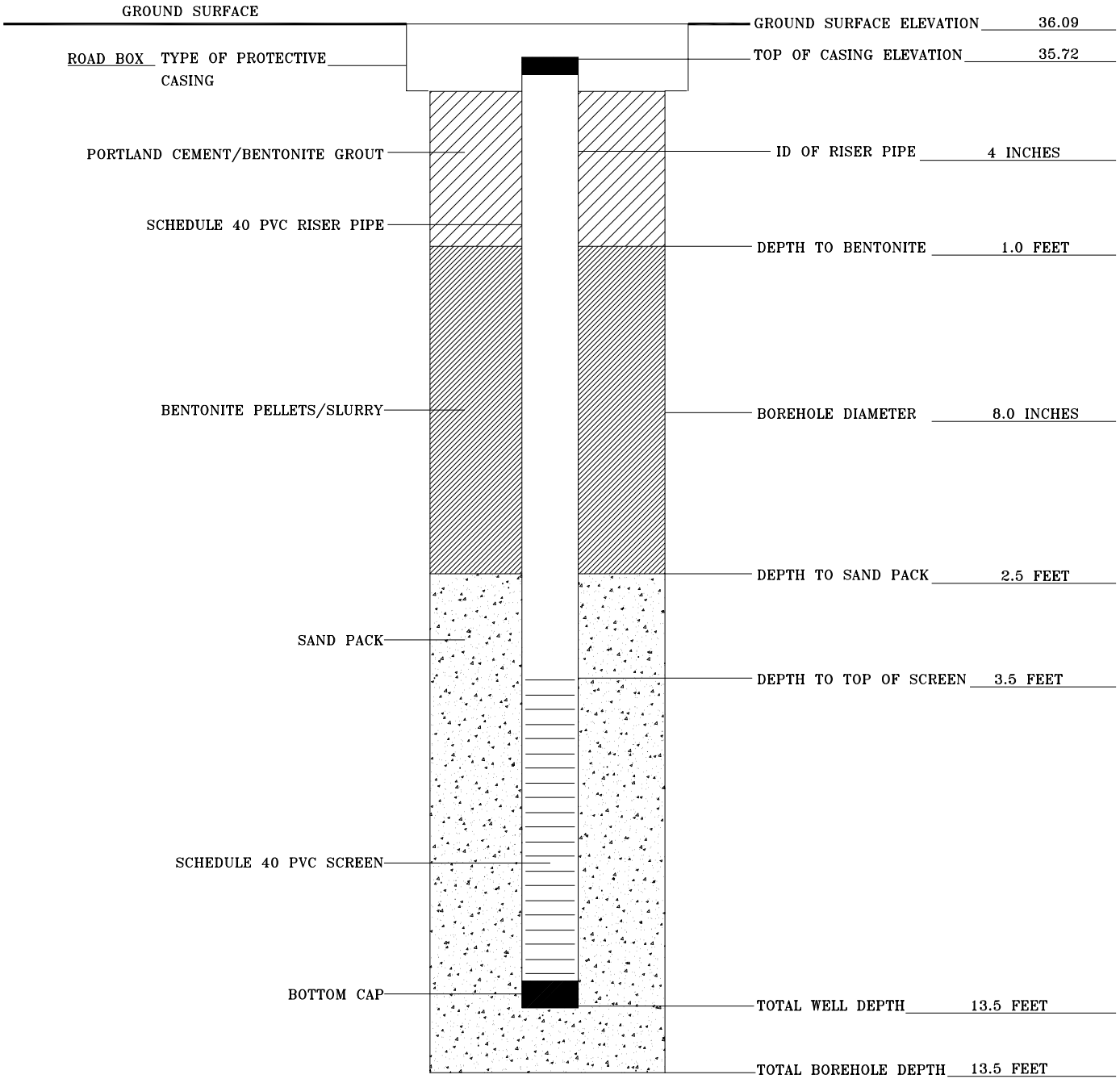
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: DECEMBER 5, 2003

DRILLING COMPANY: ECSI

WELL DESIGNATION: MW-15

WELL DESCRIPTION: GROUND-WATER MONITORING




MW-15.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

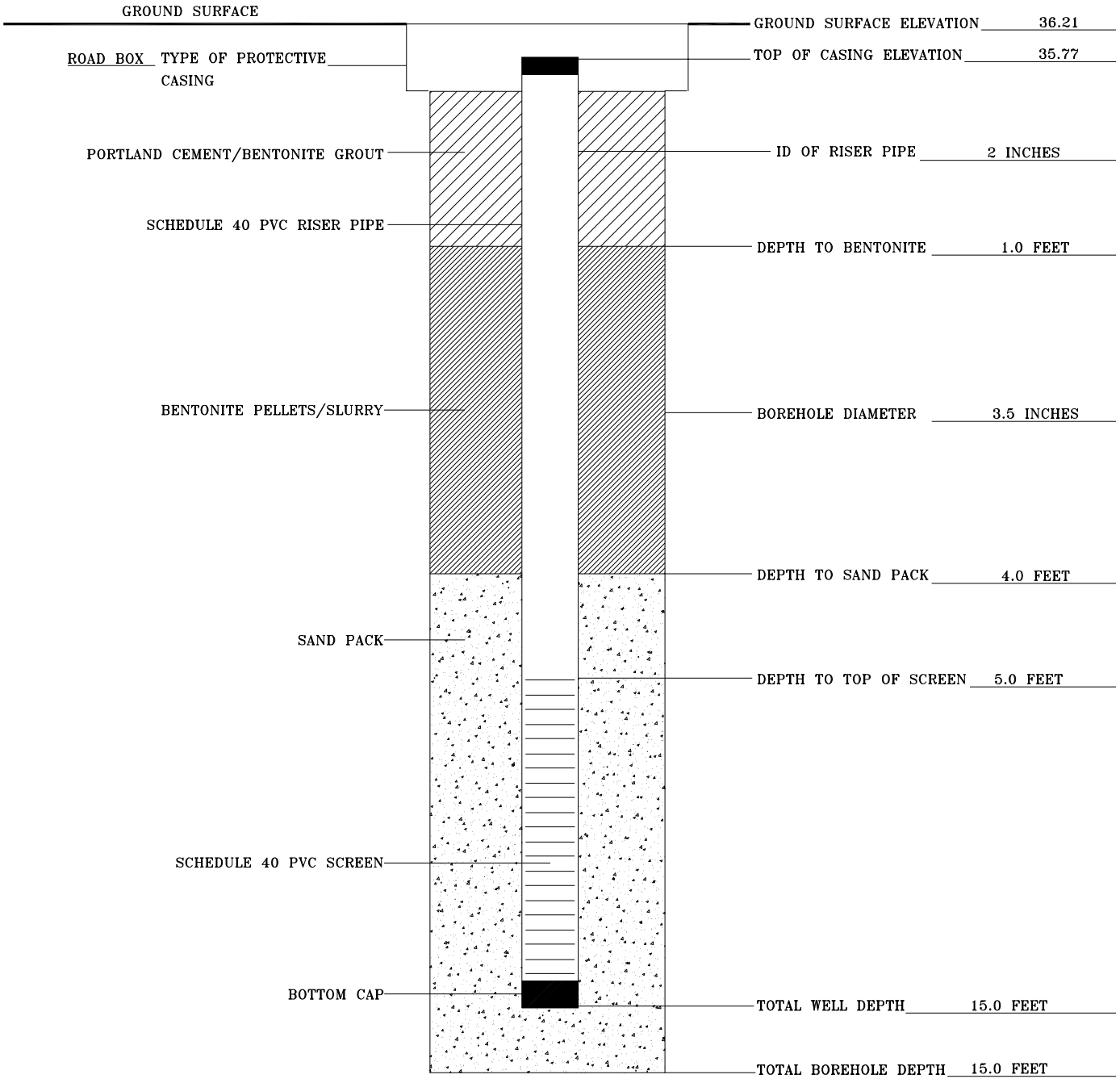
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: DECEMBER 5, 2003

DRILLING COMPANY: ECSI

WELL DESIGNATION: MW-16

WELL DESCRIPTION: GROUND-WATER MONITORING




MW-16.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

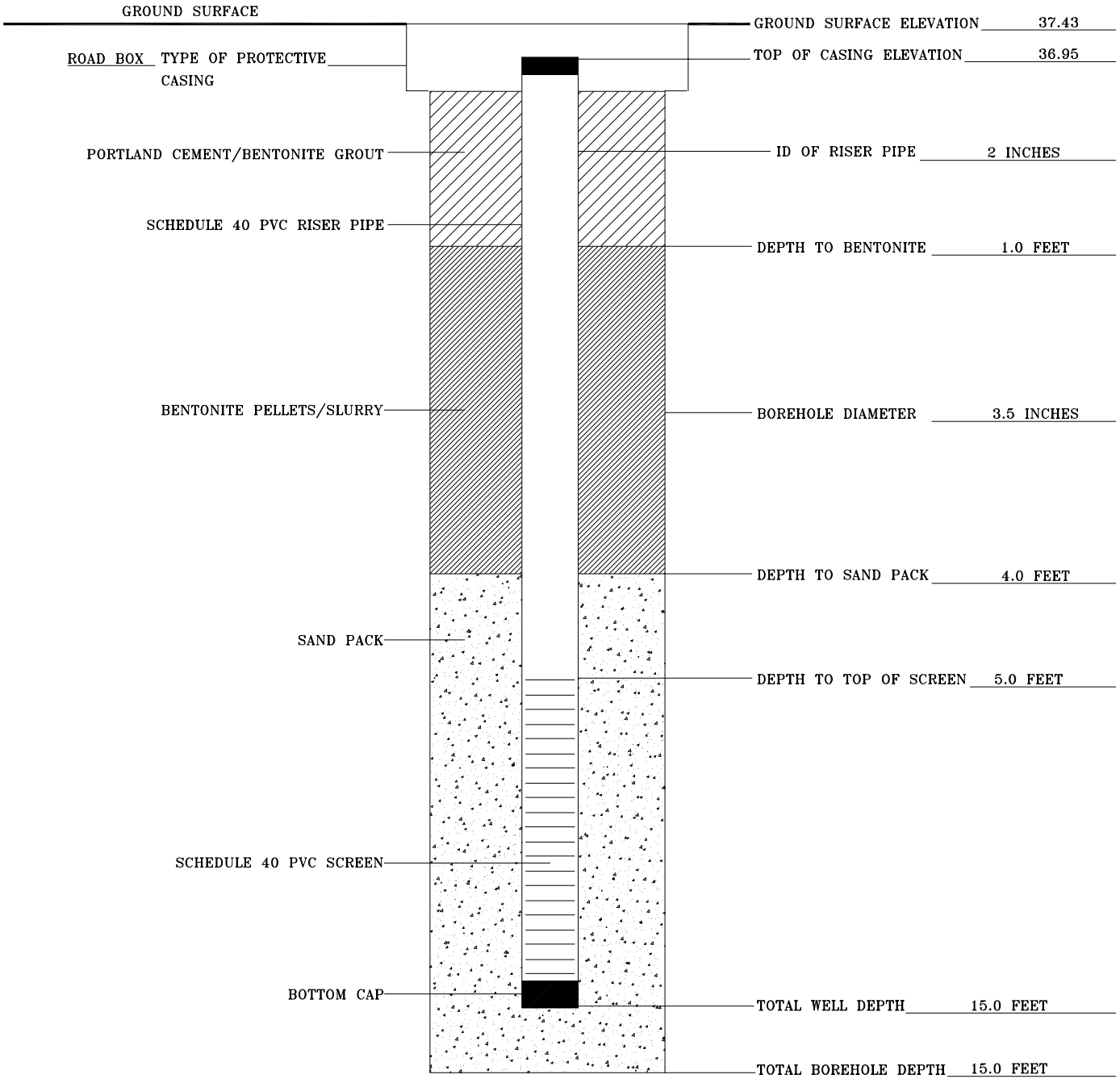
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: DECEMBER 5, 2003

DRILLING COMPANY: ECSI

WELL DESIGNATION: MW-17

WELL DESCRIPTION: GROUND-WATER MONITORING




MW-17.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

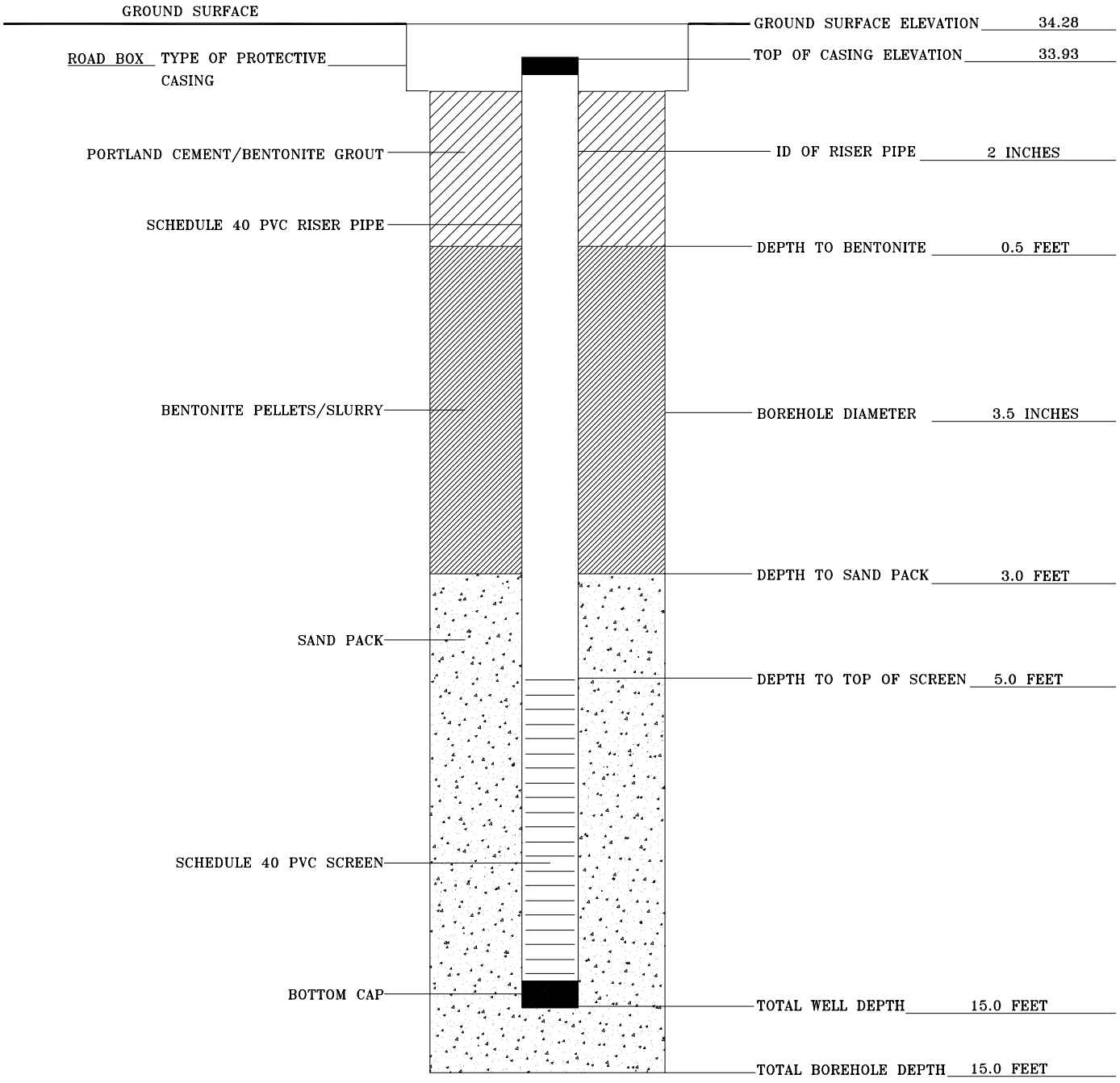
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: JANUARY 23, 2006

DRILLING COMPANY: ECSI

WELL DESIGNATION: MW-18

WELL DESCRIPTION: GROUND-WATER MONITORING




MW-18.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

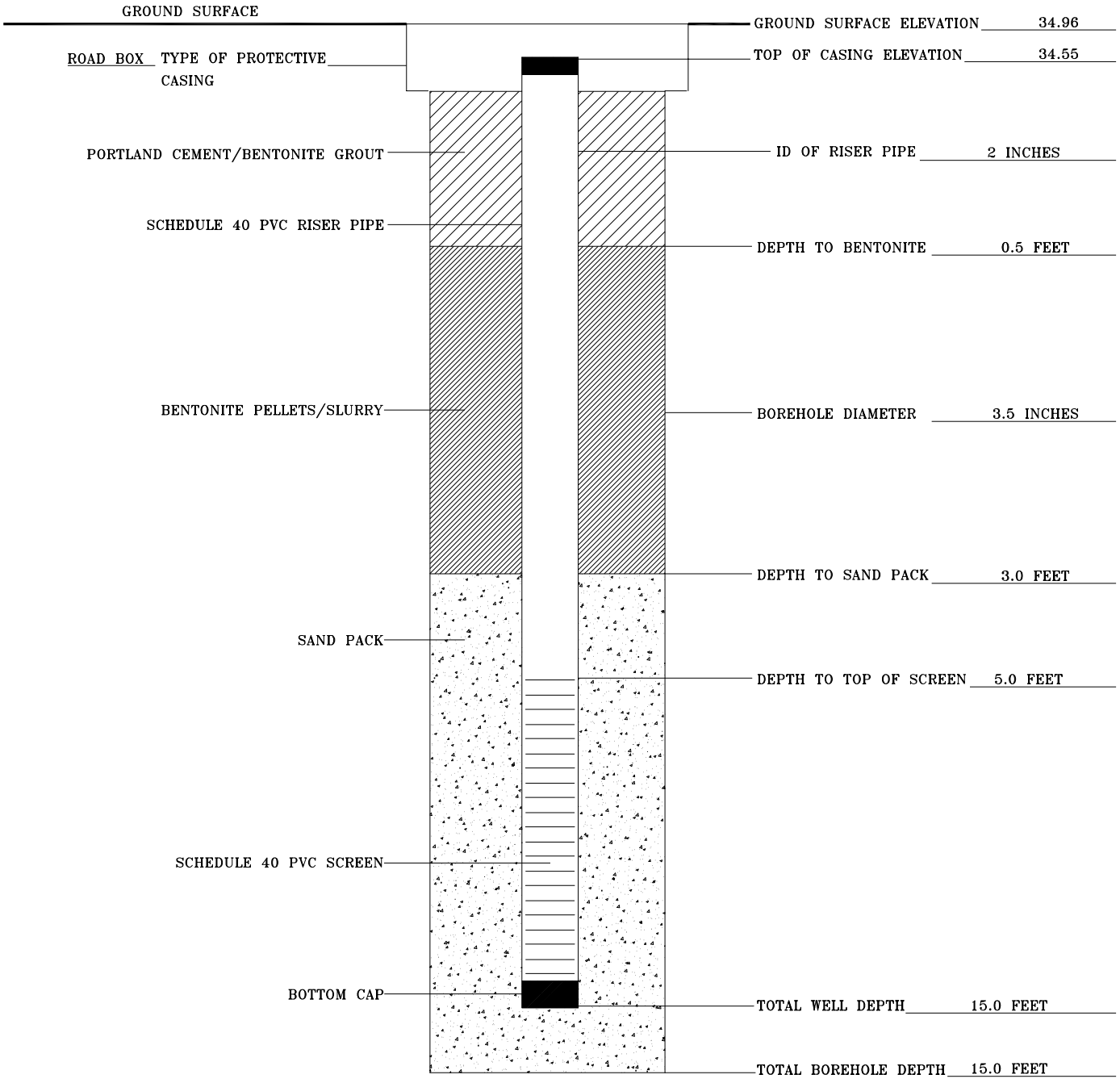
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: JANUARY 24, 2006

DRILLING COMPANY: ECSI

WELL DESIGNATION: MW-19

WELL DESCRIPTION: GROUND-WATER MONITORING




MW-19.DWG

# WELL CONSTRUCTION DIAGRAM

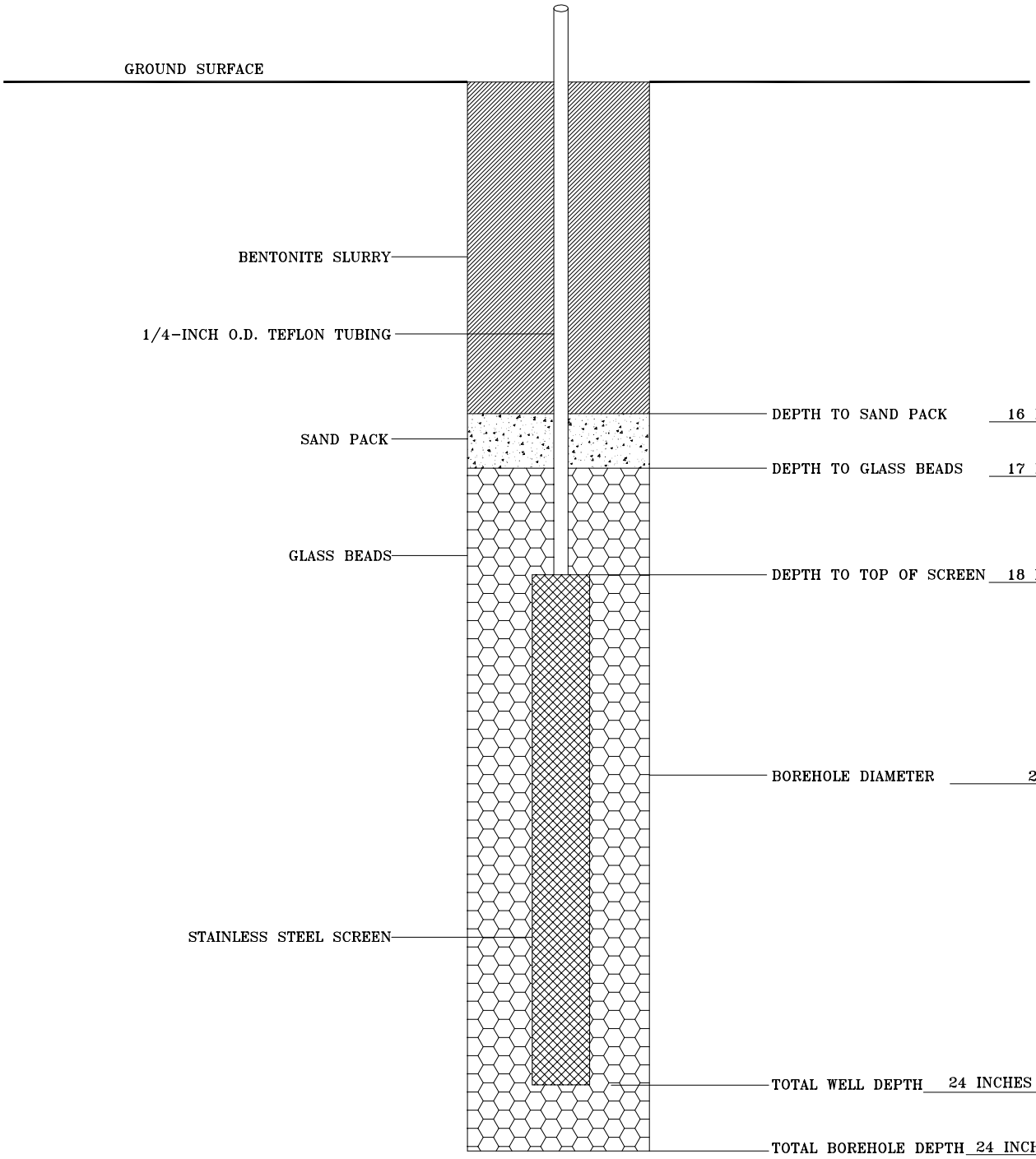
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: JANUARY 23, 2005

DRILLING COMPANY: ECSI

WELL DESIGNATION: MSVP-1

WELL DESCRIPTION: VAPOR MONITORING




MSVP-1.DWG

# WELL CONSTRUCTION DIAGRAM

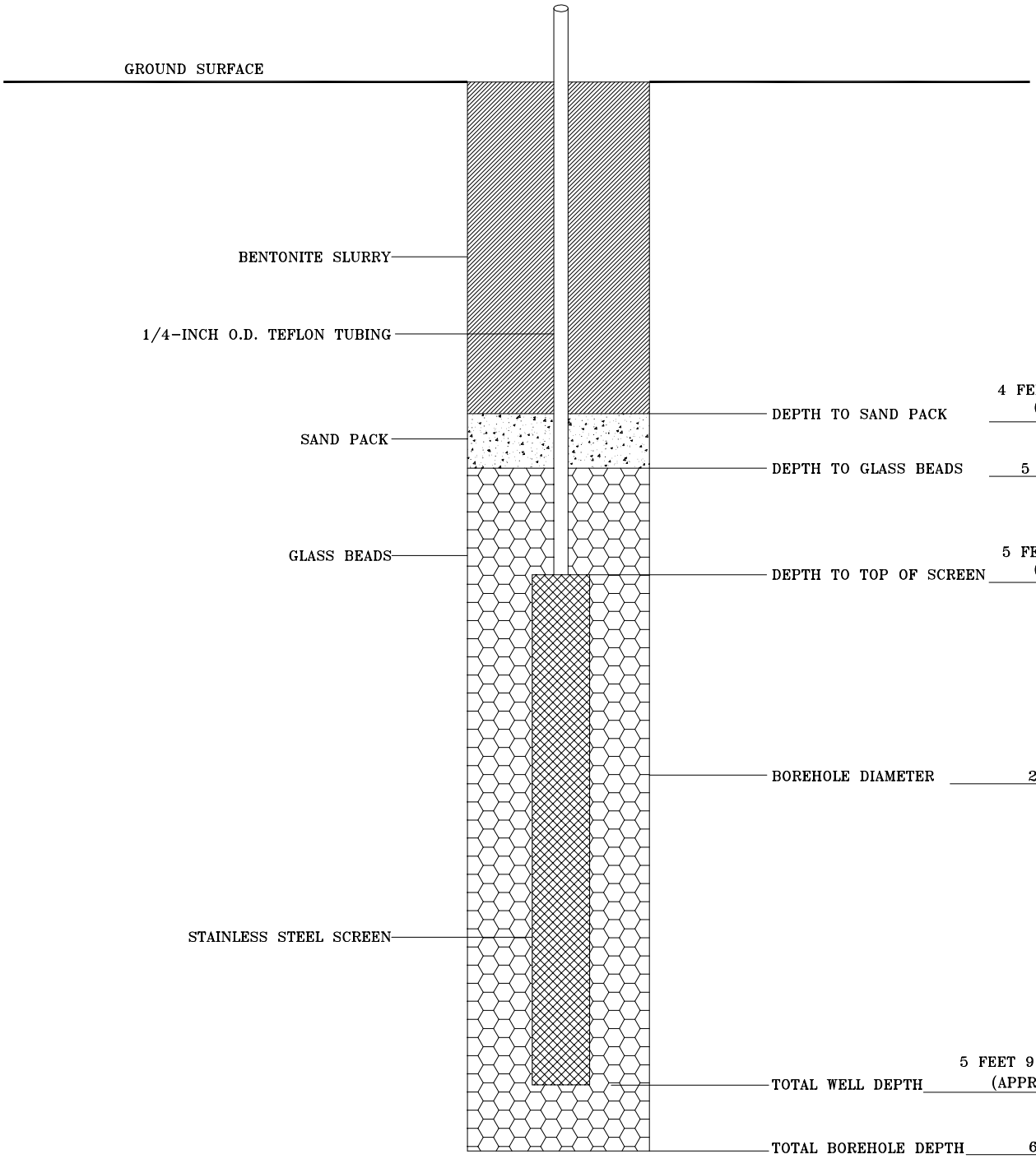
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: JANUARY 23, 2005

DRILLING COMPANY: ECSI

WELL DESIGNATION: SVP-1

WELL DESCRIPTION: VAPOR MONITORING




SVP-1.DWG

# WELL CONSTRUCTION DIAGRAM

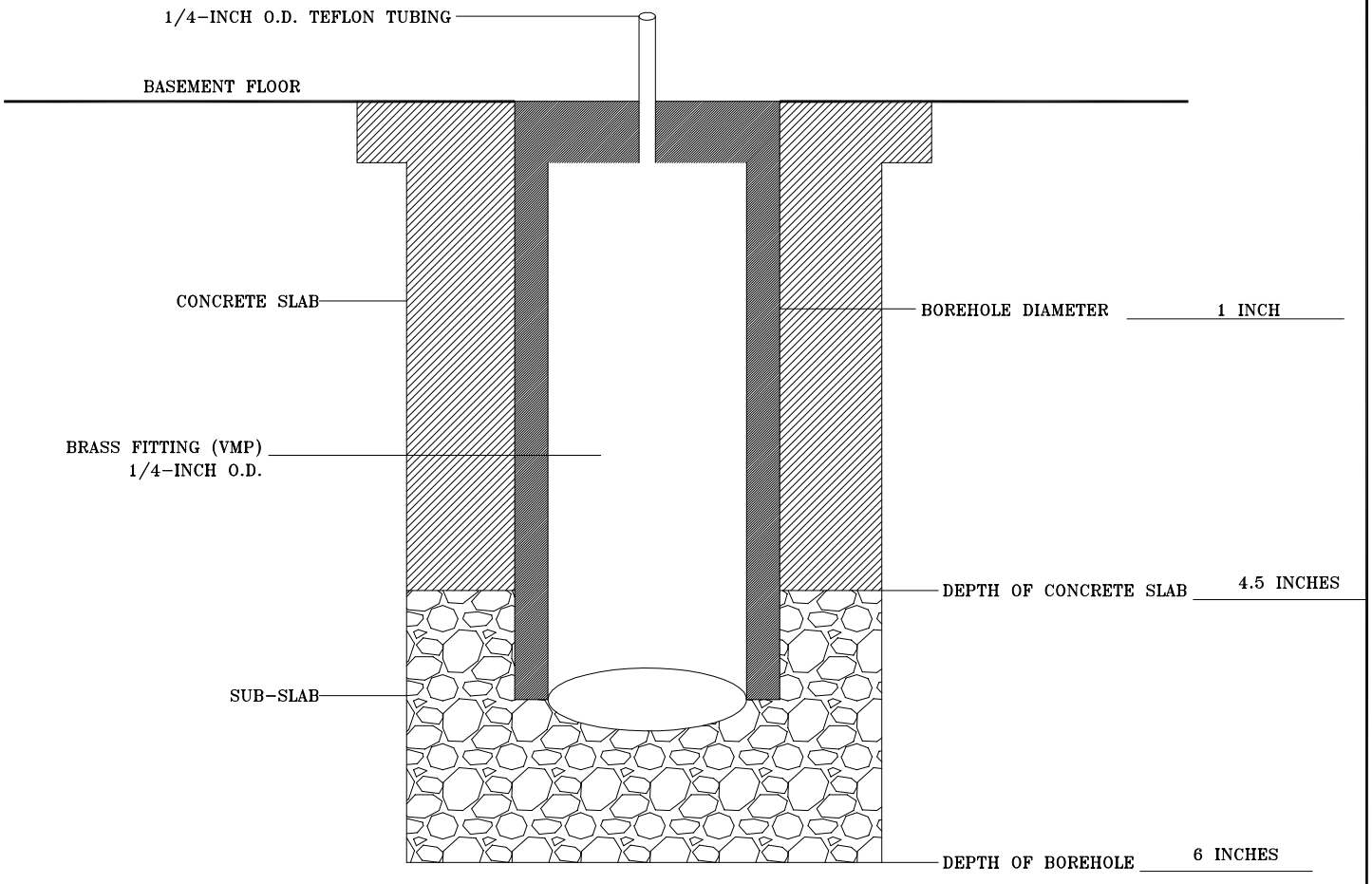
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION JANUARY 24, 2005

DRILLING COMPANY ECSI

WELL DESIGNATION VMP-1

WELL DESCRIPTION VAPOR MONITORING




VMP-1.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

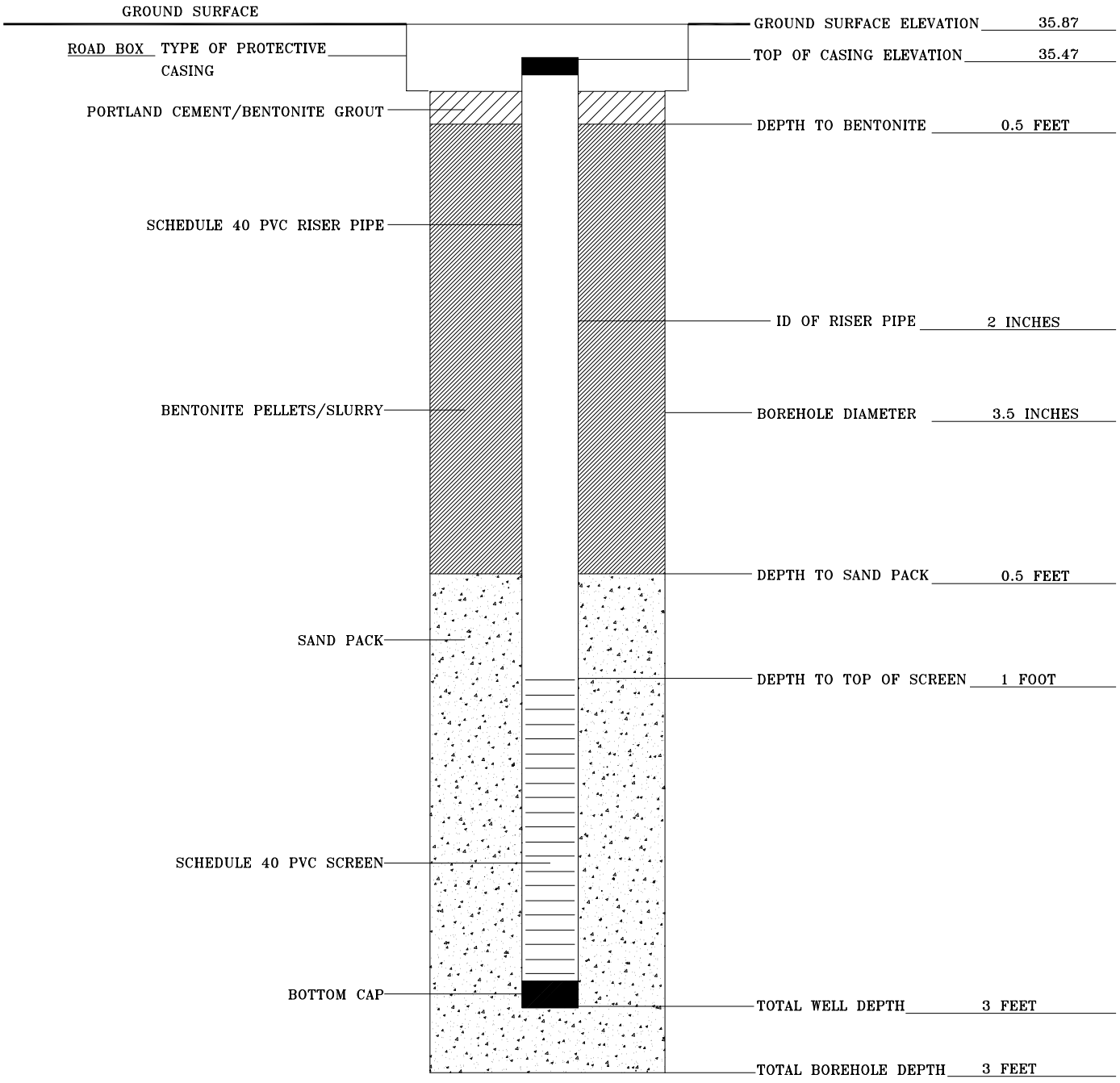
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: SEPTEMBER 8, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: VP-1

WELL DESCRIPTION: VAPOR MONITORING




VP-1.DWG

# MONITORING WELL CONSTRUCTION DIAGRAM

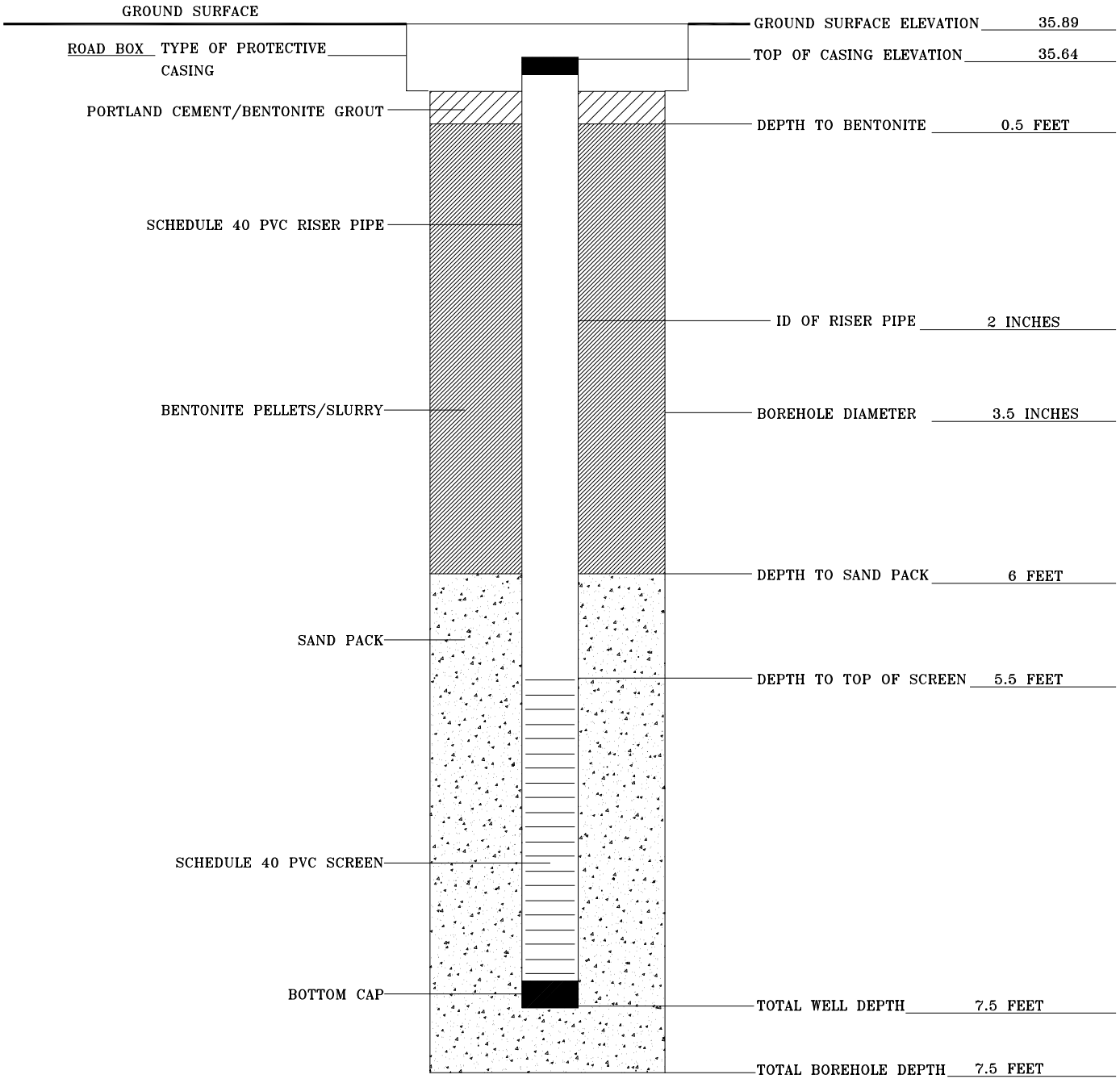
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET, NEW YORK

DATE OF INSTALLATION: SEPTEMBER 8, 2004

DRILLING COMPANY: ECSI

WELL DESIGNATION: VP-2

WELL DESCRIPTION: VAPOR MONITORING




VP-2.DWG

# APPENDIX C

# GROUND-WATER FIELD SAMPLING FORMS

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/18/09 | Sampler: |
| Project/Site: WATSON | Location: |
| Well ID: MP-1 | |
| Inner Casing diameter: | Casing Material: |

Weather Conditions: SUNNY 25°F

PID reading from well: ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.64 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F °C | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| Initial: | 10.80 | 560 | 7.27 | 4.68 | -208.7 | 8.64 |
| :32 3 Minutes: | 11.00 | 531 | 6.84 | 2.95 | -189.3 | 8.78 |
| :35 6 Minutes: | 10.87 | 520 | 6.49 | 1.69 | -175.8 | 8.75 |
| :38 9 Minutes: | 10.98 | 565 | 6.42 | 1.30 | -168.3 | 8.76 |
| :41 12 Minutes: | 11.06 | 590 | 6.41 | 1.11 | -161.9 | 8.76 |
| :44 15 Minutes: | 11.03 | 607 | 6.39 | 0.98 | -155.8 | 8.76 |
| :47 18 Minutes: | 11.00 | 624 | 6.42 | 0.90 | -147.7 | 8.76 |
| :50 21 Minutes: | 11.02 | 635 | 6.44 | 0.82 | -142.9 | 8.76 |
| Sampling Method: :53 24 Min | 11.02 | 642 | 6.45 | 0.79 | -128.1 | 8.76 |
| Sampling Time: 1156 :56 27 Min | 11.00 | 640 | 6.39 | 0.73 | -127.4 | 8.76 |
| Sampling Parameters: | | | | | | |

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/18/04 | Sampler: BJM / MW |
| Project/Site: WATERVLIET | Location: WATERVLIET, NY |
| Well ID: MP-2 | |
| Inner Casing diameter: 1½-inch-pro-pack | Casing Material: PVC |

Weather Conditions: SUNNY - 30's

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.00 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 12:46 Purge End Time: 1:27 Purge Rate (gallons/min.):

Total Volume Purged: 1.5 gallons

| | Temperature °F °C | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :46 Initial: | 8.38 | 14,383 | 6.68 | 6.96 | -158.6 | 9.00 |
| :49 3 Minutes: | 8.10 | 19,410 | 6.22 | 3.04 | -158.7 | 10.20 |
| :52 6 Minutes: | 7.82 | 18,620 | 6.24 | 3.02 | -145.2 | 10.26 |
| :55 9 Minutes: | 9.10 | 18544 | 6.32 | 1.86 | -136.8 | 10.75 |
| :58 12 Minutes: | 9.34 | 17984 | 6.42 | 1.21 | -131.5 | 11.09 |
| :01 15 Minutes: | 9.18 | 16433 | 6.48 | 1.04 | -129.2 | 11.35 |
| :04 18 Minutes: | 9.27 | 14801 | 6.53 | 0.92 | -126.8 | 11.68 |
| 115 ~~:07~~ 21 Minutes: | 8.05 | 13023 | 6.57 | 2.01 | -119.9 | 10.60 |
| Sampling Method: 118 24 m.v. | 8.54 | 12438 | 6.62 | 0.74 | -118.4 | 11.51 |
| Sampling Time: 121 ~~2720~~ | 8.60 | 12242 | 6.66 | 0.45 | -116.5 | 12.15 |
| Sampling Parameters: 124 | 8.76 | 11390 | 6.66 | 0.66 | -115.2 | 12.65 |

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

124 well went DRY - will let recharge + sample

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments: PURGED BELOW TUBING INTAKE 105, Added tubing, reinitiated purge at ~~###~~ 115

water very silty - went dry during development according to Driller's Notes

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 4/18/04 | Sampler: BSM/MW |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: MP-3 | |
| Inner Casing diameter: 1¼ - pre-pack | Casing Material: PVC |

Weather Conditions: Sunny - 30

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.12 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 2:28 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :28 | Initial: | 7.43 | 573 | 6.57 | 3.94 | -95.0 | 8.12 |
| :31 | 3 Minutes: | 9.04 | 524 | 6.42 | 1.34 | -92.4 | 9.39 |
| :34 | 6 Minutes: | 9.20 | 519 | 6.41 | 1.03 | -92.8 | 9.39 |
| :37 | 9 Minutes: | 9.15 | 519 | 6.40 | 0.82 | -92.6 | 9.40 |
| :40 | 12 Minutes: | 9.04 | 521 | 6.39 | 0.73 | -91.6 | 9.41 |
| :43 | 15 Minutes: | 9.10 | 521 | 6.38 | 0.70 | -91.0 | 9.42 |
| :46 | 18 Minutes: | 9.06 | 522 | 6.38 | 0.68 | -90.0 | 9.42 |
| :49 | 21 Minutes: | | | | | | |

Sampling Method:

Sampling Time: 2:50

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/19/09 | Sampler: Bryan Mitchell |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: MP-4 | |
| Inner Casing diameter: 1½ - pre-pack | Casing Material: pvc |

Weather Conditions:

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.73 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 8:20 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :20 | Initial: | 7.64 | 846 | 6.78 | 7.51 | -78 | 8.73 |
| :23 | 3 Minutes: | 9.26 | 841 | 6.56 | 4.98 | -66.9 | 8.77 |
| :26 | 6 Minutes: | 9.75 | 822 | 6.51 | 1.76 | -66.3 | 8.77 |
| :29 | 9 Minutes: | 9.86 | 815 | 6.49 | 1.19 | -66.1 | 8.77 |
| :32 | 12 Minutes: | 9.97 | 812 | 6.46 | 0.96 | -65.5 | 8.77 |
| :35 | 15 Minutes: | 10.04 | 814 | 6.44 | 0.96 | -65.6 | 8.77 |
| :38 | 18 Minutes: | 10.07 | 815 | 6.44 | 0.95 | -65.2 | 8.77 |
| :41 | 21 Minutes: | | | | | | |

Sampling Method:

Sampling Time: 8:40

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | |
|---|---|
| Date: 4/18/09 | Sampler: BSM/MW |
| Project/Site: | Location: Watervliet, NY |
| Well ID: MP-5 - SB-135 | |
| Inner Casing diameter: 1½ - pin-pack | Casing Material: PVC |

Weather Conditions: Sunny - 30

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.00 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 3:09 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F (C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :09 Initial: | 6.85 | 697 | 6.73 | 11.22 | -99.3 | 9.00 |
| :12 3 Minutes: | 8.29 | 792 | 6.84 | 2.19 | -91.9 | 9.84 |
| :15 6 Minutes: | 8.42 | 805 | 6.86 | 1.16 | -89.8 | 10.13 |
| :18 9 Minutes: | 8.51 | 818 | 6.84 | 0.89 | -89.0 | 10.29 |
| :21 12 Minutes: | 8.53 | 823 | 6.81 | 0.83 | -87.4 | 10.39 |
| :24 15 Minutes: | 8.57 | 826 | 6.79 | 0.79 | -87.3 | 10.48 |
| :27 18 Minutes: | | | | | | |
| :30 21 Minutes: | | | | | | |

Sampling Method:

Sampling Time: 3:25

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments: silty

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

### Well Sampling Form

| | |
|---|---|
| Date: 2/18/04 | Sampler: BSM/MW |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: MP-6 SB-37 | |
| Inner Casing diameter: 2 1-½ - Prepack | Casing Material: PVC |

Weather Conditions: Sunny - 30

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.65 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 3:34 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :34 | Initial: | 6.97 | 517 | 699 | 6.31 | -540 | 8.65 |
| :37 | 3 Minutes: | 8.50 | 502 | 6.67 | 2.46 | -87.5 | 8.73 |
| :40 | 6 Minutes: | 8.71 | 519 | 6.56 | 1.17 | -87.2 | 8.74 |
| :43 | 9 Minutes: | 8.83 | 550 | 6.57 | 0.85 | -86.8 | 8.73 |
| :46 | 12 Minutes: | 8.87 | 608 | 6.63 | 0.66 | -86.6 | 8.73 |
| :49 | 15 Minutes: | 8.80 | 631 | 6.65 | 0.60 | -86.7 | 8.73 |
| :53 | 18 Minutes: | 8.72 | 637 | 6.66 | 0.58 | -86.8 | 8.73 |
| :55 | 21 Minutes: | 8.70 | 639 | 6.67 | 0.57 | -86.2 | 8.73 |

Sampling Method: peristaltic pump

Sampling Time: 3:56

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/18/04 | Sampler: BJM/MW |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: MP-7 | |
| Inner Casing diameter: 2" pre-pack | Casing Material: PVC |

Weather Conditions:

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.15 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 4:09 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :09 Initial: | 7.35 | 571 | 7.00 | 2.66 | -85.9 | 8.15 |
| :12 3 Minutes: | 7.58 | 570 | 7.05 | 1.02 | -84.5 | 8.15 |
| :15 6 Minutes: | 7.60 | 574 | 7.08 | 0.67 | -84.7 | 8.15 |
| :18 9 Minutes: | 7.66 | 575 | 7.10 | 0.48 | -84.1 | 8.15 |
| :21 12 Minutes: | 7.59 | 573 | 7.11 | 0.44 | -83.8 | 8.15 |
| :24 15 Minutes: | 7.64 | 571 | 7.10 | 0.42 | -83.7 | 8.15 |
| :27 18 Minutes: | | | | | | |
| :30 21 Minutes: | | | | | | |

Sampling Method:

Sampling Time: 4:25

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/19/04 | Sampler: BSW |
| Project/Site: Waterford | Location: Waterford, NY |
| Well ID: MP-8 - SB-122 By Cutts | |
| Inner Casing diameter: 1½" pre-pack | Casing Material: PVC |

Weather Conditions:

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): 9.84 feet

Depth to Water (DTW) (from top inner casing): feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 3:52 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :52 | Initial: | 16.40 | 718 | 7.20 | 7.28 | -43.0 | 9.84 |
| :55 | 3 Minutes: | 17.60 | 718 | 6.87 | 3.02 | -60.3 | 9.86 |
| :58 | 6 Minutes: | 17.92 | 723 | 6.77 | 1.47 | -61.7 | 9.86 |
| :01 | 9 Minutes: | 18.09 | 725 | 6.74 | 1.00 | -64.6 | 9.86 |
| :04 | 12 Minutes: | 18.23 | 726 | 6.71 | 0.75 | -66.5 | 9.86 |
| :07 | 15 Minutes: | 18.29 | 727 | 6.71 | 0.67 | -66.6 | 9.86 |
| :10 | 18 Minutes: | 18.35 | 728 | 6.70 | 0.58 | -65.4 | 9.86 |
| :13 | 21 Minutes: | 18.34 | 728 | 6.70 | 0.57 | -64.9 | 9.86 |

Sampling Method:

Sampling Time: 4:15

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/19/09 | Sampler: BSm |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: MP-9 - By west wall - SB-127 | |
| Inner Casing diameter: 1¼ - pre-pack | Casing Material: PVC |

Weather Conditions: Sunny - 30

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.87 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 4:31 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :31 | Initial: | 15.04 | 1052 | 6.64 | 6.53 | -53.6 | 9.87 |
| :34 | 3 Minutes: | 15.63 | 1084 | 6.60 | 1.99 | -52.3 | 10.03 |
| :37 | 6 Minutes: | 15.76 | 1087 | 6.62 | 1.19 | -51.2 | 10.03 |
| :40 | 9 Minutes: | 15.83 | 1066 | 6.66 | 0.87 | -51.6 | 10.03 |
| :43 | 12 Minutes: | 15.89 | 1040 | 6.69 | 0.77 | -51.3 | 10.03 |
| :46 | 15 Minutes: | 15.90 | 1023 | 6.70 | 0.71 | -50.9 | 10.03 |
| :49 | 18 Minutes: | 15.89 | 1011 | 6.71 | 0.66 | -50.9 | 10.03 |
| :52 | 21 Minutes: | 15.89 | 1009 | 6.71 | 0.65 | -50.7 | 10.03 |

Sampling Method:

Sampling Time: 4:55

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/20/04 | Sampler: BSM |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: MP-10 (SB-25) | |
| Inner Casing diameter: 1½ -pre-pack | Casing Material: PVC |

Weather Conditions:

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.90 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 8:23 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :23 Initial: | 15.84 | 700 | 6.82 | 1.98 | -31.3 | 9.90 |
| :26 3 Minutes: | 17.06 | 516 | 6.87 | 0.65 | -38.1 | 10.10 |
| :29 6 Minutes: | 17.37 | 505 | 6.95 | 0.47 | -44.2 | 10.12 |
| :32 9 Minutes: | 17.50 | 697 | 7.00 | 0.40 | -45.8 | 10.13 |
| :35 12 Minutes: | 17.54 | 694 | 7.03 | 0.39 | -45.6 | 10.13 |
| :38 15 Minutes: | 17.57 | 693 | 7.04 | 0.38 | -45.5 | 10.13 |
| :41 18 Minutes: | | | | | | |
| :44 21 Minutes: | | | | | | |

Sampling Method: Peristaltic pump

Sampling Time: 8:40

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/20/09 | Sampler: BSM |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: MP-11 (SB-19) | |
| Inner Casing diameter: 1½ pre-pack | Casing Material: PVC |

Weather Conditions:

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.99 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 8:47 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :47 Initial: | 14.74 | 833 | 6.89 | 6.53 | -29.8 | 9.99 |
| :50 3 Minutes: | 15.88 | 857 | 6.60 | 1.19 | -34.1 | 10.31 |
| :53 6 Minutes: | 15.97 | 850 | 6.56 | 0.79 | -33.6 | 10.32 |
| :56 9 Minutes: | 15.99 | 843 | 6.54 | 0.76 | -33.7 | 10.33 |
| :59 12 Minutes: | 16.02 | 852 | 6.54 | 0.70 | -33.6 | 10.35 |
| :02 15 Minutes: | | | | | | |
| :05 18 Minutes: | | | | | | |
| :08 21 Minutes: | | | | | | |

Sampling Method: Peristaltic Pump

Sampling Time: 9:00

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | |
|---|---|
| Date: 2/20/04 | Sampler: BSM |
| Project/Site: Watervliet, NY | Location: Watervliet, NY |
| Well ID: MP-12 (SB-71) | |
| Inner Casing diameter: 1½ pre-pack | Casing Material: PVC |

Weather Conditions:

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 10.07 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 9:10 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :10 | Initial: | 13.85 | 775 | 6.89 | 6.04 | -29.2 | 10.07 |
| :13 | 3 Minutes: | 14.62 | 788 | 6.85 | 1.08 | -27.9 | 10.07 |
| :16 | 6 Minutes: | 14.75 | 787 | 6.88 | 0.58 | -28.5 | 10.07 |
| :19 | 9 Minutes: | 14.79 | 786 | 6.92 | 0.46 | -29.2 | 10.07 |
| :22 | 12 Minutes: | 14.80 | 786 | 6.92 | 0.43 | -22.3 | 10.07 |
| :25 | 15 Minutes: | 14.80 | 785 | 6.93 | 0.41 | -29.0 | 10.07 |
| :28 | 18 Minutes: | | | | | | |
| :31 | 21 Minutes: | | | | | | |

Sampling Method: Peristaltic pump

Sampling Time: 9:30

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

collected Field Blank (FB-WOL) sample 9:40

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/19/04 | Sampler: TSS/M |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: DGC1 | |
| Inner Casing diameter: 2 | Casing Material: PVC |

Weather Conditions: Cloudy - 30

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.54 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 1:23 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F (C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :23 Initial: | 9.89 | 1168 | 7.70 | 8.83 | -29.2 | 7.54 |
| :26 3 Minutes: | 10.98 | 1168 | 7.29 | 1.46 | -51.6 | 7.63 |
| :29 6 Minutes: | 11.28 | 1172 | 7.21 | 1.11 | -51.6 | 7.62 |
| :32 9 Minutes: | 11.44 | 1173 | 7.18 | 0.95 | -53.0 | 7.63 |
| :35 12 Minutes: | 11.51 | 1172 | 7.17 | 0.88 | -54.5 | 7.63 |
| :38 15 Minutes: | 11.60 | 1170 | 7.16 | 0.81 | -54.1 | 7.63 |
| :41 18 Minutes: | 11.70 | 1168 | 7.17 | 0.76 | -54.6 | 7.63 |
| :44 21 Minutes: | 11.69 | 11.68 | 7.17 | 0.75 | -54.3 | 7.63 |

Sampling Method:

Sampling Time: 1:45

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

### Well Sampling Form

| | |
|---|---|
| Date: 2/19/07 | Sampler: BSA |
| Project/Site: Watervliet | Location: watervliet, NY |
| Well ID: DEC-2 | |
| Inner Casing diameter: 2 | Casing Material: PVC |

Weather Conditions: Cloudy - 30

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 6.65 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 12:45 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :45 | Initial: | 8.31 | 634 | 7.73 | 9.28 | -56.6 | 6.65 |
| :48 | 3 Minutes: | 9.18 | 617 | 7.56 | 4.71 | -58.5 | 6.77 |
| :51 | 6 Minutes: | 9.38 | 596 | 7.47 | 3.91 | -56.8 | 6.78 |
| :54 | 9 Minutes: | 9.51 | 590 | 7.43 | 3.56 | -55.6 | 6.80 |
| :57 | 12 Minutes: | 9.66 | 591 | 7.40 | 3.12 | -54.3 | 6.81 |
| :06 | 15 Minutes: | 9.74 | 600 | 7.38 | 2.56 | -53.4 | 6.81 |
| :03 | 18 Minutes: | 9.72 | 605 | 7.37 | 2.35 | -52.9 | 6.81 |
| :06 | 21 Minutes: | 9.76 | 611 | 7.36 | 2.24 | -51.9 | 6.81 |
| :09 | | 9.75 | 616 | 7.35 | 2.20 | -51.7 | 6.81 |

Sampling Method:

Sampling Time: 1:10

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/19/04 | Sampler: BSM |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: DGC-4 | |
| Inner Casing diameter: 2 | Casing Material: PVC |

Weather Conditions: Cloudy - 30

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.90 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 1:59 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| 1:59 | Initial: | 8.85 | 489 | 7.92 | 7.57 | -78.2 | 8.90 |
| :02 | 3 Minutes: | 9.45 | 426 | 7.77 | 3.09 | -51.6 | 8.92 |
| :05 | 6 Minutes: | 9.46 | 423 | 7.64 | 2.30 | -48.1 | 8.91 |
| :08 | 9 Minutes: | 9.39 | 423 | 7.53 | 1.78 | -44.6 | 8.91 |
| :11 | 12 Minutes: | 9.38 | 423 | 7.49 | 1.64 | -43.3 | 8.91 |
| :14 | 15 Minutes: | 9.30 | 423 | 7.45 | 1.53 | -41.6 | 8.91 |
| :17 | 18 Minutes: | 9.29 | 423 | 7.44 | 1.52 | -40.6 | 8.91 |
| :20 | 21 Minutes: | | | | | | |

Sampling Method:

Sampling Time: 2:20

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

- 23rd Friday

LAURA
239-481-3800



Forensic Environmental Services, Inc. 6339 800-699-8916 CHEM 863-533-6111

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | |
|---|---|
| Date: 2/19/04 | Sampler: BJM |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: DGC-5 | |
| Inner Casing diameter: 2 | Casing Material: PVC |

Weather Conditions: Cloudy - 20's
PID reading from well: NM ppm
Total Depth of Well (from top inner casing): feet
Depth to Water (DTW) (from top inner casing): 9.51 feet
Linear feet of water in well: feet
Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)
Thickness of floating product (if any): --- feet
Description of floating product: ---

Purge Method: Peristaltic Pump
Purge Start Time: 7:44 Purge End Time: Purge Rate (gallons/min.):
Total Volume Purged: gallons

| | | Temperature °F (C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :44 | Initial: | 8.16 | 851 | 7.42 | 6.75 | -46.8 | 9.51 |
| :47 | 3 Minutes: | 9.60 | 874 | 6.87 | 2.09 | -54.4 | 9.67 |
| :50 | 6 Minutes: | 10.09 | 893 | 6.73 | 1.32 | -62.6 | 9.67 |
| :53 | 9 Minutes: | 10.40 | 896 | 6.69 | 1.02 | -65.4 | 9.70 |
| :56 | 12 Minutes: | 10.60 | 900 | 6.67 | 0.91 | -66.4 | 9.70 |
| :59 | 15 Minutes: | 10.83 | 901 | 6.66 | 0.80 | -67.3 | 9.71 |
| :02 | 18 Minutes: | 10.92 | 902 | 6.67 | 0.74 | -67.3 | 9.71 |
| :05 | 21 Minutes: | 11.07 | 900 | 6.67 | 0.70 | -66.7 | 9.71 |

Sampling Method:
Sampling Time: 8:07
Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments: Vault damaged

DGC-13 @ 7:00 = Dup of DGC-5

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/18/04 | Sampler: |
| Project/Site: WATERVIET | Location: |
| Well ID: DGC-7 | |
| Inner Casing diameter: | Casing Material: |

Weather Conditions:

PID reading from well: ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.68 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F °C | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :07 Initial: | ~~8.68~~ 11.50 | 769 | 6.94 | 4.07 | -161.8 | 8.68 |
| :10 3 Minutes: | 11.51 | 775 | 6.96 | 2.15 | -138.8 | 8.69 |
| :13 6 Minutes: | 11.64 | 809 | 7.04 | 1.16 | -131.5 | 8.69 |
| :17 9 Minutes: | 11.64 | 811 | 7.07 | 0.80 | -130.0 | 8.69 |
| :20 12 Minutes: | 11.84 | 812 | 7.11 | 0.63 | -129.1 | 8.70 |
| :23 15 Minutes: | 11.83 | 810 | 7.10 | 0.59 | -129.0 | 8.70 |
| :26 18 Minutes: | 11.82 | 811 | 7.10 | 0.56 | -129.2 | 8.70 |
| :29 21 Minutes: | | | | | | |

Sampling Method:

Sampling Time: 1228

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 7/18/04 | Sampler: TSA/MW |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: DGC-8 | |
| Inner Casing diameter: 2-INCH | Casing Material: SS |

Weather Conditions: SUNNY - 20's

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.23 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 10:27 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :27 | Initial: | 9.83 | 765 | 6.97 | 4.53 | -217.2 | 7.23 |
| :36 | 3 Minutes: | 10.26 | 753 | 6.52 | 2.01 | -208.2 | 7.29 |
| :33 | 6 Minutes: | 10.28 | 749 | 6.40 | 1.66 | -200.4 | 7.30 |
| :36 | 9 Minutes: | 10.45 | 753 | 6.34 | 1.41 | -187.2 | 7.30 |
| :39 | 12 Minutes: | 10.53 | 761 | 6.34 | 1.28 | -181.1 | 7.30 |
| :42 | 15 Minutes: | 10.50 | 772 | 6.35 | 1.17 | -177.6 | 7.31 |
| :45 | 18 Minutes: | 10.47 | 783 | 6.34 | 1.09 | -171.9 | 7.31 |
| :48 | 21 Minutes: | 10.51 | 792 | 6.32 | 1.02 | -163.6 | 7.30 |
| :51 | 24 Min. | 10.54 | 800 | 6.32 | 0.97 | -155.6 | 7.30 |
| :54 | 27 Min | 10.40 | 807 | 6.36 | 0.92 | -149.2 | 7.30 |
| :57 | | 10:45 | 808 | 6.33 | 0.90 | -145.5 | 7.30 |

Sampling Method:

Sampling Time: 11:00

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

Field Cond = 50 ms/L

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

### Well Sampling Form

| | |
|---|---|
| Date: 2/18/04 | Sampler: BSM / MW |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: DGC-9 | |
| Inner Casing diameter: 2-inch | Casing Material: PVC |

Weather Conditions: Sunny 20's
PID reading from well: NM ppm
Total Depth of Well (from top inner casing): feet
Depth to Water (DTW) (from top inner casing): 11.99 feet
Linear feet of water in well: feet
Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)
Thickness of floating product (if any): --- feet
Description of floating product: ---

Purge Method: Peristaltic Pump
Purge Start Time: 9:20 Purge End Time: Purge Rate (gallons/min.):
Total Volume Purged: gallons

| | Temperature °F (C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :20 Initial: | 6.16 | 665 | 6.98 | 5.06 | -104.1 | 11.99 |
| :23 3 Minutes: | 7.43 | 668 | 7.18 | 3.24 | -103.4 | 12.20 |
| :26 6 Minutes: | 7.78 | 673 | 7.20 | 3.07 | -99.4 | 12.22 |
| :29 9 Minutes: | 8.06 | 678 | 7.20 | 2.62 | -98.0 | 12.23 |
| :32 12 Minutes: | 8.01 | 686 | 7.22 | 2.61 | -97.7 | 12.23 |
| :35 15 Minutes: | 8.17 | 695 | 7.20 | 2.32 | -56.4 | 12.23 |
| :38 18 Minutes: | 8.24 | 703 | 7.20 | 2.06 | -96.4 | 12.23 |
| :41 21 Minutes: | 8.20 | 711 | 7.19 | 1.81 | -95.5 | 12.23 |
| Sampling Method: peristaltic pump 44 | 8.20 | 713 | 7.19 | 1.79 | -94.7 | 12.23 |
| Sampling Time: 9:50 :43 | 8.24 | 714 | 7.18 | 1.75 | -94.3 | 12.23 |

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:
Field Iron = 0 mg/L
Total Not Tolven Desiredes

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/18/09 | Sampler: BRYAN MACHELLA / Mike Wisky |
| Project/Site: | Location: Waterulet, NY |
| Well ID: DGC-10 | |
| Inner Casing diameter: 2-INCH | Casing Material: PVC |

Weather Conditions: SUNNY - 20
PID reading from well: NM ppm
Total Depth of Well (from top inner casing): feet
Depth to Water (DTW) (from top inner casing): 9.70 feet
Linear feet of water in well: feet
Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)
Thickness of floating product (if any): NONE --- feet
Description of floating product: --- NONE

Purge Method: Peristaltic Pump
Purge Start Time: 8:38 Purge End Time: 9:59 Purge Rate (gallons/min.):
Total Volume Purged: 1 gallons

| | Temperature °F (C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :38 Initial: | 4.00 | 666 | 7.98 | 9.58 | -113.1 | 9.70 |
| :41 3 Minutes: | 4.70 | 624 | 7.66 | 3.97 | -108.6 | 10.07 |
| :44 6 Minutes: | 4.64 | 667 | 7.36 | 2.33 | -108.7 | 10.07 |
| :47 9 Minutes: | 4.61 | 689 | 7.25 | 1.82 | -108.3 | 10.07 |
| :50 12 Minutes: | 4.72 | 707 | 7.14 | 1.41 | -107.7 | 10.07 |
| :53 15 Minutes: | 4.60 | 717 | 7.08 | 1.33 | -107.6 | 10.07 |
| :56 18 Minutes: | 4.56 | 721 | 7.05 | 1.22 | -106.7 | 10.7 |
| :59 21 Minutes: | 4.72 | 721 | 7.02 | 1.20 | -106.11 | 10.7 |

Sampling Method: Peristaltic Pump
Sampling Time: 9:00
Sampling Parameters: VOC/SVOC

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

### Well Sampling Form

| | |
|---|---|
| Date: 2/20/04 | Sampler: BSM |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: MW-11 . (SB-12) Sewer Bedding | |
| Inner Casing diameter: 2 | Casing Material: PVC |

Weather Conditions:

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 10.20 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 7:50 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F (C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :50 Initial: | 10.81 | 536 | 7.82 | 6.85 | 11.0 | 10.20 |
| :53 3 Minutes: | 12.28 | 549 | 7.40 | 1.57 | -13.2 | 10.21 |
| :56 6 Minutes: | 12.66 | 553 | 7.26 | 1.01 | -17.9 | 10.21 |
| :59 9 Minutes: | 12.91 | 557 | 7.17 | 0.77 | -19.3 | 10.21 |
| :02 12 Minutes: | 13.08 | 560 | 7.10 | 0.63 | -20.8 | 10.21 |
| :05 15 Minutes: | 13.16 | 561 | 7.06 | 0.55 | -20.8 | 10.21 |
| :08 18 Minutes: | 13.22 | 562 | 7.05 | 0.52 | -20.8 | 10.21 |
| :11 21 Minutes: | 13.25 | 562 | 7.04 | 0.50 | -20.8 | 10.21 |

Sampling Method: Peristaltic pump

Sampling Time: 8:15

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/19/09 | Sampler: BSM |
| Project/Site: Watervliet | Location: Watervliet |
| Well ID: MW-12 By MW-5 | |
| Inner Casing diameter: 2" | Casing Material: PVC |

Weather Conditions:

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): 9.15 feet

Depth to Water (DTW) (from top inner casing): feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 10:06 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :06 Initial: | 7.94 | 712 | 7.17 | 9.24 | -52.0 | 9.15 |
| :09 3 Minutes: | 8.55 | 688 | 7.23 | 2.36 | -53.5 | 9.50 |
| :12 6 Minutes: | 8.67 | 681 | 7.26 | 1.95 | -54.6 | 9.56 |
| :15 9 Minutes: | 8.73 | 675 | 7.27 | 1.48 | -55.2 | 9.57 |
| :18 12 Minutes: | 8.95 | 670 | 7.30 | 1.46 | -55.6 | 9.59 |
| :21 15 Minutes: | 8.97 | 672 | 7.30 | 1.45 | -55.6 | 9.60 |
| :24 18 Minutes: | 9.01 | 670 | 7.30 | 1.45 | -55.5 | 9.60 |
| :27 21 Minutes: | | | | | | |

Sampling Method:

Sampling Time: 10:25

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

BSM

| | |
|---|---|
| Date: 2/19/09 | Sampler: BSM |
| Project/Site: Watervliet MW-13 | Location: Watervliet, NY |
| Well ID: Mostly -MW-1 (RAM) SB well MW-13 | |
| Inner Casing diameter: 2 | Casing Material: PVC |

Weather Conditions: Cloudy - 30's

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 6.50 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 12:13 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F C | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :13 | Initial: | 7.66 | 1019 | 8.16 | 9.01 | -72.4 | 6.50 |
| :16 | 3 Minutes: | 8.09 | 1018 | 7.92 | 2.58 | -67.8 | 7.17 |
| :19 | 6 Minutes: | 8.10 | 1049 | 7.67 | 1.04 | -65.6 | 7.48 |
| :22 | 9 Minutes: | 8.13 | 1081 | 7.48 | 0.76 | -64.1 | 7.70 |
| :25 | 12 Minutes: | 8.24 | 1107 | 7.37 | 0.67 | -63.7 | 7.75 |
| :28 | 15 Minutes: | 8.37 | 1119 | 7.27 | 0.64 | -62.9 | 7.79 |
| :31 | 18 Minutes: | 8.33 | 1125 | 7.14 | 0.67 | -61.8 | 7.86 |
| :34 | 21 Minutes: | 8.29 | 1129 | 7.13 | 0.67 | -61.6 | 7.88 |

Sampling Method:

Sampling Time: 12:35

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

### Well Sampling Form

| | |
|---|---|
| Date: 2/18/04 | Sampler: BJA/MW |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: MW-13 MW-14 | |
| Inner Casing diameter: 4 | Casing Material: PVC |

Weather Conditions: Sunny - 30

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.94 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 1:57 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :57 | Initial: | 6.06 | 733 | 7.17 | 7.71 | -103.0 | 8.94 |
| :06 | 3 Minutes: | 7.97 | 666 | 6.85 | 5.32 | -103.2 | 9.05 |
| :03 | 6 Minutes: | 8.63 | 644 | 6.72 | 4.14 | -103.1 | 9.10 |
| :06 | 9 Minutes: | 8.61 | 639 | 6.68 | 3.15 | -101.7 | 9.11 |
| :09 | 12 Minutes: | 8.47 | 637 | 6.65 | 2.74 | -100.6 | 9.13 |
| :12 | 15 Minutes: | 8.32 | 634 | 6.63 | 2.40 | -99.4 | 9.15 |
| :15 | 18 Minutes: | 8.29 | 631 | 6.62 | 2.18 | -98.2 | 9.17 |
| :18 | 21 Minutes: | 8.35 | 631 | 6.61 | 2.16 | -97.5 | 9.18 |
| :21 | | 8.38 | 630 | 6.61 | 2.10 | -96.9 | 9.19 |

Sampling Method:

Sampling Time: 2:22

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/19/04 | Sampler: BSM |
| Project/Site: Watervliet | Location: Watervliet, NY |
| Well ID: MW-15 - SB-14 | |
| Inner Casing diameter: 4 | Casing Material: PVC |

Weather Conditions: Cloudy - 30

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.88 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 9:02 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :02 | Initial: | 5.72 | 1833 | 6.69 | 6.56 | -71.2 | 8.88 |
| :05 | 3 Minutes: | 6.29 | 1920 | 6.56 | 3.66 | -66.9 | 9.08 |
| :08 | 6 Minutes: | 7.58 | 1924 | 6.51 | 2.67 | -65.3 | 9.35 |
| :11 | 9 Minutes: | 7.25 | 1938 | 6.59 | 3.24 | -65.6 | 9.50 |
| :14 | 12 Minutes: | water only - well Aeb recharge + 5 Comp b | | | | | |
| :17 | 15 Minutes: | | | | | | |
| :26 | 18 Minutes: | | | | | | |
| 123 | 21 Minutes: | | | | | | |

Sampling Method:

Sampling Time: 9:30

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments: silty @ start

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 4/19/04 | Sampler: BSN |
| Project/Site: WATervliet | Location: Watervliet, NY |
| Well ID: MW-16 - BY MW-6 | |
| Inner Casing diameter: 2 | Casing Material: PVC |

Weather Conditions: Clouds - 20-30

PID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.64 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 10:35 Purge End Time: / Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :35 | Initial: | 7.66 | 682 | 7.89 | 11.26 | -49.7 | 8.64 |
| :38 | 3 Minutes: | 8.63 | 674 | 8.56 | 7.63 | -54.8 | 10.06 |
| :41 | 6 Minutes: | 9.00 | 675 | 8.77 | 5.78 | -54.1 | 11.03 |
| :44 | 9 Minutes: | 9.34 | 676 | 8.87 | 5.13 | -53.7 | 12.17 |
| :47 | 12 Minutes: | 9.35 | 678 | 8.87 | 4.97 | -53.5 | 12.65 |
| :50 | 15 Minutes: | well went DRY - will let recharge & SAMPLE | | | | | |
| :53 | 18 Minutes: | | | | | | |
| :56 | 21 Minutes: | | | | | | |

Sampling Method:

Sampling Time: 11:30

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

poor recharge - silty

well went dry

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 2/19/04 | Sampler: |
| Project/Site: Watervliet (MW-17) | Location: |
| Well ID: ~~MW-15~~ SB-143 | |
| Inner Casing diameter: | Casing Material: |

Weather Conditions:

PID reading from well: ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 3:00 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :00 | Initial: | 15.72 | 689 | 6.80 | 4.50 | -49.3 | ~~10.94~~ |
| :03 | 3 Minutes: | 17.53 | 721 | 6.67 | 2.25 | -77.0 | 9.95 |
| :06 | 6 Minutes: | 18.15 | 731 | 6.70 | 1.63 | -116.1 | 9.95 |
| :09 | 9 Minutes: | 18.44 | 737 | 6.73 | 1.28 | -145.5 | 9.95 |
| :12 | 12 Minutes: | 18.66 | 738 | 6.78 | 0.93 | -94.0 | 9.95 |
| :15 | 15 Minutes: | 18.78 | 738 | 6.79 | 0.78 | -91.8 | 9.95 |
| :18 | 18 Minutes: | 18.82 | 736 | 6.79 | 0.72 | -92.4 | 9.95 |
| :21 | 21 Minutes: | 18.86 | 735 | 6.80 | 0.69 | -93.5 | 9.95 |

Sampling Method:

Sampling Time: 3:25

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

collected MS/MSD

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

### Well Sampling Form

| | |
|---|---|
| Date: 6/15/04 | Sampler: BSM |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: MW-16 | |
| Inner Casing diameter: 2" | Casing Material: PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.01 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 9:07 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :02 Initial: | 18.84 | 825 | 7.12 | 3.34 | 232.8 | 8.01 |
| :05 3 Minutes: | 17.34 | 830 | 6.85 | 1.94 | 357.7 | 9.93 |
| :08 6 Minutes: | 17.03 | 833 | 6.42 | 2.02 | 455.9 | 9.60 |
| :11 9 Minutes: | 16.91 | 831 | 5.86 | 2.43 | 522.8 | 10.30 |
| :14 12 Minutes: | 17.43 | 829 | 5.23 | 3.04 | 578.9 | 11.30 |
| :17 15 Minutes: | 17.59 | 829 | 5.12 | 3.09 | 589.1 | 11.70 |
| :20 18 Minutes: | 17.60 | 833 | 4.83 | 3.30 | 606.3 | 12.10 |
| :23 21 Minutes: | 17.67 | 833 | 4.54 | 3.25 | 623.6 | 12.85 |
| :26 24 Minutes: | 17.82 | 832 | 4.46 | 3.15 | 628.0 | 13.37 |
| :29 27 Minutes: | NM | — | — | — | — | — |
| | 18.51 | 833 | 4.15 | 3.77 | 622.0 | 14.23 |

Sampling Method: Low Flow 32

Sampling Time: 10:10 6/16/04 35

Sampling Parameters: 8260/8270 DRY - will let recharge & sample

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | |
|---|---|
| Date: 6/16/09 | Sampler: TSF |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: MW-11 | |
| Inner Casing diameter: 2" | Casing Material: PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 9:20 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :20 | Initial: | 17.13 | 510 | 6.84 | 1.96 | -58.0 | 10.00 |
| :23 | 3 Minutes: | 16.57 | 450 | 6.73 | 0.75 | -52.2 | 10.01 |
| :26 | 6 Minutes: | 16.38 | 444 | 6.69 | 0.65 | -49.1 | 10.01 |
| :29 | 9 Minutes: | 16.21 | 441 | 6.66 | 0.52 | -43.2 | 10.01 |
| :32 | 12 Minutes: | 16.11 | 439 | 6.64 | 0.42 | -43.2 | 10.01 |
| :35 | 15 Minutes: | 16.05 | 438 | 6.63 | 0.36 | -42.7 | 10.01 |
| :38 | 18 Minutes: | 16.01 | 438 | 6.62 | 0.33 | -42.1 | 10.01 |
| :41 | 21 Minutes: | 16.02 | 437 | 6.62 | 0.33 | -41.7 | 10.01 |
| :44 | 24 Minutes: | | | | | | |
| :47 | 27 Minutes: | | | | | | |

Sampling Method: Low Flow

Sampling Time: 9:43

Sampling Parameters: 8260

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | |
|---|---|
| Date: 6/16/04 | Sampler: TSR |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: DGC-6 | |
| Inner Casing diameter: 2" | Casing Material: PVC |

Weather Conditions: SUNNY -80's
Total Depth of Well (from top inner casing): feet
Depth to Water (DTW) (from top inner casing): 9.74 feet
Linear feet of water in well: feet
Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)
Thickness of floating product (if any): --- feet
Description of floating product: ---

Purge Method: Peristaltic Pump
Purge Start Time: 9:48 Purge End Time: Purge Rate (gallons/min.):
Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :48 | Initial: | 16.8 | 772 | 6.52 | 2.20 | -22.9 | 9.74 |
| :51 | 3 Minutes: | 16.45 | 799 | 6.54 | 0.57 | -33.3 | 9.75 |
| :54 | 6 Minutes: | 16.39 | 817 | 6.56 | 0.44 | -35.1 | 9.75 |
| :57 | 9 Minutes: | 16.31 | 820 | 6.61 | 0.36 | -38.2 | 9.75 |
| :00 | 12 Minutes: | 16.32 | 818 | 6.62 | 0.35 | -38.6 | 9.75 |
| :03 | 15 Minutes: | 16.32 | 818 | 6.63 | 0.33 | -38.2 | 9.75 |
| :06 | 18 Minutes: | | | | | | |
| :09 | 21 Minutes: | | | | | | |
| :12 | 24 Minutes: | | | | | | |
| :15 | 27 Minutes: | | | | | | |

Sampling Method: Low Flow
Sampling Time: 10:05
Sampling Parameters: 8260

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

### Well Sampling Form

| | |
|---|---|
| Date: 6/14/04 | Sampler: Bryan Mitchell / Jason Mank |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: MP-5 | |
| Inner Casing diameter: 1½ | Casing Material: PVC |

Weather Conditions: cloudy - humid

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.72 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 2:41 Purge End Time: 3:11 Purge Rate (gallons/min.):

Total Volume Purged: ≈ 1.5 gallons

| | | Temperature °F °C | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :41 | Initial: | 14.20 | 810 | 7.29 | 2.25 | 11.1 | 8.72 |
| :44 | 3 Minutes: | 13.34 | 816 | 6.50 | 1.34 | 21.6 | 9.12 |
| :47 | 6 Minutes: | 12.55 | 821 | 5.87 | 0.99 | 32.5 | 9.20 |
| :50 | 9 Minutes: | 12.11 | 816 | 5.63 | 0.84 | 34.8 | 9.25 |
| :53 | 12 Minutes: | 11.88 | 809 | 5.40 | 0.73 | 38.3 | 9.31 |
| :56 | 15 Minutes: | 11.82 | 804 | 5.26 | 0.80 | 38.4 | 9.34 |
| :59 | 18 Minutes: | 12.00 | 797 | 5.00 | 0.95 | 42.0 | 9.34 |
| :02 | 21 Minutes: | 12.16 | 794 | 4.71 | 1.07 | 43.1 | 9.35 |
| :05 | 24 Minutes: | 11.97 | 793 | 4.48 | 1.02 | 43.6 | 9.35 |
| :08 | 27 Minutes: | 11.79 | 792 | 4.42 | 0.93 | 44.8 | 9.35 |
| :11 | | 11.82 | 790 | 4.45 | 0.90 | 42.4 | 9.35 |

Sampling Method: Low Flow

Sampling Time: 3:12

Sampling Parameters: 8260

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

### Well Sampling Form

| | |
|---|---|
| Date: 6/14/04 | Sampler: BSH / SH |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: MP-6 | |
| Inner Casing diameter: 1¾ | Casing Material: PVC |

Weather Conditions: cloudy-humid

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.31 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 3:18 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: ≈ 1.5 gallons

| | | Temperature °F (C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :18 | Initial: | 13.00 | 237 | 4.60 | 4.77 | 210.6 | 8.31 |
| :21 | 3 Minutes: | 12.07 | 252 | 4.23 | 2.01 | 169.1 | 8.42 |
| :24 | 6 Minutes: | 11.93 | 452 | 3.87 | 1.10 | 89.) | 8.43 |
| :27 | 9 Minutes: | 11.72 | 517 | 3.59 | 0.93 | 64.7 | 8.44 |
| :30 | 12 Minutes: | 11.61 | 541 | 3.30 | 0.89 | 53.4 | 8.44 |
| :33 | 15 Minutes: | 11.74 | 550 | 3.03 | 0.84 | 54.7 | 8.45 |
| :36 | 18 Minutes: | 11.47 | 560 | 2.73 | 0.87 | 57.2 | 8.45 |
| :39 | 21 Minutes: | 11.37 | 560 | 2.70 | 0.73 | 54.9 | 8.45 |
| :42 | 24 Minutes: | 11.42 | 580 | 2.80 | 0.65 | 52.1 | 8.45 |
| :45 | 27 Minutes: | 11.33 | 563 | 2.97 | 0.57 | 45.3 | 8.45 |
| :48 | | 11.63 | 562 | 3.17 | 0.52 | 37.2 | 8.45 |
| :51 | | 11.67 | 564 | 3.11 | 0.55 | 40.1 | 8.45 |

Sampling Method: Low Flow

Sampling Time: 8:52

Sampling Parameters: 8260

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

3:52

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | |
|---|---|
| Date: 6/14/04 | Sampler: TLSM/JM |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: MP-7 | |
| Inner Casing diameter: 1½ | Casing Material: PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.80 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 3:56 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :56 | Initial: | 14.53 | 577 | 2.64 | 4.05 | 253.1 | 7.80 |
| :59 | 3 Minutes: | 13.49 | 585 | 2.07 | 1.42 | 315.5 | 7.82 |
| :02 | 6 Minutes: | 13.06 | 584 | 1.93 | 1.24 | 359.4 | 7.82 |
| :05 | 9 Minutes: | 12.62 | 583 | 2.16 | 0.99 | 333.6 | 7.82 |
| :08 | 12 Minutes: | 12.55 | 582 | 2.29 | 0.92 | 316.2 | 7.82 |
| :11 | 15 Minutes: | 12.59 | 580 | 2.52 | 0.85 | 276.8 | 7.82 |
| :14 | 18 Minutes: | 12.58 | 578 | 2.73 | 0.77 | 243.5 | 7.82 |
| :17 | 21 Minutes: | 12.41 | 577 | 2.89 | 0.75 | 222.2 | 7.82 |
| 20 | 24 Minutes: | 12.43 | 575 | 3.06 | 0.70 | 188.3 | 7.82 |
| 23 | 27 Minutes: | 12.52 | 571 | 3.28 | 0.64 | 149.1 | 7.82 |
| :26 | | 12.53 | 568 | 3.49 | 0.60 | 117.1 | 7.82 |
| :29 | | 12.55 | 562 | 3.56 | 0.61 | 111.3 | 7.82 |
| :32 | | 12.46 | 559 | 3.52 | 0.61 | 129.3 | 7.82 |

Sampling Method: Low Flow

Sampling Time: 4:35

Sampling Parameters:

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

826C

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 6/15/04 | Sampler: BRYAN MACHTILA (BSM) |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: MW-13 | |
| Inner Casing diameter: 2" | Casing Material: PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 6.04 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 8:21 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :21 | Initial: | 17.96 | 866 | 8.08 | 2.16 | -54.9 | 6.04 |
| :24 | 3 Minutes: | 16.76 | 866 | 7.06 | 1.11 | -49.3 | 6.98 |
| :27 | 6 Minutes: | 16.34 | 834 | 7.35 | 0.87 | -33.4 | 7.35 |
| :30 | 9 Minutes: | 16.20 | 801 | 7.16 | 0.65 | -14.5 | 7.44 |
| :33 | 12 Minutes: | 15.99 | 789 | 6.98 | 0.57 | 2.8 | 7.53 |
| :36 | 15 Minutes: | 16.00 | 784 | 6.91 | 0.51 | 11.1 | 7.60 |
| :39 | 18 Minutes: | 15.83 | 783 | 6.83 | 0.48 | 24.7 | 7.65 |
| :42 | 21 Minutes: | 15.88 | 779 | 6.76 | 0.44 | 33.0 | 7.70 |
| :45 | 24 Minutes: | 15.81 | 776 | 6.71 | 0.40 | 39.8 | 7.71 |
| :48 | 27 Minutes: | 15.79 | 775 | 6.70 | 0.39 | 41.0 | 7.72 |

Sampling Method: Low Flow

Sampling Time: 8:50

Sampling Parameters: 8260

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | |
|---|---|
| Date: 6/15/04 | Sampler: TSP |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: D6C-10 | |
| Inner Casing diameter: 2" | Casing Material: PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 9:49 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :49 | Initial: | 15.55 | 526 | 4.59 | 3.45 | 688.5 | 9.59 |
| :52 | 3 Minutes: | 14.92 | 490 | 3.51 | 3.00 | 713.5 | 9.80 |
| :55 | 6 Minutes: | 14.81 | 492 | 3.08 | 2.93 | 735.7 | 9.92 |
| :58 | 9 Minutes: | 14.62 | 513 | 2.84 | 2.60 | 745.5 | 9.94 |
| :01 | 12 Minutes: | 14.48 | 549 | 2.60 | 2.15 | 753.1 | 9.96 |
| :04 | 15 Minutes: | 14.21 | 569 | 2.60 | 1.86 | 756.5 | 9.96 |
| :07 | 18 Minutes: | 14.06 | 574 | 2.38 | 1.54 | 764.2 | 9.96 |
| :10 | 21 Minutes: | NM - DEC on site | | | | | |
| :13 | 24 Minutes: | NM - DEC | | | | | |
| :16 | 27 Minutes: | NM - DEC | | | | | |

Sampling Method: Low Flow

Sampling Time: 10:30

Sampling Parameters: 8260

| | | | | | |
|---|---|---|---|---|---|
| 19 | 14.35 | 573 | 2.97 | 1.32 | 765.0 |
| 22 | 14.18 | 582 | 2.76 | 1.41 | 773.0 |
| 25 | 14.20 | 583 | 2.58 | 1.51 | 780.0 |
| 28 | 14.29 | 583 | 2.50 | 1.55 | 783.0 |

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

**Well Sampling Form**

| | |
|---|---|
| Date: 6/15/01 | Sampler: BS |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: D6C-9 | |
| Inner Casing diameter: 2" | Casing Material: PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 11.83 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes ~~no~~

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 0:40 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :46 Initial: | 15.12 | 662 | 4.05 | 5.48 | 495.2 | 11.83 |
| :43 3 Minutes: | 12.72 | 694 | 3.64 | 1.70 | 469.4 | 12.03 |
| :46 6 Minutes: | 11.99 | 694 | 3.60 | 0.96 | 554.1 | 12.07 |
| :49 9 Minutes: | 11.79 | 692 | 3.84 | 0.76 | 594.0 | 12.10 |
| :52 12 Minutes: | 11.69 | 689 | 4.05 | 0.65 | 613.0 | 12.10 |
| :55 15 Minutes: | 11.59 | 687 | 4.15 | 0.63 | 633.1 | 12.18 |
| :58 18 Minutes: | 11.74 | 685 | 4.27 | 0.56 | 643.0 | 12.10 |
| :01 21 Minutes: | 11.63 | 685 | 4.30 | 0.51 | 653 | 12.10 |
| :04 24 Minutes: | 11.50 | 683 | 4.46 | 0.44 | 659.7 | 12.10 |
| :07 27 Minutes: | 11.61 | 682 | 4.50 | 0.43 | 660 | 12.10 |

Sampling Method: Low Flow

Sampling Time: 1110

Sampling Parameters: 8260

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | |
|---|---|
| Date: 6/15/04 | Sampler: BSA |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: MW-12 | |
| Inner Casing diameter: 2" | Casing Material: PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.38 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 11:21 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :21 Initial: | 16.49 | 601 | 5.25 | 4.17 | 353.1 | 8.78 |
| :24 3 Minutes: | 15.29 | 594 | 4.63 | 1.56 | 415.0 | 9.12 |
| :27 6 Minutes: | 14.97 | 593 | 4.29 | 1.41 | 458.6 | 9.20 |
| :30 9 Minutes: | 14.98 | 591 | 4.25 | 1.29 | 472.6 | 9.22 |
| :33 12 Minutes: | 14.95 | 591 | 4.20 | 1.29 | 491 | 9.23 |
| :36 15 Minutes: | 14.95 | 591 | 4.10 | 1.25 | 505 | 9.23 |
| :39 18 Minutes: | | | | | | |
| :42 21 Minutes: | | | | | | |
| :45 24 Minutes: | | | | | | |
| :48 27 Minutes: | | | | | | |

Sampling Method: Low Flow

Sampling Time: 11:40

Sampling Parameters: 826 ✓

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | |
|---|---|
| Date: 6/15/09 | Sampler: JSS |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: MW-15 | |
| Inner Casing diameter: 4" | Casing Material: PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.69 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 11:59 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| 11:59 | Initial: | 18.48 | 1976 | 4.01 | 2.22 | 13.3 | 8.69 |
| 02 | 3 Minutes: | 16.90 | 1978 | 3.34 | 1.22 | 16.5 | 9.02 |
| 05 | 6 Minutes: | 16.42 | 1981 | 3.23 | 0.98 | 20.8 | 9.22 |
| 08 | 9 Minutes: | 16.17 | 1984 | 3.18 | 0.86 | 24.8 | 9.42 |
| 11 | 12 Minutes: | 16.63 | 1987 | 3.29 | 0.73 | 24.2 | 9.57 |
| 14 | 15 Minutes: | 15.87 | 1993 | 3.18 | 0.76 | 21.9 | 9.81 |
| 17 | 18 Minutes: | 15.85 | 1992 | 3.08 | 0.76 | 25.0 | 9.98 |
| 20 | 21 Minutes: | 15.82 | 1988 | 3.05 | 0.75 | 27.2 | 10.15 |
| 23 | 24 Minutes: | | | | | | |
| 26 | 27 Minutes: | | | | | | |

Sampling Method: Low Flow

Sampling Time: 12:25

Sampling Parameters: 8260

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

Date: 6/15/07 | Sampler: BF

Project/Site: SGPP - Watervliet | Location: Watervliet, New York

Well ID: DGC-7

Inner Casing diameter: 2" | Casing Material: PVC

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.36 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 1:16 | Purge End Time: | Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :16 | Initial: | 21.27 | 869 | 6.08 | 2.05 | -72.6 | 8.36 |
| :19 | 3 Minutes: | 18.35 | 828 | 5.16 | 1.20 | -34.1 | 8.34 |
| :22 | 6 Minutes: | 17.53 | 823 | 4.55 | 1.08 | -0.8 | 8.35 |
| :25 | 9 Minutes: | 17.47 | 820 | 4.37 | 0.99 | 12.8 | 8.36 |
| :28 | 12 Minutes: | 17.35 | 820 | 4.39 | 0.90 | 16.7 | 8.36 |
| :31 | 15 Minutes: | 17.38 | 818 | 4.36 | 0.88 | 19.0 | 8.36 |
| :34 | 18 Minutes: | | | | | | |
| :37 | 21 Minutes: | | | | | | |
| :40 | 24 Minutes: | | | | | | |
| :43 | 27 Minutes: | | | | | | |

Sampling Method: Low Flow

Sampling Time: 1:35

Sampling Parameters: 8260

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

### Well Sampling Form

| | |
|---|---|
| Date: 6/15/04 | Sampler: BJM |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: DGC-8 | |
| Inner Casing diameter: 2" | Casing Material: PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 6.90 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 1:41 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| :41 | Initial: | 18.98 | 619 | 4.75 | 2.56 | 0.4 | 6.90 |
| :44 | 3 Minutes: | 16.91 | 582 | 3.83 | 1.34 | 19.2 | 6.97 |
| :47 | 6 Minutes: | 16.91 | 585 | 3.66 | 1.18 | 25.3 | 6.97 |
| :50 | 9 Minutes: | 16.79 | 598 | 3.48 | 1.11 | 36.9 | 6.97 |
| :53 | 12 Minutes: | 16.92 | 602 | 3.37 | 1.07 | 38.2 | 6.97 |
| :56 | 15 Minutes: | 16.80 | 609 | 3.33 | 1.07 | 40.0 | 6.97 |
| :59 | 18 Minutes: | | | | | | |
| :02 | 21 Minutes: | | | | | | |
| :05 | 24 Minutes: | | | | | | |
| :08 | 27 Minutes: | | | | | | |

Sampling Method: Low Flow

Sampling Time: 2:00

Sampling Parameters: 8260

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments: DGC-11 ⇒ Duplicate of DGC-8 @ 8:00

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

### Well Sampling Form

| | |
|---|---|
| Date: 6/1/04 | Sampler: BF |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: MP-9 | |
| Inner Casing diameter: 1½" | Casing Material: PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 10.45 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 2:44 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F (C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 2:44 Initial: | 17.84 | 1073 | 5.89 | 1.42 | -50.4 | 10.45 |
| :47 3 Minutes: | 17.09 | 1065 | 5.63 | 0.79 | -45.7 | 9.60 |
| :50 6 Minutes: | 16.47 | 1060 | 5.63 | 0.57 | -39.9 | 9.61 |
| :53 9 Minutes: | 16.33 | 1056 | 5.69 | 0.46 | -34.8 | 9.61 |
| :56 12 Minutes: | 16.27 | 1053 | 5.75 | 0.41 | -32.3 | 9.61 |
| :59 15 Minutes: | 16.25 | 1036 | 5.82 | 0.37 | -30.1 | 9.61 |
| 3:02 18 Minutes: | 16.23 | 1007 | 5.86 | 0.34 | -28.5 | 9.61 |
| :05 21 Minutes: | 16.26 | 972 | 5.94 | 0.33 | -26.0 | 9.61 |
| :08 24 Minutes: | 16.30 | 942 | 6.03 | 0.34 | -22.2 | 9.61 |
| :11 27 Minutes: | 16.31 | 940 | 6.04 | 0.32 | -22.0 | 9.61 |

Sampling Method: Low Flow

Sampling Time: 3:15

Sampling Parameters: 8260

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

### Well Sampling Form

| | |
|---|---|
| Date: 6/16/04 | Sampler: TDS |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: MW-17 | |
| Inner Casing diameter: 2" | Casing Material: PVC |

Weather Conditions: Sunny -80

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.59 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 8:20 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 8:20 Initial: | 19.73 | 713 | 6.92 | 2.21 | -20.7 | 9.59 |
| :23 3 Minutes: | 19.26 | 706 | 6.67 | 0.83 | -26.6 | 9.61 |
| :26 6 Minutes: | 18.98 | 692 | 6.57 | 0.60 | -29.6 | 9.61 |
| :29 9 Minutes: | 19.06 | 691 | 6.54 | 0.50 | -30.4 | 9.61 |
| :32 12 Minutes: | 19.04 | 690 | 6.51 | 0.47 | -29.7 | 9.61 |
| :35 15 Minutes: | 19.09 | 688 | 6.52 | 0.47 | -30.2 | 9.61 |
| :38 18 Minutes: | | | | | | |
| :41 21 Minutes: | | | | | | |
| :44 24 Minutes: | | | | | | |
| :47 27 Minutes: | | | | | | |

Sampling Method: Low Flow

Sampling Time: 8:35

Sampling Parameters: 8260/8270

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Monitoring Well Sampling Form

## Forensic Environmental Services, Inc.

### Well Sampling Form

| | |
|---|---|
| Date: 6/16/04 | Sampler: JSA |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: MP-10 | |
| Inner Casing diameter: 1½" | Casing Material: PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.56 feet

Linear feet of water in well: feet

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): --- feet

Description of floating product: ---

Purge Method: Peristaltic Pump

Purge Start Time: 8:57 Purge End Time: Purge Rate (gallons/min.):

Total Volume Purged: gallons

| | Temperature °F (°C) | Conductivity (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (ORP) (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 8:57 Initial: | 19.55 | 741 | 6.78 | 5.18 | -19.6 | 9.56 |
| :00 3 Minutes: | 17.72 | 760 | 6.53 | 0.90 | -32.7 | 9.69 |
| :03 6 Minutes: | 17.60 | 759 | 6.49 | 0.59 | -33.0 | 9.68 |
| :06 9 Minutes: | 17.53 | 759 | 6.49 | 0.53 | -34.5 | 9.68 |
| :09 12 Minutes: | 17.50 | 762 | 6.51 | 0.49 | -36.1 | 9.68 |
| :12 15 Minutes: | 17.49 | 763 | 6.52 | 0.43 | -38.3 | 9.68 |
| :15 18 Minutes: | | | | | | |
| :18 21 Minutes: | | | | | | |
| :21 24 Minutes: | | | | | | |
| :24 27 Minutes: | | | | | | |

Sampling Method: Low Flow

Sampling Time: 9:15

Sampling Parameters: 8260

Field Observations (turbidity, recharge rate, odor, sheens, PID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 9/9/04 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MP-13 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions: Rain

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): 7.88 feet

Well Screened Interval: 5-15 feet

Linear feet of water in well: 7.12

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None ✓ feet Time:

Description of floating product: None ✓

Purge Method: Peristaltic pump

Purge Start Time: 9:46 Purge End Time: 9:58 Purge Rate (gals/minute): 0.06

Total Volume Purged: 0.75 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :46 Initial: | 19.61 | 431 | 6.80 | 0.36 | 6.0 | 7.88 |
| :49 3 Minutes: | 19.63 | 428 | 6.75 | 0.30 | 18.3 | 7.95 |
| :52 6 Minutes: | 19.62 | 428 | 6.74 | 0.33 | 29.1 | 7.95 |
| :55 9 Minutes: | 19.61 | 426 | 6.73 | 0.30 | 32.0 | 7.95 |
| :58 12 Minutes: | 19.62 | 426 | 6.73 | 0.30 | 32.4 | 7.95 |
| :01 15 Minutes: | | | | | | |
| :04 18 Minutes: | | | | | | |
| :07 21 Minutes: | | | | | | |
| :10 24 Minutes: | | | | | | |
| :13 27 Minutes: | | | | | | |
| :16 30 Minutes: | | | | | | |
| :19 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 10:00 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

PID wide = 0.0

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 9/9/04 | | Sampler: Bryan J. Machella | |
| Project/Site: MP-14 | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-14 | | | |
| Inner Casing diameter: 1.5 | inches | Casing Material: PVC | |

Weather Conditions: RAIN

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): 7.99 feet

Well Screened Interval: 5-15 feet

Linear feet of water in well: 7.01

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None ✓ feet Time:

Description of floating product: None ✓

Purge Method: Peristaltic pump

Purge Start Time: 10:14 Purge End Time: 10:41 Purge Rate (gals/minute): 0.05

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 10:14 Initial: | 18.50 | 996 | 6.57 | 1.86 | -24.6 | 7.99 |
| :17 3 Minutes: | 18.07 | 934 | 6.55 | 0.42 | -37.4 | 8.01 |
| :20 6 Minutes: | 17.87 | 889 | 6.55 | 0.37 | -45.5 | 8.02 |
| :23 9 Minutes: | 18.00 | 826 | 6.54 | 0.28 | -55.6 | 8.02 |
| :26 12 Minutes: | 18.00 | 797 | 6.54 | 0.24 | -60.0 | 8.02 |
| :29 15 Minutes: | 17.67 | 763 | 6.54 | 0.22 | -65.4 | 8.02 |
| :32 18 Minutes: | 17.78 | 737 | 6.54 | 0.20 | -68.9 | 8.02 |
| :35 21 Minutes: | 17.60 | 723 | 6.54 | 0.18 | -71.1 | 8.02 |
| :38 24 Minutes: | 17.74 | 717 | 6.54 | 0.18 | -72.8 | 8.02 |
| :41 27 Minutes: | 17.63 | 716 | 6.55 | 0.18 | -73.6 | 8.02 |
| :44 30 Minutes: | | | | | | |
| :47 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 10:46 Sampling End Time: —

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

PID 0.1 - 0.6

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 9/9/04 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-15 | | | |
| Inner Casing diameter: | inches | Casing Material: PVC | |

Weather Conditions: Rain

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): 8.29 feet

Well Screened Interval: 5-10 feet

Linear feet of water in well: 6.71

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 9:15 Purge End Time: 9:33 Purge Rate (gals/minute): 0.05

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| :15 Initial: | 18.46 | 640 | 6.92 | 0.95 | 22.5 | 8.29 |
| :18 3 Minutes: | 18.19 | 591 | 6.80 | 1.32 | 70.9 | 8.30 |
| :21 6 Minutes: | 18.33 | 574 | 6.76 | 1.01 | 85.2 | 8.30 |
| :24 9 Minutes: | 18.41 | 567 | 6.73 | 0.56 | 95.5 | 8.31 |
| :27 12 Minutes: | 18.31 | 568 | 6.73 | 0.49 | 98.3 | 8.30 |
| :30 15 Minutes: | 18.27 | 566 | 6.73 | 0.46 | 99.8 | 8.30 |
| :33 18 Minutes: | 18.38 | 566 | 6.73 | 0.45 | 100.1 | 8.30 |
| :36 21 Minutes: | | | | | | |
| :39 24 Minutes: | | | | | | |
| :42 27 Minutes: | | | | | | |
| :45 30 Minutes: | | | | | | |
| :48 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 8:36 9:36 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

P.I.D = 0.0 No odor present

Comments:

MP-30 = Duplicate of MP-15

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 7/9/09 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-16 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: rain

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): 7.78 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 8:30 Purge End Time: 9:17 Purge Rate (gals/minute): 0.05

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 8:39 Initial: | 19.09 | 2386 | 6.61 | 0.46 | 35.6 | 7.78 |
| :42 3 Minutes: | 19.29 | 2351 | 6.62 | 0.51 | 30.9 | 7.86 |
| :45 6 Minutes: | 19.26 | 2054 | 6.64 | 0.47 | 27.2 | 7.85 |
| :48 9 Minutes: | 19.38 | 1805 | 6.64 | 0.48 | 24.3 | 7.85 |
| :51 12 Minutes: | 19.42 | 1649 | 6.64 | 0.60 | 25.4 | 7.85 |
| :54 15 Minutes: | 19.46 | 1611 | 6.64 | 0.62 | 29.8 | 7.85 |
| :57 18 Minutes: | 19.48 | 1540 | 6.64 | 0.64 | 33.1 | 7.85 |
| :00 21 Minutes: | 19.46 | 1478 | 6.63 | 0.65 | 41.2 | 7.85 |
| :03 24 Minutes: | 19.47 | 1440 | 6.64 | 0.65 | 48.4 | 7.85 |
| :06 27 Minutes: | 19.46 | 1425 | 6.63 | 0.66 | 51.0 | 7.85 |
| :09 30 Minutes: | 19.46 | 1420 | 6.63 | 0.66 | 53.6 | 7.85 |
| :12 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 9:15 Sampling End Time: —

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

PID - 0 - no odors present

Comments:

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: 9/7/04 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-17 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: SUNNY - 80's

Total Depth of Well (from top inner casing): 8.62.5 feet

Depth to Water (DTW) (from top inner casing): feet

Well Screened Interval: 5-15 feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1:04 Purge End Time: 1:22 Purge Rate (gals/minute): 0.05 gpm

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| Initial: | 18.06 | 2738 | 6.84 | 1.91 | -75.3 | 8.62 |
| :07 3 Minutes: | 17.69 | 1830 | 6.62 | 0.53 | -76.9 | 8.66 |
| :14 6 Minutes: | 17.63 | 1672 | 6.58 | 0.42 | -74.9 | 8.66 |
| :17 9 Minutes: | 17.59 | 1652 | 6.54 | 0.32 | -72.8 | 8.66 |
| :16 12 Minutes: | 17.56 | 1658 | 6.51 | 0.32 | -72.0 | 8.66 |
| :19 15 Minutes: | 17.49 | 1650 | 6.50 | 0.33 | -71.) | 8.66 |
| :22 18 Minutes: | 17.50 | 1680 | 6.48 | 0.33 | -71.4 | 8.66 |
| :25 21 Minutes: | | | | | | |
| :28 24 Minutes: | | | | | | |
| :31 27 Minutes: | | | | | | |
| :34 30 Minutes: | | | | | | |
| :37 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1:25 Sampling End Time: 1:45

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 10/28/04 | | Sampler: Bryan J. Machella | |
| Project/Site: WV ~~SGPP, Wayne~~ | | Location: ~~Wayne, New Jersey~~ Watervliet, NY | |
| Well ID: MW11 | | | |
| Inner Casing diameter: | 2 inches | Casing Material: | PVC |

Weather Conditions:

PID/FID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.99 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 10:16 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 10:18 Initial: | 16.75 | 401 | 6.94 | 2.44 | -92.4 | 9.99 |
| 10:27 3 Minutes: | 17.05 | 411 | 6.90 | 0.68 | -99.2 | 10.05 |
| 30 6 Minutes: | 17.07 | 409 | 6.90 | 0.52 | -96.5 | 10.05 |
| 33 9 Minutes: | 17.13 | 408 | 6.89 | 0.45 | -94.4 | 10.05 |
| 36 12 Minutes: | 17.15 | 408 | 6.90 | 0.41 | -98.5 | 10.05 |
| 39 15 Minutes: | 17.17 | 408 | 6.90 | 0.39 | -96.2 | 10.05 |
| 42 18 Minutes: | | | | | | |
| 45 21 Minutes: | | | | | | |
| 48 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 10:40 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

~~Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.~~

put in 55g drum

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 10/28/04 | | Sampler: Bryan J. Machella | |
| Project/Site: WV ~~SGPP~~, Wayne | | Location: ~~Wayne, New Jersey~~ Watervliet, NY | |
| Well ID: MW-14 | | | |
| Inner Casing diameter: 4 | inches | Casing Material: PVC | |

Weather Conditions:

PID/FID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 5.81 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 5:45 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1 gallons

| | | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| ~~5:49~~ | Initial: | 15.08 | 529 | 6.72 | 2.03 | -37.6 | 5.81 |
| 5:55 | 3 Minutes: | 15.70 | 750 | 6.38 | 0.67 | -41.8 | 9.05 |
| :58 | 6 Minutes: | 15.59 | 746 | 6.33 | 0.57 | -43.9 | 9.05 |
| :01 | 9 Minutes: | 15.64 | 739 | 6.30 | 0.57 | -46.4 | 9.05 |
| :04 | 12 Minutes: | 15.73 | 739 | 6.29 | 0.58 | -47.4 | 9.05 |
| :07 | 15 Minutes: | | | | | | |
| :10 | 18 Minutes: | | | | | | |
| 13 | 21 Minutes: | | | | | | |
| 16 | 24 Minutes: | | | | | | |
| 19 | 27 Minutes: | | | | | | |
| 22 | 30 Minutes: | | | | | | |
| 25 | 33 Minutes: | | | | | | |
| | Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 9:05 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

~~Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.~~

put in 55 g drum

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 10/28/04 | | Sampler: Bryan J. Machella | |
| Project/Site: WV ~~Burlington Co. School District~~ | | Location: ~~Columbus, New Jersey~~ Watervliet, NY | |
| Well ID: MW-15 | | | |
| Inner Casing diameter: 4 | inches | Casing Material: PVC | |

Weather Conditions: SUNNY - cool
PID/FID reading from well: NM ppm
Total Depth of Well (from top inner casing): feet
Depth to Water (DTW) (from top inner casing): 8.63 feet
Well Screened Interval: feet
Linear feet of water in well:
Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no
Thickness of floating product (if any): None feet Time:
Description of floating product: None

Purge Method: Peristaltic pump
Purge Start Time: 8:25 Purge End Time: Purge Rate (gals/minute):
Total Volume Purged: gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 8:26 Initial: | 14.82 | 1853 | 6.78 | 2.82 | -79.9 | 8.63 |
| 8:33 3 Minutes: | 16.03 | 2012 | 6.50 | 0.79 | -94.0 | 9.50 |
| 36 6 Minutes: | 16.11 | 2007 | 6.48 | 0.69 | -96.0 | 9.80 |
| 39 9 Minutes: | 16.17 | 1999 | 6.47 | 0.63 | -96.9 | 10.05 |
| 42 12 Minutes: | 16.32 | 1996 | 6.45 | 0.62 | -97.5 | 10.35 |
| 45 15 Minutes: | | | | | | |
| 48 18 Minutes: | | | | | | |
| 51 21 Minutes: | | | | | | |
| 54 24 Minutes: | | | | | | |
| 57 27 Minutes: | | | | | | |
| 00 30 Minutes: | | | | | | |
| 03 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 8:43 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):
~~Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.~~
put in 55 g drum

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | |
|---|---|
| Date: 10/28/04 | Sampler: Bryan J. Machella |
| Project/Site: WV ~~Burlington Co. School District~~ | Location: ~~Columbus, New Jersey~~ Watervliet, NY |
| Well ID: MW-16 | |
| Inner Casing diameter: 2 inches | Casing Material: PVC |

Weather Conditions:

PID/FID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.04 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 8:06 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 0.75 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 8:06 Initial: | 12.15 | 865 | 7.85 | 4.98 | 91 | 8.04 |
| 8:10 3 Minutes: | 14.75 | 937 | 7.58 | 2.15 | 57.8 | 9.45 |
| :13 6 Minutes: | 16.12 | 975 | 7.46 | 1.25 | 30.2 | 10.10 |
| :16 9 Minutes: | 16.93 | 957 | 7.41 | 1.25 | 17.0 | 11.00 |
| :19 12 Minutes: | 16.89 | 991 | 7.37 | 1.33 | 24.4 | 11.55 |
| :22 15 Minutes: | Dry @ 8:20 | | w/1 L of recharge + sample | | | |
| :25 18 Minutes: | | | | | | |
| :28 21 Minutes: | | | | | | |
| :31 24 Minutes: | | | | | | |
| :34 27 Minutes: | | | | | | |
| :37 30 Minutes: | | | | | | |
| :40 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 10:50 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

~~Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.~~

put in 55g drum

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 10/28/04 | | Sampler: Bryan J. Machella | |
| Project/Site: WV ~~Burlington Co. School District~~ | | Location: ~~Columbus, New Jersey~~ Wayne, NJ | |
| Well ID: D6C-6 | | | |
| Inner Casing diameter: 2 | inches | Casing Material: PVC | |

Weather Conditions: Sunny . cool

PID/FID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.75 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 9:15 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 9:16 Initial: | 16.16 | 760 | 6.70 | 3.73 | -76.9 | 9.75 |
| 9:23 3 Minutes: | 17.27 | 776 | 6.83 | 0.87 | -90.4 | 9.81 |
| 26 6 Minutes: | 17.41 | 780 | 6.88 | 0.66 | -97.9 | 9.81 |
| 29 9 Minutes: | 17.47 | 782 | 6.90 | 0.59 | -93.6 | 9.81 |
| 32 12 Minutes: | 17.51 | 783 | 6.92 | 0.56 | -97.2 | 9.81 |
| 35 15 Minutes: | 17.60 | 784 | 6.94 | 0.55 | -97.4 | 9.81 |
| 38 18 Minutes: | | | | | | |
| 41 21 Minutes: | | | | | | |
| 44 24 Minutes: | | | | | | |
| 47 27 Minutes: | | | | | | |
| 50 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 9:36 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

~~Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.~~

put in 55g drum

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 10/27/04 | | Sampler: Bryan J. Machella | |
| Project/Site: WV ~~SGPP, Wayne~~ | | Location: ~~Wayne, New Jersey~~ Watervliet, NY | |
| Well ID: 366-7 | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions: Cloudy

PID/FID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.41 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 3:25 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 3:25 Initial: | 17.32 | 649 | 7.42 | 5.02 | -87.6 | 8.41 |
| 3:34 3 Minutes: | 17.96 | 732 | 7.04 | 1.03 | -110.1 | 8.40 |
| 37 6 Minutes: | 17.93 | 732 | 7.01 | 0.91 | -109.9 | 8.40 |
| 40 9 Minutes: | 17.94 | 733 | 7.00 | 0.77 | -111.8 | 8.40 |
| 43 12 Minutes: | 17.96 | 734 | 6.99 | 0.70 | -112.8 | 8.46 |
| 46 15 Minutes: | 17.96 | 734 | 6.98 | 0.61 | -114.1 | 8.40 |
| 49 18 Minutes: | 17.95 | 734 | 6.97 | 0.56 | -113.3 | 8.4 |
| 52 21 Minutes: | 17.92 | 734 | 6.96 | 0.55 | -113.6 | 8.4 |
| 55 24 Minutes: | | | | | | |
| 58 27 Minutes: | | | | | | |
| 1:02 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 3:55 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | |
|---|---|
| Date: 10/27/04 | Sampler: Bryan J. Machella |
| Project/Site: LW ~~SGPP, Wayne~~ | Location: ~~Wayne, New Jersey~~ Watervliet, NY |
| Well ID: MP-5 | |
| Inner Casing diameter: inches | Casing Material: PVC |

Weather Conditions: Sunny
PID/FID reading from well: NA ppm
Total Depth of Well (from top inner casing): 15 feet
Depth to Water (DTW) (from top inner casing): 8.78 feet
Well Screened Interval: feet
Linear feet of water in well:
Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no
Thickness of floating product (if any): None feet Time:
Description of floating product: None

Purge Method: Peristaltic pump
Purge Start Time: 12:37 Purge End Time: Purge Rate (gals/minute):
Total Volume Purged: gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 12:37 Initial: | 14.59 | 739 | 7.08 | 5.91 | -84.2 | 8.78 |
| 12:45 3 Minutes: | 14.34 | 806 | 6.55 | 1.08 | -81.1 | 9.00 |
| :48 6 Minutes: | 14.19 | 814 | 6.53 | 0.93 | -80.2 | 9.00 |
| :51 9 Minutes: | 14.24 | 815 | 6.52 | 0.82 | -78.0 | 9.00 |
| :54 12 Minutes: | 14.26 | 817 | 6.50 | 0.79 | -78.6 | 9.00 |
| :57 15 Minutes: | 14.15 | 821 | 6.50 | 0.74 | -77.3 | 9.00 |
| :00 18 Minutes: | | | | | | |
| 03 21 Minutes: | | | | | | |
| 06 24 Minutes: | | | | | | |
| 09 27 Minutes: | | | | | | |
| 12 30 Minutes: | | | | | | |
| 15 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 12:58 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):
Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 10/27/04 | | Sampler: Bryan J. Machella | |
| Project/Site: WV ~~SGPT, Wayne~~ | | Location: ~~Wayne, New Jersey~~ Watervliet, NY | |
| Well ID: MP-6 | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions: Cloudy

PID/FID reading from well: NA ppm

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): 8.40 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1:08 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: gallons

| | | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| 1:08 | Initial: | 14.66 | 357 | 6.44 | 2.11 | 42.5 | 8.40 |
| 1:15 | 3 Minutes: | 14.19 | 301 | 6.11 | 0.63 | 5.6 | 8.50 |
| :18 | 6 Minutes: | 14.18 | 345 | 6.18 | 0.48 | +22.2 | 8.50 |
| 21 | 9 Minutes: | 14.18 | 373 | 6.24 | 0.49 | -38.1 | 8.50 |
| 24 | 12 Minutes: | 14.17 | 422 | 6.30 | 0.41 | -49.7 | 8.50 |
| 27 | 15 Minutes: | 14.27 | 470 | 6.35 | 0.39 | -56.7 | 8.50 |
| 30 | 18 Minutes: | 14.43 | 507 | 6.38 | 0.36 | -61.2 | 8.50 |
| 33 | 21 Minutes: | 14.64 | 519 | 6.40 | 0.35 | -66.8 | 8.50 |
| 36 | 24 Minutes: | 14.64 | 521 | 6.40 | 0.35 | -66.9 | 8.50 |
| 39 | 27 Minutes: | | | | | | |
| 42 | 30 Minutes: | | | | | | |
| 45 | 33 Minutes: | | | | | | |
| | Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1:37 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:

MP-50 = Dup of MP-5 @ 1:40

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 10/27/09 | | Sampler: Bryan J. Machella | |
| Project/Site: WV ~~SGPP, Wayne~~ | | Location: ~~Wayne, New Jersey~~ Watervliet, NY | |
| Well ID: MP-7 | | | |
| Inner Casing diameter: | inches | Casing Material: PVC | |

Weather Conditions: Cloudy

PID/FID reading from well: NM ppm

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): 7.91 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1:43 Initial: | 15.12 | 525 | 6.69 | 3.41 | -84.0 | 7.91 |
| 1:48 3 Minutes: | 14.75 | 532 | 6.82 | 1.29 | -95.7 | 7.93 |
| :51 6 Minutes: | 14.66 | 530 | 6.88 | 0.85 | -96.1 | 7.93 |
| 54 9 Minutes: | 14.68 | 521 | 6.90 | 0.66 | -94.0 | 7.93 |
| 57 12 Minutes: | 14.68 | 510 | 6.90 | 0.57 | -91.5 | 7.93 |
| 00 15 Minutes: | 14.63 | 497 | 6.89 | 0.52 | -86.6 | 7.93 |
| 03 18 Minutes: | 14.63 | 486 | 6.88 | 0.51 | -82.2 | 7.93 |
| 06 21 Minutes: | 14.64 | 482 | 6.87 | 0.49 | -81.2 | 7.93 |
| 09 24 Minutes: | | | | | | |
| 12 27 Minutes: | | | | | | |
| 15 30 Minutes: | | | | | | |
| 18 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 2:07 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

~~Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.~~

put in on-site 55 g drum

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 10/28/04 | | Sampler: Bryan J. Machella | |
| Project/Site: ~~Burlington Co. School District~~ WV | | Location: ~~Columbus, New Jersey~~ Watervliet, NY | |
| Well ID: MP-9 | | | |
| Inner Casing diameter: 1.5 inches | | Casing Material: PVC | |

Weather Conditions:

PID/FID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.51 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 9:42 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 9:43 Initial: | 15.71 | 891 | 7.69 | 5.73 | -72.4 | 9.51 |
| 9:53 3 Minutes: | 16.83 | 912 | 6.64 | 0.70 | -91.0 | 9.75 |
| 56 6 Minutes: | 16.81 | 883 | 6.64 | 0.59 | -91.4 | 9.75 |
| 59 9 Minutes: | 16.83 | 871 | 6.64 | 0.54 | -91.3 | 9.75 |
| 02 12 Minutes: | 16.87 | 841 | 6.65 | 0.45 | -91.7 | 9.75 |
| 05 15 Minutes: | 16.91 | 825 | 6.66 | 0.42 | -93.2 | 9.75 |
| 08 18 Minutes: | 16.92 | 820 | 6.66 | 0.41 | -93.4 | 9.75 |
| 11 21 Minutes: | 16.92 | 810 | 6.67 | 0.40 | -93.6 | 9.75 |
| 14 24 Minutes: | | | | | | |
| 17 27 Minutes: | | | | | | |
| 20 30 Minutes: | | | | | | |
| 23 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low-Flow

Sampling Start Time: 10:12 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

~~Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.~~

put in 55 g drum

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | |
|---|---|
| Date: 10/27/04 | Sampler: Bryan J. Machella |
| Project/Site: LV ~~SGPP, Wayne~~ | Location: ~~Wayne, New Jersey~~ Watervliet, NY |
| Well ID: MP-18 | |
| Inner Casing diameter: inches | Casing Material: PVC |

Weather Conditions: Cloudy

PID/FID reading from well: NM ppm

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): 8.99 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) ~~yes~~ no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 10:33 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: gallons

| | | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| 10:34 | Initial: | 15.70 | 626 | 7.10 | 3.98 | -59.6 | 8.99 |
| 10:50 | 3 Minutes: | 16.32 | 530 | 6.84 | 1.88 | 34.8 | 9.03 |
| :53 | 6 Minutes: | 16.35 | 527 | 6.83 | 1.89 | 40.4 | 9.03 |
| 56 | 9 Minutes: | 16.40 | 524 | 6.81 | 1.88 | 45.6 | 9.03 |
| 59 | 12 Minutes: | 16.41 | 522 | 6.81 | 1.89 | 49.1 | 9.03 |
| 02 | 15 Minutes: | | | | | | |
| 05 | 18 Minutes: | | | | | | |
| 08 | 21 Minutes: | | | | | | |
| 11 | 24 Minutes: | | | | | | |
| 14 | 27 Minutes: | | | | | | |
| 17 | 30 Minutes: | | | | | | |
| 20 | 33 Minutes: | | | | | | |
| | Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 11:00 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:

Field Blank sampl FB collected @ 10:40

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 10/27/09 | | Sampler: Bryan J. Machella | |
| Project/Site: ~~SGPP, Wayne~~ | | Location: ~~Wayne, New Jersey~~ Whitney | |
| Well ID: MW-20 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: Sunny

PID/FID reading from well: NM ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.29 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 8:59 Purge End Time: 9:16 Purge Rate (gals/minute):

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 8:59 Initial: | 13.99 | 418 | 7.92 | 3.41 | 78.8 | 8.29 |
| 9:10 3 Minutes: | 14.60 | 659 | 7.63 | 4.68 | 109.2 | 8.36 |
| :13 6 Minutes: | 14.60 | 658 | 7.60 | 4.50 | 111.2 | 8.37 |
| :16 9 Minutes: | 14.64 | 656 | 7.59 | 4.31 | 111.9 | 8.37 |
| :19 12 Minutes: | | | | | | |
| :22 15 Minutes: | | | | | | |
| :25 18 Minutes: | | | | | | |
| :28 21 Minutes: | | | | | | |
| :31 24 Minutes: | | | | | | |
| :34 27 Minutes: | | | | | | |
| :37 30 Minutes: | | | | | | |
| :40 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 9:17 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containcrized & # of containers, filtered and discharged, w/ discharge location):

Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 10/27/04 | | Sampler: Bryan J. Machella | |
| Project/Site: WV | SGPP, ~~Wayne~~ | Location: ~~Wayne~~, ~~New Jersey~~ Watervliet, NY | |
| Well ID: MP-21 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: sunny

PID/FID reading from well: NM ppm

Total Depth of Well (from top inner casing): 8.66 feet

Depth to Water (DTW) (from top inner casing): feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 8:28 Purge End Time: 8:52 Purge Rate (gals/minute):

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 8:40 Initial: | 14.95 | 262 | 8.32 | 0.87 | 48.4 | 8.71 |
| :43 3 Minutes: | 14.87 | 262 | 8.24 | 0.78 | 49.8 | 8.71 |
| :46 6 Minutes: | 14.84 | 261 | 8.21 | 0.75 | 51.0 | 8.71 |
| :49 9 Minutes: | 14.80 | 261 | 8.18 | 0.73 | 52.0 | 8.71 |
| :52 12 Minutes: | 14.86 | 261 | 8.16 | 0.70 | 52.5 | 8.71 |
| :55 15 Minutes: | | | | | | |
| :58 18 Minutes: | | | | | | |
| :01 21 Minutes: | | | | | | |
| :04 24 Minutes: | | | | | | |
| :07 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 8:53 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Clear.

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: 4/15/04 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-22 | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions: SUNNY .50°

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): 9.48 feet

Well Screened Interval: 5-15 feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: ~~1:48~~ 2:15 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: gallons

| | | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| 2:15 | Initial: | 13.32 | 702 | 7.56 | 4.19 | 165.3 | 9.48 |
| 2:30 | 3 Minutes: | 13.69 | 692 | 6.77 | 4.75 | 177.8 | 9.50 |
| 2:33 | 6 Minutes: | 13.73 | 692 | 6.79 | 4.73 | 173.7 | 9.51 |
| 2:36 | 9 Minutes: | 13.73 | 689 | 6.75 | 4.73 | 174.0 | 9.51 |
| 2:39 | 12 Minutes: | 13.74 | 686 | 6.79 | 4.72 | 169.9 | 9.51 |
| 2:42 | 15 Minutes: | | | | | | |
| 2:45 | 18 Minutes: | | | | | | |
| 2:48 | 21 Minutes: | | | | | | |
| 2:51 | 24 Minutes: | | | | | | |
| 2:54 | 27 Minutes: | | | | | | |
| 2:57 | 30 Minutes: | | | | | | |
| 3:00 | 33 Minutes: | | | | | | |
| | Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 2:40 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

Fw2a Blank (FB) collected @ 2:45

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 4/7/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-1 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): 5.83 feet

Depth to Water (DTW) (from top inner casing): feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 2:35 Purge End Time: 2:59 Purge Rate (gals/minute): 1.5/24

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 2:53 Initial: | 10.22 | 287 | 6.39 | 0.06 | -16.9 | 8.08 |
| 56 3 Minutes: | 10.25 | 287 | 6.38 | 0.06 | -16.7 | 8.00 |
| 59 6 Minutes: | 10.26 | 289 | 6.36 | 0.06 | -16.8 | 8.0" |
| 02 9 Minutes: | | | | | | |
| 05 12 Minutes: | | | | | | |
| 08 15 Minutes: | | | | | | |
| 11 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

cut back flow slightly

Sampling Method: Low Flow

Sampling Start Time: 3:00 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

→ 55g drum on site

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 4/7/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-5 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: Overcast - 50

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): 7.85 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 10:12 Purge End Time: 10:43 Purge Rate (gals/minute): 2/31=

Total Volume Purged: 2 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 10:34 Initial: | 8.91 | 591 | 6.54 | 1.22 | -15.1 | 8.31 |
| 37 3 Minutes: | 9.02 | 603 | 6.53 | 1.07 | -20.6 | 8.31 |
| 40 6 Minutes: | 9.06 | 605 | 6.54 | 1.03 | -22.7 | 8.31 |
| 43 9 Minutes: | 9.08 | 606 | 6.54 | 1.00 | -22.5 | 8.31 |
| 46 12 Minutes: | | | | | | |
| 49 15 Minutes: | | | | | | |
| 52 18 Minutes: | | | | | | |
| 55 21 Minutes: | | | | | | |
| 58 24 Minutes: | | | | | | |
| 01 27 Minutes: | | | | | | |
| 04 30 Minutes: | | | | | | |
| 07 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 10:44 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

→ 55 g drum on site

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 4/7/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-6 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): 7.38 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 11:25 Purge End Time: 11:44 Purge Rate (gals/minute): 1/19 =

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 35 Initial: | 8.63 | 120 | 5.67 | 2.89 | 241.9 | 7.51 |
| 38 3 Minutes: | 8.61 | 118 | 5.66 | 2.49 | 243.6 | 7.51 |
| 41 6 Minutes: | 8.70 | 117 | 5.67 | 2.12 | 244.1 | 7.51 |
| 44 9 Minutes: | 8.87 | 118 | 5.69 | 7.90 | 240 | 7.51 |
| 47 12 Minutes: | | | | | | |
| 50 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 11:45 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

→ 55g drum on site

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 4/7/05 | | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: MP-7 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): 6.81 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 11:55 Purge End Time: 12:35 Purge Rate (gals/minute): 2/40=

Total Volume Purged: 2 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) | |
|---|---|---|---|---|---|---|---|
| 12:05 Initial: | 8.56 | 130 | 6.09 | 1.39 | 233.3 | 7.08 | |
| 08 3 Minutes: | 8.88 | 138 | 6.15 | 1.13 | 229.0 | 7.08 | |
| 11 6 Minutes: | 8.53 | 150 | 6.20 | 0.87 | 223.3 | 7.08 | |
| 14 9 Minutes: | 8.46 | 156 | 6.26 | 0.67 | 221.2 | 7.08 | 7.08 |
| 17 12 Minutes: | 8.45 | 172 | 6.30 | 0.48 | 218.0 | | 7.08 |
| 20 15 Minutes: | 8.42 | 181 | 6.36 | 0.41 | 207.6 | | 7.08 |
| 23 18 Minutes: | 8.22 | 213 | 6.43 | 0.29 | 201.3 | | 7.08 |
| 26 21 Minutes: | 8.50 | 222 | 6.47 | 0.27 | 190.6 | | 7.08 |
| 29 24 Minutes: | 8.58 | 225 | 6.50 | 0.24 | 175.6 | 7.08 | |
| 32 27 Minutes: | 8.62 | 227 | 6.50 | 0.23 | 174.3 | 7.09 | |
| 35 30 Minutes: | 8.61 | 229 | 6.51 | 0.23 | 173.2 | 7.11 | |
| 33 Minutes: | | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- | |

Sampling Method: Low Flow

Sampling Start Time: 12:36 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

→ 55 g drum on site

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 4/8/05 | | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: MP-9 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: Sunny 50

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 8:20 Purge End Time: Purge Rate (gals/minute): 1/2 0.5

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 8:30 Initial: | 13.62 | 741 | 6.78 | 0.20 | -77.2 | — |
| 31 3 Minutes: | 13.67 | 712 | 6.82 | 0.17 | -76.7 | 8.74 |
| 37 6 Minutes: | 13.69 | 703 | 6.82 | 0.15 | -76.2 | 8.74 |
| 46 9 Minutes: | 13.72 | 699 | 6.83 | 0.15 | -76 | 8.74 |
| 43 12 Minutes: | | | | | | |
| 46 15 Minutes: | | | | | | |
| 79 18 Minutes: | | | | | | |
| 52 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 8:41 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

→ 55g drum on site

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 4/8/05 | | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: MP-10 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 8:46 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 8:57 Initial: | 14.68 | 691 | 6.78 | 0.15 | -82.4 | 8.85 |
| 00 3 Minutes: | 14.56 | 692 | 6.58 | 0.17 | -83.2 | 8.85 |
| 03 6 Minutes: | 14.54 | 691 | 6.59 | 0.16 | -85.7 | 8.85 |
| 06 9 Minutes: | | | | | | |
| 09 12 Minutes: | | | | | | |
| 12 15 Minutes: | | | | | | |
| 15 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 9:04 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 4/7/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-14 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |
| Weather Conditions: overcast - 50 | | | |
| Total Depth of Well (from top inner casing): | | | feet |
| Depth to Water (DTW) (from top inner casing): | 7.53 | | feet |
| Well Screened Interval: | | | feet |
| Linear feet of water in well: | | | |
| Is DTW included in a complete round of pre-sampling synoptic water level measurements? | | | yes (circled) no |
| Thickness of floating product (if any): | None | feet | Time: |
| Description of floating product: | None | | |

Purge Method: Peristaltic pump
Purge Start Time: 1:02 Purge End Time: 1:27 Purge Rate (gals/minute): 1.5/25
Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1:21 Initial: | 10.09 | 736 | 6.68 | 0.17 | -63.6 | 7.55 |
| 24 3 Minutes: | 10.19 | 732 | 6.59 | 0.16 | -63.3 | 7.55 |
| 27 6 Minutes: | 10.19 | 732 | 6.59 | 0.16 | -63.2 | 7.55 |
| 30 9 Minutes: | | | | | | |
| 33 12 Minutes: | | | | | | |
| 36 15 Minutes: | | | | | | |
| 39 18 Minutes: | | | | | | |
| 42 21 Minutes: | | | | | | |
| 45 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 1:28 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

→ 55g drum on site

Comments:

MP-50 = Dup of MP-14 @ 1:45

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 4/7/15 | | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: MP-17 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: Overcast

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): 7.99 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1:35 Purge End Time: 1:59 Purge Rate (gals/minute): 1.5/24=

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1:44 Initial: | 10.56 | 818 | 6.66 | 0.16 | -72.6 | 8.07 |
| 47 3 Minutes: | 10.54 | 841 | 6.65 | 0.15 | -71.6 | 8.08 |
| 50 6 Minutes: | NM | NM | NM | NM | NM | NM |
| 53 9 Minutes: | 10.49 | 886 | 6.64 | 0.16 | -70.1 | 8.09 |
| 56 12 Minutes: | 10.42 | 895 | 6.64 | 0.15 | -70.6 | 8.08 |
| 59 15 Minutes: | 10.48 | 898 | 6.64 | 0.14 | -70.6 | 8.08 |
| 02 18 Minutes: | | | | | | |
| 05 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 2:00 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized in 55-g drum

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 4/7/10 | | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: MP-18 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: overcast · 50

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.84 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 9:40 Purge End Time: 10:00 Purge Rate (gals/minute): 1/20 =

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 9:54 Initial: | 10.84 | 528 | 7.40 | 0.30 | 262 | 7.86 |
| 57 3 Minutes: | 10.85 | 526 | 7.40 | 0.27 | 265.3 | 7.86 |
| 00 6 Minutes: | 10.86 | 524 | 7.40 | 0.28 | 269.7 | 7.86 |
| 03 9 Minutes: | | | | | | |
| 06 12 Minutes: | | | | | | |
| 09 15 Minutes: | | | | | | |
| 12 18 Minutes: | | | | | | |
| 15 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 10:01 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

→ 55 g drum on site

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 4/7/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-19 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: overcast - 50

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): 7.47 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 10:50 Purge End Time: 11:19 Purge Rate (gals/minute): 1.5/29 =

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 11:07 Initial: | 8.65 | 539 | 6.74 | 4.12 | 102 | 7.49 |
| 10 3 Minutes: | 8.71 | 535 | 6.76 | 3.65 | 91.7 | 7.49 |
| 13 6 Minutes: | 8.71 | 528 | 6.80 | 3.10 | 78.6 | 7.49 |
| 16 9 Minutes: | 8.68 | 526 | 6.79 | 3.22 | 78.9 | 7.49 |
| 19 12 Minutes: | 8.70 | 526 | 6.79 | 3.26 | 78.6 | 7.49 |
| 22 15 Minutes: | | | | | | |
| 25 18 Minutes: | | | | | | |
| 28 21 Minutes: | | | | | | |
| 31 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 11:20 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

→ 55g drum on site

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 4/7/10 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York — Sunny 50 | |
| Well ID: MW-22 | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions: overcast 50

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): 5.86 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 9:00 Purge End Time: 9:27 Purge Rate (gals/minute): 1.5/27=

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 9:02 Initial: | 9.47 | 243 | 8.15 | 8.56 | 197.1 | 5.86 - static |
| 9:15 3 Minutes: | 8.69 | 290 | 7.16 | 9.48 | 22[illegible] | 5.87 |
| 18 6 Minutes: | 8.72 | 298 | 7.08 | 9.43 | 234.2 | 5.89 |
| 21 9 Minutes: | 8.84 | 301 | 7.02 | 9.33 | 237.7 | 5.89 |
| 24 12 Minutes: | 8.73 | 310 | 6.97 | 9.33 | 247.3 | 5.89 |
| 27 15 Minutes: | 8.76 | 315 | 6.93 | 9.30 | 246.1 | 5.89 |
| 30 18 Minutes: | | | | | | |
| 33 21 Minutes: | | | | | | |
| 36 24 Minutes: | | | | | | |
| 39 27 Minutes: | | | | | | |
| 42 30 Minutes: | | | | | | |
| 45 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 9:28 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Silty & Stained

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 4/8/05 | | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: MW 11 | | | |
| Inner Casing diameter: | 2 inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 9:05 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: / gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 9:17 Initial: | 12.60 | 515 | 7.17 | 0.17 | -93.8 | 9.58 |
| 20 3 Minutes: | 12.57 | 508 | 7.14 | 0.16 | -91.3 | 9.58 |
| 23 6 Minutes: | 12.59 | 500 | 7.11 | 0.16 | -89.7 | 9.58 |
| 26 9 Minutes: | | | | | | |
| 29 12 Minutes: | | | | | | |
| 32 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 9:25 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

→ On site 55g drum

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 4/7/15 | | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: MW-14 | | | |
| Inner Casing diameter: 4 | inches | Casing Material: | PVC |
| Weather Conditions: | | | |
| Total Depth of Well (from top inner casing): | | | feet |
| Depth to Water (DTW) (from top inner casing): | | 7.62 | feet |
| Well Screened Interval: | | | feet |
| Linear feet of water in well: | | | |
| Is DTW included in a complete round of pre-sampling synoptic water level measurements? | | | (yes) no |
| Thickness of floating product (if any): | None | | feet Time: |
| Description of floating product: | None | | |

Purge Method: Peristaltic pump
Purge Start Time: 3:30 Purge End Time: 4:03 Purge Rate (gals/minute): 2/33=
Total Volume Purged: 2 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 3:57 Initial: | 9.76 | 423 | 6.30 | 0.13 | -35.4 | 7.90 |
| 00 3 Minutes: | 9.86 | 423 | 6.30 | 0.12 | -35.4 | 7.90 |
| 03 6 Minutes: | 9.87 | 423 | 6.30 | 0.12 | -38.8 | 7.90 |
| 06 9 Minutes: | | | | | | |
| 09 12 Minutes: | | | | | | |
| 12 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 4:04 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

→ 55 drum

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 4/7/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MW-15 | | | |
| Inner Casing diameter: 4 | inches | Casing Material: PVC | |
| Weather Conditions: | | | |
| Total Depth of Well (from top inner casing): | | 8.08 | feet |
| Depth to Water (DTW) (from top inner casing): | | | feet |
| Well Screened Interval: | | | feet |
| Linear feet of water in well: | | | |
| Is DTW included in a complete round of pre-sampling synoptic water level measurements? | | | (yes) no |
| Thickness of floating product (if any): | None | | feet Time: |
| Description of floating product: | None | | |

Purge Method: Peristaltic pump
Purge Start Time: ~~3:30~~ 3:10 Purge End Time: 3:25 Purge Rate (gals/minute): 1/15=
Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 3:19 Initial: | 9.24 | 1674 | 5.85 | 0.76 | 200.5 | 8.61 |
| 22 3 Minutes: | 9.17 | 1655 | 5.84 | 0.77 | 205.8 | 8.75 |
| 25 6 Minutes: | 9.22 | 1683 | 5.84 | 0.77 | 206.3 | 8.85 |
| 28 9 Minutes: | | | | | | |
| 31 12 Minutes: | | | | | | |
| 34 15 Minutes: | | | | | | |
| 37 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 3:26 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

→ 55 drum

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 6/23/05 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MW-16 | | |
| Inner Casing diameter: | 2 inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.41 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 11:53 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| Initial: | 18.66 | 974 | 7.31 | 2.24 | -30.0 | 8.41 |
| 12:05 3 Minutes: | 16.48 | 1005 | 7.27 | 1.45 | -24.4 | 13.51 |
| 12:07 6 Minutes: | Dry | | | | | |
| 4:24 9 Minutes: | | | | | | 13.58 |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Very Silty @ First

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 6/23/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-22 | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.48 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 7:55 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 2 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 8:04 Initial: | 14.09 | 641 | 7.07 | 6.65 | 188.5 | 9.50 |
| 07 3 Minutes: | 14.03 | 640 | 6.92 | 6.72 | 211.0 | 9.50 |
| 10 6 Minutes: | 13.98 | 637 | 6.85 | 6.78 | 235.0 | 9.50 |
| 13 9 Minutes: | 14.07 | 633 | 6.76 | 7.60 | 255.7 | 9.50 |
| 16 12 Minutes: | 14.37 | 626 | 6.59 | 7.26 | 274.3 | 9.50 |
| 19 15 Minutes: | 14.26 | 626 | 6.52 | 7.14 | 309.0 | 9.50 |
| 21 18 Minutes: | 14.32 | 625 | 6.41 | 7.01 | 345.0 | 9.50 |
| 24 21 Minutes: | 14.28 | 626 | 6.37 | 7.00 | 340.1 | 9.50 |
| 27 24 Minutes: | 14.24 | 626 | 6.35 | 7.01 | 339.2 | 9.50 |
| 30 27 Minutes: | | | | | | |
| 33 30 Minutes: | | | | | | |
| 36 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 8:28 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 6/23/05 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MP-18 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.24 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 7:45 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 2 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 8:50 Initial: | 14.90 | 625 | 6.43 | 1.19 | 276.5 | 9.32 |
| 53 3 Minutes: | 14.85 | 628 | 6.40 | 1.12 | 273. | 9.32 |
| 56 6 Minutes: | 14.91 | 627 | 6.40 | 1.13 | 273.2 | 9.32 |
| 59 9 Minutes: | | | | | | |
| 02 12 Minutes: | | | | | | |
| 05 15 Minutes: | | | | | | |
| 08 18 Minutes: | | | | | | |
| 11 21 Minutes: | | | | | | |
| 14 24 Minutes: | | | | | | |
| 17 27 Minutes: | | | | | | |
| 20 30 Minutes: | | | | | | |
| 23 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 8:57 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | |
|---|---|
| Date: 6/23/05 | Sampler: Bryan J. Machella |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: MP-19 | |
| Inner Casing diameter: 15 inches | Casing Material: PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.59 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 7:07 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 2 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 9:15 Initial: | 15.01 | 1077 | 5.75 | 0.51 | 91.2 | 8.63 |
| 17 3 Minutes: | 15.04 | 1227 | 5.75 | 0.49 | 42.7 | 8.63 |
| 20 6 Minutes: | 15.06 | 1245 | 5.78 | 0.41 | 19.5 | 8.63 |
| 23 9 Minutes: | 15.13 | 1260 | 5.82 | 0.45 | -7.5 | 8.63 |
| 26 12 Minutes: | 15.17 | 1268 | 5.83 | 0.40 | -20.5 | 8.63 |
| 29 15 Minutes: | 15.20 | 1280 | 5.82 | 0.37 | -26.6 | 8.63 |
| 32 18 Minutes: | 15.20 | 1281 | 5.80 | 0.37 | -29.1 | 8.63 |
| 35 21 Minutes: | | | | | | |
| 75 24 Minutes: | | | | | | |
| 41 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 9:33 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 6/23/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-6 | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.68 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 9:40 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 2 gallons

| | | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| 9:54 | Initial: | 12.74 | 439 | 6.09 | 0.42 | -5.6 | 8.82 |
| 57 | 3 Minutes: | 12.58 | 472 | 6.17 | 0.36 | -17.6 | 8.82 |
| 00 | 6 Minutes: | 12.92 | 498 | 6.29 | 0.32 | -28.9 | 8.82 |
| 03 | 9 Minutes: | 12.87 | 514 | 6.37 | 0.29 | -33.4 | 8.82 |
| 06 | 12 Minutes: | 12.70 | 522 | 6.41 | 0.28 | -35.4 | 8.82 |
| 09 | 15 Minutes: | 12.73 | 522 | 6.42 | 0.28 | -40.5 | 8.82 |
| 12 | 18 Minutes: | | | | | | |
| 15 | 21 Minutes: | | | | | | |
| 18 | 24 Minutes: | | | | | | |
| 21 | 27 Minutes: | | | | | | |
| 24 | 30 Minutes: | | | | | | |
| 27 | 33 Minutes: | | | | | | |
| | Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 10:10 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 6/23/05 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MP-14 | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.53 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 10:15 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 10:34 Initial: | 12.65 | 757 | 6.80 | 0.30 | -96.3 | 8.57 |
| 37 3 Minutes: | 12.78 | 756 | 6.82 | 0.27 | -98.6 | 8.57 |
| 40 6 Minutes: | 12.78 | 755 | 6.82 | 0.26 | -99.5 | 8.57 |
| 43 9 Minutes: | | | | | | |
| 46 12 Minutes: | | | | | | |
| 49 15 Minutes: | | | | | | |
| 52 18 Minutes: | | | | | | |
| 55 21 Minutes: | | | | | | |
| 58 24 Minutes: | | | | | | |
| 01 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 10:41 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

MP-50 = Dup of MP-14 @ 10:50

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 6/23/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-17 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.08 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 10:45 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 11:07 Initial: | 13.77 | 847 | 6.75 | 0.32 | -90.2 | 9.08 |
| 10 3 Minutes: | 13.75 | 843 | 6.76 | 0.30 | -92.9 | 9.08 |
| 13 6 Minutes: | 13.7 | 840 | 6.76 | 0.29 | -91.5 | 9.08 |
| 16 9 Minutes: | | | | | | |
| 19 12 Minutes: | | | | | | |
| 22 15 Minutes: | | | | | | |
| 25 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 11:14 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments: MS / MSD collected

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 6/23/05 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MP-1 | | |
| Inner Casing diameter: | 4" inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.44 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 12:34 Initial: | 16.08 | 445 | 6.36 | 0.25 | -103.4 | 9.32 |
| 37 3 Minutes: | 16.16 | 453 | 6.35 | 0.25 | -107.8 | 9.32 |
| 40 6 Minutes: | 16.22 | 457 | 6.36 | 0.24 | -109.8 | 9.32 |
| 43 9 Minutes: | | | | | | |
| 46 12 Minutes: | | | | | | |
| 49 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | -- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 12:41 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 6/23/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-2 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.93 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 12:50 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: gallons

| | | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| 1107 | Initial: | 15.59 | 802 | 6.40 | 0.28 | -121.8 | 11.79 |
| 10 | 3 Minutes: | 16.04 | 819 | 6.44 | 0.20 | -123.2 | 11.70 |
| 13 | 6 Minutes: | 16.72 | 819 | 6.45 | 0.27 | 121.4 | 11.70 |
| 16 | 9 Minutes: | | | | | | |
| 19 | 12 Minutes: | | | | | | |
| 22 | 15 Minutes: | | | | | | |
| 25 | 18 Minutes: | | | | | | |
| 28 | 21 Minutes: | | | | | | |
| | 24 Minutes: | | | | | | |
| | 27 Minutes: | | | | | | |
| | 30 Minutes: | | | | | | |
| | 33 Minutes: | | | | | | |
| | Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1114 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

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Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 6/23/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-4 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.04 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1:45 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 2:06 Initial: | 17.43 | 628 | 6.20 | 0.36 | -62.6 | 10.77 |
| :09 3 Minutes: | 17.26 | 626 | 6.20 | 0.33 | -65.2 | 10.77 |
| 12 6 Minutes: | 17.24 | 625 | 6.21 | 0.33 | -65.4 | 10.77 |
| 15 9 Minutes: | | | | | | |
| 18 12 Minutes: | | | | | | |
| 2 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 2:13 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 6/13 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MP-5 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.85 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 2:15 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 2:30 Initial: | 17.31 | 905 | 6.64 | 0.50 | -102.3 | 10.00 |
| 33 3 Minutes: | 17.4 | 871 | 6.67 | 0.43 | -103.2 | 10.00 |
| 36 6 Minutes: | 17.13 | 845 | 6.68 | 0.39 | -103.9 | 10 |
| 39 9 Minutes: | 17.15 | 820 | 6.70 | 0.36 | -103.3 | 10 |
| 42 12 Minutes: | 17.24 | 804 | 6.71 | 0.34 | -102.3 | 10 |
| 45 15 Minutes: | 12.30 | 796 | 6.71 | 0.33 | 102.6 | 10 |
| 48 18 Minutes: | 12.32 | 795 | 6.72 | 0.33 | 102.4 | 10 |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 2:49 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 6/23/05 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MW-17 | | |
| Inner Casing diameter: | 2 inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.91 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 2:50 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 3:10 Initial: | 17.63 | 515 | 6.49 | 0.24 | -108.8 | 9.93 |
| 13 3 Minutes: | 17.66 | 514 | 6.51 | 0.20 | -108.7 | 9.93 |
| 16 6 Minutes: | 17.70 | 513 | 6.53 | 0.19 | -108.3 | 9.91 |
| 19 9 Minutes: | 17.70 | 513 | 6.53 | 0.19 | -108.6 | 9.93 |
| 22 12 Minutes: | | | | | | |
| 25 15 Minutes: | | | | | | |
| 28 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 3:20 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 6/23/05 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MW-12 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.92 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 3:25 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 3 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 3:53 Initial: | 15.58 | 530 | 6.96 | 0.86 | -41.8 | 9.76 |
| 56 3 Minutes: | 15.80 | 522 | 6.97 | 10.710 | -43.4 | 9.70 |
| 59 6 Minutes: | 15.71 | 515 | 6.98 | 1.26 | -39.5 | 9.70 |
| 02 9 Minutes: | 15.69 | 504 | 6.96 | 1.51 | -34.3 | 9.70 |
| 05 12 Minutes: | 15.61 | 496 | 6.94 | 1.68 | -28.8 | 9.70 |
| 08 15 Minutes: | 15.54 | 489 | 6.93 | 1.88 | -23.8 | 9.70 |
| 11 18 Minutes: | 15.46 | 485 | 6.91 | 1.89 | -20.1 | 9.70 |
| 14 21 Minutes: | 15.47 | 480 | 6.91 | 1.95 | -20.0 | 9.70 |
| 17 24 Minutes: | | | | | | |
| 20 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 4:15 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 10/26/05 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MP-2 | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: Cloudy - cool - slight

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 6.55 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 7:53 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1.5 gallons

| | | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| 5:04 | Initial: | 15.20 | 806 | 6.75 | 0.77 | -77.8 | 7.51 |
| 07 | 3 Minutes: | 15.08 | 798 | 6.73 | 1.09 | -74.7 | 7.55 |
| 10 | 6 Minutes: | 14.91 | 794 | 6.13 | 1.19 | -71.5 | 7.55 |
| 13 | 9 Minutes: | 15.11 | 798 | 6.72 | 1.69 | -72.0 | 7.55 |
| 16 | 12 Minutes: | | | | | | |
| 19 | 15 Minutes: | | | | | | |
| | 18 Minutes: | | | | | | |
| | 21 Minutes: | | | | | | |
| | 24 Minutes: | | | | | | |
| | 27 Minutes: | | | | | | |
| | 30 Minutes: | | | | | | |
| | 33 Minutes: | | | | | | |
| | Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 8:15 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 12/25/05 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MP-6 | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: Rain

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.65 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): (None) feet Time:

Description of floating product: (None)

Purge Method: Peristaltic pump

Purge Start Time: 11:25 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 11:39 Initial: | 11.23 | 589 | 6.45 | 0.46 | 186 | 7.77 |
| 42 3 Minutes: | 11.16 | 623 | 6.48 | 0.42 | 9.1 | 7.77 |
| 45 6 Minutes: | 11.24 | 645 | 6.50 | 0.38 | 4.1 | 7.77 |
| 48 9 Minutes: | 11.15 | 655 | 6.51 | 0.38 | 1.9 | 7.77 |
| 51 12 Minutes: | 11.08 | 658 | 6.51 | 0.38 | -0.4 | 7.77 |
| 54 15 Minutes: | | | | | | |
| 57 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

MP-50 = Dup of MP-6

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 10/25/05 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MP-10 | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: RAIN

Total Depth of Well (from top inner casing): 8.90 feet

Depth to Water (DTW) (from top inner casing): feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): (None) feet Time:

Description of floating product: (None)

Purge Method: Peristaltic pump

Purge Start Time: 3:00 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1.5 gallons

| | | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| 3:12 | Initial: | 17.33 | 840 | 6.88 | 0.62 | -69.6 | 9.05 |
| 15 | 3 Minutes: | 17.38 | 848 | 6.89 | 0.38 | -71.5 | 9.05 |
| 18 | 6 Minutes: | 17.41 | 849 | 6.90 | 0.37 | -72.7 | 9.05 |
| 21 | 9 Minutes: | | | | | | |
| 24 | 12 Minutes: | | | | | | |
| 27 | 15 Minutes: | | | | | | |
| 30 | 18 Minutes: | | | | | | |
| | 21 Minutes: | | | | | | |
| | 24 Minutes: | | | | | | |
| | 27 Minutes: | | | | | | |
| | 30 Minutes: | | | | | | |
| | 33 Minutes: | | | | | | |
| | Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 3:19 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 10/25/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MW-11 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: PVC | |
| Weather Conditions: Rain | | | |
| Total Depth of Well (from top inner casing): | 9.06 | feet | |
| Depth to Water (DTW) (from top inner casing): | | feet | |
| Well Screened Interval: | | feet | |
| Linear feet of water in well: | | | |
| Is DTW included in a complete round of pre-sampling synoptic water level measurements? | | yes | (no) |
| Thickness of floating product (if any): | (None) | feet | Time: |
| Description of floating product: | (None) | | |

Purge Method: Peristaltic pump
Purge Start Time: ~~2~~ 2:25 Purge End Time: 2:49 Purge Rate (gals/minute): 24
Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 2:46 Initial: | 15.80 | 735 | 6.43 | 5.24 | 2.0 | 9.41 |
| 43 3 Minutes: | 15.90 | 741 | 6.42 | 5.04 | 5.2 | 9.41 |
| 46 6 Minutes: | 15.92 | 745 | 6.43 | 4.92 | 6.3 | 9.41 |
| 49 9 Minutes: | 15.94 | 746 | 6.43 | 4.89 | 7.0 | 9.41 |
| 52 12 Minutes: | | | | | | |
| 55 15 Minutes: | | | | | | |
| 58 18 Minutes: | | | | | | |
| 01 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 2:50 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

East of MW-11 closer to Tank Farm

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 10/25/05 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MP-13 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions: RAIN

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.50 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): ~~None~~ feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 10:54 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 11:02 Initial: | 15.18 | 735 | 7.09 | 0.46 | -16.7 | 7.60 |
| 05 3 Minutes: | 15.22 | 760 | 7.04 | 0.37 | -9.1 | 7.60 |
| 08 6 Minutes: | 15.28 | 765 | 7.02 | 0.43 | -9.7 | 7.60 |
| 11 9 Minutes: | 15.24 | 769 | 7.02 | 0.35 | -9.0 | 7.60 |
| 14 12 Minutes: | | | | | | |
| 17 15 Minutes: | | | | | | |
| 20 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 11:12 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

MP-19 under water (long pvc) substituted MP-13

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 10/25/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-14 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions:
Total Depth of Well (from top inner casing): feet
Depth to Water (DTW) (from top inner casing): 7.41 feet
Well Screened Interval: feet
Linear feet of water in well:
Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)
Thickness of floating product (if any): (None) feet Time:
Description of floating product: (None)

Purge Method: Peristaltic pump
Purge Start Time: 12:02 Purge End Time: Purge Rate (gals/minute):
Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 12:13 Initial: | 16.59 | 3512 | 6.78 | 1.17 | 50.1 | 7.47 |
| 16 3 Minutes: | 16.56 | 3535 | 6.78 | 1.11 | 47.2 | 7.47 |
| 19 6 Minutes: | 16.63 | 3537 | 6.79 | 1.16 | 45.2 | 7.47 |
| 22 9 Minutes: | | | | | | |
| 25 12 Minutes: | | | | | | |
| 28 15 Minutes: | | | | | | |
| 31 18 Minutes: | | | | | | |
| 34 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 12:20 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

MS/MSD collected

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 10/25/05 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MP-17 | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: RAIN

Total Depth of Well (from top inner casing): 7.90 feet

Depth to Water (DTW) (from top inner casing): feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 12:30 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 12:42 Initial: | 16.87 | 962 | 6.70 | 0.51 | -91.1 | 7.99 |
| :45 3 Minutes: | 16.85 | 955 | 6.70 | 0.42 | -92.3 | 7.99 |
| :48 6 Minutes: | 16.88 | 950 | 6.71 | 0.35 | -91.2 | 7.99 |
| :51 9 Minutes: | 16.83 | 950 | 6.71 | 0.32 | -90.1 | 7.99 |
| :54 12 Minutes: | 16.82 | 950 | 6.71 | 0.32 | -89.3 | 7.99 |
| :57 15 Minutes: | | | | | | |
| :00 18 Minutes: | | | | | | |
| :03 21 Minutes: | | | | | | |
| :06 24 Minutes: | | | | | | |
| :09 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 12:55 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 10/25/05 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MP-18 | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: RAIN

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.15 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): (None) feet Time:

Description of floating product: (None)

Purge Method: Peristaltic pump

Purge Start Time: 10:08 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1.5 gallons

| | | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|---|
| 10:29 | Initial: | 16.31 | 648 | 7.51 | 0.25 | 171.4 | 8.19 |
| 32 | 3 Minutes: | 16.31 | 650 | 7.51 | 0.25 | 176.1 | 8.19 |
| 35 | 6 Minutes: | 16.30 | 650 | 7.51 | 0.25 | 176.5 | 8.19 |
| 38 | 9 Minutes: | | | | | | |
| 41 | 12 Minutes: | | | | | | |
| 44 | 15 Minutes: | | | | | | |
| 47 | 18 Minutes: | | | | | | |
| 50 | 21 Minutes: | | | | | | |
| | 24 Minutes: | | | | | | |
| | 27 Minutes: | | | | | | |
| | 30 Minutes: | | | | | | |
| | 33 Minutes: | | | | | | |
| | Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 10:36 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: 10/25/05 | | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: MF-22 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: Rain

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.92 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None feet Time:

Description of floating product: (None)

Purge Method: Peristaltic pump

Purge Start Time: 9:15 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 9:45 Initial: | 14.75 | 392 | 6.86 | 7.43 | 152 | 8.85 |
| 48 3 Minutes: | 14.77 | 391 | 6.86 | 7.46 | 147.7 | 8.85 |
| 51 6 Minutes: | 14.86 | 392 | 6.86 | 7.48 | 137.4 | 8.85 |
| 54 9 Minutes: | 14.79 | 392 | 6.86 | 7.49 | 136.1 | 8.85 |
| 57 12 Minutes: | 14.80 | 392 | 6.86 | 7.50 | 136.0 | 8.85 |
| 00 15 Minutes: | | | | | | |
| 03 18 Minutes: | | | | | | |
| 06 21 Minutes: | | | | | | |
| 09 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 9:58 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 10/25/05 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MW-11 | | |
| Inner Casing diameter: | 2 inches | Casing Material: | PVC |

Weather Conditions: RAIN

Total Depth of Well (from top inner casing): 19 feet

Depth to Water (DTW) (from top inner casing): 9.50 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1:53 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 2:10 Initial: | 16.75 | 503 | 7.15 | 0.39 | -97.6 | 9.50 |
| 13 3 Minutes: | 16.76 | 496 | 7.15 | 0.33 | -97.0 | 9.50 |
| 16 6 Minutes: | 16.76 | 494 | 7.15 | 0.32 | -97.3 | 9.50 |
| 19 9 Minutes: | | | | | | |
| 22 12 Minutes: | | | | | | |
| 25 15 Minutes: | | | | | | |
| 28 18 Minutes: | | | | | | |
| 31 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 2:17 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 10/25/05 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | MW-16 | | |
| Inner Casing diameter: | 2 inches | Casing Material: | PVC |

Weather Conditions: RAIN

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.85 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1:25 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1.6 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1:25 Initial: | 15.83 | 1231 | 6.98 | 3.65 | -25 | 7.85 |
| 1:33 3 Minutes: | 17.50 | 1336 | 7.14 | 0.81 | 29.4 | 10.80 |
| 6 Minutes: | Dry @ 1:40 | | | | | |
| 9 Minutes: | Well left recharge 1.5 gal | | | | | |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 3:45 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: 12/7/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: SG-181 | | | |
| Inner Casing diameter: | inches | Casing Material: SS ~~PVC~~ | |

Weather Conditions: Cloudy
Total Depth of Well (from top inner casing): 15 feet
Depth to Water (DTW) (from top inner casing): NM feet
Well Screened Interval: 11-15 feet
Linear feet of water in well: –
Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no
Thickness of floating product (if any): ~~None~~ feet Time:
Description of floating product: ~~None~~

Purge Method: Peristaltic pump
Purge Start Time: 8:16 Purge End Time: 8:25 Purge Rate (gals/minute):
Total Volume Purged: 0.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 8:19 Initial: | 12.07 | 837 | 6.99 | 1.15 | -106.7 | – |
| 22 3 Minutes: | 12.14 | 536 | 6.98 | 1.11 | -101.8 | – |
| 25 6 Minutes: | 12.23 | 834 | 6.98 | 1.00 | -106.8 | – |
| 9 Minutes: | | | | | | |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 8:26 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 7/7/10 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: SB-18S | | | |
| Inner Casing diameter: | inches | Casing Material: ~~PVC~~ S | |

Weather Conditions: cloudy
Total Depth of Well (from top inner casing): 15 feet
Depth to Water (DTW) (from top inner casing): NM feet
Well Screened Interval: 11-15 feet
Linear feet of water in well:
Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no
Thickness of floating product (if any): ~~None~~ feet Time:
Description of floating product: ~~None~~

Purge Method: Peristaltic pump
Purge Start Time: 8:45 Purge End Time 8:59 Purge Rate (gals/minute):
Total Volume Purged: 0.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 8:53 Initial: | 11.40 | 729 | 6.98 | 0.59 | -50.2 | - |
| 56 3 Minutes: | 11.34 | 728 | 6.97 | 0.57 | -51.1 | - |
| 59 6 Minutes: | 11.28 | 728 | 6.97 | 0.56 | -51.3 | - |
| 9 Minutes: | | | | | | |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 9:00 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 12/7/16 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: SG-153 | | | |
| Inner Casing diameter: | inches | Casing Material: SS ~~PVC~~ | |

Weather Conditions: cloudy
Total Depth of Well (from top inner casing): 15 feet
Depth to Water (DTW) (from top inner casing): NM feet
Well Screened Interval: 11-15 feet
Linear feet of water in well:
Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no
Thickness of floating product (if any): ~~None~~ feet Time:
Description of floating product: ~~None~~

Purge Method: Peristaltic pump
Purge Start Time: 9:17 Purge End Time: 9:22 Purge Rate (gals/minute): 0.25
Total Volume Purged: gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 9:16 Initial: | 7.56 | 447 | 7.13 | 6.63 | -41.8 | — |
| 3 Minutes: | 7.53 | 445 | 7.26 | 10.66 | -36.3 | |
| 6 Minutes: | [illegible] | [illegible] | [illegible] | | | |
| 9 Minutes: | | | | | | |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | — | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 9:30 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:
Slow purging - well not going dry, RH water coming in very slow

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 12/7/17 | | Sampler: | Bryan J. Machella |
| Project/Site: SGPP - 154 | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | | | |
| Inner Casing diameter: | inches | Casing Material: | SS ~~PVC~~ |

Weather Conditions: Cloudy - cold
Total Depth of Well (from top inner casing): 15 feet
Depth to Water (DTW) (from top inner casing): NM feet
Well Screened Interval: 11-15 feet
Linear feet of water in well:
Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no
Thickness of floating product (if any): ~~None~~ feet Time:
Description of floating product: ~~None~~

Purge Method: Peristaltic pump
Purge Start Time: 2 Purge End Time: — Purge Rate (gals/minute):
Total Volume Purged: 2 gallons

Dons Basement Walkouts w/ DEP / DOH No Field readings collected

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| Initial: | | | | | | |
| 3 Minutes: | | | | | | |
| 6 Minutes: | | | | | | |
| 9 Minutes: | | | | | | |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | — | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:
Very silty even after purging

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | |
|---|---|
| Date: 12/7/15 | Sampler: Bryan J. Machella |
| Project/Site: SGPP - Watervliet | Location: Watervliet, New York |
| Well ID: SB-15 | |
| Inner Casing diameter: inches | Casing Material: SS ~~PVC~~ |

Weather Conditions: cloudy

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): NM feet

Well Screened Interval: 11-15 feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): ~~None~~ feet Time:

Description of floating product: ~~None~~

Purge Method: Peristaltic pump

Purge Start Time: Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: gallons

Doing basement walkover w/ BEP/BCP No field reading collected

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| Initial: | | | | | | |
| 3 Minutes: | | | | | | |
| 6 Minutes: | | | | | | |
| 9 Minutes: | | | | | | |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

1

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

Pure = 2 gal - clear

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 12/7/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: SS-188 | | | |
| Inner Casing diameter: | inches | Casing Material: SS ~~PVC~~ | |

Weather Conditions: cloudy
Total Depth of Well (from top inner casing): 15 feet
Depth to Water (DTW) (from top inner casing): NM feet
Well Screened Interval: 11-15 feet
Linear feet of water in well:
Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no
Thickness of floating product (if any): ~~None~~ feet Time:
Description of floating product: ~~None~~

Purge Method: Peristaltic pump
Purge Start Time: 2:36 Purge End Time: 2:41 Purge Rate (gals/minute): ~~0~~
Total Volume Purged: 0.25 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 2:39 Initial: | 9.47 | 720 | 7.07 | 0.19 | -68.1 | — |
| 2:43 3 Minutes: | 9.22 | 704 | 7.03 | 0.16 | -64.3 | — |
| 2:46 6 Minutes: | 8.99 | 704 | 7.04 | 0.15 | -65.3 | — |
| 9 Minutes: | | | | | | |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 2:47 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:
Very little water

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 12/7/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: SB-190 | | | |
| Inner Casing diameter: | inches | Casing Material: SS ~~PVC~~ | |

Weather Conditions: cloudy
Total Depth of Well (from top inner casing): 15 feet
Depth to Water (DTW) (from top inner casing): NM feet
Well Screened Interval: 11-15 feet
Linear feet of water in well:
Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no
Thickness of floating product (if any): ~~None~~ feet Time:
Description of floating product: ~~None~~

Purge Method: Peristaltic pump
Purge Start Time: 11:25 Purge End Time: 11:36 Purge Rate (gals/minute):
Total Volume Purged: 0.25 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 11:30 Initial: | 11.35 | 618 | 7.63 | 0.28 | -115 | - |
| 33 3 Minutes: | 11.56 | 615 | 7.56 | 0.27 | -111.2 | - |
| 36 6 Minutes: | 11.56 | 615 | 7.55 | 0.27 | -110.8 | - |
| 9 Minutes: | | | | | | |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 11:37 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 12/7/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: SB-19 I | | | |
| Inner Casing diameter: | inches | Casing Material: SS ~~PVC~~ | |

Weather Conditions: Cloudy - cold
Total Depth of Well (from top inner casing): 15 feet
Depth to Water (DTW) (from top inner casing): NM feet
Well Screened Interval: 11-15 feet
Linear feet of water in well:
Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no
Thickness of floating product (if any): None feet Time:
Description of floating product: None

Purge Method: Peristaltic pump
Purge Start Time: 12:59 Purge End Time: Purge Rate (gals/minute):
Total Volume Purged: 0.25 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1:03 Initial: | 9.91 | 743 | 7.28 | 0.09 | -91.6 | - |
| 3 Minutes: | Dry @ 1:05 | | | | | |
| 6 Minutes: | | | | | | |
| 9 Minutes: | | | | | | |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 1300 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:
SB-20(dup) = Dup

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 12/1/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: SS-193 | | | |
| Inner Casing diameter: | inches | Casing Material: SS ~~PVC~~ | |

Weather Conditions:

Total Depth of Well (from top inner casing): 15 feet

Depth to Water (DTW) (from top inner casing): NM feet

Well Screened Interval: 11-15 (Geoprobe Sampler) feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): ~~None~~ feet Time:

Description of floating product: ~~None~~

Purge Method: Peristaltic pump

Purge Start Time: Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 0.25 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| Initial: | | | | | | |
| 3 Minutes: | | | | | | |
| 6 Minutes: | | | | | | |
| 9 Minutes: | | | | | | |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

well went Dry - No readings! Let recharge + Sampled

Sampling Method: Low Flow

Sampling Start Time: 12:37 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 12/7/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: SB-19Y | | | |
| Inner Casing diameter: | inches | Casing Material: ~~SS~~ PVC | |

Weather Conditions: cloudy
Total Depth of Well (from top inner casing): 15 feet
Depth to Water (DTW) (from top inner casing): NM feet
Well Screened Interval: 11-15 feet
Linear feet of water in well:
Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no
Thickness of floating product (if any): ~~None~~ feet Time:
Description of floating product: ~~None~~

Purge Method: Peristaltic pump
Purge Start Time: 11:48 Purge End Time: 12:09 Purge Rate (gals/minute):
Total Volume Purged: 05 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 12:03 Initial: | 10.92 | 562 | 7.40 | 0.20 | -85.6 | — |
| 06 3 Minutes: | 11.41 | 570 | 7.31 | 0.18 | -87.1 | — |
| 09 6 Minutes: | 11.50 | 570 | 7.31 | 0.17 | -87.3 | — |
| 9 Minutes: | | | | | | |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 12:10 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 12/7/05 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: SRS-196 | | | |
| Inner Casing diameter: | 1 inches | Casing Material: SS ~~PVC~~ | |

Weather Conditions: Cloudy - cold
Total Depth of Well (from top inner casing): 15 feet
Depth to Water (DTW) (from top inner casing): NM feet
Well Screened Interval: 11-15 (Geoprobe screen sampler) feet
Linear feet of water in well:
Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no
Thickness of floating product (if any): ~~None~~ NM feet Time:
Description of floating product: ~~None~~ NM

Purge Method: Peristaltic pump
Purge Start Time: 3:41 Purge End Time: 4:08 Purge Rate (gals/minute):
Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 4:02 Initial: | 9.11 | 640 | 7.42 | 0.37 | 9 | — |
| 4:05 3 Minutes: | 8.90 | 642 | 7.41 | 0.38 | 1.4 | — |
| 4:08 6 Minutes: | 8.58 | 642 | 7.41 | 0.38 | 1.0 | — |
| 9 Minutes: | | | | | | |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 4:12 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments: Ernest's ERS

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 1/23/06 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | SB-18 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| Initial: | 10.70 | 792 | 7.13 | 0.38 | -30.4 | — |
| 3 Minutes: | 10.65 | 791 | 7.07 | 0.32 | -32 | — |
| 6 Minutes: | 10.65 | 790 | 7.06 | 0.31 | -30 | — |
| 9 Minutes: | | | | | | |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized [redacted] in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 1/23/06 | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: | SB-19 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): feet

Well Screened Interval: 5-15 feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 10:17 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 10:30 Initial: | 7.91 | 564 | 7.69 | 10.84 | 105.1 | — |
| 3 Minutes: | 8.02 | 562 | 7.65 | 10.82 | 103.1 | — |
| 6 Minutes: | 8.10 | 560 | 7.66 | 10.81 | 103.1 | — |
| 9 Minutes: | | | | | | |
| 12 Minutes: | | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 10:40 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized [redacted] in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 2/16 | | Sampler: ~~Bryan J. Machella~~ RB | |
| Project/Site: | SGPP ~~New Haven~~ | Location: ~~New Haven, CT~~ | |
| Well ID: MP-1 | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.01 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 0850 Purge End Time: 0927 Purge Rate (gals/minute):

Total Volume Purged: ~2 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 0905 Initial: | 9.17 | 418 | 6.83 | 0.26 | -73.8 | 9.09 |
| 08 Minutes: | 9.22 | 418 | 6.79 | 0.19 | -70.1 | |
| 11 6 Minutes: | 9.39 | 425 | 6.75 | 0.16 | -78.9 | 9.11 |
| 14 9 Minutes: | 9.58 | 423 | 6.74 | 0.22 | -79.7 | 9.13 |
| 17 12 Minutes: | 9.68 | 432 | 6.73 | 0.19 | -83.2 | 9.14 |
| 20 15 Minutes: | 9.91 | 440 | 6.73 | 0.15 | -86.9 | 9.15 |
| 23 18 Minutes: | 9.96 | 458 | 6.73 | 0.13 | -88.4 | |
| 26 21 Minutes: | 9.97 | 456 | 6.73 | 0.13 | -89.1 | 9.15 ✓ |
| 29 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 0927 ✓ Sampling End Time: 0930 ✓

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

MP-1A: Dup

DC-7: 7.93

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 2/14/06 | Sampler: | BJM |
| Project/Site: | SGPP, Wayne | Location: | Wayne, New Jersey |
| Well ID: | MP-5 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

PID/FID reading from well: ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.91 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1515 Purge End Time: 1549 Purge Rate (gals/minute):

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1530 Initial: | 7.93 | 764 | 6.59 | 0.84 | -27.6 | 8.91 |
| 3 3 Minutes: | 7.91 | 810 | 6.59 | 0.76 | -32.0 | 8.92 |
| 3 6 Minutes: | 8.07 | 838 | 6.60 | 0.67 | -37.0 | 8.92 |
| 3 9 Minutes: | 8.21 | 857 | 6.60 | 0.56 | -42.7 | 8.92 |
| 4 12 Minutes: | 8.27 | 870 | 6.60 | 0.50 | -45.3 | 8.92 |
| 4 15 Minutes: | 8.40 | 881 | 6.61 | 0.50 | -48.2 | 8.92 |
| 4 18 Minutes: | 8.40 | 889 | 6.61 | 0.48 | -48.5 | 8.92 ✓ |
| 5 21 Minutes: | | | | | | |
| 5 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1549 Sampling End Time: 1550

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:

MP-15: 7.81 MP-16: 7.35

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 2/14/06 | | Sampler: ~~Bryan J. Machella~~ RB | |
| Project/Site: ~~AGIP, Wayne~~ | | Location: ~~Wayne, New Jersey~~ | |
| Well ID: MP-6 | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

PID/FID reading from well: ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.02 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1250 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 2 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1305 Initial: | 8.01 | 522 | 6.51 | 0.51 | -42.1 | 8.02 |
| 08 Minutes: | 8.81 | 549 | 6.51 | 0.41 | -48.2 | 8.02 |
| 1[illegible] Minutes: | 8.69 | 555 | 6.53 | 0.41 | -51.6 | 8.02 |
| ~~14 Minutes~~: | | | | | | |
| RESTART 1405 ~~112 Minutes~~: | | | | | | |
| 1410 ~~19 Minutes~~: | 8.01 | 604 | 6.59 | 1.14 | -46.3 | 8.01 |
| 1414 ~~15 Minutes~~: | 8.19 | 603 | 6.58 | 0.79 | -50.7 | 8.03 |
| 1417 ~~18~~ Minutes: | 8.14 | 611 | 6.57 | 0.58 | -51.9 | 8.03 |
| 20 Minutes: | 8.28 | 609 | 6.57 | 0.50 | -54.2 | 8.03 |
| 23 Minutes: | 8.18 | 612 | 6.57 | 0.52 | -56.0 | 8.03 |
| 26 Minutes: | 8.20 | 612 | 6.58 | 0.50 | -57.9 | 8.03 |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

30 mins

STOPPED

21

Sampling Method: Low Flow

Sampling Start Time: 1427 Sampling End Time: 1429 ✓

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:

STOPPED PURGE @ 1320 ⇒ 1405

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 2/14/06 | Sampler: | RG Bryan J. Machella |
| Project/Site: | SGRP, Wayne | Location: | ~~Wayne, New Jersey~~ |
| Well ID: | MP-7 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

PID/FID reading from well: ppm

Total Depth of Well (from top inner casing): 7.70 feet

Depth to Water (DTW) (from top inner casing): feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1430 Purge End Time: 1507 Purge Rate (gals/minute):

Total Volume Purged: 2.25 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1445 Initial: | 7.95 | 367 | 6.57 | 0.29 | 51.3 | 7.71 |
| 48 Minutes: | 7.95 | 372 | 6.58 | 0.29 | 49.4 | 7.71 |
| 51 Minutes: | 7.73 | 398 | 6.64 | 0.28 | 35.6 | 7.71 |
| 54 Minutes: | 7.67 | 418 | 6.69 | 0.27 | 22.0 | 7.71 |
| 57 12 Minutes: | 7.46 | 437 | 6.73 | 0.27 | 12.6 | 7.73 |
| 1500 15 Minutes: | 7.31 | 450 | 6.77 | 0.26 | 4.8 | 7.71 |
| 1503 18 Minutes: | 7.38 | 466 | 6.82 | 0.26 | -1.4 | 7.72 |
| 06 21 Minutes: | 7.40 | 472 | 6.82 | 0.26 | -2.0 | 7.72 |
| 09 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1307 Sampling End Time: 1309

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):
Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments: Adjusted purge @ 1450

MP-13: 7.78 MP-20: 7.81 MP-21: 8.17

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 2/16 | Sampler: | Bryan J. Machella |
| Project/Site: | ~~SGPP, Wayne~~ | Location: | ~~Wayne, New Jersey~~ |
| Well ID: | MW-10 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

PID/FID reading from well: ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.14 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1050 Purge End Time: 1121 Purge Rate (gals/minute):

Total Volume Purged: 1.75 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1105 Initial: | 14.64 | 810 | 6.71 | 0.41 | -81.6 | 9.18 |
| 08 Minutes: | 14.61 | 815 | 6.74 | 0.38 | -85.2 | 9.21 |
| 1114 6 Minutes: | 14.72 | 813 | 6.75 | 0.34 | -88.2 | 9.21 |
| 1114 9 Minutes: | 14.79 | 812 | 6.76 | 0.33 | -89.8 | |
| 1117 12 Minutes: | 14.79 | 812 | 6.77 | 0.33 | -93.4 | 9.21 |
| 1120 15 Minutes: | 14.80 | 812 | 6.77 | 0.33 | -94.0 | 9.22 |
| 1123 18 Minutes: | | | | | | |
| 1126 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1120 Sampling End Time: 1122

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):
Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 2/16 | Sampler: | BJM |
| Project/Site: | SGPP, Wayne | Location: | Wayne, New Jersey |
| Well ID: | MW-11 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

PID/FID reading from well: ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.77 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1125 Purge End Time: 1205 Purge Rate (gals/minute):

Total Volume Purged: 2.25 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1146 Initial: | 13.91 | 785 | 6.35 | 2.91 | -30.6 | 10.00 |
| 4 3 Minutes: | 13.91 | 783 | 6.36 | 2.97 | -30.6 | 10.04 |
| 4 6 Minutes: | 13.99 | 777 | 6.35 | 2.87 | -28.3 | 10.05 |
| 4 9 Minutes: | 14.00 | 765 | 6.33 | 2.71 | -26.9 | 10.08 |
| 5 12 Minutes: | 14.00 | 751 | 6.32 | 2.50 | -24.6 | 10.08 |
| 5 15 Minutes: | 14.06 | 733 | 6.31 | 2.38 | -20.0 | 10.08 |
| 5 18 Minutes: | 14.06 | 715 | 6.30 | 2.26 | -16.7 | 10.10 |
| 120 21 Minutes: | 14.04 | 703 | 6.30 | 2.38 | -16.2 | |
| 120 24 Minutes: | 14.06 | 709 | 6.30 | 2.38 | -13.5 | 10.10 |
| 120 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1205 Sampling End Time: 1207

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):
Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

2/16/06

| | | | |
|---|---|---|---|
| Date: | | Sampler: ~~Bryan J. Machella~~ RB | |
| Project/Site: MP-12 | ~~SGPP, Wayne~~ | Location: ~~Wayne, New Jersey~~ | |
| Well ID: | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

PID/FID reading from well: ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.16 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1225 Purge End Time: 1259 Purge Rate (gals/minute):

Total Volume Purged: ~1.75 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1240 Initial: | 13.09 | 965 | 6.66 | 0.40 | -63.6 | 9.17 |
| 4 3 Minutes: | 13.10 | 954 | 6.68 | 0.37 | -64.0 | 9.17 |
| 4 6 Minutes: | 13.08 | 943 | 6.69 | 0.37 | -64.6 | 9.19 |
| 4 9 Minutes: | 13.18 | 933 | 6.70 | 0.36 | -65.6 | |
| 5 12 Minutes: | 13.18 | 927 | 6.71 | 0.35 | -65.8 | 9.19 |
| 5 15 Minutes: | 13.20 | 923 | 6.72 | 0.35 | -66.1 | |
| 5 18 Minutes: | 13.19 | 920 | 6.72 | 0.35 | -66.6 | 9.20 |
| 1301 Minutes: | | | | | | |
| 1304 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1259 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:

Dup for MP-2: MSD-1 MS-2

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 2/13/06 | Sampler: | BB Bryan J. Machella |
| Project/Site: | SGPP, Wayne | Location: | ~~Wayne, New Jersey~~ |
| Well ID: | MW-12 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

PID/FID reading from well: ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.64 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1420 Purge End Time: 1503 Purge Rate (gals/minute):

Total Volume Purged: 2.75 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1435 Initial: | 11.13 | 628 | 7.09 | 1.46 | 22.4 | 9.72 |
| 38 3 Minutes: | 11.21 | 622 | 7.07 | 1.70 | 10.8 | |
| 41 6 Minutes: | 11.12 | 606 | 7.06 | 3.20 | 21.8 | 9.74 |
| 44 9 Minutes: | 11.13 | 601 | 7.04 | 3.00 | 12.6 | |
| 47 12 Minutes: | 11.08 | 593 | 7.02 | 3.68 | 14.3 | 9.77 |
| 50 15 Minutes: | 11.03 | 581 | 6.98 | 4.00 | 24.1 | |
| 53 18 Minutes: | 10.98 | 566 | 6.97 | 4.67 | 25.1 | 9.83 |
| 56 21 Minutes: | 10.95 | 563 | 6.98 | 4.79 | 25.7 | 9.83 |
| 59 24 Minutes: | 11.06 | 561 | 6.96 | 4.65 | 21.9 | 9.84 |
| 1502 27 Minutes: | 11.01 | 559 | 6.95 | 4.79 | 30.2 | 9.84 |
| 1505 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1503 Sampling End Time: 1505

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containcrized & # of containers, filtered and discharged, w/ discharge location):

~~Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.~~

- Water was not turbid

Comments:

DC-9 : 10.77 @ DC-10 : 9.36

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 2/15/06 | Sampler: | BB Bryan J. Machella |
| Project/Site: | ~~SGPP~~, Wayne | Location: | ~~Wayne, New Jersey~~ |
| Well ID: | MW-16 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

PID/FID reading from well: ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.71 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1345 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: N/A gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1400 Initial: | 10.95 | 1093 | 7.32 | 4.32 | 111.2 | 11.58 |
| 1403 Minutes: | 11.02 | 1092 | 7.32 | 4.13 | 114.4 | 12.57 |
| 06 Minutes: | 11.06 | 1094 | 7.32 | 4.00 | 115.6 | 13.23 |
| 1409 Minutes: | 11.13 | 1094 | 7.32 | 4.01 | 118.0 | |
| 1412 Minutes: | | | | | | |
| 1415 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1310 Sampling End Time:

2/16

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:

Purge Dry @ 1409 —— MW-13: 5.95

attempted to sample 1530, not enough water

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 2/14 | | Sampler: Bryan T. Machella RB | |
| Project/Site: ~~SGPP~~ - New Haven | | Location: ~~New Haven, CT~~ | |
| Well ID: MP-17 | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.42 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1117 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 1.75 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1130 Initial: | 10.15 | 938 | 7.09 | 0.37 | -121.4 | 8.49 |
| 1133 Minutes: | 10.04 | 942 | 6.97 | 0.34 | -121.2 | 8.49 |
| 36 Minutes: | 9.99 | 944 | 6.89 | 0.31 | -121.4 | 8.50 |
| 39 Minutes: | 9.57 | 941 | 6.85 | 0.41 | -116.0 | 8.50 |
| 42 Minutes: | 10.09 | 946 | 6.84 | 0.33 | -115.5 | 8.50 |
| 45 Minutes: | 10.01 | 949 | 6.83 | 0.32 | -117.0 | 8.50 |
| 48 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1146 Sampling End Time: 1148

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Black solids in water; dirt floor, etc.

Comments:

VP-1: — VP-2: — MP-16 7.96 MP-14: 7.96

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 2/15 | | Sampler: ~~Bryan J. Machella~~ RS | |
| Project/Site: ~~SGPP, Wayne~~ | | Location: ~~Wayne, New Jersey~~ | |
| Well ID: MP-18 | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

PID/FID reading from well: ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.42 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1045 Purge End Time: 1125 Purge Rate (gals/minute):

Total Volume Purged: 2.25 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1100 Initial: | 11.74 | 545 | 7.22 | 1.87 | 39.3 | 8.42 |
| 1103 Minutes: | 11.70 | 545 | 7.21 | 1.96 | 47.6 | 8.42 |
| 1106 Minutes: | 11.67 | 543 | 7.20 | 1.99 | 52.7 | 8.43 |
| 1109 Minutes: | 11.77 | 542 | 7.19 | 1.97 | 58.5 | 8.44 |
| 1112 Minutes: | 11.70 | 542 | 7.19 | 1.87 | 62.1 | 8.44 |
| 1115 Minutes: | 11.69 | 543 | 7.18 | 1.97 | 66.3 | 8.44 |
| 1118 Minutes: | 11.67 | 542 | 7.16 | 2.14 | 70.7 | 8.44 |
| 1121 Minutes: | 11.57 | 544 | 7.15 | 2.19 | 74.3 | 8.44 |
| 1124 Minutes: | 11.58 | 542 | 7.15 | 2.17 | 76.0 | 8.44 |
| 1127 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1125 Sampling End Time: 1127

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):
Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:



EDFAR

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 2/15 | Sampler: | ~~Bryan J. Machella~~ BB |
| Project/Site: | SGPP, Wayne | Location: | ~~Wayne, New Jersey~~ |
| Well ID: | ~~MW-18~~ MW-18 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

PID/FID reading from well: ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.14 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 0925 Purge End Time: 0958 Purge Rate (gals/minute):

Total Volume Purged: 2.0 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 0940 Initial: | 8.84 | 685 | 7.04 | 0.39 | -77.9 | - |
| 4 3 Minutes: | 9.06 | 688 | 7.03 | 0.34 | -79.6 | 7.17 |
| 4 6 Minutes: | 8.37 | 6704 | 7.02 | 0.30 | -81.5 | 7.17 |
| 4 9 Minutes: | 8.42 | 700 | 7.02 | 0.30 | -81.5 | 7.17 |
| 5 2 Minutes: | 9.12 | 694 | 7.01 | 0.28 | -82.5 | 7.18 |
| 5 5 Minutes: | 9.25 | 701 | 7.01 | 0.28 | -83.8 | 7.18 |
| 5 8 Minutes: | 9.20 | 707 | 7.01 | 0.28 | -84.7 | 7.18 |
| 1001 Minutes: | | | | | | |
| 1004 Minutes: | | | | | | |
| 1007 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 0957 Sampling End Time: 1000

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 2/15/06 | Sampler: | ~~Bryan J. Machella~~ RB |
| Project/Site: | SGPP, Wayne | Location: | ~~Wayne, New Jersey~~ |
| Well ID: | MP-19 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

PID/FID reading from well: ppm

Total Depth of Well (from top inner casing): 7.98 feet

Depth to Water (DTW) (from top inner casing): feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 0840 Purge End Time: 0917 Purge Rate (gals/minute):

Total Volume Purged: 2.0 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 0855 Initial: | 9.02 | 839 | 7.03 | 4.38 | 99.1 | 7.99 |
| 58 Minutes: | 9.03 | 823 | 7.02 | 3.52 | 64.8 | 8.01 |
| 0901 Minutes: | 8.81 | 816 | 7.02 | 2.92 | 44.7 | 8.01 |
| 904 Minutes: | 8.84 | 809 | 7.01 | 2.93 | 43.8 | 8.01 |
| 907 Minutes: | 8.85 | 790 | 7.01 | 2.37 | 28.9 | 8.01 |
| 910 Minutes: | 8.91 | 771 | 7.01 | 2.09 | 23.2 | 8.01 |
| 913 Minutes: | 8.84 | 768 | 7.01 | 2.14 | 21.1 | 8.03 |
| 916 Minutes: | 8.86 | 764 | 7.00 | 2.22 | 21.2 | 8.03 |
| 919 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 0917 Sampling End Time: 0919

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Clear

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: | 2/15 | Sampler: | Bryan R. Mochella BRM |
| Project/Site: | SGPP, Wayne | Location: | Wayne, New Jersey |
| Well ID: | MW-19 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

PID/FID reading from well: ppm

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.97 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1005 Purge End Time: 1026 Purge Rate (gals/minute):

Total Volume Purged: 1.75 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1026 Initial: | 10.16 | 592 | 7.04 | 0.33 | -67.3 | 7.98 |
| 23 Minutes: | 10.09 | 592 | 7.05 | 0.30 | -70.9 | |
| 26 Minutes: | 10.24 | 589 | 7.04 | 0.30 | -72.4 | 7.98 |
| 29 Minutes: | 10.19 | 590 | 7.05 | 0.27 | -74.2 | 8.00 |
| 32 Minutes: | 10.30 | 589 | 7.06 | 0.27 | -74.7 | 8.00 |
| 35 Minutes: | 10.25 | 589 | 7.05 | 0.27 | -74.4 | |
| 38 Minutes: | | | | | | |
| 41 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1036 Sampling End Time: 1038

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):
Purge water was processed through a 5-gallon carbon bucket and discharged to the surface adjacent to the well.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 2/14/06 | | Sampler: ~~Bryan J. Machella~~ RB | |
| Project/Site: ~~SGPP - New Haven~~ | | Location: New Haven, CT | |
| Well ID: MP-22 | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.23 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1025 Purge End Time: Purge Rate (gals/minute):

Total Volume Purged: 2.0 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1040 Initial: | 8.37 | 460 | 7.30 | 7.86 | 133.8 | 9.26 |
| 43 Minutes: | 8.39 | 472 | 7.20 | 7.80 | 145.0 | 9.28 |
| 46 Minutes: | 8.51? | 473 | 7.10 | 7.81 | 137.8 | 9.28 |
| 49 Minutes: | 8.42 | 475 | 7.07 | 7.73 | 146.2 | 9.28 |
| ~~52~~ Minutes: | 8.20 | 486 | 7.01 | 7.56 | 158.1 | 9.28 |
| ~~55~~ Minutes: | 8.24 | 490 | 7.01 | 7.49 | 162.1 | 9.28 |
| ~~58~~ Minutes: | 8.25 | 488 | 7.00 | 7.49 | 166.8 | 9.28 ✓ |
| 1101 Minutes: | | | | | | |
| 1104 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv ✓ | --- |

Sampling Method: Low Flow

Sampling Start Time: 1058 Sampling End Time: 1100 ✓

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

- murky

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

- Well Cap Frozen

# Forensic Environmental Services, Inc.

**Well Sampling Form**

5/2/06

| | | | |
|---|---|---|---|
| Date: | | Sampler: | Ryan Bower |
| Project/Site: | Watervliet | Location: | Watervliet, NY |
| Well ID: | MP-1 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.21 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): feet Time:

Description of floating product:

Purge Method: Peristaltic pump

Purge Start Time: 1140 Purge End Time: 1215 Purge Rate (gals/minute): 0.06 gpm

Total Volume Purged: 2.0 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1155 Initial: | 13.08 | 394 | 6.70 | 0.37 | -74.5 | 9.22 |
| 58 Minutes: | 13.05 | 401 | 6.71 | 0.36 | -76.6 | 9.23 |
| 1206 Minutes: | 13.05 | 408 | 6.73 | 0.27 | -78.2 | 9.23 |
| 1206 Minutes: | 13.09 | 416 | 6.75 | 0.25 | -79.5 | 9.23 |
| 1207 Minutes: | 13.03 | 424 | 6.76 | 0.23 | -80.4 | 9.24 |
| 1210 Minutes: | 12.96 | 427 | 6.76 | 0.23 | -80.9 | 9.24 |
| 1213 Minutes: | 12.92 | 429 | 6.76 | 0.23 | -81.6 | 9.24 |
| 1214 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1214 Sampling End Time: 1215

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

Dup MP-23 (1215)

# Forensic Environmental Services, Inc.

**Well Sampling Form**

5/2/06

| | | | |
|---|---|---|---|
| Date: | | Sampler: | Ryan Bower |
| Project/Site: | Watervliet | Location: | Watervliet, NY |
| Well ID: | MP-6 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.79 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): feet Time:

Description of floating product:

Purge Method: Peristaltic pump

Purge Start Time: 1525 Purge End Time: 1606 Purge Rate (gals/minute): 0.05 g/m

Total Volume Purged: 2.0 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1540 Initial: | 9.98 | 352 | 6.43 | 0.41 | 26.6 | 8 |
| 3 Minutes: | 9.98 | 369 | 6.44 | 0.30 | 22 | 8.01 |
| 6 Minutes: | 10.04 | 409 | 6.49 | 0.25 | 10.7 | 8.01 |
| 9 Minutes: | 10.03 | 458 | 6.52 | 0.23 | -0.9 | 8.02 |
| 12 Minutes: | 10.02 | 483 | 6.53 | 0.24 | -4.2 | 8.02 |
| 15 Minutes: | 9.99 | 501 | 6.53 | 0.23 | -8.2 | 8.02 |
| 18 Minutes: | 9.99 | 518 | 6.55 | 0.21 | -13.5 | 8.02 |
| 1601 Minutes: | 9.97 | 521 | 6.56 | 0.21 | -14.6 | 8.02 |
| 1604 Minutes: | 9.93 | 522 | 6.56 | 0.21 | -15.2 | 8.02 |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1605 Sampling End Time: 1606

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: | 5/2/06 | Sampler: | Ryan Bower |
| Project/Site: | Watervliet | Location: | Watervliet, NY |
| Well ID: | MP-10 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.07 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): feet Time:

Description of floating product:

Purge Method: Peristaltic pump

Purge Start Time: 1100 Purge End Time: 1128 Purge Rate (gals/minute): 0.08 gpm

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1115 Initial: | 14.80 | 800 | 6.80 | 0.29 | -82.4 | 9.05 |
| 1118 Minutes: | 14.83 | 798 | 6.83 | 0.36 | -85.1 | 9.08 |
| 21 Minutes: | 14.84 | 797 | 6.84 | 0.35 | -85.0 | 9.08 |
| 24 Minutes: | 14.84 | 796 | 6.85 | 0.34 | -84.7 | 9.08 |
| 27 Minutes: | 14.84 | 796 | 6.84 | 0.34 | -83.9 | 9.08 |
| 30 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1127 Sampling End Time: 1128

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

FB-1120 MP-10 MS, MSD

# Forensic Environmental Services, Inc.

**Well Sampling Form**

5/3/06

| | | | |
|---|---|---|---|
| Date: | | Sampler: | Ryan Bower |
| Project/Site: | Watervliet | Location: | Watervliet, NY |
| Well ID: | MP-14 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.92 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): feet Time:

Description of floating product:

Purge Method: Peristaltic pump

Purge Start Time: 0835 Purge End Time: 0910 Purge Rate (gals/minute): 0.06g/min

Total Volume Purged: 2.25 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 0856 Initial: | 10.38 | 2237 | 6.83 | 0.37 | -46.6 | 7.93 |
| 3 Minutes: | 10.36 | 2021 | 6.84 | 0.27 | -41.3 | 7.93 |
| 6 Minutes: | 10.36 | 1845 | 6.85 | 0.26 | -37.5 | 7.93 |
| 9 Minutes: | 10.37 | 1799 | 6.85 | 0.24 | -53.4 | 7.93 |
| 0902 Minutes: | 10.36 | 1714 | 6.85 | 0.23 | -56.4 | 7.94 |
| 05 Minutes: | 10.36 | 1670 | 6.85 | 0.23 | -57.8 | 7.93 |
| 08 Minutes: | 10.37 | 1673 | 6.86 | 0.22 | -58.7 | 7.93 |
| 0911 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 0909 Sampling End Time: 0910

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

**Well Sampling Form**

5/3/06

| | | | |
|---|---|---|---|
| Date: | | Sampler: | Ryan Bower |
| Project/Site: | Watervliet | Location: | Watervliet, NY |
| Well ID: | MP-17 (B10) | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.40 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): feet Time:

Description of floating product:

Purge Method: Peristaltic pump

Purge Start Time: 0910 Purge End Time: 0945 Purge Rate (gals/minute): 0.06 g/min

Total Volume Purged: 2.0 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 0925 Initial: | 11.16 | 887 | 6.84 | 0.23 | -85.7 | 8.40 |
| ~~25~~ Minutes: | 11.15 | 880 | 6.85 | 0.21 | -86.4 | 8.40 |
| 3~~0~~ Minutes: | 11.17 | 874 | 6.85 | 0.19 | -87.7 | 8.40 |
| 3~~6~~ Minutes: | 11.20 | 877 | 6.86 | 0.19 | -89.7 | 8.40 |
| 3~~7~~ 42 Minutes: | 11.23 | 871 | 6.85 | 0.18 | -90.2 | 8.40 |
| 4~~0~~ Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: ~~0935~~ 0938 Sampling End Time: 0945

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Very Turbid, black sediment

Comments:

Fe Test 50

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: | 5/3/06 | Sampler: | Ryan Bower |
| Project/Site: | Watervliet | Location: | Watervliet, NY |
| Well ID: | MW-18 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.28 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): feet Time:

Description of floating product:

Purge Method: Peristaltic pump

Purge Start Time: 1307 Purge End Time: 1343 Purge Rate (gals/minute): 0.06 g/min

Total Volume Purged: 2.0 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1322 Initial: | 13.43 | 571 | 7.24 | 3.36 | 53.8 | 8.29 |
| 1325 Minutes: | 13.31 | 572 | 7.20 | 3.45 | 54.8 | 8.29 |
| 28 Minutes: | 13.32 | 576 | 7.19 | 3.52 | 56.1 | 8.29 |
| 31 Minutes: | 13.44 | 566 | 7.17 | 3.59 | 57.5 | 8.29 |
| 34 32 Minutes: | 13.45 | 567 | 7.16 | 3.59 | 57.3 | 8.29 |
| 37 Minutes: | 13.47 | 564 | 7.15 | 3.72 | 59.5 | 8.29 |
| 40 38 Minutes: | 13.50 | 563 | 7.14 | 3.71 | 59.9 | 8.29 |
| 43 41 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1342 Sampling End Time: 1343

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: | 5/3/06 | Sampler: | Ryan Bower |
| Project/Site: | Watervliet | Location: | Watervliet, NY |
| Well ID: | MP-19 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.97 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): feet Time:

Description of floating product:

Purge Method: Peristaltic ~~pump~~

Purge Start Time: 0955 Purge End Time: 1031 Purge Rate (gals/minute): 0.06 gl/min

Total Volume Purged: 2.0 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1010 Initial: | 11.36 | 989 | 6.97 | 1.46 | 28.6 | 7.98 |
| 3 Minutes: | 11.37 | 999 | 6.97 | 1.44 | 27.5 | |
| 6 Minutes: | 11.35 | 1000 | 6.99 | 1.11 | 15.8 | |
| 9 Minutes: | 11.30 | 1061 | 7.00 | 0.87 | 6.5 | 7.98 |
| 12 Minutes: | 11.33 | 1078 | 7.02 | 0.87 | -2.1 | 7.98 |
| 15 Minutes: | 11.32 | 1058 | 7.03 | 0.87 | -4.8 | 7.98 |
| 18 Minutes: | 11.32 | 1036 | 7.03 | 0.88 | -7.0 | 7.98 |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low ~~Flow~~

Sampling Start Time: 1029 Sampling End Time: 1031

Field Observations (~~turbidity~~, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: | 5/2/02 | Sampler: | Ryan Bower |
| Project/Site: | Watervliet | Location: | Watervliet, NY |
| Well ID: | MP-22 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.20 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): feet Time:

Description of floating product:

Purge Method: Peristaltic pump

Purge Start Time: 1438 Purge End Time: 1510 Purge Rate (gals/minute): 0.06 g/min

Total Volume Purged: 1.75 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1453 Initial: | 10.9 | 485 | 7.12 | 8.98 | 89.2 | 9.23 |
| 5 Minutes: | 10.84 | 473 | 7.09 | 8.94 | 95.2 | 9.23 |
| 9 Minutes: | 10.87 | 467 | 7.07 | 8.91 | 100.0 | 9.23 |
| 1502 Minutes: | 10.80 | 468 | 7.06 | 8.90 | 104.1 | 9.23 |
| 1505 Minutes: | 10.81 | 464 | 7.05 | 8.87 | 109.3 | 9.23 |
| 1508 Minutes: | 10.77 | 464 | 7.05 | 8.88 | 111.9 | 9.23 |
| 1518 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1509 Sampling End Time: 1510

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: | 5/2/06 | Sampler: | Ryan Bower |
| Project/Site: | Watervliet | Location: | Watervliet, NY |
| Well ID: | MW-11 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.74 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): feet Time:

Description of floating product:

Purge Method: Peristaltic pump

Purge Start Time: 1015 Purge End Time: 1050 Purge Rate (gals/minute): 0.05 g

Total Volume Purged: 1.75 g gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1039 Initial: | 12.99 | 606 | 7.3 | 0.49 | -106.9 | 9.76 |
| 3 3 Minutes: | 12.99 | 606 | 7.3 | 0.41 | -111 | 9.76 |
| 3 6 Minutes: | 13.00 | 598 | 7.29 | 0.29 | -116.1 | 9.76 |
| 3 9 Minutes: | 13.01 | 585 | 7.26 | 0.27 | -114.2 | 9.77 |
| 4 2 Minutes: | 13.02 | 567 | 7.27 | 0.25 | -111.4 | 9.77 |
| 4 5 Minutes: | 13.01 | 551 | 7.20 | 0.23 | -109.6 | 9.77 |
| 4 8 Minutes: | 13.01 | 550 | 7.19 | 0.23 | -109.3 | 9.77 |
| 51 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1048 Sampling End Time: 1050

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

# Forensic Environmental Services, Inc.

**Well Sampling Form**

5/2/06

| | | | |
|---|---|---|---|
| Date: | | Sampler: | Ryan Bower |
| Project/Site: | Watervliet | Location: | Watervliet, NY |
| Well ID: | MW-14 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.11 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): feet Time:

Description of floating product:

Purge Method: Peristaltic pump

Purge Start Time: 1225 Purge End Time: 1300 Purge Rate (gals/minute): 0.06gal/min

Total Volume Purged: 2.0 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1246 Initial: | 11.51 | 630 | 6.54 | 0.25 | -53.8 | |
| 4 3 Minutes: | 11.48 | 631 | 6.55 | 0.24 | -55.7 | 8.42 |
| 4 6 Minutes: | 11.45 | 632 | 6.55 | 0.22 | -58.5 | 8.43 |
| 4 9 Minutes: | 11.43 | 632 | 6.54 | 0.20 | -60.6 | 8.48 |
| 5 12 Minutes: | 11.43 | 632 | 6.54 | 0.19 | -62.3 | 8.48 |
| 5 15 Minutes: | 11.42 | 633 | 6.54 | 0.19 | -63.7 | 8.48 |
| 5 18 Minutes: | 11.43 | 633 | 6.54 | 0.19 | -63.4 | 8.48 |
| 1300 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1258 Sampling End Time: 1300

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

None

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

No hints of product

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: | 5/2/06 | Sampler: | Ryan Bower |
| Project/Site: | Watervliet | Location: | Watervliet, NY |
| Well ID: | MW-16 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.77 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): feet Time:

Description of floating product:

Purge Method: Peristaltic pump

Purge Start Time: 1308 Purge End Time: 1322 Purge Rate (gals/minute): 0.02 gl/min

Total Volume Purged: 0.25 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1313 Initial: | 12.80 | 1041 | 7.10 | 1.84 | -72.5 | 8.58 |
| 16 Minutes: | 12.68 | 1085 | 7.23 | 1.61 | -71.7 | 8.58 |
| 19 Minutes: | 12.61 | 1032 | 7.29 | 1.55 | -52.2 | 8.99 |
| 22 Minutes: | — | | | | | |
| 25 Minutes: | — | | | | | |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1405 Sampling End Time: 1406

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Weak Flow

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

Min 3 readings - left @ 1322 - sample 1405

# Forensic Environmental Services, Inc.

**Well Sampling Form**

8/3/06

| | | | |
|---|---|---|---|
| Date: | | Sampler: | Ryan Bower |
| Project/Site: | Watervliet | Location: | Watervliet, NY |
| Well ID: | MW-18 | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.11 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): feet Time:

Description of floating product:

Purge Method: Peristaltic pump

Purge Start Time: 1130 Purge End Time: 1205 Purge Rate (gals/minute): 0.05

Total Volume Purged: 1.75 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1145 Initial: | 12.01 | 782 | 7.02 | 0.21 | -82.1 | 7.11 |
| 48 Minutes: | 12.00 | 783 | 7.03 | 0.27 | -82.7 | 7.11 |
| 56 Minutes: | 11.92 | 784 | 7.01 | 0.24 | -83.2 | 7.11 |
| 59 Minutes: | 11.80 | 784 | 7.04 | 0.22 | -83.4 | 7.11 |
| 512 Minutes: | 11.72 | 785 | 7.02 | 0.21 | -83.7 | 7.11 |
| 1200 Minutes: | 11.62 | 786 | 7.02 | 0.19 | -83.8 | 7.11 |
| 1203 Minutes: | 11.59 | 785 | 7.02 | 0.18 | -83.7 | 7.11 |
| 1206 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 1204 Sampling End Time: 1205

Field Observations (~~turbidity~~, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

FB 1138

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: | MW-19 (Bio) | Sampler: | Ryan Bower |
| Project/Site: | Watervliet | Location: | Watervliet, NY |
| Well ID: | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.95 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): feet Time:

Description of floating product:

Purge Method: Peristaltic pump

Purge Start Time: 1043 Purge End Time: 1125 Purge Rate (gals/minute): 0.05 g/min

Total Volume Purged: 2.0 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1058 Initial: | 11.36 | 660 | 7.16 | 0.44 | -41.2 | 7.97 |
| 1103 Minutes: | 11.28 | 653 | 7.10 | 0.38 | -45.9 | 7.97 |
| 04 Minutes: | 11.29 | 649 | 7.16 | 0.35 | -48.8 | 7.97 |
| 07 Minutes: | 11.32 | 647 | 7.16 | 0.36 | -49.8 | 7.97 |
| 10 Minutes: | 11.27 | 646 | 7.14 | 0.32 | -52.3 | 7.97 |
| 13 Minutes: | 11.28 | 646 | 7.12 | 0.31 | -53.0 | 7.97 |
| 16 Minutes: | 11.26 | 646 | 7.11 | 0.31 | -53.3 | 7.97 |
| 19 Minutes: | | | | | | |
| 22 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: ~~Low Flow~~

Sampling Start Time: 1117 Sampling End Time: 1125

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Comments:

Fe Test = >5 - <10

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: 8/22/06 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-6 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.33 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 9:00 Purge End Time: 9:20 Purge Rate (gals/minute): 1/20 = 0.05

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 9:08 Initial: | 14.52 | 715 | 6.66 | 0.53 | -60.3 | 8.46 |
| :11 3 Minutes: | 14.46 | 710 | 6.64 | 0.49 | -59.4 | 8.46 |
| 14 6 Minutes: | 14.43 | 704 | 6.63 | 0.45 | -58.6 | 8.46 |
| 17 9 Minutes: | 14.49 | 699 | 6.62 | 0.42 | -58.9 | 8.46 |
| 20 12 Minutes: | 14.49 | 699 | 6.62 | 0.41 | -58.8 | 8.46 |
| 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 9:21 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 8/2/06 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-10 | | | |
| Inner Casing diameter: 1.5 in | inches | Casing Material: (PVC) | |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.41 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 2:39 Purge End Time: 3:07 Purge Rate (gals/minute): 2/48 = 0.04

Total Volume Purged: 2 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 2:41 Initial: | 17.96 | 867 | 6.73 | 0.36 | -60.6 | 9.52 |
| 2:44 3 Minutes: | 17.97 | 868 | 6.73 | 0.35 | -60.4 | 9.52 |
| 2:47 6 Minutes: | 17.96 | 868 | 6.73 | 0.35 | -60.0 | 9.52 |
| 2:50 9 Minutes: | | | | | | |
| 2:53 12 Minutes: | | | | | | |
| 2:56 15 Minutes: | | | | | | |
| 2:59 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | -- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 3:10 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

MS/MSD collected

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: 8/22/06 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-14 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions: SUNNY - 76-80

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.25 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes (no)

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 8:17 Purge End Time: 8:49 Purge Rate (gals/minute): 1.5/32 = 0.05

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 8:40 Initial: | 16.08 | 957 | 6.69 | 0.44 | -51.7 | 8.31 |
| 43 3 Minutes: | 16.03 | 939 | 6.69 | 0.41 | -53.8 | 8.31 |
| 46 6 Minutes: | 16.01 | 934 | 6.69 | 0.41 | -54.6 | 8.31 |
| 49 9 Minutes: | 16.01 | 934 | 6.69 | 0.41 | -54.6 | 8.31 |
| 52 12 Minutes: | | | | | | |
| 55 15 Minutes: | | | | | | |
| 58 18 Minutes: | | | | | | |
| 4 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 8:50 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

~~Containerized on site in 55-gallon drum.~~

Comments:

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: 8/24/06 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-18 | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.01 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? yes no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 5:04 Purge End Time: 5:39 Purge Rate (gals/minute): 1.5/35 = 0.04

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 5:24 Initial: | 18.54 | 485 | 7.13 | 0.83 | 154.6 | 9.05 |
| 27 3 Minutes: | 18.49 | 482 | 7.11 | 0.93 | 154.d | 9.05 |
| 30 6 Minutes: | 18.50 | 477 | 7.08 | 1.14 | 152.6 | 9.05 |
| 33 9 Minutes: | 18.51 | 473 | 7.05 | 1.31 | 151.3 | 9.05 |
| 36 12 Minutes: | 18.51 | 472 | 7.04 | 1.38 | 150.9 | 9.05 |
| 39 15 Minutes: | 18.51 | 472 | 7.05 | 1.39 | 150.7 | 9.05 |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 5:40 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: 8/24/06 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MP-72 | | | |
| Inner Casing diameter: | 1.5 inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 9.32 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 4:33 Purge End Time: 4:54 Purge Rate (gals/minute): 1/2 to 0.05

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 4:48 Initial: | 18.72 | 639 | 6.74 | 3.95 | 155.3 | 9.33 |
| 51 3 Minutes: | 18.52 | 641 | 6.74 | 3.94 | 154.1 | 9.33 |
| 54 6 Minutes: | 18.80 | 641 | 6.76 | 3.94 | 154.1 | 9.33 |
| 57 9 Minutes: | | | | | | |
| 00 12 Minutes: | | | | | | |
| 03 15 Minutes: | | | | | | |
| 06 18 Minutes: | | | | | | |
| 09 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 4:57 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

~~Containerized~~ on site in 55-gallon drum.

Comments:

MP-50 = Dup of MP-72

05:00

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: 8/21/06 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MW-12 | | | |
| Inner Casing diameter: | 2 inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.82 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 1:50 Purge End Time: 2:30 Purge Rate (gals/minute): 2/40: 0.05

Total Volume Purged: 2 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 2:06 Initial: | 20.62 | 641 | 7.04 | 1.27 | 226.3 | 9.90 |
| 09 3 Minutes: | 20.85 | 623 | 7.03 | 1.83 | 224.5 | 9.97 |
| 12 6 Minutes: | 20.79 | 609 | 7.00 | 2.27 | 223.5 | 10.02 |
| 15 9 Minutes: | 20.86 | 598 | 6.98 | 2.55 | 222.9 | 10.05 |
| 18 12 Minutes: | 20.80 | 593 | 6.97 | 2.67 | 222.6 | 10.07 |
| 21 15 Minutes: | 20.67 | 574 | 6.94 | 2.87 | 217.9 | 10.10 |
| 24 18 Minutes: | 20.61 | 572 | 6.94 | 3.01 | 212.3 | 10.13 |
| 27 21 Minutes: | 20.67 | 566 | 6.94 | 3.09 | 208.3 | 10.15 |
| 30 24 Minutes: | 20.64 | 564 | 6.94 | 3.06 | 207.7 | 10.17 |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 2:31 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

**Well Sampling Form**

| | | | |
|---|---|---|---|
| Date: 8/2/06 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MW-16 | | | |
| Inner Casing diameter: | 2 inches | Casing Material: | PVC |

Weather Conditions: SUNNY - 80's
Total Depth of Well (from top inner casing): feet
Depth to Water (DTW) (from top inner casing): 8.55 feet
Well Screened Interval: feet
Linear feet of water in well:
Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no
Thickness of floating product (if any): None feet Time:
Description of floating product: None

Purge Method: Peristaltic pump
Purge Start Time: 1:08 Purge End Time: 1:32 Purge Rate (gals/minute): 1/24 = 0.04
Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 1:12 Initial: | 22.05 | 1322 | 7.69 | 0.90 | 212.7 | 9.85 |
| 1:22 3 Minutes: | 22.29 | 1152 | 7.37 | 0.74 | 217.4 | 11.98 |
| :25 6 Minutes: | 22.24 | 1108 | 7.34 | 1.25 | 218.2 | 12.74 |
| :28 9 Minutes: | 22.32 | 1087 | 7.30 | 1.75 | 219.0 | 13.42 |
| :31 12 Minutes: | 22.35 | 1081 | 7.28 | 2.01 | 220.0 | 13.95 |
| :34 15 Minutes: | Dry @ | 1:32 | 1 gal | | | |
| :37 18 Minutes: | Well let | recharge | + sample | | | |
| :41 21 Minutes: | | | | | | |
| :43 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow
Sampling Start Time: 4:05 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments: Slightly silty when sampling

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 8/04/06 | | Sampler: Bryan J. Machella | |
| Project/Site: | SGPP - Watervliet | Location: Watervliet, New York | |
| Well ID: MW-18 | | | |
| Inner Casing diameter: 2 | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 7.37 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 10:05 Purge End Time: 10:23 Purge Rate (gals/minute): 1/18 = 0.06

Total Volume Purged: 1 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 10:17 Initial: | 17.82 | 719 | 6.89 | 0.56 | -73.3 | 7.39 |
| 20 3 Minutes: | 17.97 | 719 | 6.89 | 0.53 | -74.3 | 7.39 |
| 23 6 Minutes: | 18.00 | 719 | 6.89 | 0.53 | -74.5 | 7.39 |
| 26 9 Minutes: | | | | | | |
| 29 12 Minutes: | | | | | | |
| 32 15 Minutes: | | | | | | |
| 35 18 Minutes: | | | | | | |
| 38 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 10:25 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

Containerized on site in 55-gallon drum.

Comments:

# Forensic Environmental Services, Inc.

## Well Sampling Form

| | | | |
|---|---|---|---|
| Date: 3/22/16 | | Sampler: | Bryan J. Machella |
| Project/Site: | SGPP - Watervliet | Location: | Watervliet, New York |
| Well ID: MW-19 | | | |
| Inner Casing diameter: | inches | Casing Material: | PVC |

Weather Conditions:

Total Depth of Well (from top inner casing): feet

Depth to Water (DTW) (from top inner casing): 8.20 feet

Well Screened Interval: feet

Linear feet of water in well:

Is DTW included in a complete round of pre-sampling synoptic water level measurements? (yes) no

Thickness of floating product (if any): None feet Time:

Description of floating product: None

Purge Method: Peristaltic pump

Purge Start Time: 9:30 Purge End Time: 9:59 Purge Rate (gals/minute): 1.5/29 = 0.05

Total Volume Purged: 1.5 gallons

| | Temperature °C | Spec. Cond. (µs/cm) | pH (pH units) | Diss. Oxygen (ppm) | Redox (mV) | Depth to Water (ft) |
|---|---|---|---|---|---|---|
| 9:53 Initial: | 16.49 | 697 | 7.00 | 0.45 | -52.1 | 8.23 |
| 56 3 Minutes: | 16.50 | 676 | 7.01 | 0.44 | -54.5 | 8.23 |
| 59 6 Minutes: | 16.50 | 696 | 7.01 | 0.43 | -54.4 | 8.23 |
| 02 9 Minutes: | | | | | | |
| 05 12 Minutes: | | | | | | |
| 08 15 Minutes: | | | | | | |
| 18 Minutes: | | | | | | |
| 21 Minutes: | | | | | | |
| 24 Minutes: | | | | | | |
| 27 Minutes: | | | | | | |
| 30 Minutes: | | | | | | |
| 33 Minutes: | | | | | | |
| Stabilization Rate | --- | +/- 3% | +/- 0.1 | +/- 10% | +/- 10 mv | --- |

Sampling Method: Low Flow

Sampling Start Time: 10:00 Sampling End Time:

Field Observations (turbidity, recharge rate, odor, sheens, PID/FID readings):

Purge Water Status (containerized & # of containers, filtered and discharged, w/ discharge location):

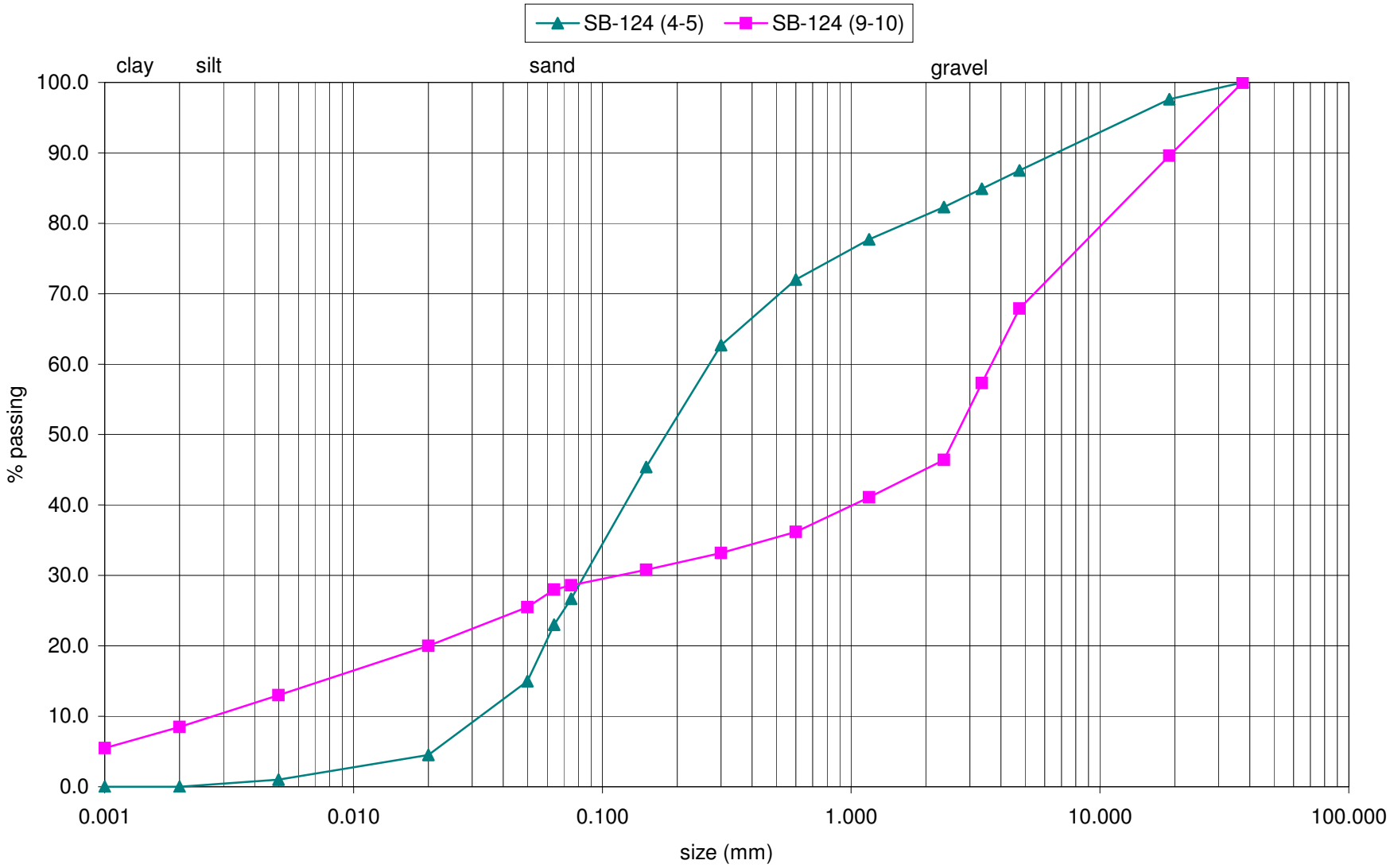
Containerized on site in 55-gallon drum.

Comments:

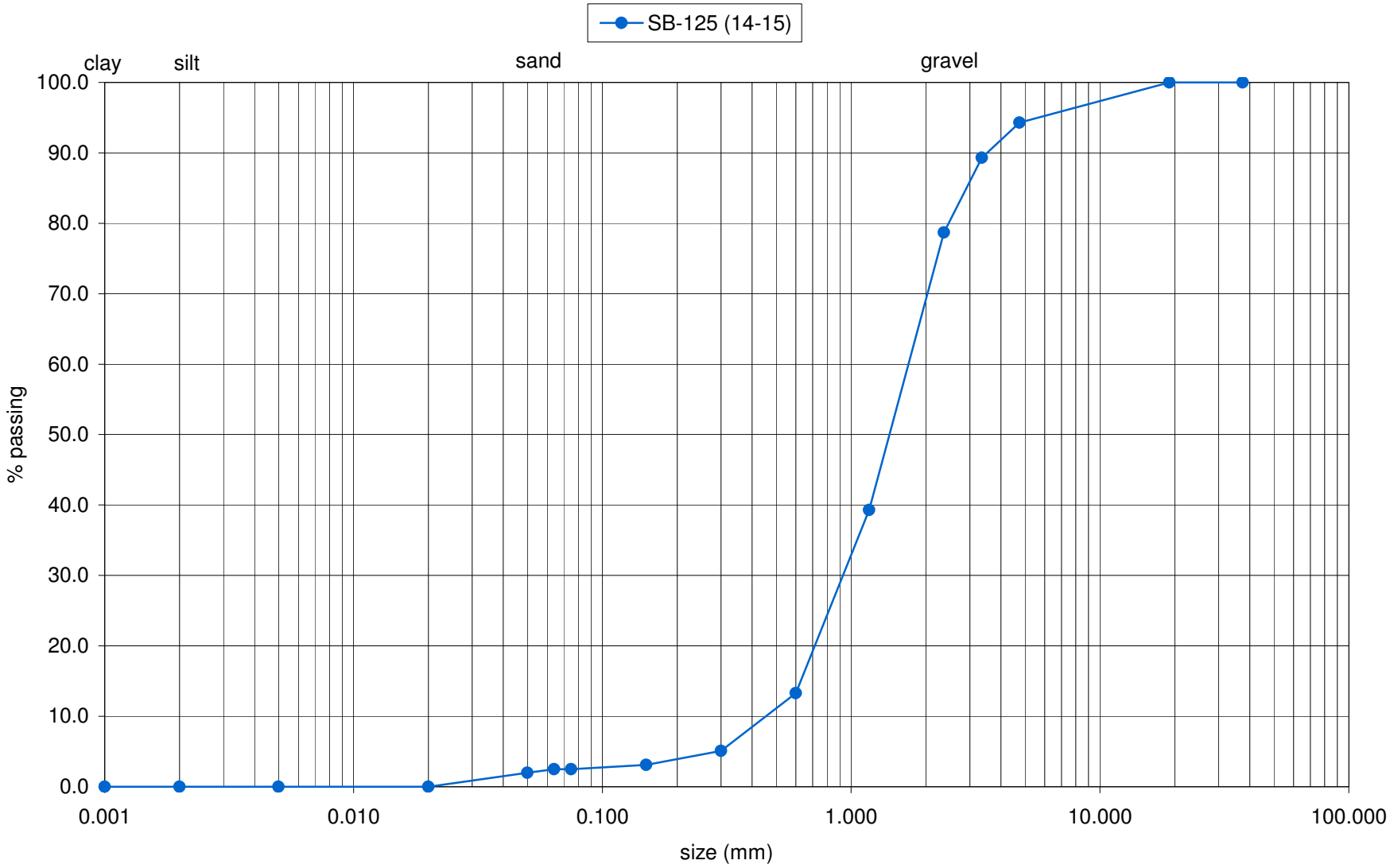
# APPENDIX D

# GRAIN SIZE DISTRIBUTION GRAPHS

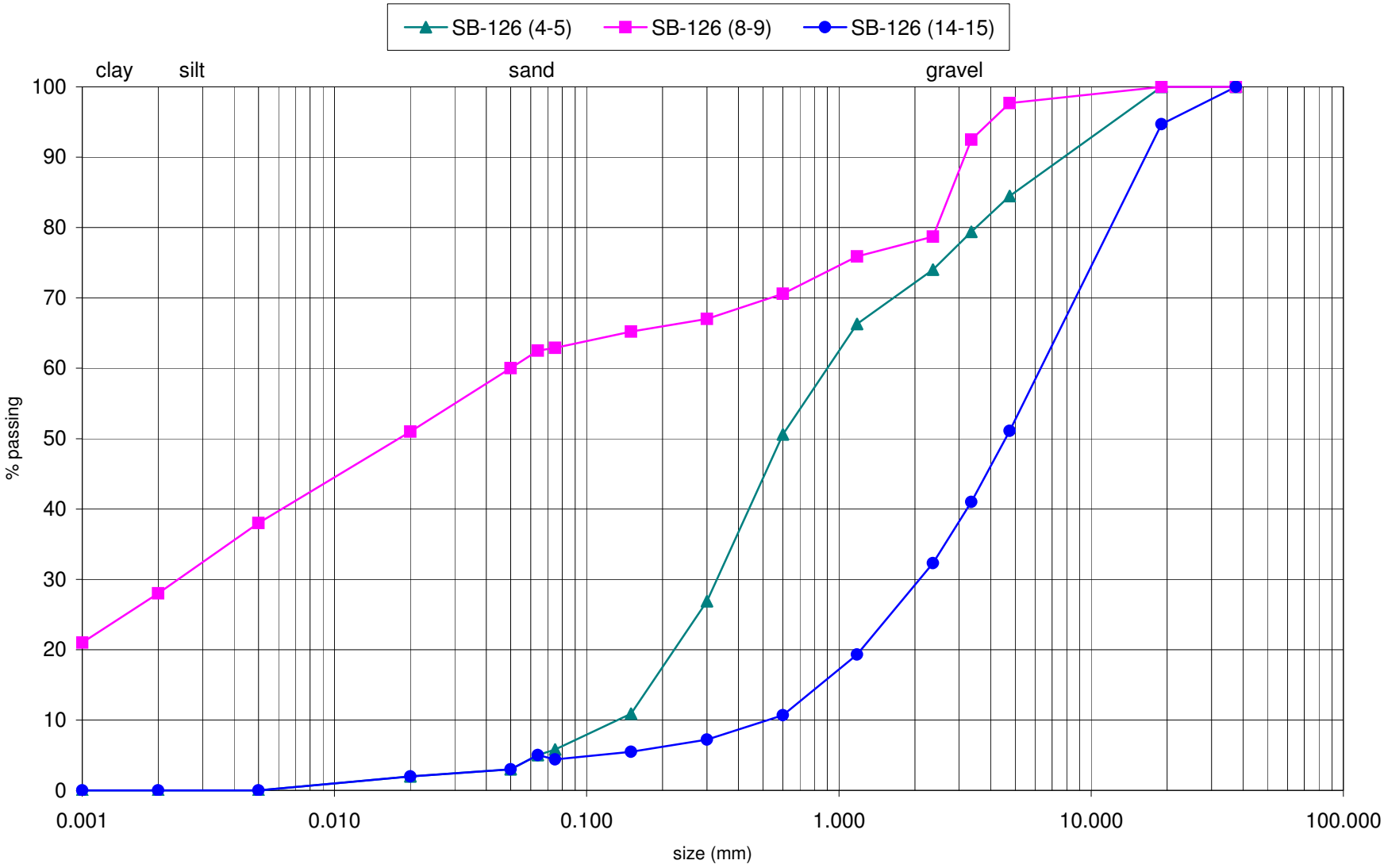
APPENDIX D - GRAIN SIZE ANALYSIS
SB-124



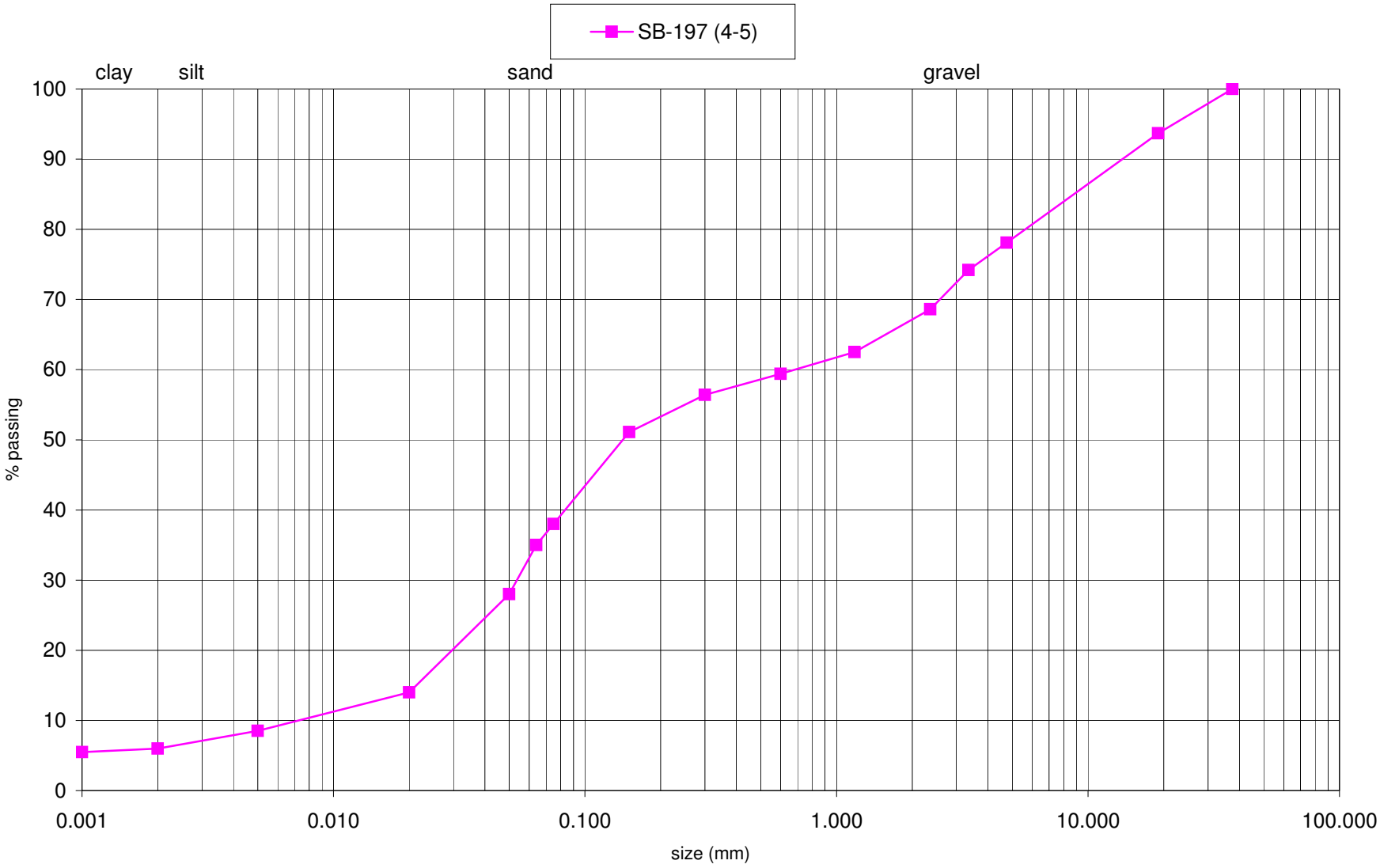
APPENDIX D - GRAIN SIZE ANALYSIS
SB-125



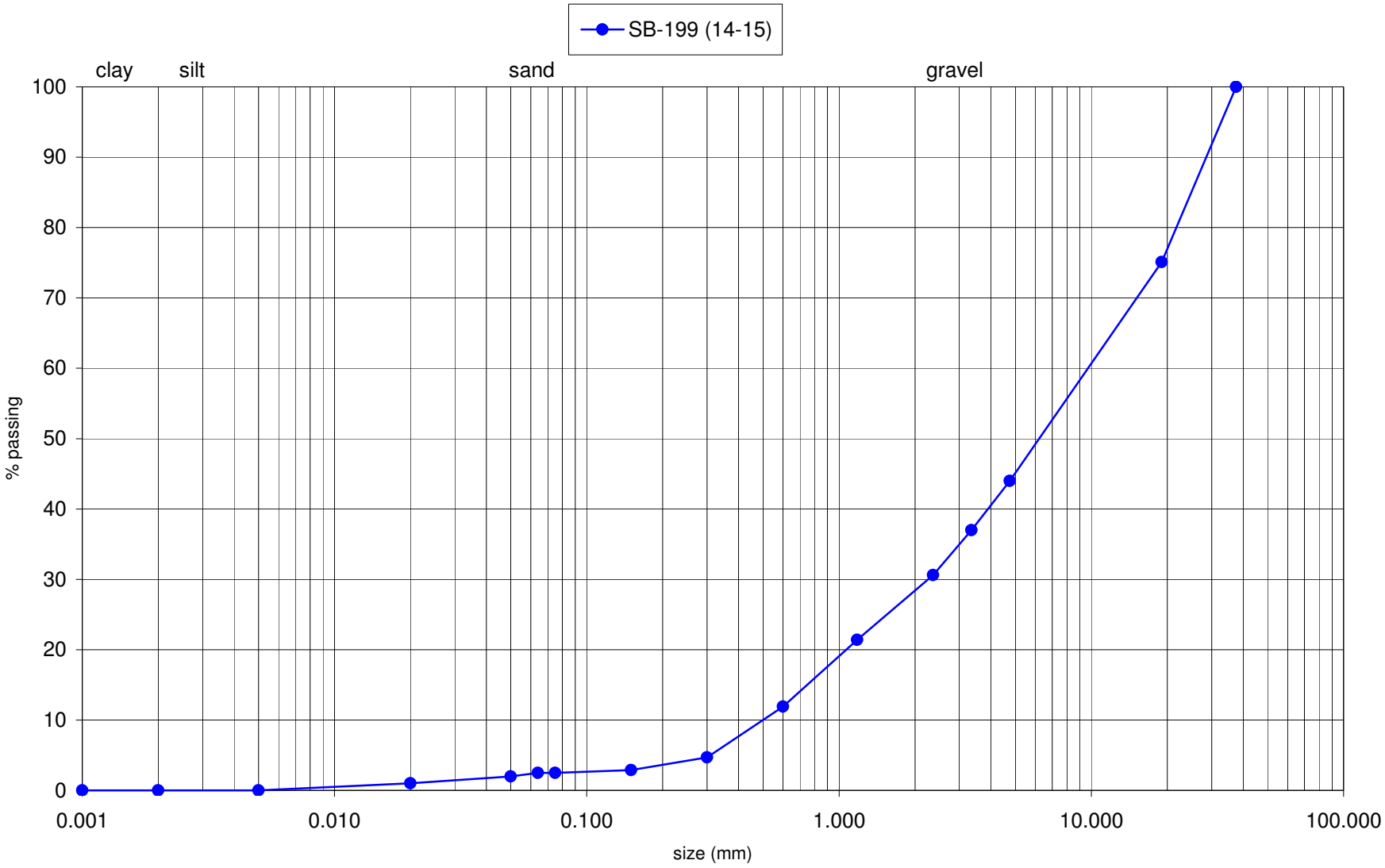
APPENDIX D - GRAIN SIZE ANALYSIS
SB-126



APPENDIX D - GRAIN SIZE ANALYSIS
SB-197



APPENDIX D - SOIL GRAIN SIZE ANALYSIS
SB-199



# APPENDIX E

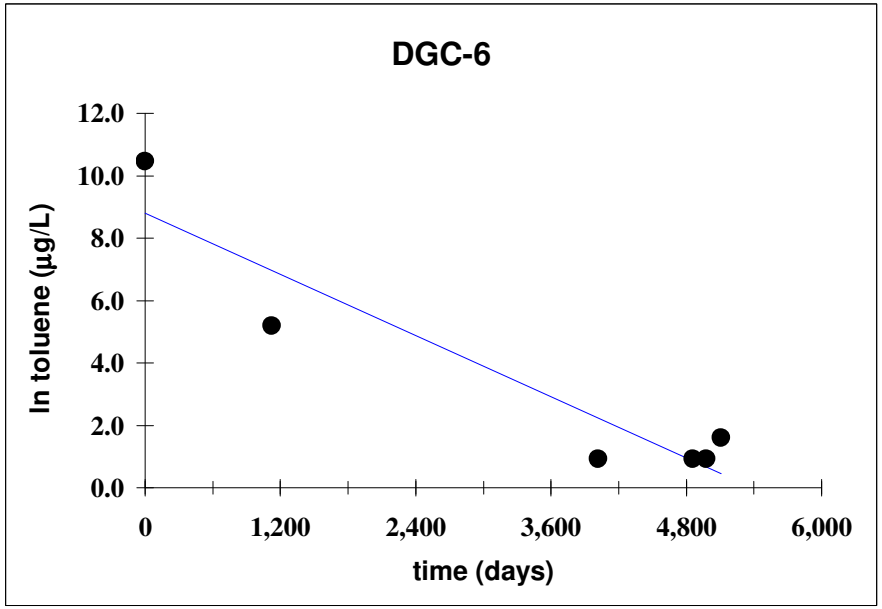
# GROUND-WATER CONCENTRATION REGRESSION ANALYSES

# APPENDIX E -
# REGRESSION ANALYSIS
# TOLUENE CONCENTRATION

| DATE | ELAPSED TIME (DAYS) | toluene (µg/l) | ln toluene |
|---|---|---|---|
| Nov-90 | 0 | 35,000 | 10.46 |
| Dec-93 | 1,126 | 180 | 5.19 |
| 11/1/01 | 4,018 | *2.5* | 0.92 |
| 2/20/04 | 4,859 | *2.5* | 0.92 |
| 6/16/04 | 4,976 | *2.5* | 0.92 |
| 10/28/04 | 5,110 | *5.0* | 1.61 |
| | 0 | | 8.81 |
| | 5,110 | | 0.46 |

*Regression Statistics*

| | | | |
|---|---|---|---|
| *r* | 0.94 | *slope* | -0.0016 |
| *Observations* | 6 | *half-life (days)* | 424 |

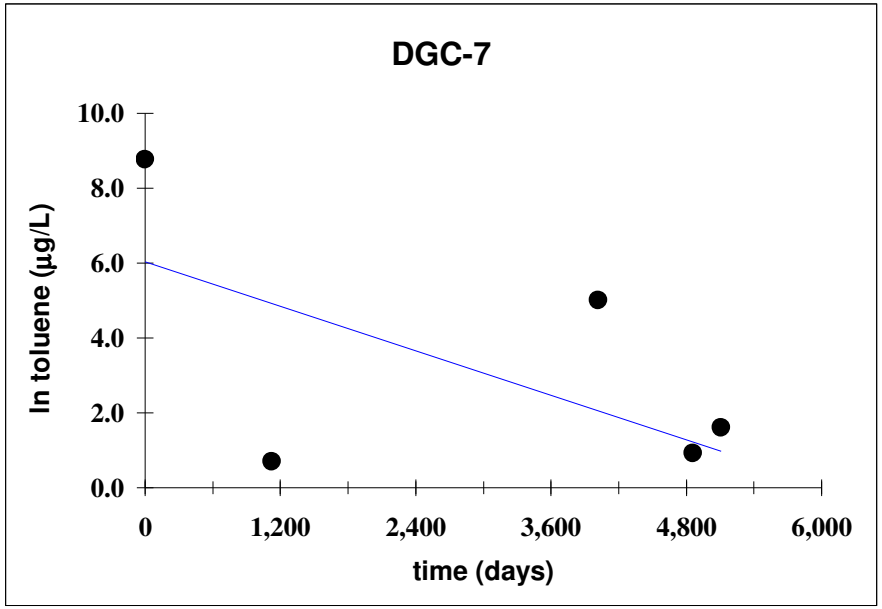


# APPENDIX E -
# REGRESSION ANALYSIS
# TOLUENE CONCENTRATION

| DATE | ELAPSED TIME (DAYS) | toluene (µg/l) | ln toluene |
|---|---|---|---|
| Nov-90 | 0 | 6,400 | 8.76 |
| Dec-93 | 1,126 | 2 | 0.69 |
| 11/1/01 | 4,018 | 150 | 5.01 |
| 2/18/04 | 4,857 | *2.5* | 0.92 |
| 6/15/04 | 4,975 | *0.5* | -0.69 |
| 10/27/04 | 5,109 | *5.0* | 1.61 |
| | 0 | | 6.04 |
| | 5,109 | | 0.97 |

*Regression Statistics*

| | | | |
|---|---|---|---|
| *r* | 0.63 | *slope* | -0.0010 |
| *Observations* | 6 | *half-life (days)* | 698 |

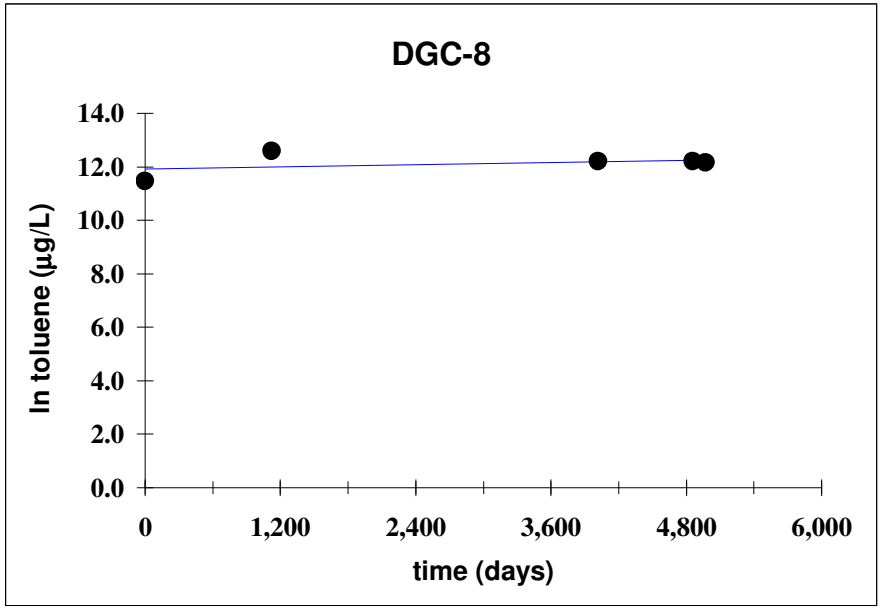


# APPENDIX E -
# REGRESSION ANALYSIS
# TOLUENE CONCENTRATION

| DATE | ELAPSED TIME (DAYS) | toluene (µg/l) | ln toluene |
|---|---|---|---|
| Nov-90 | 0 | 95,000 | 11.46 |
| Dec-93 | 1,126 | 290,000 | 12.58 |
| 11/1/01 | 4,018 | 200,000 | 12.21 |
| 2/19/04 | 4,858 | 200,000 | 12.21 |
| 6/15/04 | 4,975 | 190,000 | 12.15 |
| | 0 | | 11.92 |
| | 4,975 | | 12.26 |

*Regression Statistics*

| | | | |
|---|---|---|---|
| *r* | -0.39 | *slope* | 0.0001 |
| *Observations* | 5 | *half-life (days)* | -10102 |

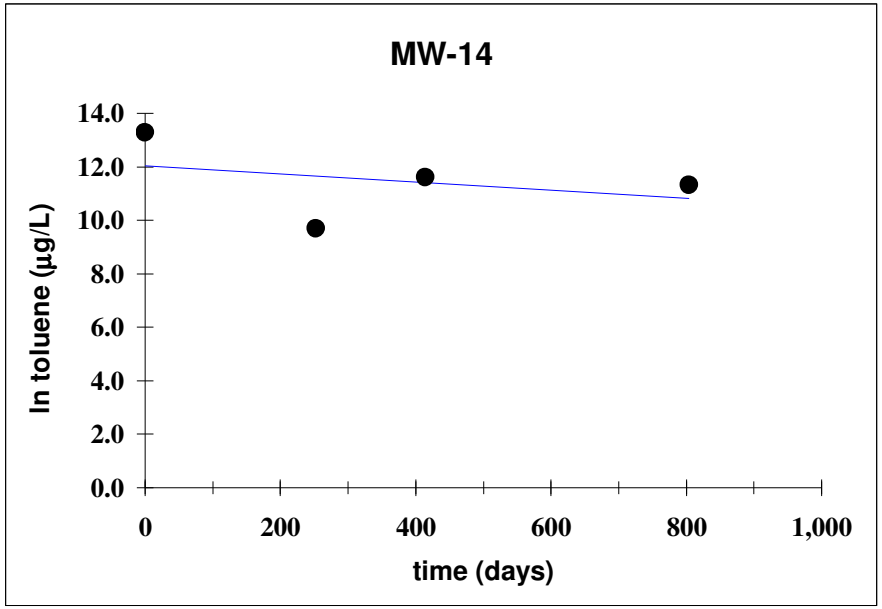


# APPENDIX E -
# REGRESSION ANALYSIS
# TOLUENE CONCENTRATION

| DATE | ELAPSED TIME (DAYS) | toluene (µg/l) | ln toluene |
|---|---|---|---|
| 2/18/04 | 0 | 590,000 | 13.29 |
| 10/28/04 | 253 | 16,000 | 9.68 |
| 4/7/05 | 414 | 110,000 | 11.61 |
| 5/2/06 | 804 | 83,000 | 11.33 |
| | 0 | | 12.04 |
| | 804 | | 10.81 |

*Regression Statistics*

| | | | |
|---|---|---|---|
| *r* | 0.35 | *slope* | -0.0015 |
| *Observations* | 4 | *half-life (days)* | 455 |

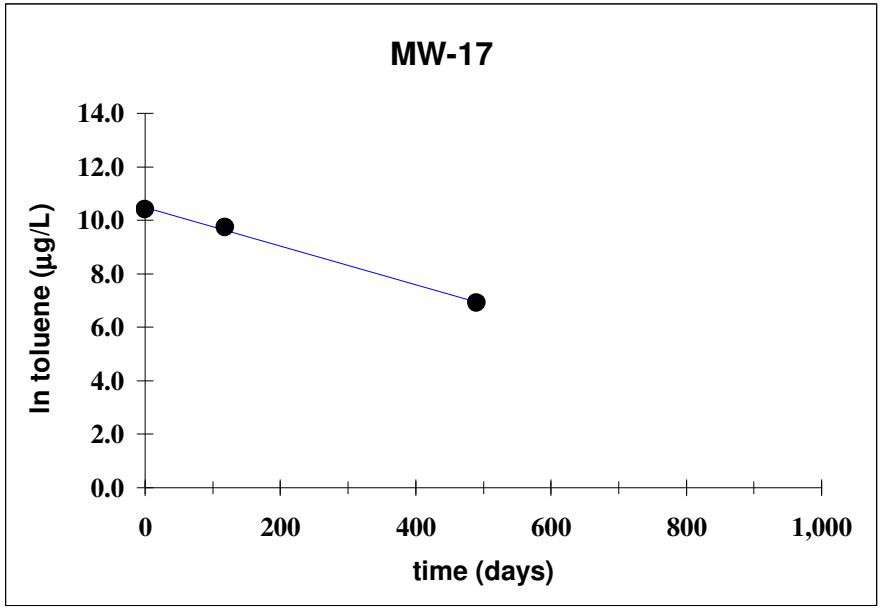


# APPENDIX E -
# REGRESSION ANALYSIS
# TOLUENE CONCENTRATION

| DATE | ELAPSED TIME (DAYS) | toluene (µg/l) | ln toluene |
|---|---|---|---|
| 2/19/04 | 0 | 33,000 | 10.40 |
| 6/16/04 | 118 | 17,000 | 9.74 |
| 6/23/05 | 490 | 1,000 | 6.91 |
| | 0 | | 10.49 |
| | 490 | | 6.93 |

*Regression Statistics*

| | | | |
|---|---|---|---|
| *r* | 1.00 | *slope* | -0.0073 |
| *Observations* | 3 | *half-life (days)* | 96 |

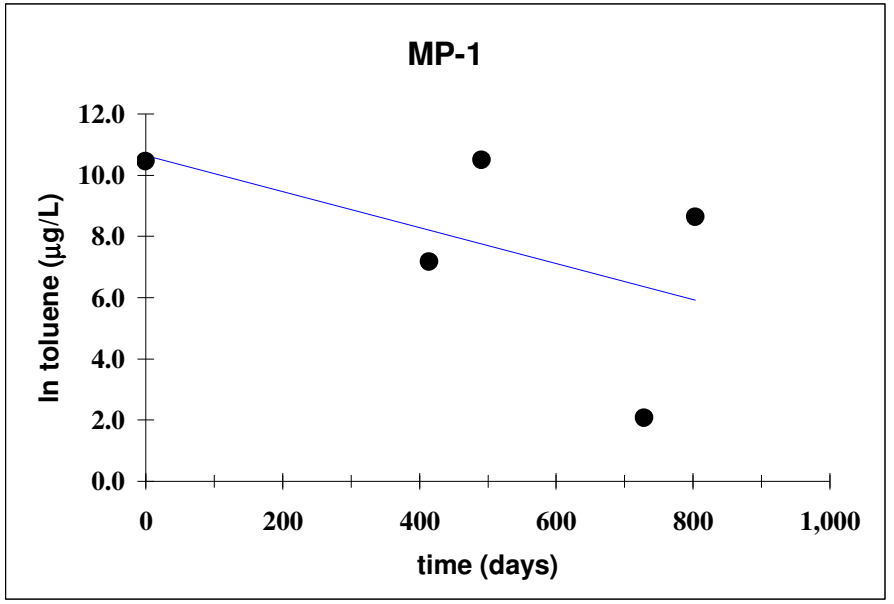


# APPENDIX E -
# REGRESSION ANALYSIS
# TOLUENE CONCENTRATION

| DATE | ELAPSED TIME (DAYS) | toluene (µg/l) | ln toluene |
|---|---|---|---|
| 2/18/04 | 0 | 35,000 | 10.46 |
| 4/7/05 | 414 | 1,300 | 7.17 |
| 6/23/05 | 491 | 36,000 | 10.49 |
| 2/16/06 | 729 | 8 | 2.08 |
| 5/2/06 | 804 | 5,600 | 8.63 |
| | 0 | | 10.63 |
| | 804 | | 5.91 |

*Regression Statistics*

| | | | |
|---|---|---|---|
| *r* | 0.54 | *slope* | -0.0059 |
| *Observations* | 5 | *half-life (days)* | 118 |

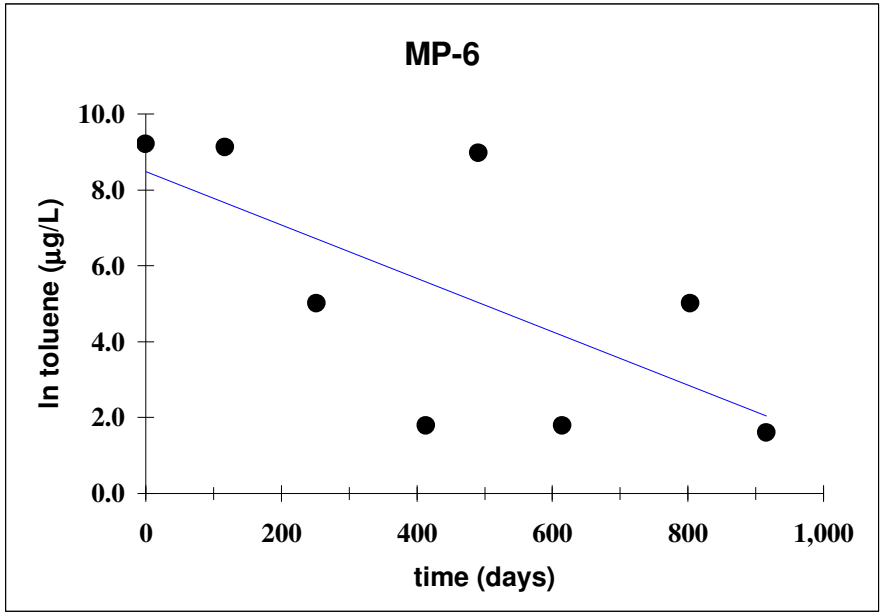


# APPENDIX E -
# REGRESSION ANALYSIS
# TOLUENE CONCENTRATION

| DATE | ELAPSED TIME (DAYS) | toluene (µg/l) | ln toluene |
|---|---|---|---|
| 2/18/04 | 0 | 10,000 | 9.21 |
| 6/14/04 | 117 | 9,100 | 9.12 |
| 10/27/04 | 252 | 150 | 5.01 |
| 4/7/05 | 414 | 6 | 1.79 |
| 6/23/05 | 491 | 7,900 | 8.97 |
| 10/25/05 | 615 | 6 | 1.79 |
| 5/2/06 | 804 | 150 | 5.01 |
| 8/22/06 | 916 | *5* | 1.61 |
| | 0 | | 8.49 |
| | 916 | | 2.05 |

*Regression Statistics*

| | | | |
|---|---|---|---|
| *r* | 0.66 | *slope* | -0.0070 |
| *Observations* | 8 | *half-life (days)* | 99 |

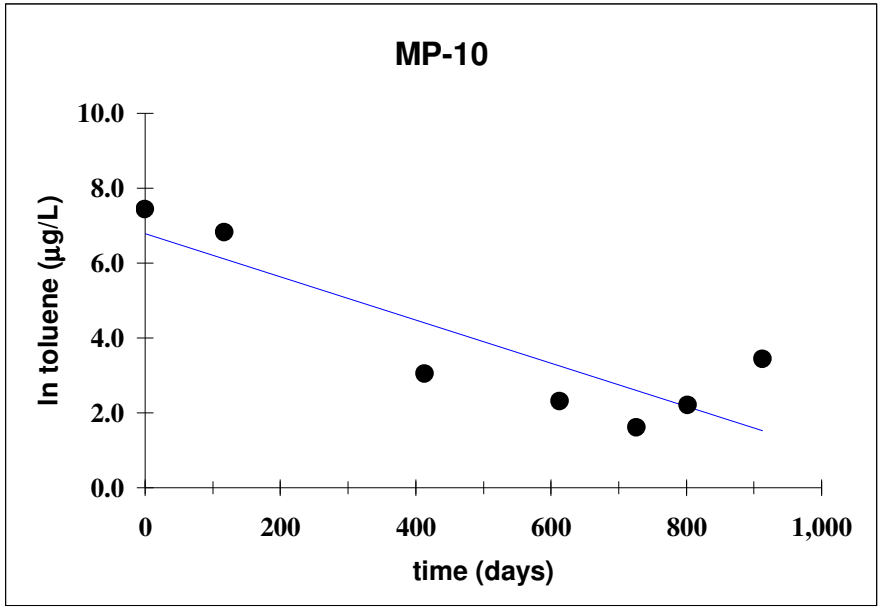


# APPENDIX E -
# REGRESSION ANALYSIS
# TOLUENE CONCENTRATION

| DATE | ELAPSED TIME (DAYS) | toluene (µg/l) | ln toluene |
|---|---|---|---|
| 2/20/04 | 0 | 1,700 | 7.44 |
| 6/16/04 | 117 | 910 | 6.81 |
| 4/8/05 | 413 | 21 | 3.04 |
| 10/25/05 | 613 | 10.0 | 2.30 |
| 2/16/06 | 727 | *5* | 1.61 |
| 5/2/06 | 802 | 9 | 2.20 |
| 8/21/06 | 913 | 31 | 3.43 |
| | 0 | | 6.79 |
| | 913 | | 1.52 |

*Regression Statistics*

| | | | |
|---|---|---|---|
| *r* | 0.86 | *slope* | -0.0058 |
| *Observations* | 7 | *half-life (days)* | 120 |

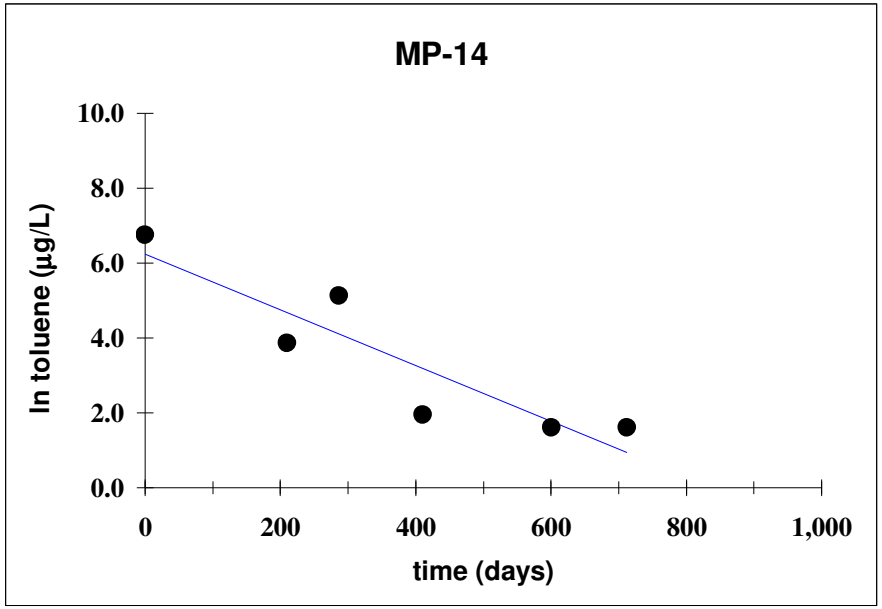


# APPENDIX E -
# REGRESSION ANALYSIS
# TOLUENE CONCENTRATION

| DATE | ELAPSED TIME (DAYS) | toluene (µg/l) | ln toluene |
|---|---|---|---|
| 9/9/04 | 0 | 850 | 6.75 |
| 4/7/05 | 210 | 48 | 3.87 |
| 6/23/05 | 287 | 170 | 5.14 |
| 10/25/05 | 411 | 7 | 1.95 |
| 5/3/06 | 601 | *5* | 1.61 |
| 8/22/06 | 712 | *5* | 1.61 |
| | 0 | | 6.24 |
| | 712 | | 0.94 |

*Regression Statistics*

| | | | |
|---|---|---|---|
| *r* | 0.91 | *slope* | -0.0074 |
| *Observations* | 6 | *half-life (days)* | 93 |

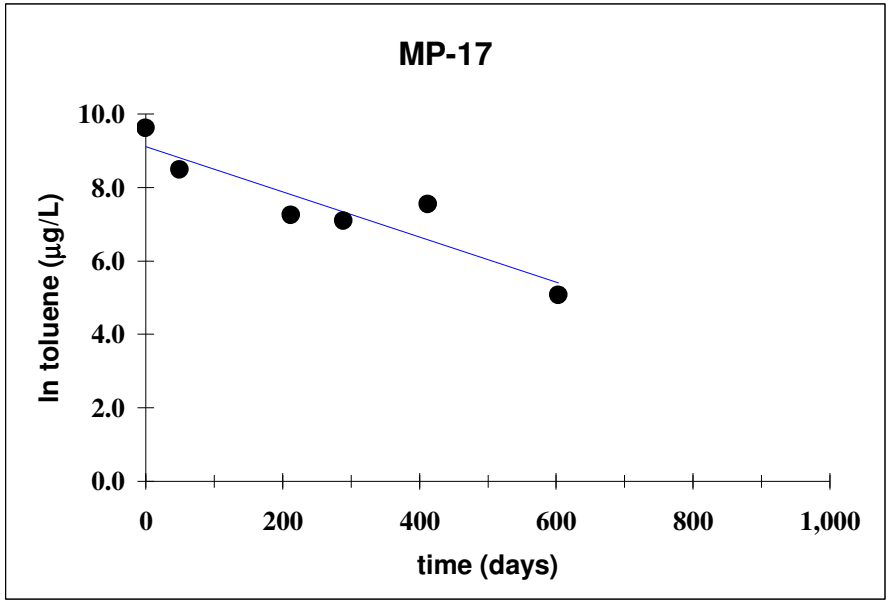


# APPENDIX E -
# REGRESSION ANALYSIS
# TOLUENE CONCENTRATION

| DATE | ELAPSED TIME (DAYS) | toluene (µg/l) | ln toluene |
|---|---|---|---|
| 9/7/04 | 0 | 15,000 | 9.62 |
| 10/27/04 | 50 | 4,800 | 8.48 |
| 4/7/05 | 212 | 1,400 | 7.24 |
| 6/23/05 | 289 | 1,200 | 7.09 |
| 10/25/05 | 413 | 1,900 | 7.55 |
| 5/3/06 | 603 | 160 | 5.08 |
| | 0 | | 9.12 |
| | 603 | | 5.40 |

*Regression Statistics*

| | | | |
|---|---|---|---|
| *r* | 0.92 | *slope* | -0.0062 |
| *Observations* | 6 | *half-life (days)* | 112 |



# APPENDIX F

# HYDRAULIC CONDUCTIVITY TESTING
# DATA, GRAPHS AND TABLE

**Appendix F**
**Table**
**Summary of Hydraulic Conductivity Testing Results**
**Former Norton/Nashua Facility**
**Watervliet, NY**



| Well Designation | Depth to Water (feet) | Total Well Depth (feet) | Standing Water ($L_w$) (feet) | Saturated Thickness (H) (feet) | Casing Radius ($r_c$) (feet) | Well Radius ($r_w$) (feet) | Screen Length ($L_e$) (feet) | $L_e/r_w$ |
|---|---|---|---|---|---|---|---|---|
| **DGC-6** | 10.12 | 15.0 | 4.88 | *20* | 0.17 | 0.42 | 10 | 24 |
| **DGC-9** | 5.57 | 15.0 | 9.43 | *10* | 0.17 | 0.42 | 10 | 24 |

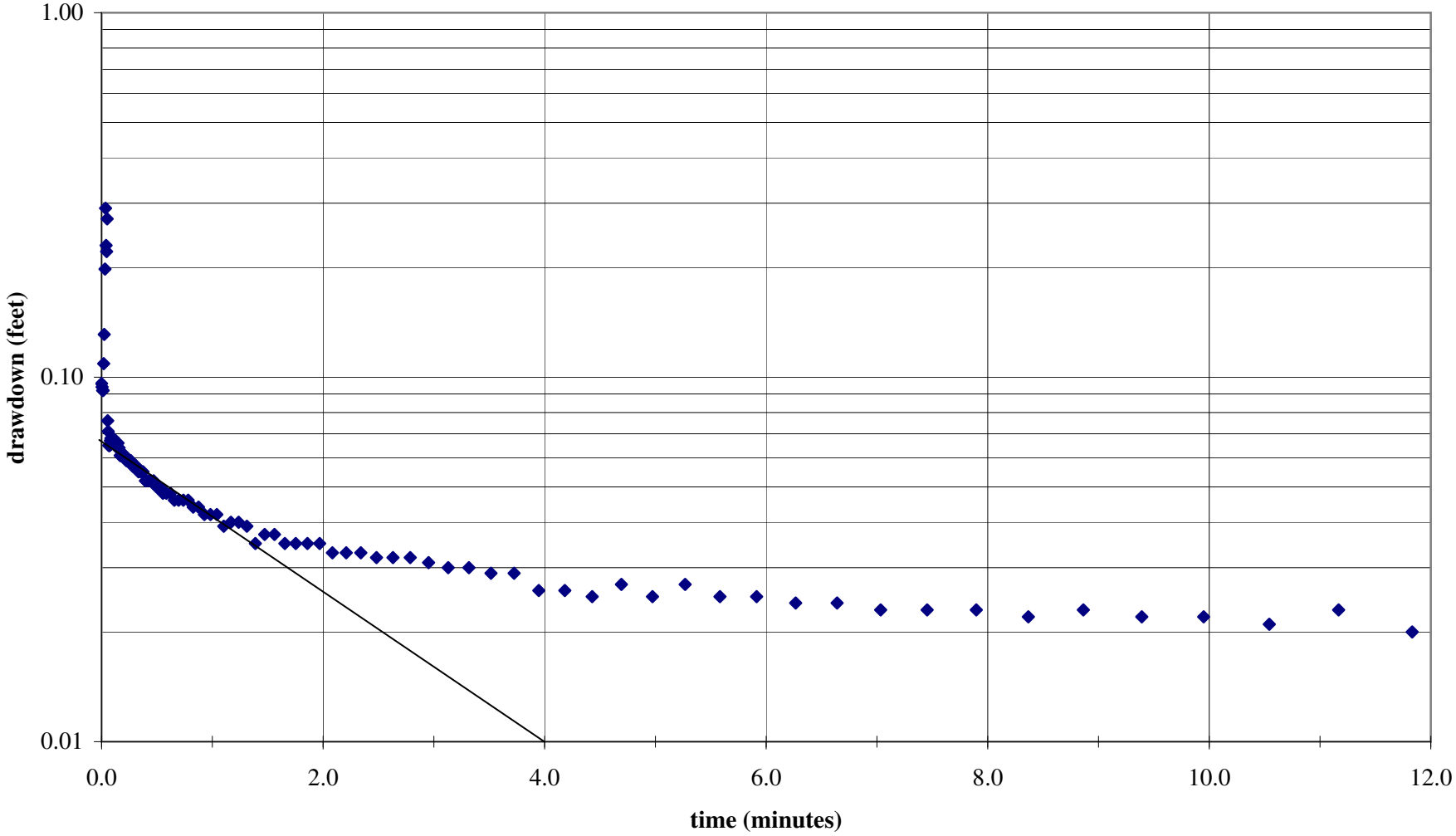
| Well Designation | A Parameter | B Parameter | $\ln(R_e/r_w)$ | $y_0$ (feet) | $y_t$ (feet) | t (minutes) | $[\ln(y_o/y_t)]/t$ | K (ft/day) |
|---|---|---|---|---|---|---|---|---|
| **DGC-6** | 2.20 | 0.35 | 1.692 | 0.07 | 0.02 | 2.0 | 0.567 | 1.92 |
| **DGC-9** | 2.20 | 0.35 | 2.228 | 3.01 | 0.30 | 8.0 | 0.288 | 1.28 |

**BOUWER & RICE UNCONFINED SLUG TEST METHOD**

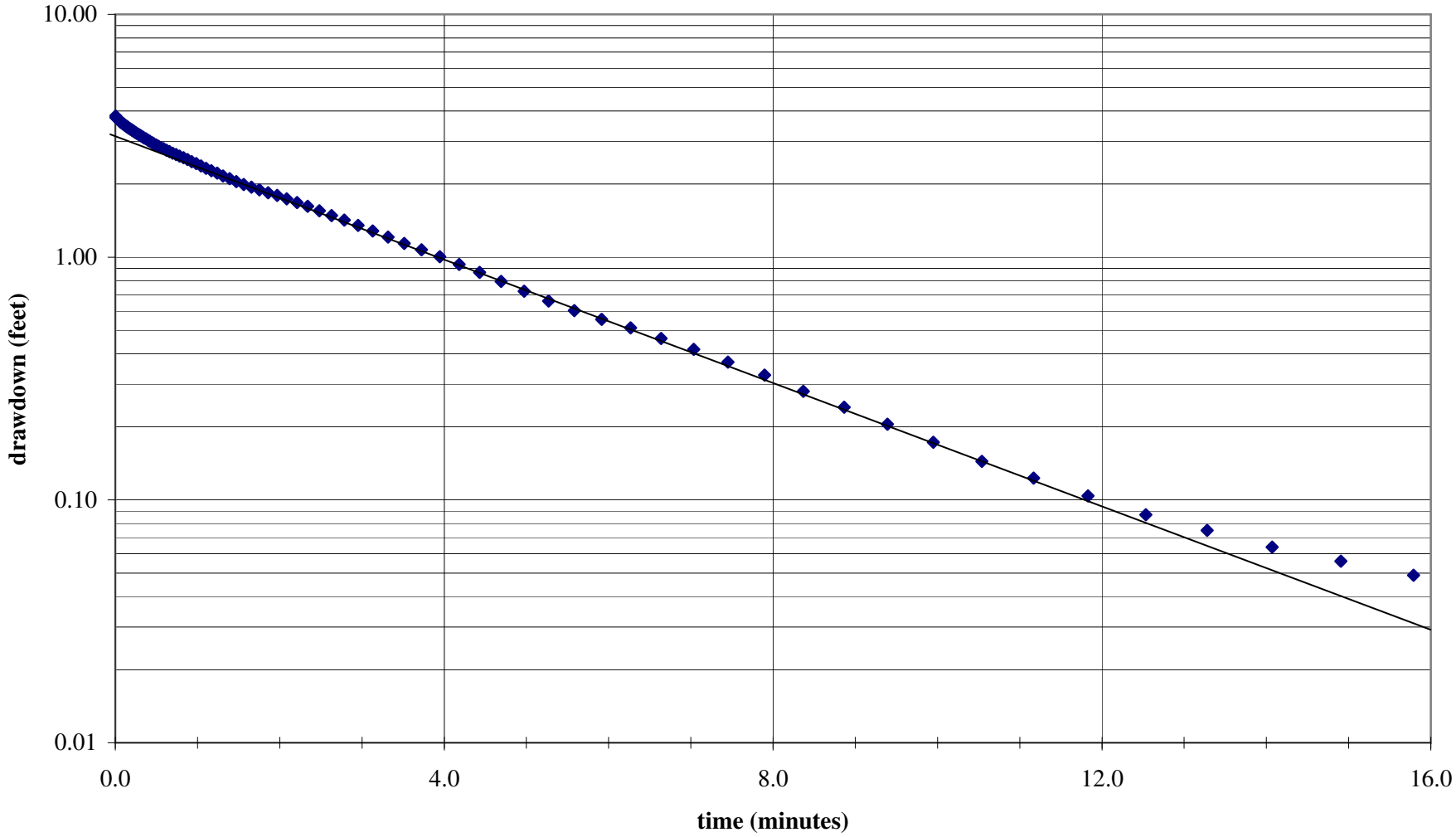
Notes:

1. $L_w$ = Standing water elevation in well.
2. H = Saturated aquifer thickness (estimated).
3. $r_c$ = Well radius.
4. $r_w$ = Well radius plus gravel pack.
5. $L_e$ = Length of screened interval.
6. $L_e/r_w$ = Value used to determine A and B parameters.
7. A and B Parameter values (from The Bower and Rice Slug Test - An Update, Figure 2).
8. $\ln(R_e/r_w) = [[1.1/\ln(L_w/r_w)] + [A + B\ln[(H-L_w)/r_w]]/L_e/r_w]-1$.
9. t = Time.
10. $y_0$ = Drawdown at time "zero", $y_t$ = drawdown at time "t", values obtained from test plots.
11. K =Hydraulic Conductivity = $[ (rc^2 \ln(R_e/r_w))2L_e]*[\ln(y_0/y_t)]/t$.

**APPENDIX F**
**Drawdown vs. Time (DGC-6)**



**APPENDIX F**
**Drawdown vs. Time (DGC-9)**



In-Situ Inc. MiniTroll Pro

Report generated: 3/1/2004 12:44:10
Report from file: C:\Win-Situ\Data\SN01584 2004-03-01 120419 dgc-6.bin
DataMgr Version 3.71

Serial number: 1584
Firmware Version 3.09
Unit name:

Test name: dgc-6

Test defined on: 2/20/2004 14:35:46
Test started on: 3/1/2004 12:04:19
Test stopped on: 3/1/2004 12:44:21
Test extracted on: N/A

Data gathered using Logarithmic testing
Maximum time between data points: 60.0000 Minutes.
Number of data samples: 125 109

TOTAL DATA SAMPLES 125

Channel number [1]
Measurement type: Temperature recovery =
Channel name: 99.73%

Channel number [2]
Measurement type: Pressure static
Channel name: 4.523
Sensor Range: 30 PSI.
Specific gravity: 1.00 8 gallons

| Date | Time | ET (min) | Chan[1] Celsius | Chan[2] Feet H2O | Calculated Feet DD |
|---|---|---|---|---|---|
| 3/1/2004 | 12:04 | 0 | 16.63 | 4.427 | 0.096 |
| 3/1/2004 | 12:04 | 0.0048 | 16.64 | 4.429 | 0.094 |
| 3/1/2004 | 12:04 | 0.0098 | 16.64 | 4.431 | 0.092 |
| 3/1/2004 | 12:04 | 0.015 | 16.64 | 4.431 | 0.092 |
| 3/1/2004 | 12:04 | 0.0198 | 16.66 | 4.414 | 0.109 |
| 3/1/2004 | 12:04 | 0.025 | 16.66 | 4.392 | 0.131 |
| 3/1/2004 | 12:04 | 0.03 | 16.66 | 4.325 | 0.198 |
| 3/1/2004 | 12:04 | 0.035 | 16.66 | 4.232 | 0.291 |
| 3/1/2004 | 12:04 | 0.0398 | 16.66 | 4.293 | 0.230 |
| 3/1/2004 | 12:04 | 0.045 | 16.66 | 4.302 | 0.221 |
| 3/1/2004 | 12:04 | 0.05 | 16.66 | 4.251 | 0.272 |
| 3/1/2004 | 12:04 | 0.0548 | 16.66 | 4.447 | 0.076 |
| 3/1/2004 | 12:04 | 0.06 | 16.66 | 4.452 | 0.071 |
| 3/1/2004 | 12:04 | 0.0648 | 16.66 | 4.458 | 0.065 |

| Date | Time | ET (min) | Chan[1] Celsius | Chan[2] Feet H2O | Calculated Feet DD |
|---|---|---|---|---|---|
| 3/1/2004 | 12:04 | 0.07 | 16.66 | 4.458 | 0.065 |
| 3/1/2004 | 12:04 | 0.075 | 16.66 | 4.458 | 0.065 |
| 3/1/2004 | 12:04 | 0.0798 | 16.66 | 4.456 | 0.067 |
| 3/1/2004 | 12:04 | 0.0848 | 16.67 | 4.455 | 0.068 |
| 3/1/2004 | 12:04 | 0.09 | 16.67 | 4.455 | 0.068 |
| 3/1/2004 | 12:04 | 0.095 | 16.67 | 4.455 | 0.068 |
| 3/1/2004 | 12:04 | 0.1 | 16.67 | 4.455 | 0.068 |
| 3/1/2004 | 12:04 | 0.1057 | 16.67 | 4.455 | 0.068 |
| 3/1/2004 | 12:04 | 0.1118 | 16.67 | 4.457 | 0.066 |
| 3/1/2004 | 12:04 | 0.1185 | 16.67 | 4.457 | 0.066 |
| 3/1/2004 | 12:04 | 0.1255 | 16.67 | 4.457 | 0.066 |
| 3/1/2004 | 12:04 | 0.1327 | 16.67 | 4.457 | 0.066 |
| 3/1/2004 | 12:04 | 0.1405 | 16.67 | 4.459 | 0.064 |
| 3/1/2004 | 12:04 | 0.1488 | 16.67 | 4.457 | 0.066 |
| 3/1/2004 | 12:04 | 0.1578 | 16.67 | 4.459 | 0.064 |
| 3/1/2004 | 12:04 | 0.167 | 16.67 | 4.462 | 0.061 |
| 3/1/2004 | 12:04 | 0.1768 | 16.66 | 4.462 | 0.061 |
| 3/1/2004 | 12:04 | 0.1875 | 16.66 | 4.462 | 0.061 |
| 3/1/2004 | 12:04 | 0.1985 | 16.66 | 4.462 | 0.061 |
| 3/1/2004 | 12:04 | 0.21 | 16.66 | 4.462 | 0.061 |
| 3/1/2004 | 12:04 | 0.2225 | 16.66 | 4.464 | 0.059 |
| 3/1/2004 | 12:04 | 0.2358 | 16.66 | 4.464 | 0.059 |
| 3/1/2004 | 12:04 | 0.2498 | 16.66 | 4.464 | 0.059 |
| 3/1/2004 | 12:04 | 0.2647 | 16.66 | 4.464 | 0.059 |
| 3/1/2004 | 12:04 | 0.2803 | 16.66 | 4.466 | 0.057 |
| 3/1/2004 | 12:04 | 0.297 | 16.66 | 4.466 | 0.057 |
| 3/1/2004 | 12:04 | 0.3145 | 16.66 | 4.466 | 0.057 |
| 3/1/2004 | 12:04 | 0.3333 | 16.66 | 4.468 | 0.055 |
| 3/1/2004 | 12:04 | 0.3532 | 16.66 | 4.468 | 0.055 |
| 3/1/2004 | 12:04 | 0.374 | 16.66 | 4.468 | 0.055 |
| 3/1/2004 | 12:04 | 0.3963 | 16.66 | 4.471 | 0.052 |
| 3/1/2004 | 12:04 | 0.4198 | 16.66 | 4.471 | 0.052 |
| 3/1/2004 | 12:04 | 0.4445 | 16.66 | 4.471 | 0.052 |
| 3/1/2004 | 12:04 | 0.4695 | 16.66 | 4.471 | 0.052 |
| 3/1/2004 | 12:04 | 0.4963 | 16.66 | 4.473 | 0.050 |
| 3/1/2004 | 12:04 | 0.5247 | 16.66 | 4.473 | 0.050 |
| 3/1/2004 | 12:04 | 0.5547 | 16.66 | 4.475 | 0.048 |
| 3/1/2004 | 12:04 | 0.5862 | 16.66 | 4.475 | 0.048 |
| 3/1/2004 | 12:04 | 0.6213 | 16.66 | 4.475 | 0.048 |
| 3/1/2004 | 12:04 | 0.6578 | 16.66 | 4.477 | 0.046 |
| 3/1/2004 | 12:05 | 0.6963 | 16.66 | 4.477 | 0.046 |
| 3/1/2004 | 12:05 | 0.738 | 16.66 | 4.477 | 0.046 |
| 3/1/2004 | 12:05 | 0.7813 | 16.66 | 4.477 | 0.046 |
| 3/1/2004 | 12:05 | 0.8278 | 16.66 | 4.479 | 0.044 |
| 3/1/2004 | 12:05 | 0.8762 | 16.66 | 4.479 | 0.044 |
| 3/1/2004 | 12:05 | 0.9278 | 16.66 | 4.481 | 0.042 |
| 3/1/2004 | 12:05 | 0.9828 | 16.66 | 4.481 | 0.042 |
| 3/1/2004 | 12:05 | 1.0412 | 16.66 | 4.481 | 0.042 |
| 3/1/2004 | 12:05 | 1.103 | 16.64 | 4.484 | 0.039 |

| Date | Time | ET (min) | Chan[1] Celsius | Chan[2] Feet H2O | Calculated Feet DD |
|---|---|---|---|---|---|
| 3/1/2004 | 12:05 | 1.1678 | 16.66 | 4.483 | 0.040 |
| 3/1/2004 | 12:05 | 1.238 | 16.66 | 4.483 | 0.040 |
| 3/1/2004 | 12:05 | 1.3113 | 16.64 | 4.484 | 0.039 |
| 3/1/2004 | 12:05 | 1.3895 | 16.64 | 4.488 | 0.035 |
| 3/1/2004 | 12:05 | 1.4728 | 16.64 | 4.486 | 0.037 |
| 3/1/2004 | 12:05 | 1.5613 | 16.64 | 4.486 | 0.037 |
| 3/1/2004 | 12:05 | 1.6547 | 16.64 | 4.488 | 0.035 |
| 3/1/2004 | 12:06 | 1.753 | 16.64 | 4.488 | 0.035 |
| 3/1/2004 | 12:06 | 1.858 | 16.64 | 4.488 | 0.035 |
| 3/1/2004 | 12:06 | 1.9678 | 16.64 | 4.488 | 0.035 |
| 3/1/2004 | 12:06 | 2.0845 | 16.64 | 4.49 | 0.033 |
| 3/1/2004 | 12:06 | 2.2097 | 16.64 | 4.49 | 0.033 |
| 3/1/2004 | 12:06 | 2.3412 | 16.64 | 4.49 | 0.033 |
| 3/1/2004 | 12:06 | 2.4812 | 16.63 | 4.491 | 0.032 |
| 3/1/2004 | 12:06 | 2.6297 | 16.62 | 4.491 | 0.032 |
| 3/1/2004 | 12:07 | 2.7863 | 16.62 | 4.491 | 0.032 |
| 3/1/2004 | 12:07 | 2.953 | 16.61 | 4.492 | 0.031 |
| 3/1/2004 | 12:07 | 3.1297 | 16.59 | 4.493 | 0.030 |
| 3/1/2004 | 12:07 | 3.3162 | 16.58 | 4.493 | 0.030 |
| 3/1/2004 | 12:07 | 3.5145 | 16.57 | 4.494 | 0.029 |
| 3/1/2004 | 12:08 | 3.7245 | 16.57 | 4.494 | 0.029 |
| 3/1/2004 | 12:08 | 3.9463 | 16.55 | 4.497 | 0.026 |
| 3/1/2004 | 12:08 | 4.1812 | 16.54 | 4.497 | 0.026 |
| 3/1/2004 | 12:08 | 4.4295 | 16.53 | 4.498 | 0.025 |
| 3/1/2004 | 12:09 | 4.6928 | 16.53 | 4.496 | 0.027 |
| 3/1/2004 | 12:09 | 4.9728 | 16.52 | 4.498 | 0.025 |
| 3/1/2004 | 12:09 | 5.2697 | 16.52 | 4.496 | 0.027 |
| 3/1/2004 | 12:09 | 5.583 | 16.52 | 4.498 | 0.025 |
| 3/1/2004 | 12:10 | 5.9145 | 16.52 | 4.498 | 0.025 |
| 3/1/2004 | 12:10 | 6.2663 | 16.5 | 4.499 | 0.024 |
| 3/1/2004 | 12:10 | 6.6395 | 16.5 | 4.499 | 0.024 |
| 3/1/2004 | 12:11 | 7.0345 | 16.49 | 4.5 | 0.023 |
| 3/1/2004 | 12:11 | 7.453 | 16.48 | 4.5 | 0.023 |
| 3/1/2004 | 12:12 | 7.8962 | 16.48 | 4.5 | 0.023 |
| 3/1/2004 | 12:12 | 8.3663 | 16.47 | 4.501 | 0.022 |
| 3/1/2004 | 12:13 | 8.8645 | 16.44 | 4.5 | 0.023 |
| 3/1/2004 | 12:13 | 9.3913 | 16.43 | 4.501 | 0.022 |
| 3/1/2004 | 12:14 | 9.9497 | 16.42 | 4.501 | 0.022 |
| 3/1/2004 | 12:14 | 10.5413 | 16.4 | 4.502 | 0.021 |
| 3/1/2004 | 12:15 | 11.168 | 16.39 | 4.5 | 0.023 |
| 3/1/2004 | 12:16 | 11.8312 | 16.38 | 4.503 | 0.020 |
| 3/1/2004 | 12:16 | 12.5347 | 16.36 | 4.504 | 0.019 |
| 3/1/2004 | 12:17 | 13.2795 | 16.35 | 4.502 | 0.021 |
| 3/1/2004 | 12:18 | 14.0695 | 16.34 | 4.503 | 0.020 |
| 3/1/2004 | 12:19 | 14.9062 | 16.33 | 4.503 | 0.020 |
| 3/1/2004 | 12:20 | 15.7913 | 16.31 | 4.504 | 0.019 |
| 3/1/2004 | 12:21 | 16.7295 | 16.3 | 4.505 | 0.018 |
| 3/1/2004 | 12:22 | 17.723 | 16.3 | 4.505 | 0.018 |
| 3/1/2004 | 12:23 | 18.7762 | 16.29 | 4.505 | 0.018 |

| Date | Time | ET (min) | Chan[1] Celsius | Chan[2] Feet H2O | Calculated Feet DD |
|---|---|---|---|---|---|
| 3/1/2004 | 12:24 | 19.8913 | 16.28 | 4.506 | 0.017 |
| 3/1/2004 | 12:25 | 21.073 | 16.28 | 4.504 | 0.019 |
| 3/1/2004 | 12:26 | 22.3247 | 16.28 | 4.508 | 0.015 |
| 3/1/2004 | 12:27 | 23.6497 | 16.28 | 4.506 | 0.017 |
| 3/1/2004 | 12:29 | 25.0545 | 16.26 | 4.506 | 0.017 |
| 3/1/2004 | 12:30 | 26.5428 | 16.26 | 4.506 | 0.017 |
| 3/1/2004 | 12:32 | 28.1178 | 16.25 | 4.505 | 0.018 |
| 3/1/2004 | 12:34 | 29.7863 | 16.24 | 4.505 | 0.018 |
| 3/1/2004 | 12:35 | 31.5545 | 16.24 | 4.505 | 0.018 |
| 3/1/2004 | 12:37 | 33.428 | 16.23 | 4.506 | 0.017 |
| 3/1/2004 | 12:39 | 35.4112 | 16.23 | 4.506 | 0.017 |
| 3/1/2004 | 12:41 | 37.513 | 16.23 | 4.508 | 0.015 |
| 3/1/2004 | 12:44 | 39.7397 | 16.21 | 4.511 | 0.012 |

In-Situ Inc. MiniTroll Pro

Report generated: 2/20/2004 0.488
Report from file: C:\Win-Situ\Data\SN01584 2004-02-20 112627 dgc-9.bin
DataMgr Version 3.71

Serial number: 1584
Firmware Version 3.09
Unit name:

Test name: dgc-9

Test defined on: 2/20/2004 10:13
Test started on: 2/20/2004 11:26
Test stopped on: 2/20/2004 11:42
Test extracted on: N/A

Data gathered using Logarithmic testing
Maximum time between data points: 60.0000 Minutes.
Number of data samples: 109 109

TOTAL DATA SAMPLES 109 recovery = 98.96%

Channel number [1]
Measurement type: Temperature
Channel name:

Channel number [2]
Measurement type: Pressure static
Channel name: 5.668
Sensor Range: 30 PSI.
Specific gravity: 1.00 8 gallons

| Date | Time | ET (min) | Chan[1] Celsius | Chan[2] Feet H2O | Calculated Feet DD |
|---|---|---|---|---|---|
| 2/20/2004 | 11:26 | 0.0000 | 9.660 | 1.869 | 3.789 |
| 2/20/2004 | 11:26 | 0.0048 | 9.670 | 1.841 | 3.817 |
| 2/20/2004 | 11:26 | 0.0098 | 9.680 | 1.880 | 3.778 |
| 2/20/2004 | 11:26 | 0.0150 | 9.680 | 1.904 | 3.754 |
| 2/20/2004 | 11:26 | 0.0198 | 9.680 | 1.923 | 3.735 |
| 2/20/2004 | 11:26 | 0.0250 | 9.680 | 1.940 | 3.718 |
| 2/20/2004 | 11:26 | 0.0300 | 9.690 | 1.954 | 3.704 |
| 2/20/2004 | 11:26 | 0.0350 | 9.680 | 1.967 | 3.691 |
| 2/20/2004 | 11:26 | 0.0398 | 9.690 | 1.983 | 3.675 |
| 2/20/2004 | 11:26 | 0.0450 | 9.690 | 1.996 | 3.662 |
| 2/20/2004 | 11:26 | 0.0500 | 9.690 | 2.009 | 3.649 |
| 2/20/2004 | 11:26 | 0.0548 | 9.690 | 2.024 | 3.634 |
| 2/20/2004 | 11:26 | 0.0600 | 9.690 | 2.036 | 3.622 |
| 2/20/2004 | 11:26 | 0.0648 | 9.690 | 2.047 | 3.611 |

| Date | Time | ET (min) | Chan[1] Celsius | Chan[2] Feet H2O | Calculated Feet DD |
|---|---|---|---|---|---|
| 2/20/2004 | 11:26 | 0.0700 | 9.690 | 2.060 | 3.598 |
| 2/20/2004 | 11:26 | 0.0750 | 9.690 | 2.072 | 3.586 |
| 2/20/2004 | 11:26 | 0.0798 | 9.690 | 2.083 | 3.575 |
| 2/20/2004 | 11:26 | 0.0848 | 9.690 | 2.096 | 3.562 |
| 2/20/2004 | 11:26 | 0.0900 | 9.690 | 2.106 | 3.552 |
| 2/20/2004 | 11:26 | 0.0950 | 9.690 | 2.117 | 3.541 |
| 2/20/2004 | 11:26 | 0.1000 | 9.690 | 2.127 | 3.531 |
| 2/20/2004 | 11:26 | 0.1057 | 9.710 | 2.139 | 3.519 |
| 2/20/2004 | 11:26 | 0.1118 | 9.710 | 2.152 | 3.506 |
| 2/20/2004 | 11:26 | 0.1185 | 9.710 | 2.165 | 3.493 |
| 2/20/2004 | 11:26 | 0.1255 | 9.710 | 2.180 | 3.478 |
| 2/20/2004 | 11:26 | 0.1327 | 9.710 | 2.192 | 3.466 |
| 2/20/2004 | 11:26 | 0.1405 | 9.710 | 2.207 | 3.451 |
| 2/20/2004 | 11:26 | 0.1488 | 9.710 | 2.224 | 3.434 |
| 2/20/2004 | 11:26 | 0.1578 | 9.710 | 2.241 | 3.417 |
| 2/20/2004 | 11:26 | 0.1670 | 9.690 | 2.261 | 3.397 |
| 2/20/2004 | 11:26 | 0.1768 | 9.690 | 2.277 | 3.381 |
| 2/20/2004 | 11:26 | 0.1875 | 9.690 | 2.297 | 3.361 |
| 2/20/2004 | 11:26 | 0.1985 | 9.690 | 2.316 | 3.342 |
| 2/20/2004 | 11:26 | 0.2100 | 9.690 | 2.335 | 3.323 |
| 2/20/2004 | 11:26 | 0.2225 | 9.690 | 2.358 | 3.300 |
| 2/20/2004 | 11:26 | 0.2358 | 9.690 | 2.379 | 3.279 |
| 2/20/2004 | 11:26 | 0.2498 | 9.690 | 2.402 | 3.256 |
| 2/20/2004 | 11:26 | 0.2647 | 9.690 | 2.428 | 3.230 |
| 2/20/2004 | 11:26 | 0.2803 | 9.690 | 2.451 | 3.207 |
| 2/20/2004 | 11:26 | 0.2970 | 9.690 | 2.478 | 3.180 |
| 2/20/2004 | 11:26 | 0.3145 | 9.690 | 2.504 | 3.154 |
| 2/20/2004 | 11:26 | 0.3333 | 9.690 | 2.531 | 3.127 |
| 2/20/2004 | 11:26 | 0.3532 | 9.690 | 2.561 | 3.097 |
| 2/20/2004 | 11:26 | 0.3740 | 9.690 | 2.591 | 3.067 |
| 2/20/2004 | 11:26 | 0.3963 | 9.690 | 2.622 | 3.036 |
| 2/20/2004 | 11:26 | 0.4198 | 9.690 | 2.656 | 3.002 |
| 2/20/2004 | 11:26 | 0.4445 | 9.690 | 2.690 | 2.968 |
| 2/20/2004 | 11:26 | 0.4695 | 9.690 | 2.724 | 2.934 |
| 2/20/2004 | 11:26 | 0.4963 | 9.690 | 2.760 | 2.898 |
| 2/20/2004 | 11:26 | 0.5247 | 9.690 | 2.794 | 2.864 |
| 2/20/2004 | 11:27 | 0.5547 | 9.690 | 2.829 | 2.829 |
| 2/20/2004 | 11:27 | 0.5862 | 9.690 | 2.863 | 2.795 |
| 2/20/2004 | 11:27 | 0.6213 | 9.690 | 2.904 | 2.754 |
| 2/20/2004 | 11:27 | 0.6578 | 9.690 | 2.939 | 2.719 |
| 2/20/2004 | 11:27 | 0.6963 | 9.690 | 2.975 | 2.683 |
| 2/20/2004 | 11:27 | 0.7380 | 9.690 | 3.013 | 2.645 |
| 2/20/2004 | 11:27 | 0.7813 | 9.690 | 3.052 | 2.606 |
| 2/20/2004 | 11:27 | 0.8278 | 9.690 | 3.092 | 2.566 |
| 2/20/2004 | 11:27 | 0.8762 | 9.690 | 3.136 | 2.522 |
| 2/20/2004 | 11:27 | 0.9278 | 9.690 | 3.183 | 2.475 |
| 2/20/2004 | 11:27 | 0.9828 | 9.690 | 3.231 | 2.427 |
| 2/20/2004 | 11:27 | 1.0412 | 9.690 | 3.282 | 2.376 |
| 2/20/2004 | 11:27 | 1.1030 | 9.690 | 3.333 | 2.325 |

| Date | Time | ET (min) | Chan[1] Celsius | Chan[2] Feet H2O | Calculated Feet DD |
|---|---|---|---|---|---|
| 2/20/2004 | 11:27 | 1.1678 | 9.690 | 3.388 | 2.270 |
| 2/20/2004 | 11:27 | 1.2380 | 9.690 | 3.441 | 2.217 |
| 2/20/2004 | 11:27 | 1.3113 | 9.690 | 3.500 | 2.158 |
| 2/20/2004 | 11:27 | 1.3895 | 9.690 | 3.555 | 2.103 |
| 2/20/2004 | 11:27 | 1.4728 | 9.690 | 3.612 | 2.046 |
| 2/20/2004 | 11:28 | 1.5613 | 9.690 | 3.667 | 1.991 |
| 2/20/2004 | 11:28 | 1.6547 | 9.690 | 3.718 | 1.940 |
| 2/20/2004 | 11:28 | 1.7530 | 9.690 | 3.764 | 1.894 |
| 2/20/2004 | 11:28 | 1.8580 | 9.690 | 3.815 | 1.843 |
| 2/20/2004 | 11:28 | 1.9678 | 9.690 | 3.862 | 1.796 |
| 2/20/2004 | 11:28 | 2.0845 | 9.690 | 3.921 | 1.737 |
| 2/20/2004 | 11:28 | 2.2097 | 9.690 | 3.978 | 1.680 |
| 2/20/2004 | 11:28 | 2.3412 | 9.690 | 4.037 | 1.621 |
| 2/20/2004 | 11:28 | 2.4812 | 9.690 | 4.105 | 1.553 |
| 2/20/2004 | 11:29 | 2.6297 | 9.690 | 4.174 | 1.484 |
| 2/20/2004 | 11:29 | 2.7863 | 9.710 | 4.237 | 1.421 |
| 2/20/2004 | 11:29 | 2.9530 | 9.710 | 4.307 | 1.351 |
| 2/20/2004 | 11:29 | 3.1297 | 9.710 | 4.377 | 1.281 |
| 2/20/2004 | 11:29 | 3.3162 | 9.710 | 4.449 | 1.209 |
| 2/20/2004 | 11:29 | 3.5145 | 9.720 | 4.518 | 1.140 |
| 2/20/2004 | 11:30 | 3.7245 | 9.720 | 4.586 | 1.072 |
| 2/20/2004 | 11:30 | 3.9463 | 9.730 | 4.655 | 1.003 |
| 2/20/2004 | 11:30 | 4.1812 | 9.750 | 4.724 | 0.934 |
| 2/20/2004 | 11:30 | 4.4295 | 9.760 | 4.793 | 0.865 |
| 2/20/2004 | 11:31 | 4.6928 | 9.760 | 4.863 | 0.795 |
| 2/20/2004 | 11:31 | 4.9728 | 9.770 | 4.934 | 0.724 |
| 2/20/2004 | 11:31 | 5.2697 | 9.780 | 4.999 | 0.659 |
| 2/20/2004 | 11:32 | 5.5830 | 9.780 | 5.056 | 0.602 |
| 2/20/2004 | 11:32 | 5.9145 | 9.800 | 5.104 | 0.554 |
| 2/20/2004 | 11:32 | 6.2663 | 9.800 | 5.147 | 0.511 |
| 2/20/2004 | 11:33 | 6.6395 | 9.800 | 5.195 | 0.463 |
| 2/20/2004 | 11:33 | 7.0345 | 9.810 | 5.241 | 0.417 |
| 2/20/2004 | 11:33 | 7.4530 | 9.810 | 5.288 | 0.370 |
| 2/20/2004 | 11:34 | 7.8962 | 9.820 | 5.331 | 0.327 |
| 2/20/2004 | 11:34 | 8.3663 | 9.820 | 5.378 | 0.280 |
| 2/20/2004 | 11:35 | 8.8645 | 9.830 | 5.417 | 0.241 |
| 2/20/2004 | 11:35 | 9.3913 | 9.830 | 5.453 | 0.205 |
| 2/20/2004 | 11:36 | 9.9497 | 9.830 | 5.485 | 0.173 |
| 2/20/2004 | 11:37 | 10.5413 | 9.850 | 5.514 | 0.144 |
| 2/20/2004 | 11:37 | 11.1680 | 9.850 | 5.535 | 0.123 |
| 2/20/2004 | 11:38 | 11.8312 | 9.850 | 5.554 | 0.104 |
| 2/20/2004 | 11:38 | 12.5347 | 9.850 | 5.571 | 0.087 |
| 2/20/2004 | 11:39 | 13.2795 | 9.860 | 5.583 | 0.075 |
| 2/20/2004 | 11:40 | 14.0695 | 9.860 | 5.594 | 0.064 |
| 2/20/2004 | 11:41 | 14.9062 | 9.860 | 5.602 | 0.056 |
| 2/20/2004 | 11:42 | 15.7913 | 9.860 | 5.609 | 0.049 |

**APPENDIX G**

**GEOPHYSICAL INVESTIGATION REPORT –**
**QUANTUM GEOPHYSICS, INC.**

**QUANTUM**GEOPHYSICS, INC.

Engineering, Groundwater & Environmental Geophysics

December 6, 2004

Bob Zei
Forensic Environmental Services, Inc.
113 John Robert Thomas Drive
Exton, PA 19341

Re: Final Report
Geophysical Investigation
Former Norton/Nashua Tape Products Facility
Alden Street and Craig Street
Watervliet, New York

Bob,

This report presents the findings of Quantum Geophysics, Inc.'s geophysical investigation in Watervliet, New York. The investigation focused on the northern perimeter of the former Norton/Nashua Tape Products facility, and the adjacent Alden Street and Craig Street. The investigation included a 2-D electrical resistivity imaging (ERI) survey, an EM61 metal detector survey, and a ground penetrating radar survey to identify a potential conduit in the vicinity of MP-6. This potential conduit could be a buried pipe or a permeable channel deposit of sands and gravels in the underlying till, and is suspected as a pathway for the migration of elevated toluene observed in Alden Street. The conduit, if present, would be located within the overburden soils (as opposed to rock).

The surveys were carried-out October 25 and 26, 2004 by Quantum's principal Richard Lee and technicians Justin Dietrich and Dan Stiansen. The ERI survey included a total of 4 lines designated A-A', B-B', C-C', and D-D'. A-A' is located in Alden Street, B-B' is located in Craig Street, C-C' is located just south of the Delaware & Hudson RR track, and D-D' is located just north of the Lands N/F Consolidated RR track on the former Norton/Nashua property. The EM61 was run only along A-A', inaccessibility and interference from underground utilities and parked vehicles precluded using EM61 on other lines. The GPR was run along lines A-A', C-C', and D-D'. No GPR data were acquired along B-B' because of extensive brush cover.

Forensic Environmental Services, Inc. provided an electronic copy of a sitemap (Craig-St.dwg) for the purpose of plotting the geophysical findings.

## TECHNICAL APPROACH

A. 2-D ERI Survey

The survey was conducted using an Advanced Geoscience Inc. (AGI) SuperSting R8 earth resistivity imaging system and 34 18" stainless steel, non-polarizing stakes (electrodes). Data were acquired using the Dipole-Dipole Array with electrodes spaced 3 meters apart. The relative elevation along each line was measured using a 2X handlevel and stadia rod, and recorded in a fieldbook so that the electrical resistivity profile can be constructed with respect to ground surface. Contact resistance measurements (conducted prior to data collection as a means of gauging electrode-to-earth coupling) were generally less than 1,000 ohms (Ω). Good quality data can be expected when contact resistance is less than about 1,000 Ω.

In the office, the electrical resistivity data were downloaded onto a PC, elevations were incorporated into the data files and then the data were inverted into a model of true electrical resistivity using the AGI software program ***EarthImager 2D. EarthImager 2D*** divides the subsurface into a number of rectangular blocks and determines the resistivities of the rectangular blocks that will produce an apparent resistivity pseudosection that agrees with the actual measurements. Several iterations of modeling are conducted to reduce the difference between the calculated and measured apparent resistivity values by adjusting the resistivity of the model blocks.

The processed data were entered into the surface applications program Surfer for Windows, gridded using the Kriging Method with an octant search, contoured at an interval of 50 ohm-feet, annotated , and then printed at a scale of 1" = 50 feet.

B. EM61 Survey

The EM61 was operated in the "wheel-mode" whereby data were automatically acquired every 0.86 feet of traverse. In the office, a profile of the data was constructed using Grapher for Windows and printed at a scale of 1" = 40 feet.

C. Ground Penetrating Radar (GPR) Survey

The GPR survey was conducted using a Geophysical Survey Systems, Inc. SIR2 subsurface radar system and a 400 MHz antenna. Radar data were acquired at 8-bits/sample, 512 samples/scan, and 32 scans/second, with a recording period of 60 nanoseconds (nsec). The system was configured to explore to a depth of roughly 6 feet below ground surface (based upon an approximate velocity of 1-foot/10 nsec 2-way travel-time). The antenna was hand-towed along the ground surface at a rate of approximately 2 feet per second.

## FINDINGS

A sitemap with the 4 geophysical survey lines is shown in Figure 1. Fully annotated electrical resistivity profiles for A-A', B-B', C-C' and D-D' are provided in Figures 2, 3, 4, and 5, respectively. The EM61 profile along A-A' is shown in Figure 6. The GPR profile along A-A' through the section of elevated toluene is shown in Figure 7. The GPR profile along C-C' through the section of elevated toluene (and potential conduit) is shown in Figure 8.

The center portion of the ERI profile along A-A' (from station 140 to 200) is impacted by buried utilities/piping, monitoring wells, and/or other identified man-made structures, and all of D-D' is impacted by buried utilities/piping. Buried metal piping attracts electrical current. In so doing, it creates a low current density field which leads to very low, ***artificial*** electrical resistivity measurements.

Based upon the geophysical data:

- No linear electrical resistivity anomaly suggestive of a buried channel deposit was observed in the overburden soils trending from the former plant facility to Alden Street. No Gaussian-shaped anomaly in the EM61 data suggestive of a buried pipe was observed on A-A' where elevated toluene is reported. Lastly, no linear trend of high-amplitude, parabolic-shaped radar anomalies was observed between the former facility and Alden Street.

- Two (2) parabolic-shaped GPR targets suggestive of buried pipes were observed on A-A', specifically at stations 137 and 142 (Figure 7), which are located at least 10 to 15 feet west of the area of elevated toluene. It appears that they are not pipes because similar GPR responses that would form a linear trend from the former Norton/Nashua property to Alden Street are not observed on profile C-C'. The EM61 data (see Figure 6) indicate these GPR targets are not constructed of metal.

- Fracture-like anomalies were identified on profiles B-B' and C-C'. They are observed in the ERI data as a thin, near-vertical zone of relatively low electrical resistivity measurements. The potential fracture trend projects into a portion of profile A-A' where the data is impacted by buried utilities/piping.

Quantum is pleased to be of service to Forensic Environmental Services, Inc. Please call if you have any questions or if we can be of further assistance.

Sincerely,

***Quantum** Geophysics, Inc.*

Richard K. Lee

Richard K. Lee, P.G., R. GP.
President and Principal Geophysicist

RKL/jas

*F:\MY DOCUMENTS\REPORTS\FORENSIC2.WPD*

LEGEND

C ——— C' 2-D ERI Line.

• Pipe-Like Target.

X Fracture-Like Anomaly.

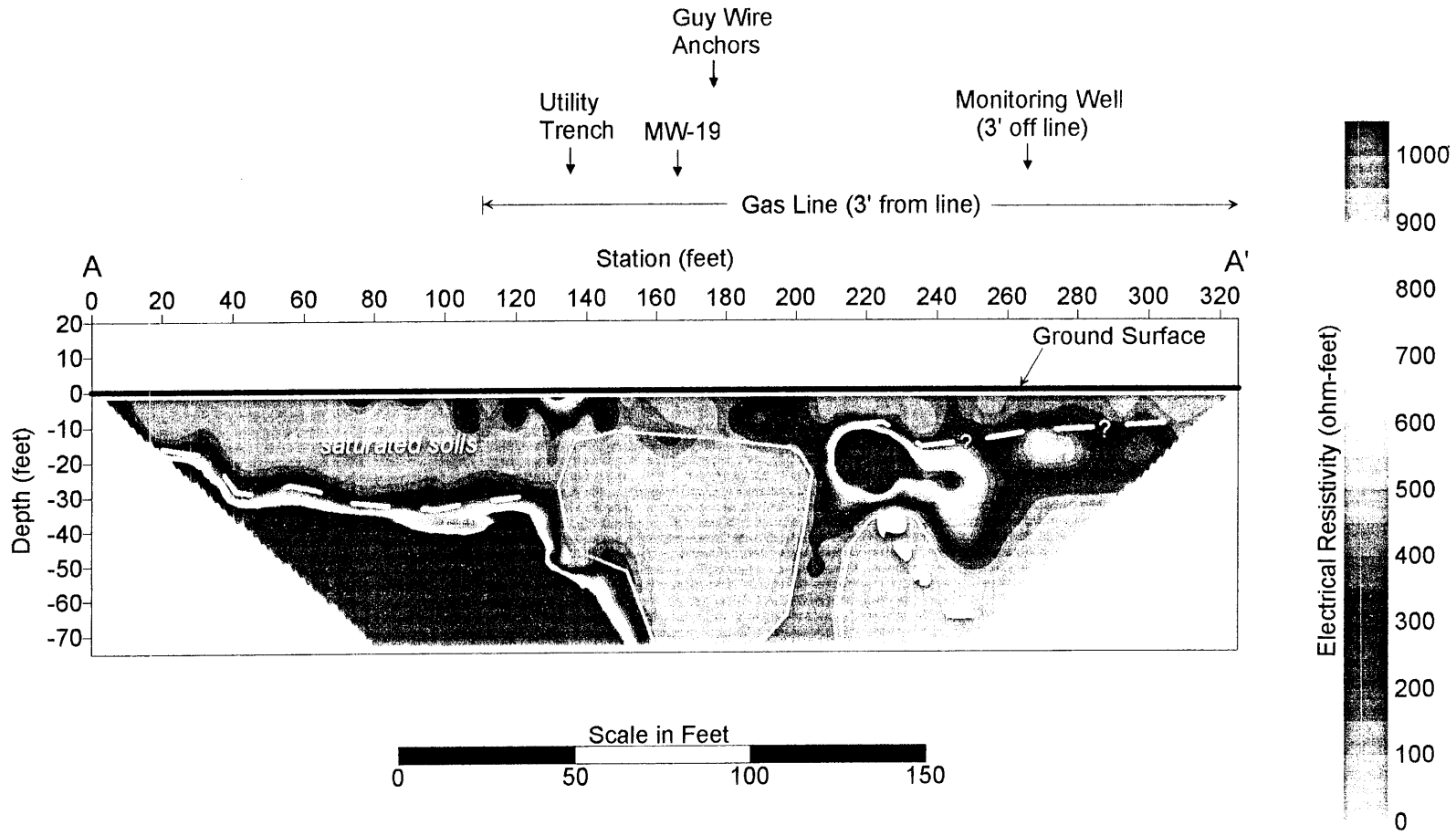
Potential Fracture.

Approximate Location of Reported Elevated Toluene.

QUANTUM GEOPHYSICS, INC.
Engineering, Groundwater, and Environmental Geophysics
29 Richard Lee Lane, Phoenixville, PA 19460

Sitemap
Alden Street and Craig Street
Albany, New York

| For: | Forensic Environmental | | Figure |
|---|---|---|---|
| Date: 12-6-04 | Project No.: 04-0139 | File: C:\Forensic\Albany\Figure 1.dwg | 1 |




LEGEND

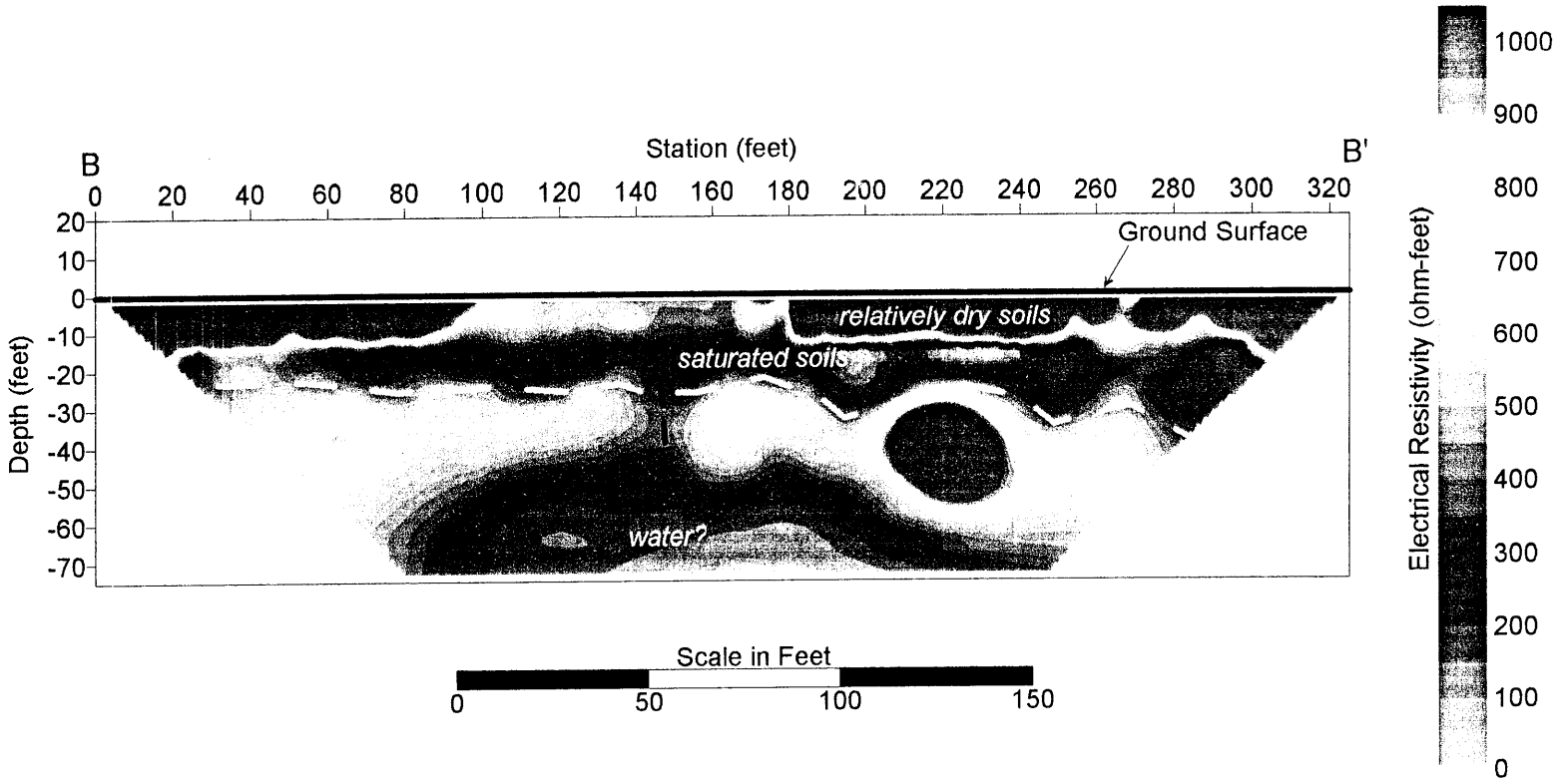
Probable Top of Rock,
Querried Where Questionable.

Anomalously Low Electrical Resistivity Measurements
Caused by Nearby Buried Piping, Monitoring Wells,
and/or Other Man-Made Structures.


QUANTUM GEOPHYSICS, INC.
Engineering, Groundwater, and Environmental Geophysics
29 Richard Lee Lane, Phoenixville, PA 19460


ERI Profile A-A'
Alden Street and Craig Street
Albany, New York

| For: | Forensic Environmental | | Figure |
|---|---|---|---|
| Date: 12-6-04 | Project No.: 04-0139 | File: C:\Forensic\Albany\Figure 2.dwg | 2 |




LEGEND

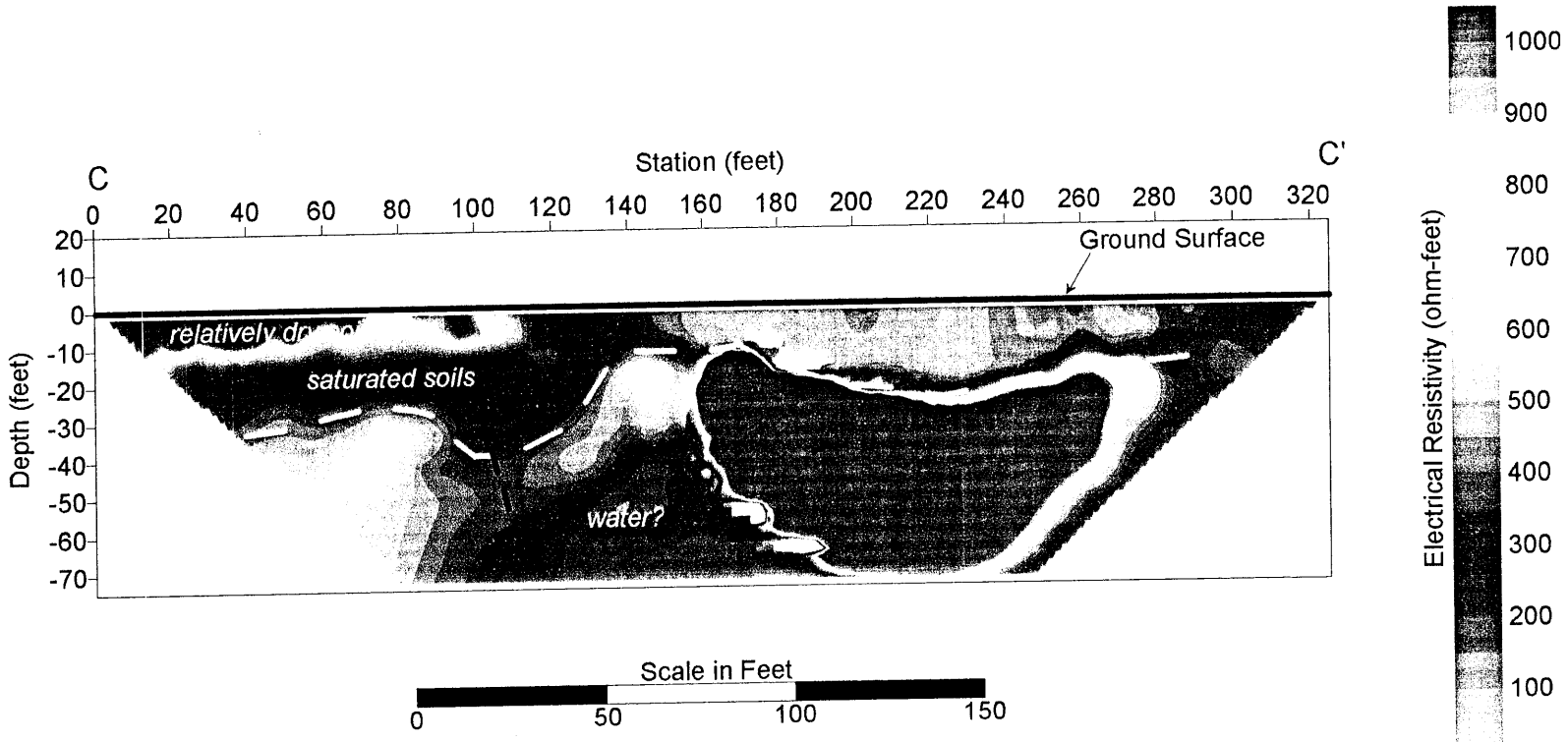
Probable Top of Rock.

Potential Fracture.


QUANTUM GEOPHYSICS, INC.
Engineering, Groundwater, and Environmental Geophysics
29 Richard Lee Lane, Phoenixville, PA 19460


ERI Profile B-B'
Alden Street and Craig Street
Albany, New York

| For: | Forensic Environmental | | Figure |
|---|---|---|---|
| Date: 12-6-04 | Project No.: 04-0139 | File: C:\Forensic\Albany\Figure 3.dwg | 3 |




LEGEND

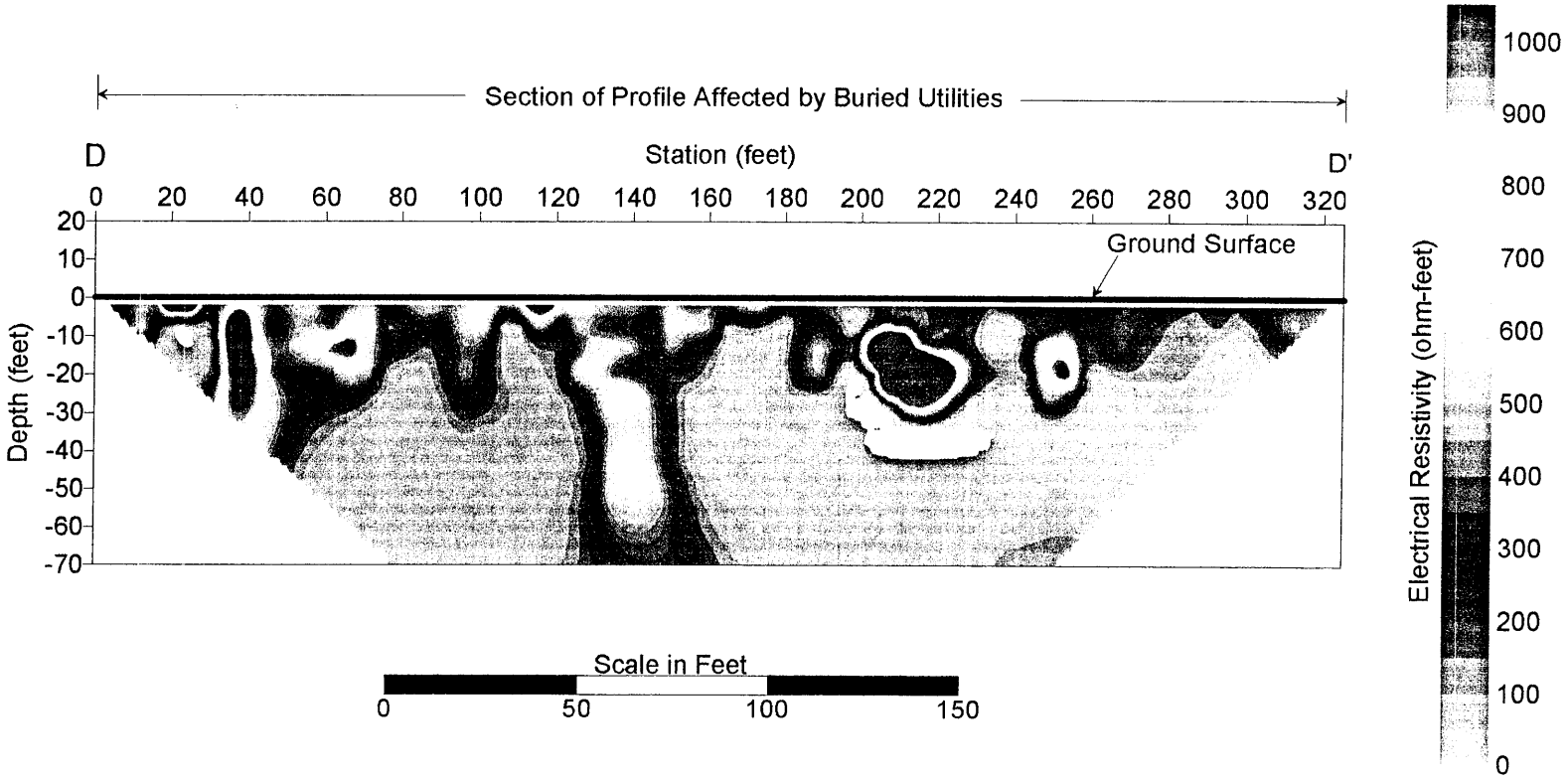
Probable Top of Rock.

Potential Fracture.

QUANTUM GEOPHYSICS, INC.
Engineering, Groundwater, and Environmental Geophysics
29 Richard Lee Lane, Phoenixville, PA 19460

ERI Profile C-C'
Alden Street and Craig Street
Albany, New York

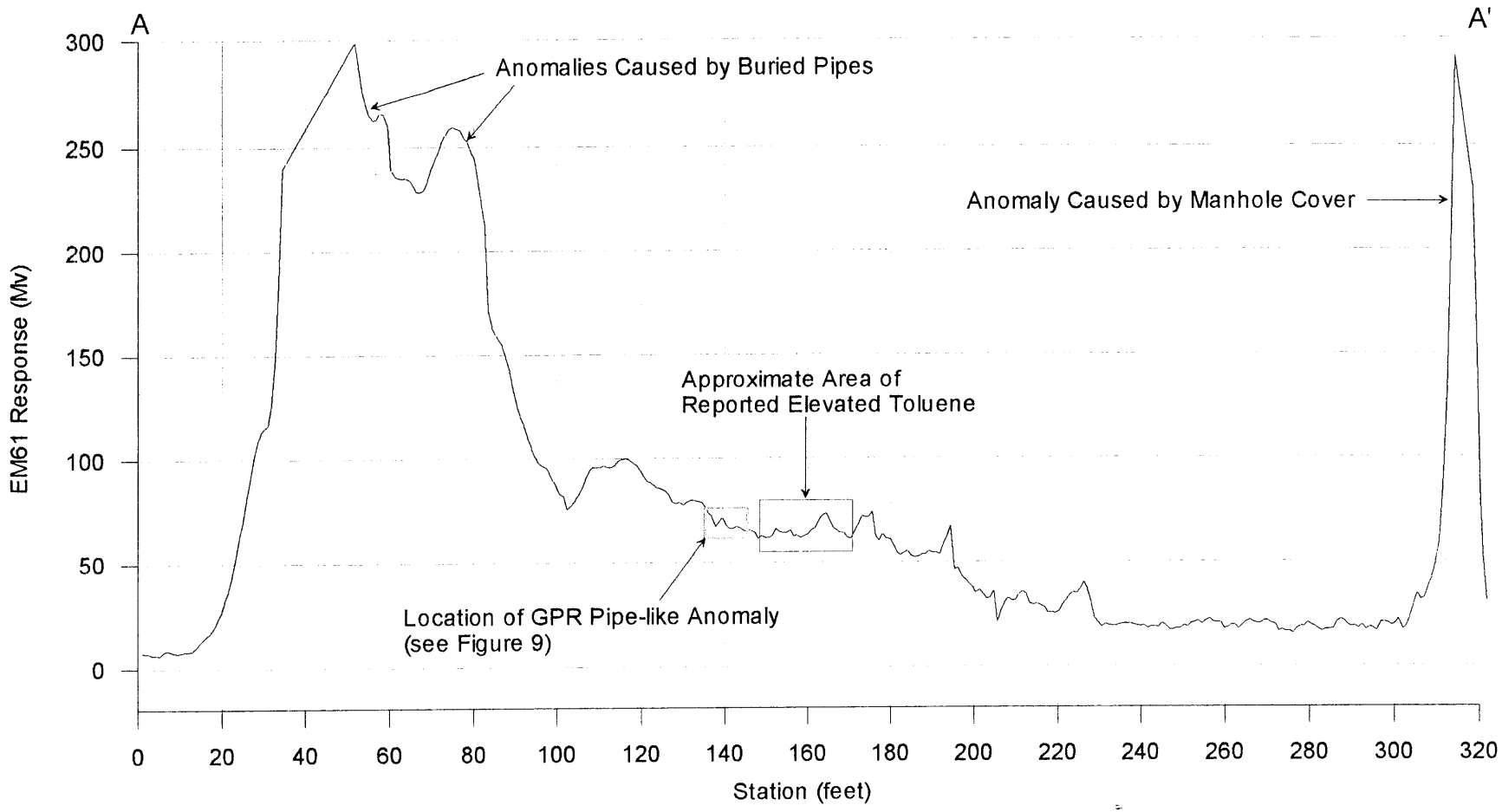
| For: | Forensic Environmental | | Figure |
|---|---|---|---|
| Date: 12-6-04 | Project No.: 04-0139 | File: C:\Forensic\Albany\Figure 4.dwg | 4 |




**QUANTUM GEOPHYSICS, INC.**
*Engineering, Groundwater, and Environmental Geophysics*
*29 Richard Lee Lane, Phoenixville, PA 19460*

# ERI Profile D-D'
# Alden Street and Craig Street
# Albany, New York

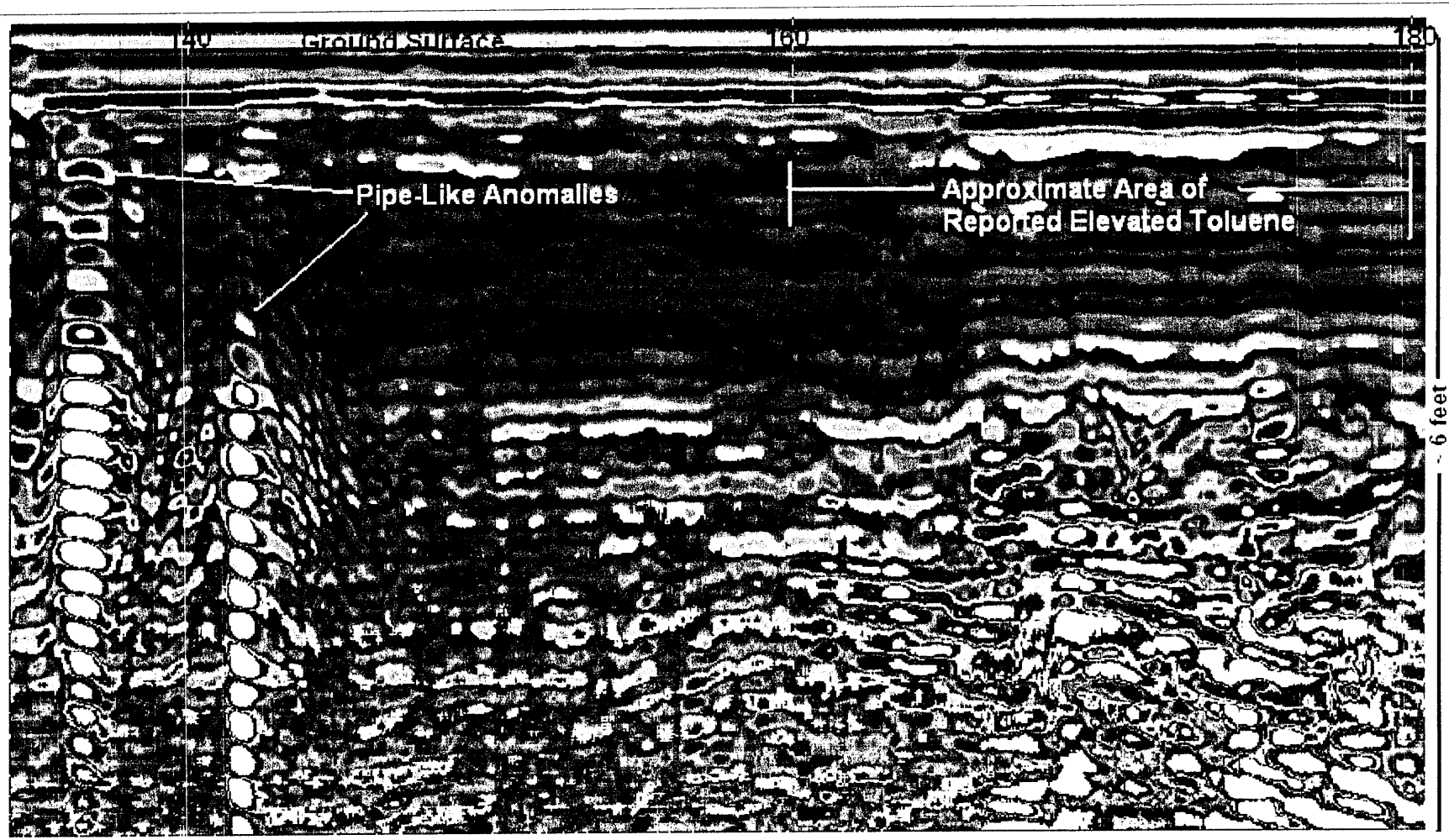
| For: | Forensic Environmental | | Figure |
|---|---|---|---|
| Date: 12-6-04 | Project No.: 04-0139 | File: C:\Forensic\Albany\Figure 5.dwg | 5 |




QUANTUM GEOPHYSICS, INC.
Engineering, Groundwater, and Environmental Geophysics
29 Richard Lee Lane, Phoenixville, PA 19460

EM61 Profile A-A'
Alden Street and Craig Street
Albany, New York

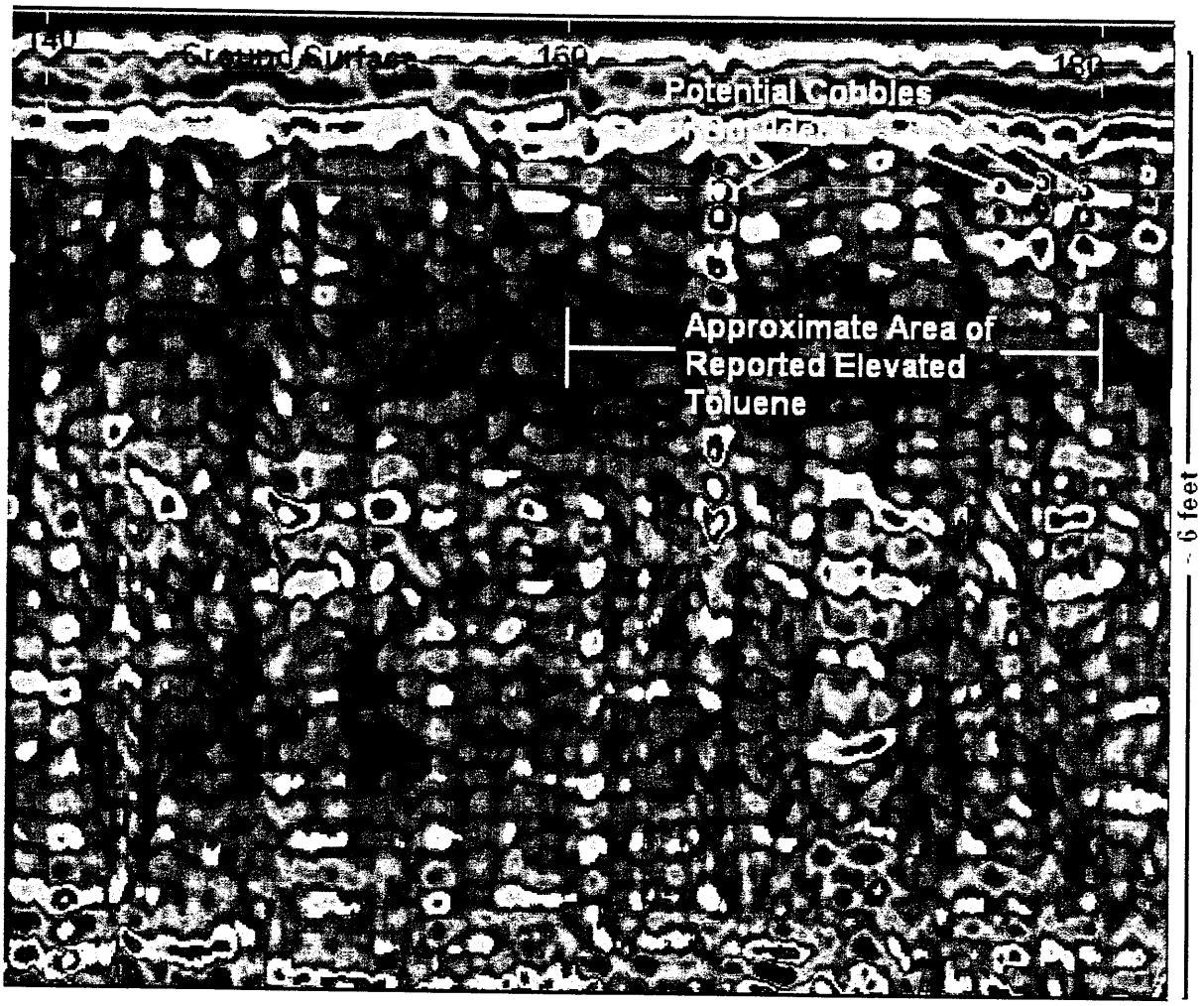
| For: | Forensic Environmental | | Figure |
|---|---|---|---|
| Date: 12-6-04 | Project No.: 04-0139 | File: C:\Forensic\Albany\Figure 6.dwg | 6 |




QUANTUM GEOPHYSICS, INC.
Engineering, Groundwater, and Environmental Geophysics
29 Richard Lee Lane, Phoenixville, PA 19460

GPR Profile A-A', Station 140 to 180
Alden Street and Craig Street
Albany, New York

| For: | Forensic Environmental | | Figure |
|---|---|---|---|
| Date: 12-6-04 | Project No.: 04-0139 | File: C:\Forensic\Albany\Figure 7.dwg | 7 |




**QUANTUM** GEOPHYSICS, INC.
*Engineering, Groundwater, and Environmental Geophysics*
*29 Richard Lee Lane, Phoenixville, PA 19460*

GPR Profile C-C', Station 140 to 180
Alden Street and Craig Street
Albany, New York

| For: | | Figure |
|---|---|---|
| Forensic Environmental | | |
| Date: 12-6-04 | Project No.: 04-0139 | File: C:\Forensic\Albany\Figure 8.dwg |

8

# APPENDIX H

# INDOOR AIR QUALITY QUESTIONNAIRE
# AND
# BUILDING CHARACTERISTICS INVENTORY FORMS

# APPENDIX H
## Table
## Product Inventory Information
## Alden Street Residential Indoor Air Sampling
## Former Norton/Nashua Tape Products Facility
## Watervliet, New York



| Address | Location | Product Description | Size | Condition | Chemical Ingredients | PID Reading (ppb) | Photo |
|---|---|---|---|---|---|---|---|
| **21 Alden** | Back Porch | Windex | 10 oz. | Good | Solvents, surfactant, ammonia, water | 0.0 | Yes |
| | | S-T Drain Opener | 10 oz. | Good | Sulfuric acid | 0.0 | Yes |
| | | GE Silicone Rubber Sealant (2) | 32 oz. | Good | VOC <35 g/L | 0.0 | Yes |
| | | Plumbers Putty | 14 oz. | Good | No Ingredient Information | 0.0 | Yes |
| | | Raid (2) | 11 oz. | Good | Pyethrins, piperonyl butoxide | 0.0 | Yes |
| | | Scotch Guard | 10 oz. | Empty | Aliphatic hydrocarbon | 0.0 | Yes |
| | | WD-40 | 9.3 oz. | Good | Petroleum distillates | 0.0 | Yes |
| | Basement | Tru-Value Latex Semi-Gloss Paint | 2 gal. | Good | Thanium dioxide, ethylene glycol, vinyl acrylic resin, 223 trimethylpentanediol monoisobutyrate, VOC <200 g/L | 0.0 | No |
| **23 Alden** | Unknown | Windex | NA | NA | NA | NM | No |

# APPENDIX H
## Table
## Product Inventory Information
## Residential Indoor Air Sampling
## Former Norton/Nashua Tape Products Facility
## Watervliet, New York



| Address | Location | Product Description | Size | Condition | Chemical Ingredients | PID Reading (ppb) | Photo |
|---|---|---|---|---|---|---|---|
| **25 Alden** | Kitchen | Lysol Anti-Bacterial Kitchen cleaner | 22 oz. | Good | NA | 0.0 | Yes |
| | | Ortho Home Defense Insect Killer | 24 oz. | Good | NA | 0.0 | Yes |
| | | Cascade | 75 oz. | Good | NA | 0.0 | Yes |
| | | Orange Clean | 22 oz. | Good | NA | 0.0 | Yes |
| | | Easy Off BAM | 24 oz. | Good | NA | 0.0 | Yes |
| | | Windex | 32 oz. | Good | NA | 0.0 | Yes |
| | | Febreze | 32 oz. | Good | NA | 0.0 | Yes |
| | | Murphy's Oil Soap | 32 oz. | Good | NA | 0.0 | Yes |
| | | Lysol Floor Cleaner | 64 oz. | Good | NA | 0.0 | Yes |
| | | Lysol Mildew Remover | 30 oz. | Good | NA | 0.0 | Yes |
| | | Mr. Clean antibacterial | 40 oz. | Good | NA | 0.0 | Yes |
| | Basement | Easy Living White Paint | 1 gal. | Good | 2(2-butoxyethoxy) ethanol | 0.0 | Yes |
| | | Sherwin Williams Semi-Gloss Enamel | 2 gal. | Good | 2(2-butoxyethoxy) ethanol | 0.0 | Yes |
| | | Joint Compound | 1 gal. | Good | No Ingredient Information | 0.0 | No |
| | | Sherwin Williams SWP External Gloss | 1 gal. | Good | Mineral spirits, alkyd polymer | 0.0 | Yes |
| | | Bix Stripper | NA | Deteriorated | No Ingredient Information | 0.0 | Yes |
| | | 10W-30 Motor Oil | 5 qts. | Good | Motor Oil | 0.0 | No |
| | | Kilz Sealer/Primer | 1 qt. | Good | Aliphatic hydrocarbons | 0.0 | No |

Notes:

1. NA = not available; NM = not measured.
2. PID = photoionization detector; g/L = grams per liter; ppb = parts per billion; oz. = ounce; gal. = gallon; qt. = quart.
3. A detailed product inventory could not be conducted at 23 Alden St.

**NEW YORK STATE DEPARTMENT OF HEALTH**
**INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY**
**CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Bryan Machella Date/Time Prepared 2/13/06

Preparer's Affiliation FES Phone No. 610-594-3940

Purpose of Investigation Indoor Air Sampling Survey

**1. OCCUPANT:**

**Interviewed:** (Y) / N

Last Name: Holupka First Name: Mike

Address: 21 Alden St. Watervliet, NY

County: Albany

Home Phone: 518-273-2139 Office Phone: NA

Number of Occupants/persons at this location 2 Age of Occupants Mike (59) Mother (85)

**2. OWNER OR LANDLORD:** (Check if same as occupant X )

**Interviewed: Y / N**

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

**3. BUILDING CHARACTERISTICS**

**Type of Building:** (Circle appropriate response)

| | | |
|---|---|---|
| (Residential) | School | Commercial/Multi-use |
| Industrial | Church | Other: _____ |

**If the property is residential, type?** (Circle appropriate response)

| | | |
|---|---|---|
| Ranch | 2-Family | 3-Family |
| Raised Ranch | Split Level | Colonial |
| Cape Cod | Contemporary | Mobile Home |
| Duplex | Apartment House | Townhouses/Condos |
| Modular | Log Home | Other: SINGLE FAMILY |

**If multiple units, how many?** _____

**If the property is commercial, type?**

Business Type(s) _____

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

**Other characteristics:**

Number of floors 3 Building age ≈ 100 yrs 1895 on deed ?

Is the building insulated? (Y) / N How air tight? Tight / Average / (Not Tight)

4. **AIRFLOW**

**Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:**

Airflow between floors

Under

Airflow near source

Outdoor air infiltration

under front door

windows - tight

Infiltration into air ducts

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

| | | | | |
|---|---|---|---|---|
| **a. Above grade construction:** | wood frame | concrete | stone | brick |
| **b. Basement type:** | full | crawlspace | slab | other _____ |
| **c. Basement floor:** | concrete | dirt | stone | other _____ |
| **d. Basement floor:** | uncovered | covered | covered with _____ | |
| **e. Concrete floor:** | unsealed | sealed | sealed with _____ | |
| **f. Foundation walls:** | poured WEST | block EAST | stone | other _____ |
| **g. Foundation walls:** | unsealed | sealed | sealed with _____ | |
| **h. The basement is:** | wet | damp | dry | moldy |
| **i. The basement is:** | finished | unfinished | partially finished | |
| **j. Sump present?** | Y / N | | | |
| **k. Water in sump?** | Y / N / not applicable | | | |

**Basement/Lowest level depth below grade:** ~6.5 (feet)

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)**

Basement is part slab, part dirt (weathered concrete)

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

**Type of heating system(s) used in this building: (circle all that apply – note primary)**

| | | | |
|---|---|---|---|
| Hot air circulation ? | Heat pump | Hot water baseboard | |
| Space Heaters | Stream radiation | Radiant floor | |
| Electric baseboard | Wood stove | Outdoor wood boiler | Other FURNACE |

**The primary type of fuel used is:**

| | | |
|---|---|---|
| Natural Gas | Fuel Oil | Kerosene |
| Electric | Propane | Solar |
| Wood | Coal | |

**Domestic hot water tank fueled by:** FURNACE - GAS

**Boiler/furnace located in:** Basement Outdoors Main Floor Other_____

**Air conditioning:** Central Air Window units (Open Windows) None



**Are there air distribution ducts present?** Y / (N)

**Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.**

_____

_____

_____

_____

## 7. OCCUPANCY

**Is basement/lowest level occupied?** Full-time Occasionally Seldom (Almost Never)

| **Level** | **General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)** |
|---|---|
| Basement | NO OCCUPANCY |
| 1st Floor | LIVING SPACE |
| 2nd Floor | NO OCCUPANCY |
| 3rd Floor | NA Not Applicable |
| 4th Floor | NA |

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

**a. Is there an attached garage?** Y / (N)

**b. Does the garage have a separate heating unit?** Y / N / (NA)

**c. Are petroleum-powered machines or vehicles stored in the garage** (e.g., lawnmower, atv, car) Y / N / (NA)
Please specify_____

**d. Has the building ever had a fire?** Y / (N) When?_____

**e. Is a kerosene or unvented gas space heater present?** Y / (N) Where?_____

**f. Is there a workshop or hobby/craft area?** Y / (N) Where & Type? _____

**g. Is there smoking in the building?** (Y) / N How frequently? 1 pack/day

**h. Have cleaning products been used recently?** Y / (N) When & Type? _____

**i. Have cosmetic products been used recently?** (Y) / N When & Type? After shave perfume deodorant



**j. Has painting/staining been done in the last 6 months?** (Y) / N Where & When? JAN 06 Downstairs Bath Room

**k. Is there new carpet, drapes or other textiles?** Y / (N) Where & When? _____

**l. Have air fresheners been used recently?** (Y) / N When & Type? Spray type - Daily

**m. Is there a kitchen exhaust fan?** Y / (N) If yes, where vented? _____

**n. Is there a bathroom exhaust fan?** Y / (N) If yes, where vented? _____

**o. Is there a clothes dryer?** (Y) / N If yes, is it vented outside? Y / (N)

**p. Has there been a pesticide application?** Y / (N) When & Type? _____

**Are there odors in the building?** Y / (N)
If yes, please describe: _____

**Do any of the building occupants use solvents at work?** (Y) / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? NA

If yes, are their clothes washed at work? Y / N

**Do any of the building occupants regularly use or work at a dry-cleaning service?** (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) (Unknown)
Yes, work at a dry-cleaning service

**Is there a radon mitigation system for the building/structure?** Y / (N) Date of Installation: _____
**Is the system active or passive?** Active/Passive

**9. WATER AND SEWAGE**

| | | | | | |
|---|---|---|---|---|---|
| **Water Supply:** | (Public Water) | Drilled Well | Driven Well | Dug Well | Other: _____ |
| **Sewage Disposal:** | (Public Sewer) | Septic Tank | Leach Field | Dry Well | Other: _____ |

**10. RELOCATION INFORMATION (for oil spill residential emergency)**

**a. Provide reasons why relocation is recommended:** _____

**b. Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

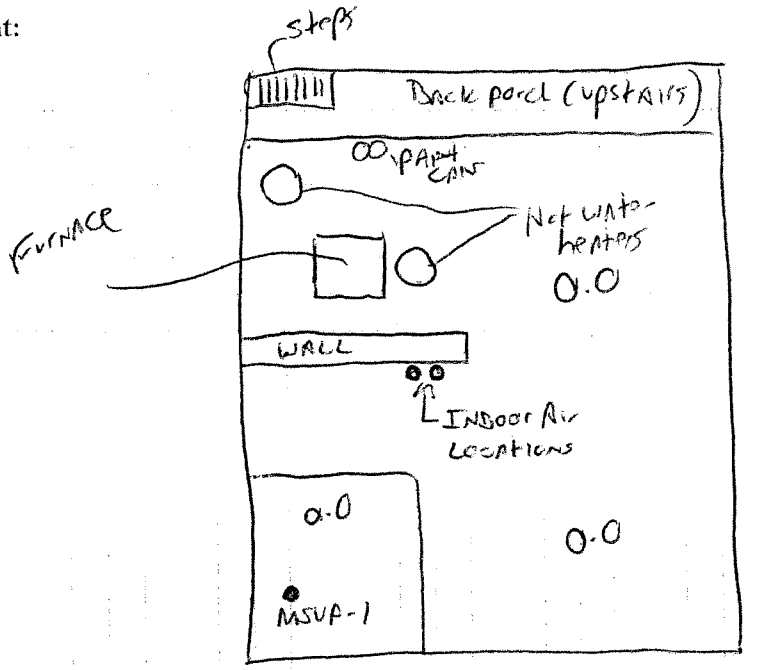
d. Relocation package provided and explained to residents? Y / N



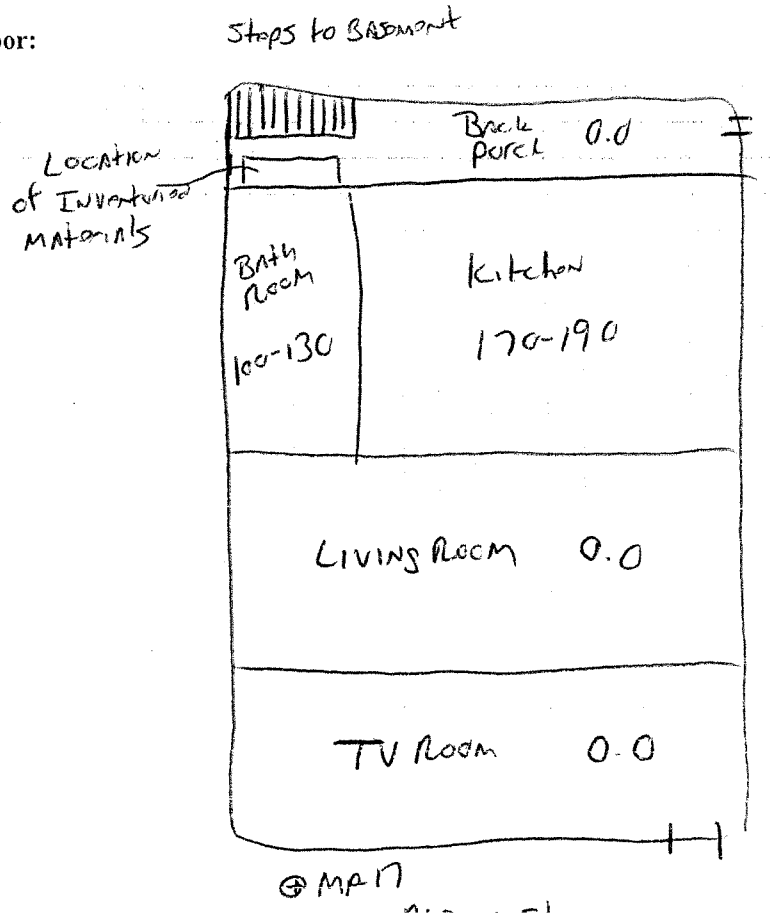
## 11. FLOOR PLANS

**Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.**

**Basement:**




**First Floor:**



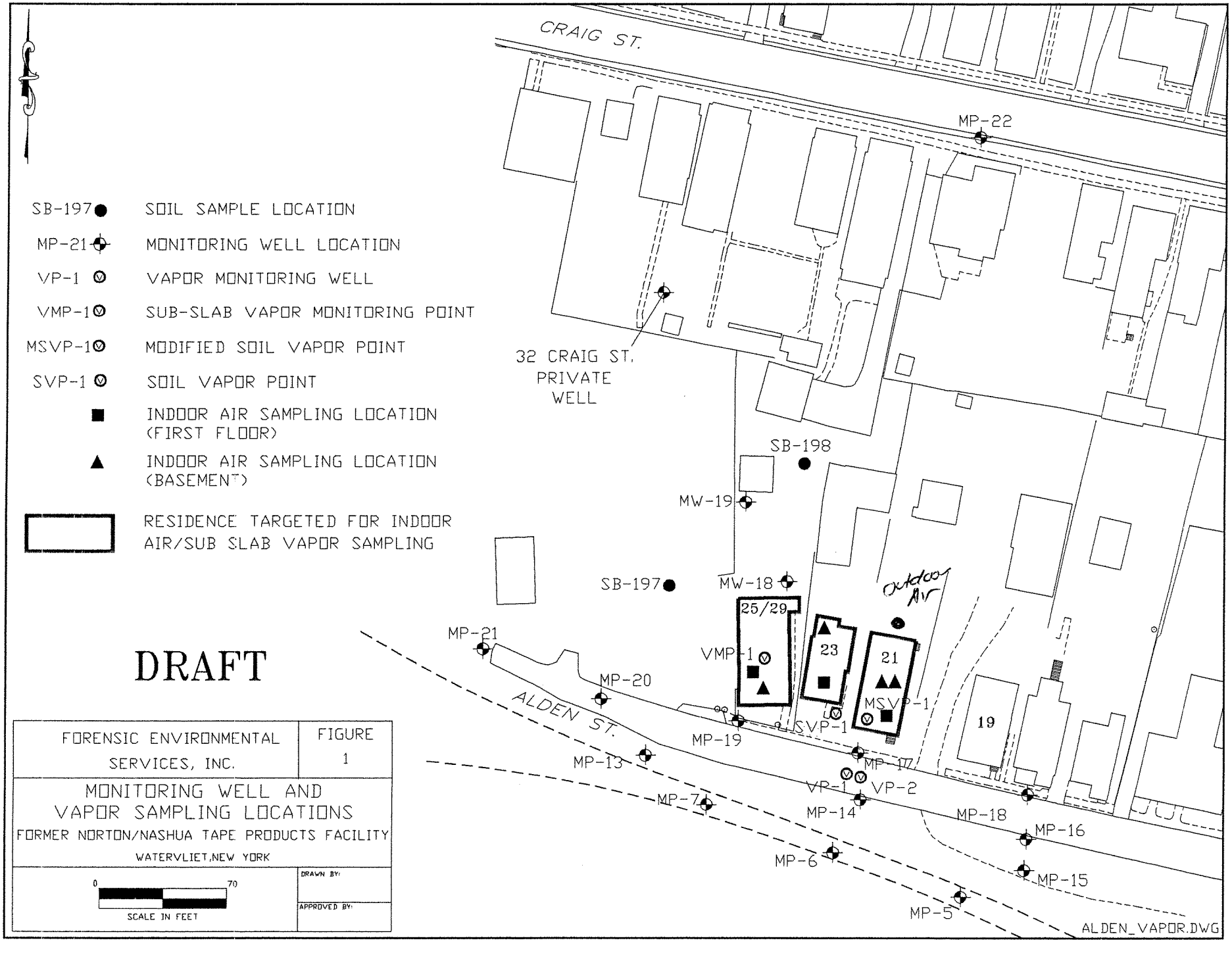
## 12. OUTDOOR PLOT

**Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.**

**Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.**

See Attached Figure

- Winds light/variable


SB-197 SOIL SAMPLE LOCATION
MP-21 MONITORING WELL LOCATION
VP-1 VAPOR MONITORING WELL
VMP-1 SUB-SLAB VAPOR MONITORING POINT
MSVP-1 MODIFIED SOIL VAPOR POINT
SVP-1 SOIL VAPOR POINT
INDOOR AIR SAMPLING LOCATION (FIRST FLOOR)
INDOOR AIR SAMPLING LOCATION (BASEMENT)
RESIDENCE TARGETED FOR INDOOR AIR/SUB SLAB VAPOR SAMPLING
DRAFT
CRAIG ST.
MP-22
32 CRAIG ST. PRIVATE WELL
SB-198
MW-19
SB-197
MW-18
outdoor air
25/29
23
21
19
MP-21
VMP-1
MSVP-1
MP-20
ALDEN ST.
SVP-1
MP-19
MP-13
MP-17
VP-1
VP-2
MP-7
MP-14
MP-18
MP-16
MP-6
MP-15
MP-5
ALDEN_VAPOR.DWG
FORENSIC ENVIRONMENTAL SERVICES, INC.
FIGURE 1
MONITORING WELL AND VAPOR SAMPLING LOCATIONS
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET,NEW YORK
0
70
SCALE IN FEET
DRAWN BY:
APPROVED BY:

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: PPB RAE

List specific products found in the residence that have the potential to affect indoor air quality.

| Location | Product Description | Size (units) | Condition* | Chemical Ingredients | Field Instrument Reading (units) | Photo** Y / N |
|---|---|---|---|---|---|---|
| Bathroom | WD-40 | 9.3 oz | Good | Petroleum distillates | 0 | Y |
| | Windex | = 10oz | good | Solvents, surfactant, ammonia water | 0 | Y |
| | STP Protectant | 32 oz | good | Sulfuric Acid | 0 | Y |
| (2) | GE Silicone Rubber Sealant | 10 oz | good | VOC < 35 g/L | 0 | Y |
| | Plumber's Putty | 14 oz | good | NA | 0 | Y |
| | Silicone rubber (2) | 10.1 oz ea | good | <35 g/L VOC | 0 | Y |
| | Raid (2) | 11 oz ea | good | pyrethrins / Piperonyl Butoxide | 0 | Y |
| | Scotch guard | empty | empty | Aliphatic hydrocarbon | 0 | Y |
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* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

# NEW YORK STATE DEPARTMENT OF HEALTH
# INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
# CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Bryan Machell A Date/Time Prepared 2/15/06

Preparer's Affiliation FES Phone No. 610-594-3940

Purpose of Investigation Indoor Air Sampling Survey

**1. OCCUPANT:**

**Interviewed: (Y) N**

Last Name: Ecclar First Name: Delia

Address: 23 Alden St Watervliet, NY

County: Albany

Home Phone: 518-273-2768 Office Phone: NA

Number of Occupants/persons at this location 1 Age of Occupants 85

**2. OWNER OR LANDLORD:** (Check if same as occupant X )

**Interviewed: Y / N**

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

**3. BUILDING CHARACTERISTICS**

**Type of Building:** (Circle appropriate response)

| | | |
|---|---|---|
| ~~Residential~~ | School | Commercial/Multi-use |
| Industrial | Church | Other: _____ |

**If the property is residential, type?** (Circle appropriate response)

| | | |
|---|---|---|
| Ranch | 2-Family | 3-Family |
| Raised Ranch | Split Level | Colonial |
| Cape Cod | Contemporary | Mobile Home |
| Duplex | Apartment House | Townhouses/Condos |
| Modular | Log Home | Other: SINGLE FAMILY |

**If multiple units, how many?** _____

**If the property is commercial, type?**

Business Type(s) _____

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

**Other characteristics:**

Number of floors 3 Building age 135

Is the building insulated? (Y) / N How air tight? Tight / (Average) / Not Tight

4. **AIRFLOW**

**Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:**

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

| | | | | |
|---|---|---|---|---|
| **a. Above grade construction:** | wood frame | concrete | stone | brick |
| **b. Basement type:** | full | crawlspace | slab | other PARTIAL |
| **c. Basement floor:** | concrete | dirt | stone | other _____ |
| **d. Basement floor:** | uncovered | covered | covered with _____ | |
| **e. Concrete floor:** | unsealed | sealed | sealed with _____ | |
| **f. Foundation walls:** | poured | block | stone | other _____ |
| **g. Foundation walls:** | unsealed | sealed | sealed with UNKNOWN - | |
| **h. The basement is:** | wet | damp | dry | moldy |
| **i. The basement is:** | finished | unfinished | partially finished | |
| **j. Sump present?** | Y / N | | | |
| **k. Water in sump?** | Y / N / not applicable | | | |

Basements step by rear wall

New footings poured ~25 years ago

**Basement/Lowest level depth below grade:** ≤ 6 (feet)

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)**

NONE

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

**Type of heating system(s) used in this building: (circle all that apply – note primary)**

| | | | |
|---|---|---|---|
| Hot air circulation | Heat pump | Hot water baseboard | |
| Space Heaters | Stream radiation | Radiant floor | |
| Electric baseboard | Wood stove | Outdoor wood boiler | Other _____ |

**The primary type of fuel used is:**

| | | |
|---|---|---|
| Natural Gas | Fuel Oil | Kerosene |
| Electric | Propane | Solar |
| Wood | Coal | |

**Domestic hot water tank fueled by:** GAS

**Boiler/furnace located in:** Basement Outdoors Main Floor Other_____

**Air conditioning:** Central Air Window units Open Windows (None) FANS

**Are there air distribution ducts present?** (Y) (N)

**Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.**

Could Not Access for complete inspection

## 7. OCCUPANCY

**Is basement/lowest level occupied?** Full-time Occasionally Seldom Almost Never

| **Level** | **General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)** |
|---|---|
| Basement | NONE |
| 1st Floor | LIVING SPACE |
| 2nd Floor | NONE |
| 3rd Floor | — |
| 4th Floor | — |

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

**a. Is there an attached garage?** Y / (N)

**b. Does the garage have a separate heating unit?** Y / N / (NA)

**c. Are petroleum-powered machines or vehicles stored in the garage** (e.g., lawnmower, atv, car) Y / N / (NA) Please specify_____

**d. Has the building ever had a fire?** Y (N) When?_____

**e. Is a kerosene or unvented gas space heater present?** Y (N) Where?_____

**f. Is there a workshop or hobby/craft area?** Y (N) Where & Type?_____

**g. Is there smoking in the building?** (Y) N How frequently?_____

**h. Have cleaning products been used recently?** Y (N) When & Type?_____

**i. Have cosmetic products been used recently?** (Y) / N When & Type? Avon Perfume



**j. Has painting/staining been done in the last 6 months?** Y / (N) Where & When? _____

**k. Is there new carpet, drapes or other textiles?** Y / (N) Where & When? _____

**l. Have air fresheners been used recently?** Y / (N) When & Type? _____

**m. Is there a kitchen exhaust fan?** Y / (N) If yes, where vented? _____

**n. Is there a bathroom exhaust fan?** Y / (N) If yes, where vented? _____

**o. Is there a clothes dryer?** (Y) / N If yes, is it vented outside? Y / N

**p. Has there been a pesticide application?** Y / (N) When & Type? _____

**Are there odors in the building?** Y / (N)
If yes, please describe: _____

**Do any of the building occupants use solvents at work?** Y / (N)
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

**Do any of the building occupants regularly use or work at a dry-cleaning service?** (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

**Is there a radon mitigation system for the building/structure?** Y / (N) Date of Installation: _____
**Is the system active or passive?** Active/Passive

**9. WATER AND SEWAGE**

| | | | | | |
|---|---|---|---|---|---|
| **Water Supply:** | Public Water | Drilled Well | Driven Well | Dug Well | Other: _____ |
| **Sewage Disposal:** | Public Sewer | Septic Tank | Leach Field | Dry Well | Other: _____ |

**10. RELOCATION INFORMATION (for oil spill residential emergency)**

**a. Provide reasons why relocation is recommended:** _____

**b. Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

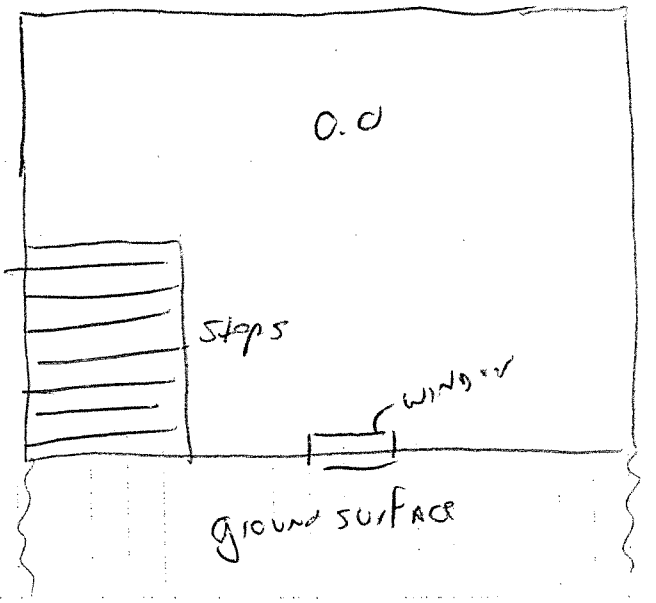
d. Relocation package provided and explained to residents? Y / N



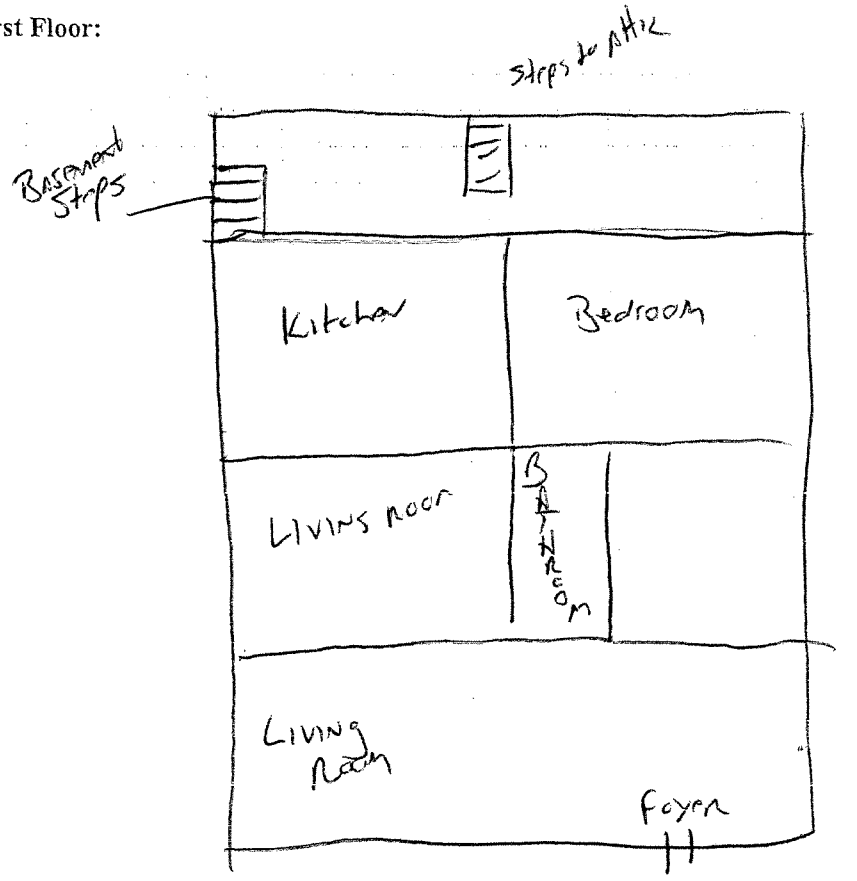
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:




First Floor:



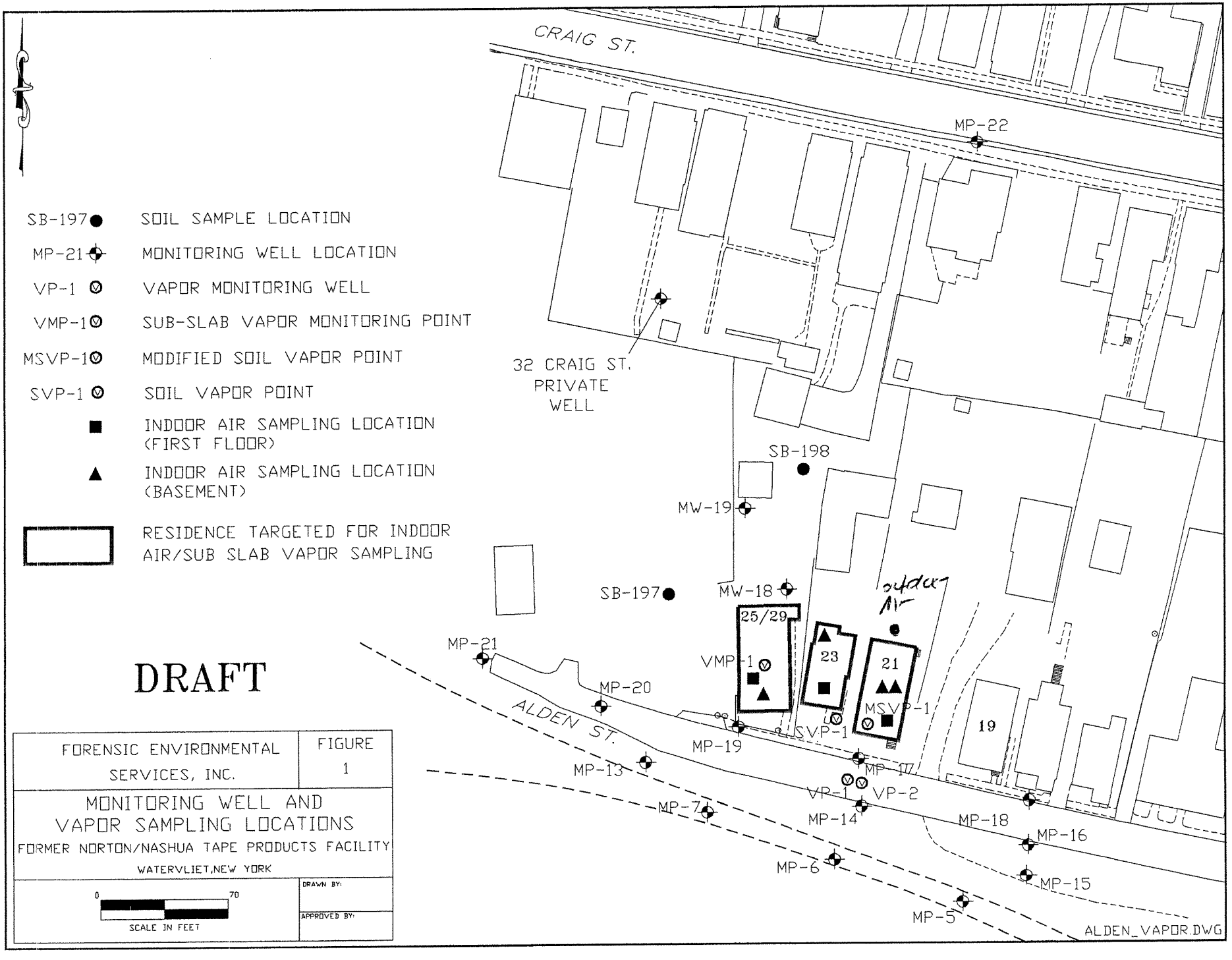
12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

See attached figure

- winds light & variable




# DRAFT

| FORENSIC ENVIRONMENTAL SERVICES, INC. | FIGURE 1 |
|---|---|
| MONITORING WELL AND VAPOR SAMPLING LOCATIONS<br>FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY<br>WATERVLIET, NEW YORK | |
| 0 70<br>SCALE IN FEET | DRAWN BY:<br>APPROVED BY: |

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: MINI RAE - PPB RAE

List specific products found in the residence that have the potential to affect indoor air quality.

| Location | Product Description | Size (units) | Condition* | Chemical Ingredients | Field Instrument Reading (units) | Photo ** Y / N |
|---|---|---|---|---|---|---|
| UNKNOWN | WINDEX | NA | NA | NA | NM | NO |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | A Detailed product INVENTORY could not be conducted | | | | | |
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* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

# NEW YORK STATE DEPARTMENT OF HEALTH
# INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
# CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Bryan Machella Date/Time Prepared 2/15/06 10:20 AM

Preparer's Affiliation FES Phone No. 610-594-3940

Purpose of Investigation Indoor Air Sampling Survey

**1. OCCUPANT:**

**Interviewed:** Y / (N)

Last Name: Petry First Name: Joe / Marie

Address: 25/29 Alden St.

County: Albany

Home Phone: 518-274-8389 Office Phone: 518-598-3357

Number of Occupants/persons at this location 2 Age of Occupants Marie (27) Joe (29)

**2. OWNER OR LANDLORD:** (Check if same as occupant ___ )

**Interviewed:** (Y) / N

Last Name: Rose First Name: Frank

Address: 3 South Grandview Drive Latham, NY 12110

County: Albany

Home Phone: 518-785-6253 Office Phone: 518-542-9114

**3. BUILDING CHARACTERISTICS**

**Type of Building:** (Circle appropriate response)

| | | |
|---|---|---|
| (Residential) | School | Commercial/Multi-use |
| Industrial | Church | Other: ___ |

**If the property is residential, type?** (Circle appropriate response)

| | | |
|---|---|---|
| Ranch | (2-Family) | 3-Family |
| Raised Ranch | Split Level | Colonial |
| Cape Cod | Contemporary | Mobile Home |
| Duplex | Apartment House | Townhouses/Condos |
| Modular | Log Home | Other:_____ |

**If multiple units, how many?** 2

**If the property is commercial, type?**

Business Type(s) NA

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

**Other characteristics:**

Number of floors 3 Building age ~100

Is the building insulated? (Y) / N How air tight? Tight / (Average) / Not Tight

50', 60's - Blown Fiberglass upstairs

4. **AIRFLOW**

**Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:**

Airflow between floors

Airflow near source

~~front door~~

Outdoor air infiltration

front door

All windows have storm windows

Infiltration into air ducts

Yes - closed

Used to be forced hot air

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

| | | | | |
|---|---|---|---|---|
| **a. Above grade construction:** | wood frame | concrete | stone | brick |
| **b. Basement type:** | full | crawlspace | slab | other _____ |
| **c. Basement floor:** | concrete | dirt | stone | other _____ |
| **d. Basement floor:** | uncovered | covered | covered with _____ | |
| **e. Concrete floor:** | unsealed | sealed | sealed with painted | |
| **f. Foundation walls:** | poured | block | stone | other _____ |
| **g. Foundation walls:** | unsealed | sealed | sealed with _____ | |
| **h. The basement is:** | wet | damp | dry | moldy |
| **i. The basement is:** | finished | unfinished | partially finished | |
| **j. Sump present?** | Y / N | | | |
| **k. Water in sump?** | Y / N / not applicable | | | |

**Basement/Lowest level depth below grade:** ~8 (feet)

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)**

no cracks

sump

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

**Type of heating system(s) used in this building: (circle all that apply – note primary)**

| | | | |
|---|---|---|---|
| Hot air circulation | Heat pump | Hot water baseboard | |
| Space Heaters | Stream radiation | Radiant floor | |
| Electric baseboard | Wood stove | Outdoor wood boiler | Other _____ |

**The primary type of fuel used is:**

| | | |
|---|---|---|
| Natural Gas | Fuel Oil | Kerosene |
| Electric | Propane | Solar |
| Wood | Coal | |

**Domestic hot water tank fueled by:** Nat gas

**Boiler/furnace located in:** Basement Outdoors Main Floor Other_____

**Air conditioning:** Central Air (Window units) Open Windows None



**Are there air distribution ducts present?** Y (N) closed off

**Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.**

## 7. OCCUPANCY

**Is basement/lowest level occupied?** Full-time Occasionally Seldom (Almost Never)

| **Level** | **General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)** |
|---|---|
| Basement | Storage |
| 1st Floor | Living Space |
| 2nd Floor | Living Space |
| 3rd Floor | — |
| 4th Floor | — |

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

**a. Is there an attached garage?** Y (N)

**b. Does the garage have a separate heating unit?** Y / N (NA)

**c. Are petroleum-powered machines or vehicles stored in the garage** (e.g., lawnmower, atv, car) Y / N (NA) Please specify_____

**d. Has the building ever had a fire?** Y (N) When?_____

**e. Is a kerosene or unvented gas space heater present?** Y (N) Where?_____

**f. Is there a workshop or hobby/craft area?** Y (N) Where & Type? _____

**g. Is there smoking in the building?** Y (N) How frequently? _____

**h. Have cleaning products been used recently?** Y (N) When & Type? _____

**i. Have cosmetic products been used recently?** (Y)/ N When & Type? Basic



**j. Has painting/staining been done in the last 6 months?** Y /(N) Where & When? _____

**k. Is there new carpet, drapes or other textiles?** Y /(N) Where & When? _____

**l. Have air fresheners been used recently?** Y /(N) When & Type? _____

**m. Is there a kitchen exhaust fan?** Y /(N) If yes, where vented? _____

**n. Is there a bathroom exhaust fan?** (Y)/ N If yes, where vented? outside

**o. Is there a clothes dryer?** 2 (Y)/ N If yes, is it vented outside? (Y)/ N

**p. Has there been a pesticide application?** (Y)/ N When & Type? Ant treatment
mouse traps in Basement

**Are there odors in the building?** Y(/)N
If yes, please describe: _____

**Do any of the building occupants use solvents at work?** Y /(N)
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? NA

If yes, are their clothes washed at work? Y / N

**Do any of the building occupants regularly use or work at a dry-cleaning service?** (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
(Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

**Is there a radon mitigation system for the building/structure?** Y / (N) Date of Installation: _____
**Is the system active or passive?** Active/Passive

**9. WATER AND SEWAGE**

| | | | | | |
|---|---|---|---|---|---|
| **Water Supply:** | (Public Water) | Drilled Well | Driven Well | Dug Well | Other: _____ |
| **Sewage Disposal:** | (Public Sewer) | Septic Tank | Leach Field | Dry Well | Other: _____ |

**10. RELOCATION INFORMATION (for oil spill residential emergency)**

**a. Provide reasons why relocation is recommended:** _____

**b. Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

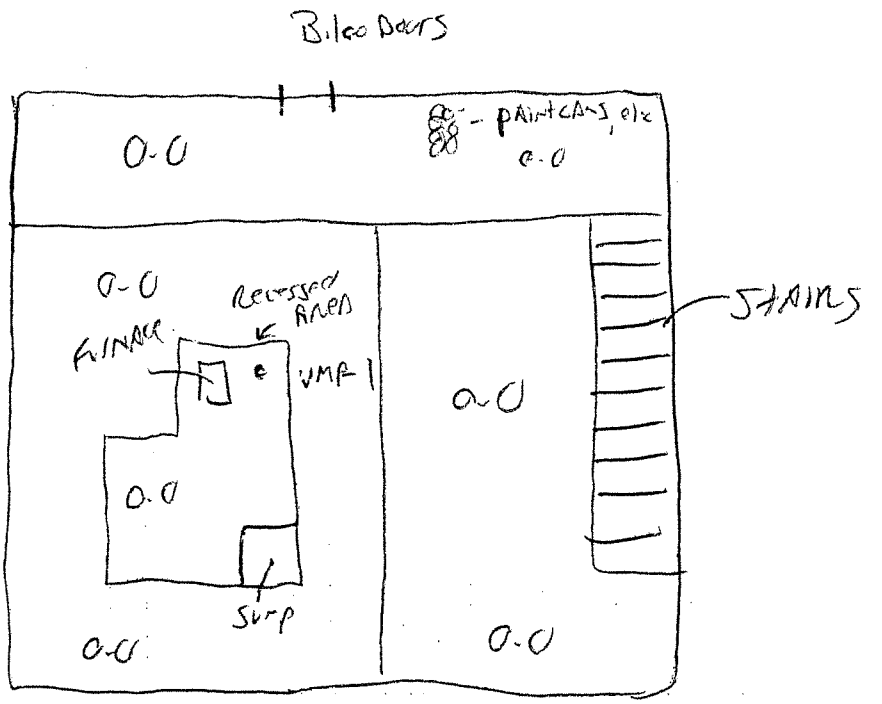
d. Relocation package provided and explained to residents? Y / N



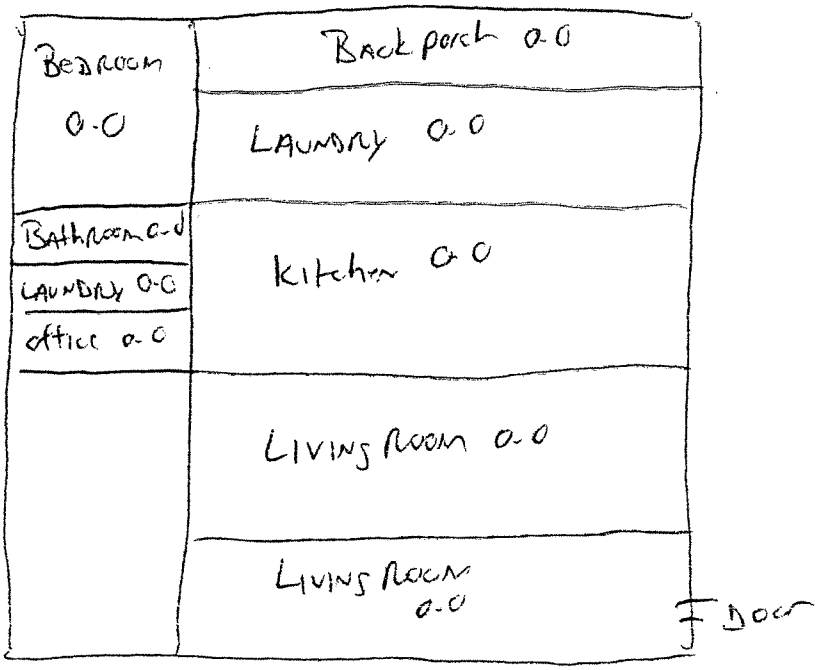
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:




First Floor:



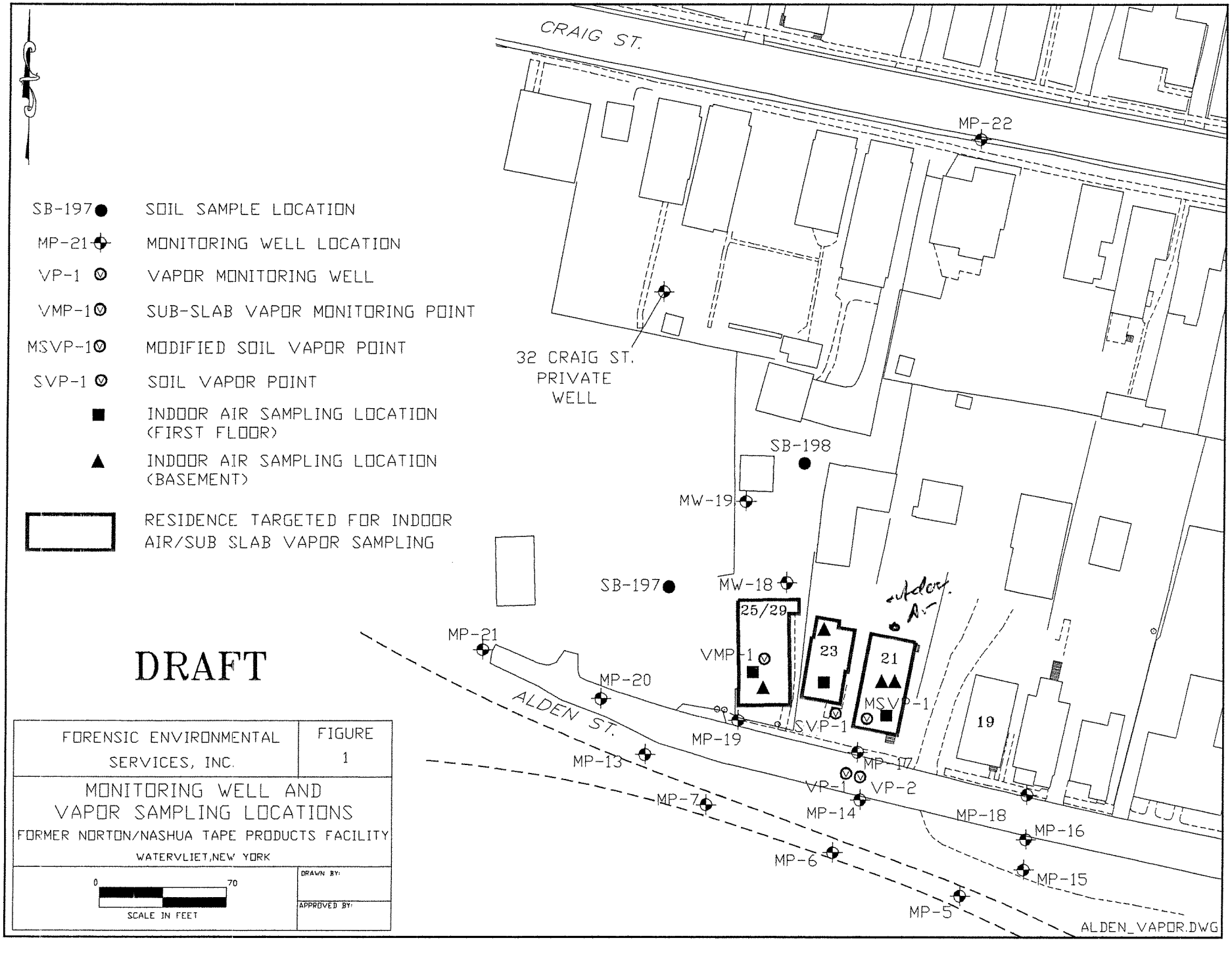
12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

See Attached figure

- winds light/variable




DRAFT

| FORENSIC ENVIRONMENTAL SERVICES, INC. | FIGURE 1 |
|---|---|
| MONITORING WELL AND VAPOR SAMPLING LOCATIONS<br>FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY<br>WATERVLIET, NEW YORK | |
| 0 70<br>SCALE IN FEET | DRAWN BY:<br>APPROVED BY: |

## 13. PRODUCT INVENTORY FORM

**Make & Model of field instrument used:** _____

**List specific products found in the residence that have the potential to affect indoor air quality.**

| Location | Product Description | Size (units) | Condition* | Chemical Ingredients | Field Instrument Reading (units) | Photo ** Y / N |
|---|---|---|---|---|---|---|
| | Lysol | 1pt | good | NA | 0.0 | NO |
| | | | | | | |
| | Soaphol- | | | | | |
| | | | | | | |
| | NO P.D | | | | | |
| | | | | | | |
| kitchen | Lysol Anti Bact. kitch cleaner | 22oz | good | | 0.0 | Y |
| | Ortho Home Defense Insect ~~clean~~ killer | 24oz | good | | 0.0 | Y |
| | CASCADE | 75oz | good | | 0.0 | Y |
| | ORANGE CLEAN | 22 | good | | 0.0 | Y |
| | EASY off - BAM | 24oz | good | | 0.0 | Y |
| | WINDEX | 32 | good | | 0.0 | Y |
| | FABREZE | 32 | good | | 0.0 | Y |
| | MURPHYS OIL SOAP | 32 | good | | 0.0 | Y |
| | Lysol floor cleaner | 64oz | good | | 0.0 | Y |
| | Lysol Mildew Remover | 30oz | good | | 0.0 | Y |
| | Mr CLEAN Antibacterial | 4C | good | | 0.0 | Y |
| | | | | | | |
| | | | | | | |

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

# APPENDIX I

# NYSDEC DATA VALIDATION QA/QC REVIEWS

**New York State Department of Environmental Conservation**

**Division of Solid and Hazardous Materials**

**Bureau of Pesticides Management, 9th Floor**
625 Broadway, Albany, New York 12233-7254

**Phone:** (518) 402-8788 · **FAX:** (518) 402-9024

**Website:** www.dec.state.ny.us

Memorandum

To: Vic Valaitis, Hazardous Waste Engineering, Eastern Section

From: John Miller, Chemistry and Laboratory Services Section

Subject: Kendall/Norton, Final Lab Data Package: Feb. 4th, 2004, Mobilization, Groundwater and Sewer Sediment/Water

Date: April 29th, 2004

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The Kendall/Norton Final Lab Data Package, Feb. 4th, 2004 has been reviewed and was found to be sufficiently precise and accurate and can be used for it's intended purpose. The VOC and SVOC data was found to be free from bias with the exception of the two SVOC acid extractables, namely, 2-methylphenol and 4-methylphenol which were detected in some samples at low levels as well as in the field blank. Comments are listed below.

It should be noted here that the laboratory, Adirondack Environmental, did not submit lab control sample data which is required by the 8260b and 8270c methods. However, in light of the high sample concentrations of the analytes of concern, this omission was not problematic.

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## SDG: DGC-1
## Volatiles by SW-846 Method 8260b

**Holding Times and Sample Preservation**
All samples were analyzed for VOCs within the EPA's 14 day maximum. The cooler temperature was recorded on the laboratory chain of custody at 4 ºC which is within the 4 ± 2 ºC control limits.

**System Monitoring Compound Recoveries**
All system monitoring compounds (SMC) were recovered from the samples with their respective control limits. No data qualifications were necessary due to any SMC recovery exceedences.

**Volatile Matrix Spike and Matrix Spike Duplicate Recoveries and Relative Percent Differences**
All spike recoveries from the matrix spike sample were within their respective control limits.

The toluene spike recovery from the MS duplicate sample was reported to be 0%, however, the concentration in the original sample (MW-17) was very high at 33,000 µg/L. The duplicate result should have reflected the original 33,000 µg/L plus the spike amount of 10,000 µg/L for a total of 44,000 µg/L, but, only the original 33,000 µg/L was reported so the recovery of the spike amount was 0%. No data was qualified as a result of the toluene MS/MSD RPD exceedence. This exceedence is clearly the result of the high level toluene concentration in the original sample.

**Water Volatile Matrix Spike Blank Recoveries**
All spike recoveries were a little high, but, within their respective control limits. The recoveries ranged from trichloroethene at 115% with control limits between 71% and 120% to 1,2-dichloroethene at 133% with control limits between 61% and 145% .

**Volatile Method Blank**
With the exception of methylene chloride, all targets were non-detect in the method blank samples. Methylene chloride is a common laboratory contaminant and the level detected in the blanks were trace. No data qualifications are necessary due to the trace amounts of methylene chloride found in the method blanks 3, 4, and 8 µg/L.

**Volatile Internal Standard Are Counts and Retention Times Summary**
All internal standard area counts and retention times fell within the control limits[1].

**Volatiles Instrument Performance Check**
All mass spectrometer BFB abundance tune criteria were met indicating adequate mass resolution and sensitivity for the VOC analysis.

**Volatile Initial and Continuing Calibration Results**
The relative response factors for the two analytes of concern, heptane and toluene, were calculated correctly and were above the 0.05 control limit minimum indicating adequate detector sensitivity. The %RSDs across the calibration range for the analytes of concern fell under the 30% control limit maximum indicating adequate detector response linearity.

All continuing calibration response factors were above the 0.05 control limit minimum and the percent differences between the average initial calibration RRFs and the continuing calibration RRFs fell below the 25% control limit maximum.

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## SDG: DGC-1
## Semi-Volatiles by SW-846 Method 8270c

**Semi-Volatile Surrogate Recoveries**
The following samples had poor surrogate recoveries with two or more acid surrogates which triggers the qualification of acid fractions targets: MP-6, DGC-5, MW-15 and MP-9. The following table lists the proper data qualification scheme.

[1] Area Counts: 12-Hr average x/÷ 2. Retention Times: 12-Hr average ± 0.5 minutes.

| Sample | Surrogate | %R | Control Limits | Actions |
|---|---|---|---|---|
| MP-6 | Phenol-d5<br>2-fluorophenol<br>2,4,6-tribromophenol | 0<br>1<br>5 | 10-110<br>21-110<br>10-123 | All non-detect phenolics and phthalates are to be qualified as unuseable with the "R" designation. |
| DGC-5 | Phenol-d5<br>2-fluorophenol | 7<br>3 | 10-110<br>21-110 | All non-detect phenolics and phthalates are to be qualified as unuseable with the "R" designation.. |
| MW-15 | Phenol-d5<br>2-fluorophenol | 9<br>8 | 10-110<br>21-110 | All non-detect phenolics and phthalates are to be qualified as unuseable with the "R" designation. All detected same are to be qualified as estimated (biased low) with the "J". |
| MP-9 | Phenol-d5<br>2-fluorophenol | 6<br>3 | 10-110<br>21-110 | All non-detect phenolics and phthalates are to be qualified as unuseable with the "R" designation. |

**Semi-Volatile Matrix Spike and Matrix Spike Duplicate Recoveries and RPDs**
All spikes were recovered from the matrix spike sample within their respective control limits.

With the exception of 4-chloro-3-methylphenol (%R=102, control limits = 23 - 97) and pentachlorophenol (%R=108, control limits = 9 - 103), all spikes were recovered within their respective control limits. Due to the slightly high recoveries, no data requires qualification. As per the EPA's National Functional Guidelines, the qualification of data is not performed on MS/MSD results alone and is up to the discretion of the data reviewer. Furthermore, since the semi-volatile concentrations in the samples are quite low, there is no need to qualify the data due to the MS/MSD exceedences.

**Semi-Volatile Water Matrix Spike Blank Recoveries**
All spiked compounds were recovered from the matrix spike blank sample within their respective control limits. Recoveries ranged from 36% for phenol (control limits = 12 - 110) to 97% for pyrene (control limits = 26 - 127).

**Semi-Volatile Blank Sample Results**
All blank sample results were non-detect which indicates that there was no systemic contamination of the analytical system which could bias sample results.

**Semi-Volatile Internal Standard Area Counts and Retention Time Summary**
All internal standard area counts and retention times fell within the control limits.

**Semi-Volatile Instrument Performance Check**
All decafluorotriphenylphosphene mass spectrometer ion abundance criteria were met indicating adequate mass assignment and sensitivity for the 8270c back end.

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Please feel free to ask me any questions regarding this data review. I can be reached by phone or by e-mail at the following:

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**New York State Department of Environmental Conservation**

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# Memorandum

To: Vic Valaitis, Hazardous Waste Engineering, Eastern Section

From: John Miller, Chemistry and Laboratory Services Section

Subject: Kendall (Nashua), 03/29/04, QA/QC Lab Data Package - Enhanced RFA Sampling

Date: April 30th, 2004

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The SUMMA canister data for the Kendall (Nashua) Enhanced RFA project has been reviewed and was found to be sufficiently accurate and precise and useable for it's intended purpose. In general, the QC sample results fell within their respective control limits indicating that the data was not biased in any significant way. Specific comments regarding QC sample results follow below.

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**General Comments**
The following table lists the toluene and heptane concentrations found in each SUMMA canister sample. The concentrations were relatively low (parts-per-billion by volume), however, the sample MW-11 had the highest concentrations indicating that this area was likely impacted by the tolusol spill.

| Sample | Toluene (ppbv) | Heptane (ppbv) |
|---|---|---|
| MW-11 | 22 | 12 |
| MW-12 | 2 | ND |
| DGC-12 | 2 | ND |
| Ambient Air | 2 | ND |
| MW-13 | 1 | 5 |
| Blank | ND | ND |

The laboratory, Lancaster Laboratories, Lancaster, PA, was not consistent when reporting the VOC butene. The chromatograms clearly showed peaks, however, the butene ion abundances were not consistent with those found in their onboard mass spectrum library. Their inconsistent reporting stems from their reporting some butene results while deleting others. The mass spectrums were all similar. They should have either deleted them all or reported them all. An actual mass spectrum from a butene standard would have cleared this up because they may have found that their instrument gave them the irregular mass spectrum for butene.

**Sample Holding Time and Preservation**
Air samples were collected in SUMMA canisters. All samples were analyzed within the 30 day holding time.

**Instrument Performance Check**
All BFB mass spectrometer ion abundance criteria were met which indicates sufficient mass selectivity and sensitivity for the analysis.

**Blank Results**
All target concentrations in the blank sample were non-detect indicating that there is no system contamination present which can bias the analytical results.

**Laboratory Control Sample**
All LCS recoveries fell within their respective control limits indicating sufficient data accuracy at the low ppbv level. Recoveries ranged from 55% for 1,4-dichlorobenzene (control limits = 37-149) to 103% for trichloroethene (control limits = 65-144).

**Internal Standard Area Counts And Retention Time Summary**
All internal standard area counts and retention times fell within the respective control limits[1] indicating adequate identification and quantification.

**Initial Calibration Verification**
It appears that all relative response factors for the analytes of concern, heptane and toluene, were calculated correctly and their respective %RSD across the calibration range fell below the 30% control limit maximum. It follows that the calibration curve is sufficiently linear.

With the exception of 1,2,4-trichlorobenzene, where the RRF at 2 ppbv was 0.039, all RRFs fell above the 0.05 control limit minimum. No 1,2,4-trichlorobenzene data was qualified as a result of the low sensitivity at that concentration, however, because all other calibration criteria were met and the peak is fairly well resolved and free from interference from all other targets. It is not expected that there would be any problems with the identification and quantification of that compound.

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Please feel free to ask me any questions regarding this data review. I can be reached by phone or by e-mail at the following:

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[1]Area Counts: 12-Hr Average x/÷ 2;  Retention Times: 12-Hr Average ± 0.5 Minutes.

# New York State Department of Environmental Conservation

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Memorandum

To: Vic Valaitis, Hazardous Waste Engineering, Eastern Section

From: John Miller, Chemistry and Laboratory Services Section

Subject: Kendall (Nashua), 03/29/04, QA/QC Lab Data Package - Enhanced RFA Sampling

Date: May 7th, 2004

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The groundwater and soil data for the Kendall (Nashua) Enhanced RFA project has been reviewed. In general, the sample results that showed significant impact from tolusol or fuel oil contamination was found to be sufficiently accurate and precise and useable for it's intended purpose. Due to poor acid fraction surrogate recoveries, the non-detect phenolic and phthalate results for the water samples MP-2 and MP-5 are regarded as unuseable. For many of the SVOC samples, PAH concentrations were very high so qualifying the data, other than to find a low bias, was not necessary.

**Sample Holding Times and Preservation**

The Laboratory's Chain-Of-Custody pages and Sample Preparation and Analysis Summary pages indicate that all samples were analyzed within the method holding times and the cooler temperatures upon their receipt at the lab were 3 °C and 4 °C which is within the 4 ± 2 °C control limits.

**VOCs in Groundwater and Sediment Samples by SW-846 8260b**

The following samples had significant amounts of toluene contamination which should be regarded as accurate and precise and, in some cases where they were flagged with the "E" qualifier, biased low. The solubility of toluene in water is close to 500 ppm (500,000 µg/L), depending on the reference, and the "E" qualifier is used when the concentration is above the calibration range of the method.

| Sample | Matrix | Toluene (µg/L) | Heptane (µg/L) | Notes |
|---|---|---|---|---|
| DGC-8 | Water | 200,000 | ND | |
| MP-1 | Water | 35,000 | ND | |
| MP-3 | Water | 410,000 | ND | Water saturated. Free product likely. |
| MW-14 | Water | 540,000 E | ND | Water saturated. Free product likely. |
| MW-14 | Water | 590,000 E | ND | MW-14 re-run? Free product likely. |

**Water VOC System Monitoring Compounds**
All system monitoring compounds were recovered within their respective control limits indicating that the targets were sufficiently recovered as well. The recoveries ranged from 90% (several SMCs from several samples) to 115% for BFB from the Trip Blank.

**Water VOC Matrix Spike and Matrix Spike Recoveries and RPDs**
All MS and MSD recoveries fell within their respective control limits as did the RPs between them. This indicates that the water sample VOC data is reproducible and is not biased due to a matrix interferant.

**Water VOC Matrix Spike Blank Recoveries**
All compounds were recovered from the MS blank sample within their respective control limits.

**VOC Blank Sample Results**
With the exception of acetone, methylene chloride and chloroform which were detected at a couple of parts-per-billion, all target results were non-detect. It does not appear that any sample data was biased due to contamination.

**Volatile Internal Standard Area Counts and Retention Time Summary**
All internal standard peak area counts and retention times were within their respective control limits[1] indicating that the target compound concentrations are not biased as a result of poor internal standard recoveries.

**VOC Instrument Performance Check**
All BFB tune criteria were met. All relative abundances of the BFB fragments were within their respective control limits.

**VOC Initial and Continuing Calibration Relative Response Factors**
The toluene and heptane relative response factors were calculated correctly as were the %RSDs across the calibration range. The response factors were above the 0.05 control limit minimum and the %RSDs fell below the 30% control limit maximum indicating that the analytical system had adequate detector sensitivity and the response was linear across the calibration range.

Four continuing calibrations were performed and some %Ds between the initial and continuing calibration RRFs exceeded the 25% control limit maximum, however, they were not site-specific analytes of concern nor were they detected in any of the samples. These exceedences were for the following: bromomethane (%D = 30.1%, 32.4% and 29.2%) and carbon tetrachloride (%D = 27.0%, 25.1%). The %Ds for the two analytes of concern fell under the 25% control limit maximum at: Toluene - 13.5%, 13.6%, 12.9%, 8.4% and 10.7%; Heptane - 1.2%, 9.4%, 6.0%, 5.1% and 2.2%.

[1]Area Counts: 12-Hr Average x/÷ 2  Retention Time: 12-Hr Average ± 0.5 minutes.

**SVOCs in Groundwater and Sediment Samples by SW-846 8270c**
The following sediment and groundwater samples contained significant levels of polycyclic aromatic hydrocarbons (PAHs) which appear to be from an anthropogenic origin such as fuel oil. The levels are higher than what one would expect from natural sources:

- MH-2.5 (SED)
- MH-3.5 (SED)
- MH-13 (SED)
- MH-14 (SED)
- MH-21 (SED)
- MH-13 (W)
- MH-14 (W)

The two tables on page 5 list the PAH concentrations in these samples as well as a reference to a cleanup standard where available.

**Water SVOC Surrogate Recoveries**
Two water samples, MP-2 and MP-5, had the same two acid surrogate recoveries fall low and outside of their respective control limits. These results are listed in the following table.

| **Sample** | **Phenol-d5 %R** | **2-fluorophenol %R** | **Action** |
|---|---|---|---|
| MP-2 | 7 | 8 | All non-detected phenolics and phthalates are assumed to be biased low and unuseable "R". |
| MP-5 | 9 | 5 | All non-detected phenolics and phthalates are assumed to be biased low and unuseable "R". |
| **Control Limits** | **10 - 110** | **21 - 110** | |

No other water samples results required qualification as a result of surrogate recovery problems.

**Soil SVOC Surrogate Recoveries**
All surrogates were recovered from the soil samples within their respective control limits. No soil data was qualified as a result of any surrogate recovery problems.

**Water SVOC Matrix Spike and Matrix Spike Duplicate Results**

All compounds were recovered from the water matrix spike sample within their respective control limits. Two compound recoveries from the matrix spike duplicate sample were a little high and outside of their respective control limits, namely, 4-chloro-3-methylphenol @ 102% with control limits of 23% - 97%, and pentachlorophenol @ 108% with control limits of 9% - 103%. As per the EPA's data review guidelines, data qualifications are not performed on MS/MSD results alone and are up to the professional judgement of the data reviewer. No data qualifications were made as a result of the two aforementioned MSD recovery exceedences.

All relative percent differences between the MS and MSD recoveries were within their respective control limits indicating adequate data precision.

**Soil SVOC Matrix Spike and Matrix Spike Duplicate Results**
There were significant problems with the MS and MSD recoveries of the compounds acenaphthene and pyrene, however, this was primarily due to the significant level of contamination of those two compounds in the original sample, where the acenaphthene concentration was 190,000 µg/Kg and that of pyrene was 1,500,000 µg/Kg.

Since the original sample was significantly contaminated with these two compounds, and the purpose of this data review is to make judgements on data precision, accuracy, etc..., it is in the opinion of this reviewer that qualifying the data as a result of these MS/MSD exceedences does not change the quality of the data in any way.

**Soil SVOC Matrix Spike Blank Results**
All compounds spiked into the blank soil sample were recovered within their respective control limits.

**Water SVOC Matrix Spike Blank Results**
All compounds spiked into the blank water sample were recovered within their respective control limits.

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Please feel free to ask me any questions regarding this data review. I can be reached by phone or by e-mail at the following:

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**New York State Department of Environmental Conservation**
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May 26, 2004

Ms. Lauren P. Alterman
Senior Council
Saint-Gobain Corporation
750 E. Swedesford Road
Valley Forge, PA 19482

Dear Ms. Alterman:

Re: Kendall/Former Norton/Nashua Tape Products Facility
Watervliet, New York, EPA ID No. NYD 066829599

The following Laboratory Data Packages (submitted by your consultant, Forensic Environmental Services) have been reviewed by the NYSDEC Chemistry and Laboratory Services Section and the sampling data has been found sufficiently precise and accurate and can be used for drafting the RFI Report:

| Date Submitted | Sample Collection Date |
|---|---|
| October 30, 2003 | August, September 2003 |
| January 20, 2004 | November, December 2003 |
| February 17, 2004 | January 2004 |
| March 23, 2004 | February 2004 |
| March 29, 2004 | February 2004 |

The Consent Order gives a 60 calendar day time frame after the Respondent receives the validated analytical data for the submittal of the RFI Final Report. Since the RFI is being conducted in phases, this 60 day time frame is interpreted to mean that the RFI Final Report is due within 60 calendar days after validation of the data generated in the final phase of the RFI.

A meeting has been requested by Forensic Environmental to discuss the RFI results. It is anticipated that during this meeting, it will be decided whether or not additional RFI sampling is required. If no additional sampling is required, the RFI Final Report will be due within 60 calendar days of the date of this meeting. If additional RFI sampling is required, the report submittal date will be within 60 calendar days of receipt of validation of the data generated during the last phase of the RFI.

If there are any questions, or additional information is needed, please contact me at (518) 402-8594.

Sincerely,

/s/

Victor A. Valaitis, P.E.
Environmental Engineer II
Hazardous Waste Engineering Eastern Section
Bureau of Hazardous Waste & Radiation Mgmt.

cc: S. Hamilton
D. Evans
J. Miller
L. Rosenmann
R. Zei, Forensic Env. Svc.
C. VanGuilder, Reg. 4

## New York State Department of Environmental Conservation

### Division of Solid and Hazardous Materials

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# Memorandum

To: Vic Valaitis, Hazardous Waste Engineering, Eastern Section
Larry Rosenmann, Engineering Geology Section

From: John Miller, Chemistry and Laboratory Services Section

Subject: RFI Sampling, Former Norton/Nashua, Tape Products Facility, Data Review

Date: August 12th, 2004

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The data from the RFI Sampling event at the former Norton/Nashue tape facility in Watervliet, NY have been reviewed. Due to toluene matrix spike and matrix spike duplicate recoveries (both 130%) which exceeded the control limits (76% to 125%), the toluene results from the sample set listed in the first table below should be regarded as biased slightly high. Due to traces of toluene (4 µg/L) which were detected in two blank samples, results which have trace levels of toluene should be regarded as false positives and due to analytical system contamination.

In general, the data can be regarded as sufficiently accurate and precise and useable for it's intended purpose. Specific comments are listed below in the order that they appear in the files which were submitted for review: 040616048 SDG 1.pdf and 040616048 SDG 2.pdf.

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**Sample Preservation and Holding Times**
All samples were received by the lab at 4°C which is within the 4 ± 2°C control limits. All sample holding times were met.

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Adirondack Data File: 040616048 SDG 1.pdf
This part of the review covers the following samples:

| NYSDEC Sample ID | Adirondack Sample ID | Targets/Method | Matrix |
|---|---|---|---|
| MH-1 (W) | 040616048-001 | VOCs/8260b | Groundwater |
| MH-20 (W) | 040616048-002 | VOCs/8260b | Groundwater |
| MP-5 | 040616048-003 | VOCs/8260b | Groundwater |
| MP-6 | 040616048-004 | VOCs/8260b | Groundwater |
| MP-7 | 040616048-005 | VOCs/8260b | Groundwater |
| MW-13 | 040616048-006 | VOCs/8260b | Groundwater |
| DGC-10 | 040616048-007 | VOCs/8260b | Groundwater |
| DGC-9 | 040616048-008 | VOCs/8260b | Groundwater |
| MW-12 | 040616048-009 | VOCs/8260b | Groundwater |
| MW-15 | 040616048-010 | VOCs/8260b | Groundwater |
| DGC-8 | 040616048-011 | VOCs/8260b | Groundwater |
| DGC-11 | 040616048-012 | VOCs/8260b | Groundwater |
| MP-9 | 040616048-013 | VOCs/8260b | Groundwater |
| FB | 040616048-014 | VOCs/8260b | DI Water |
| MW-17 | 040616048-015 | VOCs/8260b | Groundwater |
| MP-10 | 040616048-016 | VOCs/8260b | Groundwater |
| MW-11 | 040616048-017 | VOCs/8260b | Groundwater |
| DGC-6 | 040616048-018 | VOCs/8260b | Groundwater |
| MW-16 | 040616048-019 | VOCs/8260b | Groundwater |
| Decon Water | 040616048-020 | VOCs/8260b | Groundwater |

**VOC - System Monitoring Compound Recoveries**
All SMCs were recovered within their respective control limits indicating that the target analytes should also have been recovered at adequate levels.

**Matrix Spike and Matrix Spike Duplicate Recoveries**
The toluene recoveries from the matrix spike and the matrix spike duplicate samples exceeded the 76 - 125% control limits at 130% and 130%, respectively, with the relative percent difference at 0%. Although this indicates adequate data precision, the MS and MSD recoveries are biased slightly high and, as a result, the corresponding sample data

should be regarded as biased slightly high and qualified as estimated. All other spiked compounds were recovered within their respective control limits.

**VOC - Matrix Spike Blank Recoveries**
All spike recoveries fell within their respective control limits.

**VOC - Blank Sample Results**
Four blank samples were analyzed and one (VBLK02) showed a trace level of toluene at 4 µg/L. Some of the samples that were analyzed with this blank also showed a trace of toluene so it is reasonable to conclude that this was due to system contamination and the samples have false positive results. The following table lists the samples affected and their toluene concentrations. The B qualification simply means that toluene was found in the QC blank VBLK02.

| Sample ID | [Toluene] µg/L | Qualification | Finding |
|---|---|---|---|
| MP-7 | 3 | BJ | False Positive |
| MP-9 | 5 | BJ | False Positive |
| MW-11 | ND | U | |
| MW-13 | ND | U | |
| MW-16 | 2 | BJ | False Positive |
| DGC-6 | ND | U | |
| Field Blank | 3 | BJ | False Positive |

The common laboratory contaminants acetone, dichloromethane and 2-butanone were also detected in some blank samples, but, this finding is inconsequential to this data.

**VOC - Internal Standard Area Counts and Retention Time Summary**
All VOC internal standard area counts and retention times fell within their respective control limits[1] indicating acceptable analytical repeatability regarding sample handling, spiking, chromatography and detector sensitivity, and thus, data precision.

**VOC - Instrument Performance Check**
All mass spectrometer tune data indicate that the detector was functioning properly. All mass assignments were correct as were their relative abundances.

**VOC - Initial and Continuing Calibration Verification**
All initial calibration (ICV) and continuing calibration (CCV) relative response factors (RRF) for Toluene and Heptane were calculated correctly and fell above the 0.05 control limit minimum which indicates an acceptable level of detector sensitivity. The RRF percent relative standard

[1]Control Limits: Area Counts - 12 Hr Avg. x/÷ 2; Retention Times - 12 Hr Avg. ± 30 sec.

deviations (%RSD) across the calibration range fell below the 30% control limit maximum indicating acceptable calibration linearity across that range. All percent differences between the CCV RRFs and the average ICV RRF fell below the 25% control limit maximum indicating sufficient analytical repeatability as well as data accuracy and precision. The percent differences for toluene ranged from 5.7% to 7.6%, absolute, while the heptane %Ds ranged from 4.9% to 11%, absolute.

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Adirondack Data File: 040616048 SDG 1.pdf
This part of the review covers the following samples:

| NYSDEC Sample ID | Adirondack Sample ID | Targets/Method | Matrix |
|---|---|---|---|
| MH-1 (W) | 040616048-001 | SVOCs/8270c | Groundwater |
| MH-20 (W) | 040616048-020 | SVOCs/8270c | Groundwater |
| MW-16 | 040616048-016 | SVOCs/8270c | Groundwater |
| MW-17 | 040616048-017 | SVOCs/8270c | Groundwater |
| FB | 040616048-014 | SVOCs/8270c | DI Water |

**SVOC - Surrogate Recoveries**
All surrogates were recovered within their respective control limits indicating that the corresponding target compounds were sufficiently recovered and the data should not be biased as a result of target recovery problems.

**SVOC - Matrix Spike and Matrix Spike Duplicate Results**
All MS and MSD compounds were recovered within their respective control limits indicating that the sample matrix should not have presented a bias to the sample results. With the exception of 4-nitrophenol, all RPDs between the MS and MSD recoveries fell under their respective control limit maximums. Although, the 4-nitrophenol recoveries fell within the 10 - 80% control limits indicating sufficient accuracy, the 57% RPD for 4-nitrophenol is above the 50% control limit maximum and, as a result, all positive 4-nitrophenol data should be regarded as estimated due to problems with data precision.

**SVOC - Blank Spike Results**
All spike recoveries from the blank sample fell within their respective control limits.

**SVOC - Instrument Performance Check**
All mass spectrometer tune data indicate that the detector was functioning properly. All mass assignments were correct as were their relative abundances.

**SVOC - Internal Standard Area Counts and Retention Time Summary**
All SVOC internal standard area counts and retention times fell within their respective control limits[2] indicating acceptable analytical repeatability regarding sample handling, spiking, chromatography and detector sensitivity and thus, data precision..

[2]Control Limits: Area Counts - 12 Hr Avg. x/÷ 2; Retention Times - 12 Hr Avg. ± 30 sec.

**SVOC - Initial and Continuing Calibration Verification**
All RRFs were above the 0.05 control limit minimum indicating adequate detector sensitivity and all %RSDs for the RRFs across the calibration range fell below the 30% control limit maximum indicating sufficient linearity across the range. All percent differences between the CCV RRFs and the average ICV RRF fell below the 25% control limit maximum indicating sufficient analytical repeatability as well as data accuracy and precision.

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Adirondack Data File: 040616048 SDG 2.pdf
This part of the review covers the following samples:

| NYSDEC Sample ID | Adirondack Sample ID | Targets/Method | Matrix |
|---|---|---|---|
| P/D Water | 040616048-021 | VOCs/8260b | Groundwater |
| Soil Comp 1 | 040616048-021 | VOCs/8260b | Soil |
| Soil Comp 2 | 040616048-021 | VOCs/8260b | Soil |
| Trip Blank | 040616048-021 | VOCs/8260b | Groundwater |
| DGC-7 | 040616048-021 | VOCs/8260b | DI Water |

**VOCs - System Monitoring Compound Recoveries**
All system monitoring compounds were recovered within their respective control limits which indicates that the recoveries for the target compounds should be acceptable.

**VOCs - Groundwater Sample Matrix Spike and Matrix Spike Duplicate Results**
All groundwater MS and MSD recoveries fell within their respective control limits indicating that the analytes of concern were as well. The toluene RPD between the MS and MSD recoveries exceeded the 13% control limit maximum at 14%. Although this does indicate limits to the precision of toluene data, it should be regarded as inconsequential.

**VOCs - Soil Sample Matrix Spike and Matrix Spike Duplicate Results**
All soil MS/MSD recoveries and corresponding RPDs fell within their respective control limits indicating that the soil data is not biased by any matrix affects such as interfering substances. The %Rs and RPD also indicates sufficient data precision.

**VOCs - Groundwater Blank Spike Recoveries**
All spiked compounds were recovered within their respective control limits from the water blank sample. Recoveries ranged from 102% for trichloroethene to 121% for 1,1-dichloroethene. The toluene recovery was 107% with control limits at 76% to 125%. Heptane was not used as a spiked compound.

**VOCs - Soil Blank Spike Recoveries**
All spiked compounds were recovered within their respective control limits from the water blank sample. Recoveries ranged from 118% for benzene to 132% for 1,1-dichloroethene.

**VOCs - Internal Standard and Retention Time Summary**
All internal standard area counts and retention times fell within their respective control limits[3] indicating acceptable analytical repeatability regarding sample handling, spiking, chromatography and detector sensitivity, and thus, data precision.

**VOCs - Initial and Continuing Calibration Verification**
All initial and continuing relative response factors (RRF) fell above the 0.05 minimum indicating adequate detector sensitivity and the percent relative standard deviations (%RSD) for the RRFs across the calibration range fell below their respective control limit maximums indicating that the calibration was sufficiently linear across the range.

**VOC - Blank Sample Results**
Three blank samples were analyzed and one (VBLK01) showed a trace level of toluene at 4 µg/L. One of the samples that were analyzed with this blank also showed a trace of toluene so it is reasonable to conclude that this was due to system contamination and the samples have false positive results. The following table lists the affected sample and it's toluene concentration.

| **Sample ID** | **[Toluene] µg/L** | **Qualification** | **Finding** |
|---|---|---|---|
| DG-7 | 1.0 | BJ | False Positive |

The common laboratory contaminants acetone, dichloromethane and 2-butanone were also detected in some blank samples, but, this finding is inconsequential to this data.

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All questions regarding this review can be directed via telephone or email at the following number and/or address:

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[3]Control Limits: Area Counts - 12 Hr Avg. x/÷ 2; Retention Times - 12 Hr Avg. ± 30 sec.

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# Memorandum

To: Vic Valaitis, Hazardous Waste Engineering, Eastern Section
Larry Rosenmann, Engineering Geology Section

From: John A. Miller, Chemistry and Laboratory Support Section

Subject: Kendal (Norton) Groundwater Sample: MP-17

Date: November 8th, 2004

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The SDG MP-17 data, which consisted of two samples: the groundwater sample MP-17 and a corresponding trip blank, was reviewed and found to be sufficiently accurate, but, not sufficiently precise. As a consequence, the toluene result of 68,000 µg/L (ppb) should be regarded as an estimated concentration. The problem with the toluene result is indicated by the RPD exceedence for toluene between the matrix spike and matrix spike duplicate recoveries. Comments follow below in the order that they appear in the SDG package.

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This part of the review will cover the following samples and analytes:

| Sample ID | Matrix | Collection Date | Analysis Date | Method | Analytes | Toluene Results |
|---|---|---|---|---|---|---|
| MP-17 | Groundwater | 08/12/2004 | 08/17/2004 | 8260b | Volatiles | 68,000 µg/L - "J" - Imprecise |

**VOC - Sample Holding Time and Preservation**
The sample was delivered to the lab approximately 23 minutes after it was collected so the sample should be considered adequately preserved.

**VOC - System Monitoring Compound Recoveries**
All SMCs were recovered within their respective control limits indicating that all VOC targets should have been as well. The toluene-d8 surrogate was recovered at 107% with control limits between 88% and 110%.

**VOC - Matrix Spike and Matrix Spike Duplicate Results**
The recoveries of toluene from the MS and MSD samples was 88% and 116%, respectively which is within the 76% to 125% control limits indicating sufficient data accuracy in the presence of the sample matrix. However, the relative percent difference (RPD) between the two recoveries was 27% which falls above the laboratory's 13% control limit maximum indicating that the toluene result for sample MP-17 should be considered estimated and not sufficiently precise.

**VOC - Matrix Spike Blank Recovery**
The toluene recovery from the MSB was 98% which falls within the 76% to 125% control limits. All other MSB compounds fell within their respective control limits as well.

**VOC - Instrument Performance Check**
All mass assignments and abundances fell within their respective control limits indicating that the detector was able to properly identify target compounds reliably.

**VOC - Internal Standard Area Counts and Retention Time Summary**
All internal standard peak areas and retention times fell within their respective control limits indicating that the chromatography was reliable over time as was the detector sensitivity.

**VOC - Initial and Continuing Calibration Verification**
All initial calibration relative response factors (RRF) fell above the 0.05 control limit minimum indicating sufficient detector sensitivity and all percent relative standard deviations (%RSD) fell under the 30% control limit maximum indicating sufficient detector linearity across the calibration range. The toluene and heptane RRFs were calculated correctly as were the corresponding %RSDs.

The percent differences between the initial and continuing calibration RRFs for toluene and heptane fell below the 25% control limit maximum at 10.1% and 19.5%, respectively, indicating that the analyses were consistent over time with no appreciable drop in GC/MS performance which, in turn, indicates acceptable data precision.

**VOC - Internal Standard Area Count and Retention Time Summary**
All internal standard peak area counts and retention times fell within their respective control limits[1] indicating that the chromatography and detector systems operated as per method specifications.

**VOC - Blank Results**
With the exception of the common laboratory contaminant acetone, which was detected at 25 µg/L in the trip blank, all target compounds were reported as non-detect indicating that no data was positively biased as a result of laboratory and/or system contamination.

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[1]Area Counts: 12-Hr Average x/÷ 2. Retention Times: 12-Hr Average ± 0.5 minutes.

This part of the review will cover the following samples and analytes:

| Sample ID | Matrix | Collection Date | Analysis Date | Method | Analytes | Toluene Result |
|---|---|---|---|---|---|---|
| MP-17 | Groundwater | 09/07/2004 | 09/09/2004 | 8260b | Volatiles | 10,000 µg/L - "J" - Biased Low |
| MP-13 | Groundwater | 09/09/2004 | 09/13/2004 | 8260b | Volatiles | Non-detect - 10 µg/L - "U" |
| MP-14 | Groundwater | 09/09/2004 | 09/16/2004 | 8260b | Volatiles | 850 µg/L - "J" - Biased Low |
| MP-15 | Groundwater | 09/09/2004 | 09/13/2004 | 8260b | Volatiles | Non-detect - 10 µg/L - "U" |
| MP-16 | Groundwater | 09/09/2004 | 09/15/2004 | 8260b | Volatiles | Non-detect - 10 µg/L - "U" |
| MP-30 | Groundwater | 09/09/2004 | 09/13/2004 | 8260b | Volatiles | Non-detect - 10 µg/L - "U" |
| SB-173 (3-3.5') | Soil | 09/10/2004 | 09/13/2004 | 8260b | Volatiles | Non-detect - 11 µg/kg - "U" |

**VOC - Sample Holding Time and Preservation**
All holding times and sample preservation steps were met. The samples were analyzed within one week from the date of their collection and the chain of custody records indicate that the two cooler temperatures were maintained at 1 °C and 3 °C which is within the 4 ± 2 °C control limits.

**VOC - Surrogate Recoveries**
All surrogates were recovered from the samples within their respective control limits. Recoveries ranged from 90% for bromofluorobenzene (control limits 59% to 113%) from the soil sample SB-173 (3-3.5') to 111% for bromofluorobenzene from the water sample MP-13.

**VOC - Water Matrix Spike and Matrix Spike Duplicate Recoveries and RPDs**
The water sample MP-17 was used for the MS/MSD experiment and the toluene recoveries from the MS and MSD samples were both 60% which fall below the 76% - 125% control limits. This indicates a low bias in the sample results. All RPDs fell under their respective control limit maximums indicating sufficient data precision.

The soil sample SB-173 (3-3.5') was used for the MS/MSD experiment and all recoveries and RPDs fell within their respective control limits indicating adequate data precision and accuracy.

**VOC - Water Matrix Spike Blank Recoveries**
All spike recoveries from the water blank fell within their respective control limits as did the soil results.

**VOC - Blank Results**
With the exception of the common laboratory contaminant acetone and methylene chloride, all target results were non-detect in the various blank samples. A trace level of chloroform, bromodichloromethane and toluene was found in the Field Blank sample, but, these findings are insignificant and can be ignored.

**VOC - Internal Standard Area Count and Retention Time Summary**
All internal standard peak area counts and retention times fell within their respective control limits indicating that the chromatography and detector systems operated as per method specifications.

**VOC - Instrument Performance Check**
All mass assignments and abundances fell within their respective control limits indicating that the detector was able to properly identify target compounds reliably.

**VOC - Initial and Continuing Calibration Verification**
All initial calibration relative response factors (RRF) fell above the 0.05 control limit minimum indicating sufficient detector sensitivity and all percent relative standard deviations (%RSD) fell under the 30% control limit maximum indicating sufficient detector linearity across the calibration range. The toluene and heptane RRFs were calculated correctly as were the corresponding %RSDs.

The percent differences between the initial and continuing calibration RRFs for toluene and heptane fell below the 25% control limit maximum. The toluene %Ds were 3.5%, 3.2%, 0.9%, 6.3%, and 8.3% while the heptane %Ds were 16.3%, 3.0%, 1.5%, 2.7% and 21.2% indicating that the analyses were consistent over time with no appreciable drop in GC/MS performance which, in turn, indicates acceptable data precision.

---

If there are any questions on this review, I can be reached by email or phone at the following:

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# Memorandum

To: Vic Valaitis, Hazardous Waste Engineering, Eastern Section
Larry Rosenmann, Engineering Geology Section

From: John A. Miller, Chemistry and Laboratory Support Section

Subject: Kendall (Norton) Lab QA/QC, Five $H_20$ & Six Soil Samples Collected 10/25, 10/26 & 10/27/04 and Nine $H_20$ Samples Collected 10/27 & 10/28/04.

Date: December 20th, 2004

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The data for twenty nine environmental samples were submitted for quality review and were packaged in two sample delivery groups. The sample matrix breakdown is as follows: for those samples which were collected on 10/25/04: three soil and two water; for those which were collected on 10/26/04: three soil and three water; for those which were collected on 10/27/04: 11 water; for those which were collected on 10/28/04: seven water.

The toluene results from the water samples SB-178, MP-17, MP-6 and MP-50 should be regarded as estimated due to problems with precision and accuracy as indicated by the low matrix spike duplicate recovery and corresponding MS/MSD recovery percent difference. All other data should be regarded as sufficiently accurate and precise.

By reviewing the chromatograms for samples MW-14 and MP-9, it is apparent that there were some detected compounds in the sample that were not reported as TICs. No library searches were made on their mass spectrums.

The compound methylcyclohexane was detected in samples MW-14 and MW-15. This compound is a fingerprint for petroleum contamination.

The non-detect heptane results for all samples should be considered as suspect for all diluted samples due to problems with the laboratory's reporting practices. Based on a handwritten laboratory record made by

the analyst, it appears that there was a positive detection of heptane in sample MP-17 prior to it's 100-fold dilution. In an effort to bring the high toluene concentration down into the calibration range of the instrument, heptane was diluted out and reported as non-detect. The raw data from the undiluted sample analysis was not provided for review. A similar handwritten notation was made for sample MW-15.

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This part of the review will cover the following samples and matrices:

| Sample ID | Matrix | Analytes/Method | Date Collected | Date Analyzed | Data Results and Qualifications |
|---|---|---|---|---|---|
| SB-176 (7.5-8) | Soil | VOCs/SW8260b | 10/25/2004 | 10/27/2004 | |
| SB-176 | Water | VOCs/SW8260b | 10/25/2004 | 10/27/2004 | |
| SB-177 (8.5-9) | Soil | VOCs/SW8260b | 10/25/2004 | 10/27/2004 | |
| SB-178 (9-10) | Soil | VOCs/SW8260b | 10/25/2004 | 10/27/2004 | |
| SB-178 | Water | VOCs/SW8260b | 10/25/2004 | 10/27/2004 | Toluene @ 1 µg/L estimated - "J" |
| SB-179 (7.5-8) | Soil | VOCs/SW8260b | 10/26/2004 | 10/27/2004 | |
| SB-179 | Water | VOCs/SW8260b | 10/26/2004 | 10/27/2004 | |
| SB-180 (8-9) | Soil | VOCs/SW8260b | 10/26/2004 | 10/27/2004 | |
| SB-180A (20-25) | Soil | VOCs/SW8260b | 10/26/2004 | 10/27/2004 | |
| SB-180 | Water | VOCs/SW8260b | 10/26/2004 | 10/27/2004 | |
| Trip Blank | Water | VOCs/SW8260b | 10/26/2004 | 10/27/2004 | |
| MP-21 | Water | VOCs/SW8260b | 10/27/2004 | 11/01/2004 | |
| MP-20 | Water | VOCs/SW8260b | 10/27/2004 | 11/01/2004 | |
| MP-19 | Water | VOCs/SW8260b | 10/27/2004 | 11/01/2004 | |
| MP-17 | Water | VOCs/SW8260b | 10/27/2004 | 11/03/2004 | Toluene @ 4800 µg/L estimated - "J" |
| MP-18 | Water | VOCs/SW8260b | 10/27/2004 | 11/01/2004 | |
| FB | Water | VOCs/SW8260b | 10/27/2004 | 11/01/2004 | |
| MP-5 | Water | VOCs/SW8260b | 10/27/2004 | 11/01/2004 | |
| MP-6 | Water | VOCs/SW8260b | 10/27/2004 | 11/01/2004 | Toluene @ 120 µg/L estimated - "J" |
| MP-50 | Water | VOCs/SW8260b | 10/27/2004 | 11/01/2004 | Toluene @ 150 µg/L estimated - "J" |

**VOC - Sample Holding Times and Preservation**
All sample holding times fell within the 7-day NYSDEC ASP maximum for un-preserved samples.

The laboratories Chain-Of-Custody Records indicate that two coolers were received and the temperatures were recorded at 8 and 3 °C, The 8 °C temperature is slightly above the 4 ± 2 °C control limits, however, this exceedence should be regarded as inconsequential in light of the short holding times as indicated in the table above.

**VOC - Water System Monitoring Compound Recoveries**
All SMC recoveries fell within their respective control limits indicating that the laboratory performed the analyses according to method specifications. No data were qualified as a result of any SMC recovery problems.

**VOC - Soil System Monitoring Compound Recoveries**
All SMC recoveries fell within their respective control limits indicating that the laboratory performed the analyses according to method specifications. No data were qualified as a result of any SMC recovery problems.

**VOC - Water Matrix Spike and Matrix Spike Duplicate Recoveries and RPDs**
With the exception of toluene, all MS and MSD recoveries and RPDs fell within their respective control limits.

In regards to toluene, the MSD recovery fell below the 76-125% control limits at 48%. The toluene recovery from the MS sample was 80% translating to a 50% RPD which falls above the 13% control limit maximum. As a result, all toluene results from the analyses of water samples should be regarded as estimated due to problems with data accuracy (%R) and precision (RPD).

**VOC - Soil Matrix Spike and Matrix Spike Duplicate Recoveries and RPDs**
All MS/MSD recoveries fell within their respective control limits as did the corresponding RPDs indicating sufficient data accuracy and precision providing that all other QC criteria are met.

**VOC - Water Volatile Matrix Spike Blank Recoveries**
All MS compound recoveries from the water blank fell within their respective control limits indicating that the laboratory was capable of performing the analyses using a clean matrix.

**VOC - Soil Volatile Matrix Spike Blank Recoveries**
All MS compound recoveries from the water blank fell within their respective control limits indicating that the laboratory was capable of performing the analyses using a clean matrix.

**VOC - Blank Results**
All target compounds were non-detect in all blank samples. However, it is important to note that two TICs were detected in many samples, including the field blank and the trip blank. One TIC was reported to be hexane while the other as an unknown compound which eluted at/around 3.38 minutes. These two compounds appear to be due to laboratory contamination and should be disregarded in all environmental sample results.

**VOC - Internal Standard Area Count and Retention Time Summery**
All internal standard area counts and retention times fell within their respective control limits[1] indicating that the analytical system's sensitivity and chromatography was stable and reliable.

**VOC - Instrument Performance Check**
All mass spectrometer tune criteria were met which insured that target fragments had the correct mass assignments and relative abundances. This is necessary to maintain adequate sensitivity for the target analytes and for their correct identification.

**Initial and Continuing Calibration Verification Results**
All toluene relative response factors (RRFs) were calculated correctly and fell two orders of magnitude above the 0.05 control limit minimum indicating sufficient detector sensitivity. The percent relative standard deviation (%RSD) of the RRFs across the calibration was 9.9% which falls below the 30% control limit maximum indicating adequate detector linearity across the calibration range.

The percent differences (%Ds) between the average ICV RRF and the CCV RRFs for toluene fell below the 25% control limit maximum at 9.3%, 16.3% and 7.3%. This indicates that the analytical system's performance was reliable over time and no significant drift in sensitivity was observed.

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[1] Area Counts: 12-Hr average x/÷ 2; Retention Times: 12-Hr average ± 0.5 minutes

This part of the review will cover the following samples and matrices:

| Sample ID | Matrix | Analytes/Method | Date Collected | Date Analyzed | Data Results and Qualifications |
|---|---|---|---|---|---|
| MP-7 | Water | VOCs/SW8260b | 10/27/2004 | 11/01/2004 | |
| DGC-7 | Water | VOCs/SW8260b | 10/27/2004 | 11/01/2004 | |
| MW-16 | Water | VOCs/SW8260b | 10/28/2004 | 11/02/2004 | |
| MW-15 | Water | VOCs/SW8260b | 10/28/2004 | 11/03/2004 | Toluene 3 µg/L<br>Methylcyclohexane[2] 37 µg/L |
| MW-14 | Water | VOCs/SW8260b | 10/28/2004 | 11/04/2004 | Toluene 16,000 µg/L<br>Ethylbenzene 470 µg/L<br>Total Xylenes 4700 µg/L<br>Methylcyclohexane 430 µg/L<br>Unreported peaks between 8 and 12 min. |
| MW-11 | Water | VOCs/SW8260b | 10/28/2004 | 11/03/2004 | |
| DGC-6 | Water | VOCs/SW8260b | 10/28/2004 | 11/04/2004 | |
| MP-9 | Water | VOCs/SW8260b | 10/28/2004 | 11/03/2004 | Unreported peaks between 8.5 and 11 min. |
| Trip Blank | Water | VOCs/SW8260b | 10/28/2004 | 11/03/2004 | |

**VOC - Sample Holding Times and Preservation**
All samples were analyzed within the NYSDEC ASP 7-day holding time for non-preserved samples and the cooloer temperature was recorded to be 3 °C which falls within the 4 ± 2 °C control limits.

**VOC - Water Sample System Monitoring Compounds**
All SMC recoveries for the water samples fell within their respective control limits indicating that the laboratory performed the analyses according to method specifications. No data were qualified as a result of any SMC recovery problems.

**VOC - Soil Sample System Monitoring Compound Recoveries**

[2]Methylcyclohexane is a fingerprint for petroleum. The unreported TICs that show up in the chromatograms of samples MW-14 and MP-9 may be due to petroleum contamination.

All SMC recoveries for the soil samples fell within their respective control limits indicating that the laboratory performed the analyses according to method specifications. No data were qualified as a result of any SMC recovery problems.

**VOC - Water Matrix Spike and Matrix Spike Duplicate Recoveries and RPDs**
All MS/MSD recoveries fell within their respective control limits as did the corresponding RPDs indicating sufficient data accuracy and precision providing that all other QC criteria are met.

**VOC - Water Volatile Matrix Spike Blank Recoveries**
With the exception of trace levels of the common laboratory contaminants methylene chloride and acetone, all blank results were non-detect. Any trace amounts of either compound detected in the environmental samples should be regarded as inconsequential and due to background laboratory contamination.

**VOC - Instrument Performance Check**
All mass spectrometer tune criteria were met which insured that target fragments had the correct mass assignments and relative abundances. This is necessary to maintain adequate sensitivity for the target analytes and for their correct identification.

**VOC - Internal Standard Area Count and Retention Time Summery**
All internal standard area counts and retention times fell within their respective control limits indicating that the analytical system's sensitivity and chromatography was stable and reliable.

**VOC - Initial and Continuing Calibration Verification**
All ICV RRFs fell above the 0.05 control limit minimum indicating adequate detector sensitivity. The %RSDs for the RRFs across the calibration range for benzene, toluene, heptane, ethylbenzene, m/p xylenes, o-xylene and methylcyclohexane fell below the 30% control limit maximum indicating adequate detector linearity across the calibration range.

The percent differences (%Ds) between the average ICV RRF and the CCV RRFs for the compounds listed in the preceding paragraph fell below the 25% control limit maximum indicating that the analytical system's performance was reliable over time and no significant drift in sensitivity was observed.

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Please feel free to ask questions regarding this review. I can be reached at the following:

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# Memorandum

To: Vic Valaitis, Hazardous Waste Engineering, Eastern Section
Larry Rosenmann, Engineering Geology Section

From: John A. Miller, Chemistry and Laboratory Support Section

Subject: Kendall (Norton) Lab QA/QC, MP-22 Water Sample Taken On 11/15/04, Plus Trip Blank and Field Blank

Date: January 24th, 2005

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The water sample, trip blank and field blank data were reviewed and found to be sufficiently accurate and precise and useable for their intended purpose. Details on the various QC results are discussed in the sections that follow.

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**1.0.0 SDG: MP-22**

The part of the data review will cover the following environmental samples:

| Sample ID | Matrix | Analytes/Method | Date Collected | Date Analyzed | Data Qualifications |
|---|---|---|---|---|---|
| MP-22 | Water | VOCs/SW8260b | 11/15/2004 | 11/18/2004 | |
| Field Blank | Water | VOCs/SW8260b | 11/15/2004 | 11/18/2004 | |
| Trip Blank | Water | VOCs/SW8260b | 11/15/2004 | 11/18/2004 | |

**1.0.1 VOCs - Sample Preservation and Holding Times**
A notation on the chain of custody indicated that the sample cooler was at 4 °C upon its receipt at the lab which falls within the 4 ± 2 °C control limits. The 7-day un-preserved water sample holding time, as per the NYSDEC ASP, was met.

**1.0.2 VOCs - System Monitoring Compound Recoveries**
All SMCs were recovered within their respective holding times indicating that the laboratory performed the analyses as per method specifications. The toluene-d8 recoveries ranged from 101% to 109%.

**1.0.3 VOCs - MS/MSD Recoveries and RPDs**
All MS and MSD recoveries fell within their respective control limits indicating sufficient data accuracy. All RPDs between the MS and MSD recoveries fell within their respective control limits indicating acceptable data precision. The toluene MS/MSD recoveries were 84% and 82%, respectively, with a 2% RPD.

**1.0.4 VOCs - Matrix Spike Blank Recoveries**
All MSB recoveries fell within their respective control limits indicating that the laboratory was able to perform the analyses as per method specifications using a clean matrix. Recoveries ranged from 64% for 1,1-dichloroethene to 94% for chlorobenzene.

**1.0.5 VOCs - Method Blank Results**
The method blank results were all reported as non-detects which indicates that the system was free from any contamination which can bias analytical results. One tentatively identified compound was detected at 3.33 minutes and this TIC also appears in other sample results indicating that it is not specific to the site samples.

**1.0.6 VOCs - Internal Standard Area Counts and Retention Time Summary**
All internal standard area counts and retention times fell within their respective control limits[1] indicating that the chromatographic performance and detector sensitivity were reliable over the course of .

**1.0.7 VOCs - Instrument Performance Check**
All mass spectrometer tune criteria were met which indicates that the correct mass assignments and relative abundances were made to the bromofluorobenzene tune compound fragments.

**1.0.8 VOCs - Initial and Continuing Calibration Verification**
Although it was, and often is, difficult to read the numbers submitted by Adirondack Labs., it did appear that the RRFs were calculated correctly. All response factors across the calibration range for toluene and heptane fell above the 0.05 control limit minimum indicating sufficient detector sensitivity and all %RSDs for the response factors fell below the 30% control limit maximum indicating sufficient calibration linearity across the calibration range.

All continuing calibration criteria were met indicating sufficient data accuracy on 11/18/2004.

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[1] Area Counts: 12-Hr Average x/÷ 2; Retention Times: 12-Hr Average ± 0.50 minutes.

Fell free to call or email if you have any questions regarding this review.

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# Memorandum

To: Vic Valaitis, Hazardous Waste Engineering, Eastern Section
Larry Rosenmann, Engineering Geology Section

From: John A. Miller, Chemistry and Laboratory Support Section

Subject: Kendall (Norton), Lab QA/QC, Three Air Samples Collected In SUMMA Canisters and Analyzed By Method TO-15.

Date: February 4th, 2005

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The soil vapor data which is covered by this review was found to be sufficiently accurate and precise and useable for it's intended purpose. Some results were qualified as estimated due to duplicate RPDs that exceeded the control limit of ≤ 25%. Details regarding the quality follow in the sections below.

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**General Comments:**
Based on the laboratory's minimum detection limits which were provided in the package, many reporting limits for non-detected compounds appear to be too low.

The detection of methyl t-butyl ether (MTBE) at 110 ppbv in sample VMP-1, as well as the BTEX compounds and other non-chlorinated hydrocarbons, indicates that gasoline impacted the area where the sample was collected.

The presence of chlorinated hydrocarbons such as 1,1,1-trichloroethane at 29 ppbv, methylene chloride at 3 ppbv and 1,2-dichloroethane indicate that the site was impacted by chlorinated solvents. These were not found in the ambient air samples.

No duplicate sample results were submitted with this data package so the target results, when detected, from the analysis of the 10-fold dilution of sample VMP-1 were used to assess the data for precision.

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The data review will cover the following environmental samples:

| Sample ID | Matrix | Analytes/Method | Date Collected | Date Analyzed | Data Qualifications |
|---|---|---|---|---|---|
| VMP-1 Grab | Soil Vapor | VOCs/TO-15 | 09/10/04 | 09/14/04 | |
| VMP-2 Grab | Soil Vapor | VOCs/TO-15 | 09/10/04 | 09/14/04 | |
| Ambient Grab | Air | VOCs/TO-15 | 09/10/04 | 09/14/04 | |

**Sample Preservation and Holding Time**
All samples were analyzed within the 30 day holding time insuring that reactive target compounds did not degrade biasing their concentrations.

**Method Blank Results**
All blank results were non-detect indicating the absence of any system contamination.

**Laboratory Control Sample Recoveries**
All LCS recoveries fell within their respective control limits indicating that the laboratory performed the analysis as per method specifications and sample data should be regarded as accurate providing that all other QC criteria are met.

**Internal Standard Area Counts and Retention Time Summary**
All internal standard area counts and retention times fell within their respective control limits[1] indicating that acceptable chromatographic performance and detector sensitivity for the sample analyses.

**Duplicate Sample Results**
Sample VMP-1 was run twice, the second being at a 10-fold dilution. The detected compounds in the 10-fold dilution were used to calculate relative percent differences (RPDs) in order to assess the data precision. These results are found in the following table where the result from the 10-fold dilution was multiplied by 10 before RPDs were calculated (Corrected Dilution Result). An RPD control limit maximum of ≤ 25% was used for all results greater than 0.5 ppbv.

| Compound | Original Result | Corrected Dilution Result | RPD | Data Qualification |
|---|---|---|---|---|
| Propene | 34.977 | 28.19 | | |

[1] Area Counts: 24-Hr Average x/÷ 2; Retention Time: 245-He Average ± 0.5 minutes

**New York State Department of Environmental Conservation**
**Division of Solid & Hazardous Materials**
**Bureau of Hazardous Waste & Radiation Management**
625 Broadway, Albany, NY 12233-7258
**Phone:**(518) 402-8594 · **FAX:**(518) 402-8646
**Website:** www.dec.state.ny.us

February 9, 2005

Mr. Robert Zei
Senior Project Manager
Forensic Environmental Services, Inc.
113 John Robert Thomas Drive
The Commons At Lincoln Center
Exton, PA 19341

Dear Mr. Zei:

Re: Kendall/Former Norton/Nashua Tape Products Facility
Watervliet, New York, EPA ID No. NYD 066829599

The following Laboratory Data Packages have been reviewed by the NYSDEC Chemistry and Laboratory Services Section and comments on the data usability are as follows:

| Chemist's Memo Date | Sampling Event | Conclusion |
|---|---|---|
| August 12, 2004 | June 2004 Mobilization | Data Useable |
| November 8, 2004 | MP-17 collected 8/12/04 | Regard as estimated |
| | MP-17 collected 9/7/04 | Data Useable |
| | MP-13,14,15,16, SB-173 collected 9/07-9/10/04 | Data Useable |
| December 20, 2004 | 29 Samples collected 10/25, 26,27 and 10/28/04 | See detailed comments |
| January 24, 2005 | MP-22 collected 11/15/04 | Data Useable |
| February 4, 2005 | SUMMA samples collected 9/10/04 | Data Useable |

Since some of the QA/QC comments are quite detailed, I am e-mailing you all of the Chemist's memos.

If there are any questions, or additional information is needed, please contact me at (518) 402-8594.

Sincerely,

/s/

Victor A. Valaitis, P.E.
Environmental Engineer II
Hazardous Waste Engineering Eastern Section
Bureau of Hazardous Waste & Radiation Mgmt.

cc: L. Alterman, Saint-Gobain
S. Hamilton
D. Evans
J. Miller
L. Rosenmann
C. VanGuilder, Reg. 4

# New York State Department of Environmental Conservation

## Division of Solid and Hazardous Materials

**Bureau of Pesticides Management, 11th Floor**
625 Broadway, Albany, New York 12233-7254

**Phone:** (518) 402-8788 · **FAX:** (518) 402-9024

**Website:** www.dec.state.ny.us


MEMORANDUM

**TO:** Vic Valaitis, Hazardous Waste Engineering, Eastern Section

**FROM:** John A. Miller, Chemistry and Laboratory Services Section, Bureau of Pesticides Management

**SUBJECT:** Kendall (Norton/Nashua) QA/QC For 02/15/2006 Air Sampling Event, Private Houses @ Alden Street

**DATE:** May 17th, 2006

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The SUMMA canister data from the Kendall (Norton/Nashua) QA/QC For 02/15/2006 Air Sampling Event were found to be sufficiently precise, accurate and useable for their intended purpose. Response factors and final concentrations appeared to have been calculated correctly. Details regarding the QC performance criteria are described below.

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This review will cover the following samples:

| Lab ID | Matrix | Target/Method | Date Collected | Date Analysis | Data Qualifiers |
|---|---|---|---|---|---|
| 4712636 | Air | VOCs/TO-15 | 02/15/2006 | 02/23/2006 | None |
| 4712637 | Air | VOCs/TO-15 | 02/15/2006 | 02/23/2006 | None |
| 4712638 | Air | VOCs/TO-15 | 02/15/2006 | 02/23/2006 | None |
| 4712639 | Air | VOCs/TO-15 | 02/15/2006 | 02/23/2006 | None |
| 4712640 | Air | VOCs/TO-15 | 02/15/2006 | 02/23/2006 | None |
| 4712641 | Air | VOCs/TO-15 | 02/15/2006 | 02/23/2006 | None |
| 4712642 | Air | VOCs/TO-15 | 02/15/2006 | 02/23/2006 | None |
| 4712643 | Air | VOCs/TO-15 | 02/15/2006 | 02/23/2006 | None |

| Lab ID | Matrix | Target/Method | Date Collected | Date Analysis | Data Qualifiers |
|---|---|---|---|---|---|
| 4712644 | Air | VOCs/TO-15 | 02/15/2006 | 02/23/2006 | None |
| 4712645 | Air | VOCs/TO-15 | 02/15/2006 | 02/23/2006 | None |
| 4712646 | Air | VOCs/TO-15 | 02/15/2006 | 02/23/2006 | None |
| 4712647 | Air | VOCs/TO-15 | 02/15/2006 | 02/23/2006 | None |

**Sample Preservation and Holding Times**
All samples were analyzed within the 30 day holding. No other steps need be taken in regards to sample preservation.

**Laboratory Control Sample Recoveries**
All LCS recoveries fell within their respective control limits indicating that the sample data should be regarded as sufficiently accurate providing all other QC criteria are met.

**Mass Spectrometer Instrument Performance Check**
All ion abundance criteria were met indicating that the detector was tuned properly for the TO-15 target list and sufficient analyte selectivity and detector sensitivity was achieved.

**Internal Standard Area Count and Retention Time Summary**
All internal standard area counts and retention times fell within their respective control limits indicating that the analytical system performance was maintained throughout the time-course of the analytical sequence.

**Initial Calibration Verification Relative Response Factors and Corresponding %RSDs**
All ICV relative response factors (RRFs) appeared to have been calculated correctly. All %RSDs for the RRFs fell below the 30% control limit maximum indicating sufficient initial calibration linearity.

**Continuing Calibration Percent Differences**
All percent differences (%Ds) between the average ICV RRF and the corresponding continuing calibration verification (CCV) RRF fell below the 30% control limit maximum indicating that the sample data should be regarded as sufficiently accurate and precise providing that all other QC criteria are met.

**Blank Sample Results**
The trip blank appeared to have traces of some target analytes, but toluene, which is a site analyte of concern, was non-detect indicating the lack of any source for toluene contamination. All method blank results showed the absence of any system contamination which could significantly bias the sample results.

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All questions and/or comments can be made to the following:

John A. Miller

Environmental Chemist 2
Chemistry and Laboratory Services Section
Bureau of Pesticides Management
Division of Solid and Hazardous Materials
Dept. Of Environmental Conservation
jamiller@gw.dec.state.ny.us
(518) 402-8802

# APPENDIX J

# NYSDEC COMMENTS ON DRAFT RFI REPORT AND SAINT-GOBAIN RESPONSE

**New York State Department of Environmental Conservation**
**Division of Solid and Hazardous Materials**
**Bureau of Hazardous Waste and Radiation Management, 9th Floor**
625 Broadway, Albany, New York 12233-7258
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**Website:** www.dec.ny.gov

Alexander B. Grannis
Commissioner

received
8-24-07

August 21, 2007

Mr. Robert Zei
Senior Project Manager
Forensic Environmental Services, Inc.
113 John Robert Thomas Drive
The Commons at Lincoln Center
Exton, PA 19341

**Re: Former Norton/Nashua Tape Products Facility, Watervliet, NY; NYSDEC Order on Consent No. 4-20001205-3375, USEPA ID No. NYD066829599; RFI Report/Preliminary Corrective Measures Study/Interim Groundwater Monitoring Plan, November 2006**

The New York State Department of Environmental Conservation (Department) reviewed the draft report referenced above. The Department's comments are discussed below.

Miscellaneous Comments

- Figure 1-1, Site Location Map, should be a topographic map.

- In general, when discussing analytical results, the appropriate tables and figures should be referenced. Usually the table was referenced but not the figure, making it difficult to find the sampling locations. At times, only some of the sampling locations could be located on a figure, assuming it was the correct figure.

4.3.1a Depth to Water/Groundwater Flow

- The Department does not concur with the conclusion that groundwater flow from the tank farm area is not an active transport mechanism for dissolved-phase toluene towards the Off-Site AOC. Water table elevations in the area of the former tank farm do not consistently show that flow in this area is moving towards the steep gradients in the northeastern corner of the site between MW-12 and MW-10. Furthermore, even if the steepest gradients are those towards the east, that does not preclude a portion of the flow from the tank farm area moving towards Alden Street. Therefore, the Department believes that groundwater flow from the tank farm area does move to the north, at least periodically.

- This information does provides additional impetus for continued monitoring of this off-

site area. In fact, because contaminants can be mobilized by certain remedial measures, monitoring will be especially important during the period when the measures are being implemented in the tank farm area.

4.5.3 Former Solvent Recovery Room AOC

- Figure 3-1 is not included in Volume 1. (This figure is also referenced in other sections.)

4.5.4 Former Filter Room AOC

- Specify which two borings are being discussed. It is assumed to be borings SB-13 and SB-14.

4.5.8 Former Solvent Line AOC

- Identify the soil borings that were sampled. Also, specify where the PAH results for these samples are located.

5.4 Supplemental Sewer Sediment Sampling

- Table 5-1 is confusing. The contents in Table 5-1 do not seem to follow the results described in the text of section 5.4.

5.6.2 RFI Sewer Sampling Results – Sewer Bedding Vapor

- Sampling location DCG-12 cannot be located on any figures.

- In general, analytical results from sewer water that discharges to surface waters are not compared to groundwater standards. Instead, results should be compared to surface water standards found in *6 NYCRR Part 703.5, "Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations"*.

6.2 Groundwater Monitoring and Sampling

- Samples were collected from MP-17 and MW-19 in May 2006 and analyzed for electron acceptor and other natural attenuation parameters. Indicate where the results are located in this document.

6.3 Groundwater Sampling – Private Wells

- Indicate where the results from the private well are located.

7.2.3 Geoprobe Borings Installed Adjacent to Alden & Craig Streets

- On page 7-5, Figure 4-17 is referenced. There is no Figure 4-17 included in this document. On this same page, it appears that Figure 7-2 is incorrectly referenced.

7.3.4 Groundwater Sampling – Private "Garden" Well

- The location of the private well at 32 Craig Street is not clearly marked on Figure 6-1.

8.1 Former Tank Farm SWMU

- The following information is included on page 8-2: "There is no protocol currently in place to specifically prohibit excavation activities in the Former Tank Farm SWMU. To minimize this possible exposure pathway, Saint-Gobain will establish a formal agreement with the property owner, such that notice will be provided before any excavation work is performed, so appropriate plans to manage soils and limit exposure can be developed and implemented."
  Site-wide control measures should be proposed in the CMS. Such measures typically include property deed restrictions and a Site Management Plan. The property deed restrictions may limit property uses and restrict the use of soil and groundwater (if necessary). The deed restrictions also notify future site owners of the existence and location of the Site Management Plan. The Site Management Plan includes, at a minimum:
  (1) The locations and extent of all impacted soils and groundwater remaining at the site;
  (2) Guidelines to be followed for the management of impacted soils should they be disturbed during future construction activities; and
  (3) Details for long-term maintenance and security at the site (including monitoring wells).
  The property deed restriction and Site Management Plan must be referenced in an appropriate legal mechanism to ensure that they will be in place as long as necessary.

- In addition, a Community Air Monitoring Plan, as required by NYSDOH, must be developed for any on-site activities that may potentially expose downwind receptors to particulates, vapors and odors.

8.4 Evaluation of Sanitary & Storm Sewer SWMUs

- Explain what measures will be implemented to prevent contaminated sediments in the storm sewer lines from being discharged off-site.

9.0 Quality Assurance/Quality Procedures and Samples

- This entire section does not need to be included if it is covered in the approved QA/QC Plan. However, include any sections that pertain to a specific investigation. Also include any changes and modifications to the approved QA/QC Plan.

10.0 Preliminary CMS and Remedial Action Technology Screening

- The CMS should address all COCs present on-site and off-site, even if NFA or LTM is

the proposed remedy. A table which summarizes the COCs and the proposed remedies is useful and easy to reference.

10.1 Corrective Measures Performance Goals

- Saint-Gobain proposes to contact the property owners in the off-site AOC and ask them to provide voluntary notification of activities. In order to keep the current property owners informed, Saint-Gobain should notify the owners in writing on an annual basis. In the written notification to the owners, it should be clear that Saint-Gobain is responsible for costs associated with sampling and analysis of soil and/or groundwater for such activities on their property.

10.3 Target Treatment Areas

- Sediments in the storm sewer system are not addressed in this section.

10.7 Selected Corrective Measures Alternatives

- The selected corrective measure alternatives are easier to follow if presented in table format.

During the conference call on March 28, 2007, options for disposal and treatment of soils around the tank farm were discussed with the Department. This issue was resolved through the granting of a "contained-in determination", which the Department approved on July 24, 2007. Saint-Gobain must meet the requirements set forth in the approval letter of July 24th in order to use the "contained-in determination".

Also, the New York State Department of Health (DOH) has determined that sampling for soil vapor intrusion will be required in the offices areas of the warehouse building. Sampling will not be required at this time in the warehouse areas.

Saint-Gobain must submit a revised RFI Report/Preliminary Corrective Measures Study/Interim Groundwater Monitoring Plan within forty-five (45) days of receipt of this letter, in accordance with the Order on Consent. If you have any questions, please contact me at (518) 402-8594.

Sincerely,

Alicia Barraza

Alicia Barraza
Environmental Engineer
Hazardous Waste Engineering Eastern Section

cc: J. Reidy, USEPA Region 2
C. Bethony, NYSDOH

**Forensic Environmental Services, Inc.**
113 John Robert Thomas Drive
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Exton, Pennsylvania 19341

Telephone: (610) 594-3940 Telecopier: (610) 594-3943

October 12, 2007

Alicia Barraza
NYS Dept. of Environmental Conservation
Division of Solid & Hazardous Materials
625 Broadway, Albany, NY 12233-7252

Re: Former Norton Company/Nashua Tape Products Facility, Watervliet, NY; EPA ID No. NYD 066829599; RFI Report/Preliminary Corrective Measures Study/Interim Groundwater Monitoring Plan, November 2006

Dear Ms. Barraza:

The following is a response to August 21, 2007 comments from the New York State Department of Environmental Conservation (the Department) for the document referenced above.

Miscellaneous Comments

- Figure 1-1, Site Location Map, should be a topographic map.

- In general, when discussing analytical results, the appropriate tables and figures should be referenced. Usually the table was referenced but not the figure, making it difficult to find the sampling locations. At times, only some of the sampling locations could be located on a figure, assuming it was the correct figure.

Figure 1-1 has been modified accordingly, and references to appropriate tables and figures have been added throughout the text.

4.3.1a Depth to Water/Groundwater Flow

- The Department does not concur with the conclusion that groundwater flow from the tank farm area is not an active transport mechanism for dissolved-phase toluene towards the Off-Site AOC. Water table elevations in the area of the former tank farm do not consistently show that flow in this area is moving towards the steep gradients in the northeastern corner of the site between MW-12 and MW-10. Furthermore, even if the steepest gradients are those towards the east, that does not preclude a portion of the flow from the tank farm area moving towards Alden Street. Possibly, the most conclusive evidence for northward flow is the fact that contamination is not shown in the wells moving towards the east but it is clearly shown in wells north of the tank farm. Therefore, the Department believes that groundwater flow from the tank farm area does move to the north, at least periodically.

- This information does, provide additional impetus for continued monitoring of this off-site area. In fact, because contaminants can be mobilized by certain remedial measures, monitoring will be especially important during the period when the measures are being implemented in the tank farm area.

Saint-Gobain maintains that current dissolved toluene distribution reflect the remnant historical distribution, which most likely extended to Alden Street as a result of extensive dewatering performed during storm sewer installation in 1971. The text was modified to include a reference to Section 7.4 where this is discussed in more detail. During the past two years of ground-water monitoring, there has not been any evidence of any toluene migration towards Alden Street. Ground-water flow direction (see Figures 4-6 through 4-13 of the RFIR) from the former tank farm is consistently to the east, there is no current component of flow towards Alden Street, and the geophysical survey did not reveal any evidence of a preferred pathway from the former tank farm to the north (see Section 7.4 of the RFIR). The lack of toluene impact in the direction of current ground-water flow is further evidence that anything remaining from the historical toluene plume is relatively immobile and undergoing active degradation at its margins.

Ultimately, the ground-water flow interpretation does not make a difference in the proposed remedies. As noted in the RFIR, Saint-Gobain has always acknowledged the importance of off-site monitoring and fully intends to continue the program when corrective measures are being implemented in the former tank farm area.

4.5.3 Former Solvent Recovery Room AOC

- Figure 3-1 is not included in Volume 1. (This figure is also referenced in other sections.)

The correct figure designation is Figure 2-1. This has been corrected at all locations in the text.

4.5.4 Former Filter Room AOC

- Specify which two borings are being discussed. It is assumed to be borings SB-13 and SB-14.

The two soil borings are SB-13 and SB-14 (added to the text).

4.5.8 Former Solvent Line AOC

- Identify the soil borings that were sampled. Also, specify where the PAH results for these samples are located.

Numerous soil borings were collected in this AOC. The text has been modified to reflect the key sample designations, cross-reference the appropriate figure, and identify the appropriate figure and table for PAH results.

5.4 Supplemental Sewer Sediment Sampling

- Table 5-1 is confusing. The contents in Table 5-1 do not seem to follow the results described in the text of section 5.4.

The text and table have been clarified to eliminate any inconsistencies.

5.6.2 RFI Sewer Sampling Results – Sewer Bedding Vapor

- Sampling location DCG-12 cannot be located on any figures.

Sample DGC-12 is a field duplicate of sample MW-12. There is a note on Table 5-2, and the text was modified to identify the duplicate sample.

5.6.4 RFI Sewer Sampling Results – Sewer Water

- In general, analytical results from sewer water that discharges to surface waters are not compared to groundwater standards. Instead, results should be compared to surface water standards found in *6 NYCRR Part 703.5, "Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations"*.

This change was made to the text and associated table. The text now states: "...Exceedances of NYSDEC Class C surface water (6 NYCRR Part 703) standards were limited to bis(2-ethylhexyl)phthalate in storm sewer samples MH-13 and MH-14...

All SVOC analytes were near or below detection limits in sanitary sewer water sample MH-1(San) except 4-methylphenol (concentration 29 µg/L) and bis(2-ethylhexyl)phthalate (13 µg/L), and exceedances of NYSDEC Class C surface water (6 NYCRR Part 703) standards were limited to these two compounds...

Phenols and bis(2-ethylhexyl)phthalate were detected in sanitary sewer water sample MH-1(San) at concentrations above their corresponding NYSDEC Class C surface water standard (see Table 5-4)...

6.2 Groundwater Monitoring and Sampling

- Samples were collected from MP-17 and MW-19 in May 2006 and analyzed for electron acceptor and other natural attenuation parameters. Indicate where the results are located in this document.

The results are discussed in Section 7.3.3, and presented on Table 4-10. This additional cross-reference was added to the text at this location.

6.3 Groundwater Sampling – Private Wells

- Indicate where the results from the private well are located.

The results are discussed in Section 7.3.4. and presented on Table 4-8. This additional cross-reference was added to the text at this location.

7.2.3 Geoprobe Borings Installed Adjacent to Alden & Craig Streets

- On page 7-5, Figure 4-17 is referenced. There is no Figure 4-17 included in this document. On this same page, it appears that Figure 7-2 is incorrectly referenced.

These typos were corrected in the text (Figure 4-16; Figure 7-1).

7.3.4 Groundwater Sampling – Private "Garden" Well

- The location of the private well at 32 Craig Street is not clear on Figure 6-1.

The location is presented on Figure 7-1 (text corrected).

8.1 Former Tank Farm SWMU

- The following information is included on page 8-2: "There is no protocol currently in place to specifically prohibit excavation activities in the Former Tank Farm SWMU. To minimize this possible exposure pathway, Saint-Gobain will establish a formal agreement with the property owner, such that notice will be provided before any excavation work is performed, so appropriate plans to manage soils and limit exposure can be developed and implemented."

  Site-wide control measures should be proposed in the CMS. Such measures typically include property deed restrictions and a Site Management Plan. The property deed restrictions may limit property uses and restrict the use of soil and groundwater (if necessary). The deed restrictions also notify future site owners of the existence and location of the Site Management Plan. The Site Management Plan includes, at a minimum:
  (1) The locations and extent of all impacted soils and groundwater remaining at the site;
  (2) Guidelines to be followed for the management of impacted soils should they be disturbed during future construction activities; and
  (3) Details for long-term maintenance and security at the site (including monitoring wells).
  The property deed restriction and Site Management Plan must be referenced in an appropriate legal mechanism to ensure that they will be in place as long as necessary.

- In addition, a Community Air Monitoring Plan, as required by NYSDOH, must be developed of any on-site activities that may potentially expose downwind receptors to particulates, vapors and odors.

The text was modified to include: "Details, including a Soil Management Plan, a Community Air Monitoring Plan, and a deed restriction to restrict the use of soil and ground water following the completion of Corrective Measures, if necessary and acceptable to the property owner, will be discussed in the CMS."

8.4 Evaluation of Sanitary & Storm Sewer SWMUs

- Has it been determined from previous investigations that contaminated sediments in the storm sewer lines are not being discharged off-site?

No. "However, the removal of the existing storm sewer sediments will also eliminate the potential off-site migration of any sediments remaining from historical operations at the former Norton/Nashua Site" (added to text).

9.0 Quality Assurance/Quality Procedures and Samples

- This section does not need to be included in this document is it is already covered in the approved QA/QC Plan. However, any changes and modifications to the approved QA/QC Plan should be summarized in this section.

Several paragraphs that were duplicative of the QA/QC Plan were deleted from the text. Portions of this section detailing the specific QA/QC samples collected during the investigation (and associated results), including changes and modifications to the approved QA/QC Plan, were retained.

10.0 Preliminary CMS and Remedial Action Technology Screening

- The CMS should address all COCs present on-site and off-site, even if NFA or LTM is the proposed remedy. A table which summarizes the COCs and the proposed remedies is useful and easy to reference.

A table has been included.

10.1 Corrective Measures Performance Goals

- Saint-Gobain is proposing to contact the property owners in the off-site AOC and ask them to provide voluntary notification of activities. In order to keep the current property owners informed, Saint-Gobain should notify the property owner/occupant in writing on an annual basis, as the owner/occupant may change over time. In the written notification to the owners, it should be clear that Saint-Gobain is also responsible for costs associated with sampling of soil and/or groundwater for such activities at the off-site AOC.

The text was modified to include: "Saint-Gobain will contact the property owners in the Off-Site AOC (the four homes previously identified for subslab and indoor air sampling; see Figure 2-3) in writing annually and ask them to provide voluntary notification of such activities until DEC approves or provides closure for off-site issues. The notification will clearly state that if any additional soil and/or ground-water sampling is determined to be necessary in the Off-Site AOC, Saint-Gobain will perform these activities at no cost to the residents."

10.3 Target Treatment Areas

- Sediments in the storm sewer system are not addressed in this section.

Potential treatment of the sewer SWMUs is considered separate from soil/ground-water issues and for that reason is addressed in 10.10. A cross-reference has been added to Section 10.3.

10.7 Selected Corrective Measures Alternatives

- The selected corrective measure alternatives are easier to follow if presented in table format.

A table has been included.

The August 21, 2007 comments letter also noted that the New York State Department of Health (DOH) will require sampling for potential soil vapor intrusion at the on-site offices.

The current property owner (Cloverleaf) has generally provided unrestricted access to Saint-Gobain for completion of the required investigation and associated tasks, but the offices have recently undergone extensive renovations, and Cloverleaf does not want borings installed into the floor. However, Cloverleaf will agree to the installation and sampling of a sub-slab monitoring point in the floor immediately outside the office wall (in the direction of the toluene plume), and the collection of one round of indoor air samples from selected office locations. Details will be presented in the CMS Workplan.

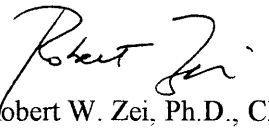
Cloverleaf also provided information on the facility's heating and cooling systems. The building is heated by a natural gas furnace located in the warehouse area. The offices are heated and cooled via forced air from ceiling vents. Saint-Gobain will schedule the sub-slab/indoor air sampling event (heating vs. non-heating season) per DOH recommendations.

FES is currently finalizing the draft RFIR to incorporate the changes discussed above and will submit an electronic copy to the NYSDEC concurrently with this correspondence. Saint-Gobain will submit and distribute final copies of the RFIR Report per Order on Consent Index No. CO: 4-20001205-3375 dated June 4, 2002 following final NYSDEC approval of the RFIR Report.

If you have any questions or comments on the information in this letter, please contact me at (610) 594-3940.

Sincerely,

FORENSIC ENVIRONMENTAL SERVICES, INC.



Robert W. Zei, Ph.D., CPG
Sr. Project Manager

cc: Paul Rappleyea, Saint-Gobain Abrasives, Inc.
Lauren Alterman, Esq., Saint-Gobain Corporation
Russell Gregg, Esq. Liberty Mutual Insurance Co.
Thomas S. West, Esq., The West Firm, PLLC
Robert S. Amrein, Esq., Nashua Corporation
Matthew Tanzer, Esq., Tyco International (U.S.), Inc.
S. Joyner, Tyco International (U.S.), Inc.
Brian K. Helf, Cloverleaf Distribution, LLC

**Forensic Environmental Services**

**From:** "Alicia Barraza" <aabarraz@gw.dec.state.ny.us>
**To:** "Bob Zei" <forensic@chesco.com>
**Cc:** "Daniel Evans" <djevans.PO3.Domain3@gw.dec.state.ny.us>; "Larry Rosenmann" <larosenm.PO3.Domain3@gw.dec.state.ny.us>
**Sent:** Friday, November 02, 2007 1:28 PM
**Attach:** 6 NYCRR Part 375.pdf
**Subject:** Former Norton/Nashua RFIR

Bob -
Larry and I have finished reviewing the responses and changes to the RFIR which you submitted on October 12th. Everything looks fine with one exception. This has to do with changes at DEC and DOH regarding soil cleanup objectives.

It should be noted that the Department*s guidance for the soil cleanup objectives (SCO's) has changed. 6 NYCRR Part 375, Environmental Remediation Programs, became effective on December 14, 2006. Part 375-6 includes SCO's for restricted use, unrestricted use, protection of groundwater, and protection of ecological resources. The Department*s RCRA Corrective Action Program is now using the SCO's found in Part 375-6. Specifically, Saint-Gobain should use the applicable SCO's found in Part 375-6.8(b), rather than the ones found in TAGM 4046. If Part 375-6.8(b) does not include a constituent of concern at this site, then Saint-Gobain should default to the SCO's found in TAGM 4046.

This means redoing Table 4-1, and other applicable tables, to show the appropriate SCO's. The SCO's for an industrial site would apply to the Norton site. In some case the SCO's will be lower and in some cases they will be higher. Attached below is a PDF file of the Part 375 regulations.

If you wish to discuss, please contact me or Larry to set up a time.
Thanks.

Alicia