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May 13, 2014

Mr. Tauren Beggs
Hydrogeologist
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay WI 54313-6727

Subject: **2013 Groundwater Monitoring Letter Report**
Former Town of Newton Gravel Pit, 3130 Hecker Road, Manitowoc, Wisconsin
WDNR BRRTS No. 02-36-000268
WDNR FID No. 436104020

Dear Mr. Beggs,

AECOM Technical Services, Inc. (AECOM), on the behalf of the City of Manitowoc, is pleased to submit this 2013 Groundwater Monitoring Letter Report for the Former Town of Newton Gravel Pit site. The report briefly summarizes site background information, describes new monitoring well installation activities, and presents the results of the 2013 annual groundwater sampling. Supporting tables, figures, field forms, and laboratory reports are included as attachments.

BACKGROUND INFORMATION

The Former Newton Gravel Pit property is owned by the City of Manitowoc, is approximately 58 acres in size, and is located at 3130 Hecker Road in the Town of Newton, Manitowoc County Wisconsin (See Figure 1). Within the 58 acres, approximately one acre along the western property boundary was the location of a disposal pit that received industrial wastes (the Western Source Area).

The land use in the vicinity of the property is rural. Bordering the property to the west is an active gravel pit, to the north is farmland and forest, to the east is farmland and rural residences, and to the south is farmland and an active gravel pit. A small creek, Silver Creek, flows through the property from the north/northwest to the south/southeast. Site features are shown on Figure 2.

The Western Source Area is located on an elevated area of the property. Former gravel pit operations have lowered the ground surface elevation to the west from 15 to 20 feet and to the east approximately 30 feet.

Site investigation activities have been ongoing since 1991. The activities have delineated the Western Source Area and identified light non-aqueous phased liquid (LNAPL) within the source area. A shallow groundwater contaminant plume associated with the western source area extends east-southeast to Silver Creek.

Previous to the current monitoring events, the most recent groundwater monitoring occurred in September 2012[1]. At that time AECOM conducted an annual round of groundwater monitoring for the non-potable groundwater monitoring wells associated with the Western Source Area environmental site investigation.

[1] Former Town of Newton Gravel Pit 2012 Groundwater Monitoring Letter Report, BRRTS No. 02-36-000268, AECOM Project No: 60135471(82518), February 27, 2013.

After reviewing the 2012 groundwater monitoring data, in an April 8, 2013, correspondence[2], the Wisconsin Department of Natural Resources (WDNR) requested an expanded scope of work for the site that included:

- Verification that the chlorinated plume is not migrating at the range of 650 to 665 feet MSL between the source area and piezometer PZ-16 (i.e., that the plume has not expanded at this depth on the City's property and migrated off-site).

- Collection of a round of volatile organic compound (VOC) samples from private potable wells along Hecker Road and Silver Creek Road.

After multiple correspondences to define the scope of work, in an August 22, 2013, e-mail[3] the WDNR approved the proposed location of a piezometer monitoring well (PZ-12) and requested the following additional work:

1. Collection of groundwater samples in and near the source area for polychlorinated biphenyls (PCB) analysis.
2. Inclusion of two appropriate cross sections utilizing the new PZ-12 location, in the next annual report.
3. Inclusion of an aerial map with the extent of contamination using isoconcentration lines and staff gauge elevations, in the next annual report.
4. Provide an estimate of contaminant mass in the source area, in the next annual report.
5. Provide a letter describing how and when the Remedial Action Plan (RAP) will be implemented.

In response to the WDNR's requests, piezometer PZ-12 was installed on August 26, 2013, and on September 30, 2013, AECOM on behalf of the City, provided a written reply[4] to the WDNR concerning the requested additional work.

The 2013 annual site wide groundwater sampling event and the initial round of potable well sampling occurred the week of October 21, 2013. The potable well sampling results will be provided under a separate cover.

Two of the items requested by the WDNR in the August 22, 2013, email have been the topic of additional discussions since the October sampling event.

- The implementation of the RAP has been deferred. This was requested by the City in a letter[5] dated January 22, 2014, and approved by the WDNR in a letter[6] dated January 30, 2014.
- The work to estimate the mass of contamination in the western source area has also been deferred. This was requested by AECOM in a phone conversation with the WDNR on April 2, 2013, and the WDNR agreed with the request in an email[7] the same day.

Presented below is the 2013 groundwater monitoring report for the non-potable groundwater monitoring wells associated with the Western Source Area.

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[2] 2012 Groundwater Monitoring Letter Report and Additional Investigation, WDNR response letter dated April 8, 2013.
[3] Re: Former Newton Gravel Pit, email from Annette E. Weissbach (WDNR), Thursday, August 8, 2013, 12:24 pm.
[4] Response to WDNR Review of 2012 Groundwater Monitoring Letter Report, AECOM letter dated September 30, 2013.
[5] Request to Delay Capping of Newton Gravel Pit Western Source Area, City of Manitowoc letter dated January 22, 2014.
[6] Concurrence to delay capping of Newton Gravel Pit Western Source Area, WDNR letter dated January 30, 2014.
[7] RE: mass contaminant calculation, email from Tauren R Beggs (WDNR), Wednesday, April 02, 2014, 3:24 pm.

SCOPE OF WORK

The approved scope of work was to install an additional piezometer to be nested with monitoring well WT-12 and to complete annual site-wide groundwater and surface water monitoring in October 2013. In general, AECOM's scope of services included the following activities:

- Project management, including health and safety management.
- Installation and development of piezometer PZ-12.
- Measurement of groundwater elevations and LNAPL levels in monitoring wells.
- Collection of groundwater samples for laboratory analysis, including PCBs in and near the western source area.
- Collection of surface water samples from Silver Creek for laboratory analysis.
- Surveying of PZ-12 and Silver Creek.
- Preparation of a groundwater monitoring letter report.

Site-specific procedures are described below for the well installation, groundwater, LNAPL, and surface water monitoring.

Well Installation

An additional piezometer (PZ-12) was installed on August 26, 2013, adjacent to monitoring well WT-12 (See Figure 2, Site Layout). The location for PZ-12 was chosen because it is downgradient of the western source area, it is within the historical flow path of the groundwater plume, and the resulting well nest can be used to establish vertical gradients.

The new piezometer PZ-12 was constructed of 2-inch (I.D.), 5-foot long flush-threaded 0.010-inch slot, Schedule 40 PVC screen with Schedule 40 PVC riser. The screen interval was constructed between 20 and 25 feet bgs corresponding with approximately 665.3 to 660.3 feet MSL. Borehole drilling and piezometer installation was conducted consistent with standard field methodologies and Wisconsin Administrative Code (WAC) Chapter NR 141. Please see the Monitoring Well Construction Form 4400-113A and development form provided in Attachment A for details.

Groundwater Monitoring

Groundwater and surface water monitoring activities occurred the week of October 21, 2013.

Groundwater monitoring utilized existing groundwater monitoring wells and piezometers. Groundwater and/or LNAPL elevations along with groundwater samples were collected from 29 locations.

Water levels were measured in-situ using a Heron Instruments electronic water level indicator before collecting groundwater samples. NAPL/free product levels were measured in-situ using a Solinst Oil Water Interface Meter Model 122 electronic NAPL/water level indicator. Groundwater and LNAPL measurements were made to the nearest 0.01 foot from the reference points marked on the top of each well casing.

Groundwater field screening measurements used a handheld Myron L Company Ultrameter 6P field meter to obtain pH, conductivity, temperature, and oxidation/reduction (redox) potential measurements. Water was pumped from the wells to a flow-through cell, in which the water quality meter was inserted to contact the water pumped from the wells. Once readings stabilized, measurements of the above parameters were recorded. Samples were collected utilizing a disposable polyethylene bailer or a low flow peristaltic pump with disposable tubing and transferred to the appropriate laboratory supplied sample containers. Samples were labeled and stored on ice prior to shipment to the laboratory.

Groundwater samples for laboratory analysis were submitted to a Wisconsin Administrative Code (WAC) Chapter NR 149 certified laboratory (Synergy Environmental Lab, Inc., Appleton, Wisconsin) for analyses of volatile organic compounds (VOC) (EPA Method SW 8260B). Analysis for PCBs (EPA Method 8082) was also included for water samples collected from five monitoring wells (WT-02A, PZ-02, WT-10, WT-17, and WT-18) in or near the western source area.

Well purging and sample collection forms are included in Attachment B.

Surface Water Monitoring

Surface water monitoring was conducted in Silver Creek in the reach of the creek at the apparent down-gradient edge of the shallow groundwater contaminant plume. Surface water samples were collected from the three identified staff gage locations, SG-01, SG-02, and SG-03 (see Figure 2).

Surface water field screening was conducted with a handheld Myron L Company Ultrameter 6P field meter to obtain pH, conductivity, temperature, and oxidation/reduction (redox) potential measurements. The measurements were collected by lowering the meter into the water until readings stabilized, then recording the measurements on sample collection forms.

Surface water was collected utilizing a clean disposable sample jar and then transferred to the appropriate laboratory-supplied sample containers. Samples were labeled and stored on ice prior to shipment to the laboratory. Surface water samples for laboratory analysis were submitted to a WAC Chapter NR 149 certified laboratory for analyses of VOC's (method SW 8260B).

Sample collection forms for the surface water samples are included in Attachment B.

Survey

On October 29, 2013, AECOM surveyed in the location and elevation of PZ-12, spot checked several other monitoring well locations and elevations, and survey in Silver Creek (creek centerline, gravel bed elevation, and water elevation) from the Former Newton Pit entrance road culvert downstream to the Hecker Road culvert.

The survey results have been incorporated into the groundwater elevation data and the site features mapping.

MONITORING RESULTS

The results for the October 2013 groundwater and surface water monitoring event are presented below.

Groundwater Elevation and Flow Direction

Groundwater levels measured on October 21, 2013 range between approximately 689 feet MSL and 682 feet MSL. These data indicate groundwater flow to the east-southeast toward Silver Creek within poorly graded sandy outwash deposits as part of the shallow local groundwater flow system. A summary of groundwater elevations is presented in Table 1 and an interpreted groundwater flow map is presented in Figure 3. The groundwater flow map shown in Figure 3 portrays groundwater levels and a flow pattern consistent with previous site data, including the 1996 site investigation. Groundwater flow within the local flow system, including discharge to Silver Creek is further interpreted to the east based on surface water elevation measurements at surveyed points within the Silver Creek channel as shown on Figure 4.

Hydraulic Gradients and Flow Velocity

The calculated horizontal hydraulic gradient for the October 2013 groundwater-sampling event is 0.005 ft/ft. Using the calculated horizontal groundwater gradient data, the average linear groundwater velocity in the sand and gravel outwash was calculated at 0.14 feet/day or about 51 feet/year.

Vertical gradients were calculated for each monitoring well nest at the site. There was a mixture of downward and upward gradients observed. Downward gradients calculated from the nested well locations range from 0.0005 ft/ft to 0.033 ft/ft. Upward gradients ranged from of 0.005 ft/ft to 0.046 ft/ft.

Calculated horizontal and vertical hydraulic gradients along with velocity calculations are presented in Attachment C.

LNAPL Thickness

LNAPL continues to be present in wells: WT-02, WT-09, and WT-14. During the October 2013 sampling event, LNAPL thickness within the 2-inch diameter wells was measured at approximately 1.44 feet, 1.09 feet, and 0.15 feet, respectively. A summary of LNAPL elevations and thickness are presented in Table 1. Groundwater has not been sampled from these wells because of the measureable amounts of LNAPL free product.

Groundwater Field Screening Results

Field screening measurements for pH, temperature, dissolved oxygen, and oxidation reduction potential indicate that conditions for remediation by natural attenuation of groundwater contaminants continue to be favorable. Field screening data are summarized in Table 2.

Site Cross-Sections

As reported in the 1996 *Site Investigation and Remedial Action Options Report*[8] vertical groundwater profiling utilizing a Hydropunch® was completed in 1994 at seven locations (HP-01, HP-02, HP-05, HP-08 through HP-11). While it has been nearly 20 years since the Hydropunch® sampling event, several of these locations are still useful for quantifying VOC concentrations at depth between the western source area and Silver Creek. The Hydropunch® locations are shown on Figure 2. Figure 5, provides a copy of *Geologic Cross Section A-A' and Vertical Distribution of Non-Chlorinated and Chlorinated VOCs,* as presented in the 1996 Site Investigation and Remedial Action Options Report.

Two additional cross-sections have been provided in Figures 6 and 7. As requested by WDNR, each of these cross-sections incorporates monitoring well nest WT-12/PZ-12 and depicts stratigraphy, screened intervals of monitoring wells, water table surface, and the vertical and horizontal extent of VOCs in groundwater.

Groundwater Laboratory Analytical Results

Groundwater analytical results were compared to applicable enforcement standards (ES) and preventative action limits (PAL) found in WAC Chapter NR 140 Table 1 for Public Health Standards.

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[8] *Site Investigation and Remedial Action Options Report,* Rust Environment and Infrastructure, Inc., June 1996.

The discussion of the groundwater analytical results is presented in relationship to the western source area. As such, the groundwater results are discussed as Up-gradient, the Western Source Area, Down-gradient – West of Silver Creek, and Down-gradient – East of Silver Creek. The groundwater analytical results are summarized in Table 2, and shown on Figures 6 through 8. Laboratory analytical reports are included as Attachment D.

Up-gradient

- Well WT-19 was installed to delineate the up-gradient edge of the groundwater contaminant plume west of the Former Newton Pit property line.

  VOC Discussion: WT-19 had only two VOC detections, trichloroethylene (TCE) and its daughter compound, cis-1,2-dichloroethylene (Cis-1,2-DCE). The detection of TCE at 0.53 μg/L, slightly exceeds its PAL of 0.5 μg/L, and represents a decreasing concentration trend based on samples analyzed in 2007, 2012, and most recently in 2013.

Western Source Area

- Well WT-18 was installed to delineate the southern perimeter of the source area; south of WT-9.

  VOC Discussion: WT-18 had multiple VOC detections. Benzene, and vinyl chloride (VC) were detected at concentrations exceeding their respective ESs. Cis-1,2-DCE, naphthalene, and TCE were detected at concentrations exceeding their respective PAL values. Ethylbenzene, 1,1-Dichloroethane, n-propylbenzene, toluene and xylene were detected at levels below their respective PALs.

  PCB Discussion: PCBs were not detected above the method detection limit (MDL).

- Well WT-10 was installed to delineate the southeastern perimeter of the source area.

  VOC Discussion: WT-10 had three VOC detections; toluene, and the two daughter compounds cis-1,2-DCE and VC. The concentrations of each of these analytes in samples collected October 2013 is consistent with previous sampling rounds. Two regulatory standard exceedances were detected as cis-1,2-DCE at 1,600 μg/L, which exceeds its ES of 70 μg/L, and VC at 1,050 μg/L, which exceeds its ES of 0.2 μg/L.

  PCB Discussion: PCBs were not detected above the MDL.

- Well WT-02A was installed to delineate the eastern perimeter of the source area.

  VOC Discussion: WT-02A had several VOC detections including TCE and its two daughter compounds, cis-1,2-DCE and VC. Other VOC detections include benzene, ethylbenzene, toluene, 1,1,1-trichloroethane, and xylene. TCE and its daughter compounds exceeded regulatory standards; TCE at 63 ug/L which exceeds its ES of 5 ug/L, cis-1,2-DCE at 5,800 μg/L, which exceeds its ES of 70 μg/L, and VC at 1,070 μg/L, which exceeds its ES of 0.2 μg/L. Benzene also exceeded its ES of 5 ug/L. Toluene was detected at 340 μg/L, which exceeds its PAL of 160 μg/L.

  PCB Discussion: PCBs were not detected above the MDL.

- Well WT-17 was installed to delineate the northern perimeter of the source area.

  VOC Discussion: WT-17 had several detections of chlorinated VOCs consistent with 2012 sampling results. This includes TCE at 36 ug/L and cis-1,2-DCE at 119 ug/L which exceed their respective ES of 5 ug/L and 70 ug/L. Detections of 1,1 – dichloroethane, trans- 1,2, dichloroethene, and 1,1,1 – trichloroethane were all below their respective PALs.

  PCB Discussion: PCBs were not detected above the MDL.

- Well WT-14 was installed to delineate the western perimeter of the source area. It is located on the western property line. Groundwater has not been sampled from the well because it has visible amounts (sheen) of LNAPL free product.

Down-gradient – West of Silver Creek

- Well WT-13 was installed to replace a damaged well WP-02.

  VOC Discussion: Well WP-02 historically had four consecutive rounds (1999 thru 2000) of sampling with no detectable VOCs. Historical VOC detections in WT-13 were limited to a single detection of chloromethane in 2007 which exceeded its PAL and a single detection of VC in 2012 which exceeded its ES. No VOCs were detected in samples collected from WT-13 on October 22, 2013. WT-13 represents the mid/down-gradient southern edge of the groundwater contaminant plume.

- Well WT-05, and piezometers PZ-05A and PZ-05B were installed down-gradient of well WT-13.

  VOC Discussion: Well WT-05 exhibited three detections of VOCs including TCE and its two daughter products cis-1,2-DCE and VC. TCE and cis-1,2-DCE were detected above their PALs at concentrations of 1.6 μg/L and 49 ug/L respectively. Vinyl chloride was detected at a concentration of 2.29 ug/L which exceeds its ES of 0.2 μg/L. The detection of these compounds and their respective concentrations are consistent with historical data from samples collected between 1994 and 2012. The only VOC detected in samples collected October 24, 2013 from the adjacent nested piezometers is chloromethane. Chloromethane was detected at a concentration of 1.1 ug/L in both PZ-05A and PZ-05B which exceeds the PAL of 0.3 ug/L.

- Wells WT-11 and WT-12 were installed to delineate the southern edge of the shallow down-gradient groundwater contaminant plume adjacent to and west of Silver Creek. Piezometer PZ-12 was added adjacent to monitoring well WT-12 in August 2013 to form a well nest downgradient of the western source area and within the flow path of the plume. Piezometer PZ-12 was screened similar to the screened interval of PZ-16. In this way, the WT-12/PZ-12 well nest and the WT-16/PZ-16 well nest quantify potential groundwater impacts and characterize vertical hydraulic gradients within the local groundwater flow system on the west and east side of Silver Creek respectively.

  VOC Discussion: WT-11 and WT-12 each had four VOC detections. They both had detects of cis-1,2-DCE, TCE, and VC at concentrations that exceeded their respective ESs. Additionally, WT-12 had a benzene detect of 13 μg/L, which exceeded its ES of 5 μg/L. Similarly, PZ-12 had detects of benzene, cis-1,2-DCE, and VC at concentrations that exceeded their respective ESs.

- Well nest WT-15 (well WT-15, piezometers PZ-15A, and PZ 15B) were installed to delineate the southern edge of the down-gradient groundwater contaminant plume – south of well nest WT-05.

  VOC's Discussion: No VOCs were detected in WT-15, PZ-15A, and PZ-15B in samples collected October 23, 2013.

Down-gradient – East of Silver Creek

- Well WT-16 and piezometer PZ-16 were installed as down-gradient "sentinel wells" to monitor the possible down-gradient edge of the contaminant plume east of Silver Creek.

  VOC's Discussion: WT-16 and PZ-16 had several detections of chlorinated VOCs consistent with 2012 sampling results including TCE and its two daughter products cis-1,2-DCE and VC. Both WT-16 and PZ-16 had detects cis-1,2-DCE and VC, at levels that exceeded their respective ESs. Benzene and TCE were detected above their respective ESs in WT-16 and above their respective PALs in PZ-16. Additionally, trans-1,2-DCE was detected in only PZ-16 at a level below its PAL.

- Wells WT-20 thru WT-23. No VOCs were detected in wells WT-20, WT-21, WT-22, and WT-23 in samples collected October 23, 2013.

In summary, conditions associated with the Western Source Area groundwater plume continue to indicate groundwater impacts down gradient as far east as well nest WT-16/PZ-16, consistent with past sampling events.

Groundwater laboratory analytical results are summarized in Table 2. Complete laboratory analytical results are included in Appendix D.

Surface Water Laboratory Analytical Results

Laboratory analytical results were compared to WAC Chapter NR 105, Table 9 Human Cancer Criteria Standards for a non-public water supply that is a "warm water forage, limited forage and warm water sport fish community".

The discussion of surface water analytical results is presented relative to the groundwater contaminant plume that appears to intersect Silver Creek. As such, the surface water results are discussed as the upstream edge of the plume, the midpoint of the plume, and the downstream edge of the plume (See Figure 2).

- Staff Gage SG-03, upstream edge of the groundwater contaminant plume.

  VOC's Discussion: SG-03 had no VOC detections in samples collected October 22, 2013.

- Staff Gage SG-02, midpoint of the groundwater contaminant plume.

  VOC's Discussion: SG-02 had three VOC detects. Parent compound TCE was detected at 0.46 μg/L, which is below the NR 105 standard of 539 μg/L. Daughter compound, cis-1,2-DCE was detected at 9.7 μg/L – there is no NR 105 standard for cis-1,2-DCE, and VC was detected at 12.4 μg/L which is above the NR 105 standard of 10 μg/L.

- Staff Gage SG-01, downstream edge of the groundwater contaminant plume.

  VOC's Discussion: Three VOC compounds were detected at SG-01. Parent compound TCE was detected at 0.40 μg/L, which is below the NR 105 standard of 539 μg/L. Daughter compound cis-1,2-DCE was detected at 31.1 μg/L – there is no NR 105 standard for cis-1,2-DCE. Daughter compound VC was detected at 18.6 μg/L, which is above the NR 105 standard of 10 μg/L.

In summary, surface water analytical results indicate that very low levels of TCE are present in Silver Creek at concentrations below NR 105 regulatory limits. Chlorinated daughter compound cis-1,2-DCE is present at low concentrations and it has no NR 105 regulatory limit. Chlorinated daughter compound VC is also present, with two detections above NR 105 regulatory limits.

Surface water laboratory analytical results are summarized in Table 3. Complete laboratory reports are included as Attachment D.

SUMMARY

The following is a summary of data obtained during the 2012 groundwater monitoring event.

- The groundwater flow direction continues to be towards the east-southeast.
- Measureable levels of LNAPL free product continue to exist in monitoring wells located within the western source area.
- Groundwater field screening parameters indicate that conditions continue to exist that are favorable for remediation by natural attenuation.
- Analytical results indicate NR 140 ES and PAL standard exceedances for VOCs (petroleum and chlorinated compounds) continue to exist within the groundwater plume associated with the Western Source Area.
- Surface water monitoring of Silver Creek in the reach adjacent to the down-gradient edge of the groundwater contaminant plume continues to identify three compounds including a NR 105 standard exceedance for Vinyl Chloride.

If you have any questions regarding these results, please contact Dave Henderson at 414.944.6190 or dave.henderson@aecom.com.

Yours sincerely,

AECOM Technical Services, Inc.

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Senior Project Manager

Jeffrey D. Maletzke, PG
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Cc: Kathleen M. McDaniel, City Attorney, City of Manitowoc
Dan Koski, Director of Public Infrastructure, City of Manitowoc

Attachments: Tables
Figures
Attachment A: PZ-12 Forms
Attachment B: Well Purging and Sample Collection Forms
Attachment C: Horizontal & Vertical Gradient Calculations
Attachment D: Laboratory Sample Results

Tables:

TABLE 1
SUMMARY OF GROUNDWATER ELEVATIONS

TABLE 1

SUMMARY OF ELEVATIONS
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Well Identification	Ground Surface	TOC Elevation	Depth to (ft from TOC)	Depth to Groundwater (ft. BGS)	Depth to Groundwater (ft. from TOC)	Groundwater Elevation	Screened Interval - ft Top	Screened Interval - ft Bottom	Screened Interval - ftMSL Top	Screened Interval - ftMSL Bottom	Free Product depth (ft. from TOC)	Free Product tickness (ft.)	Date
WT-01	712.3	714.21											Installed 4/28/1993
			31.43	20.92	22.83	691.38	19.5	29.5	692.8	682.8			7/1/1993
			---	24.26	26.17	688.04	---	---	---	---			7/26/1994
			---	24.51	26.42	687.79	---	---	---	---			9/7/1994
			31.48	24.17	26.08	688.13	19.6	29.6	692.7	682.7			5/13/1999
			31.48	24.74	26.65	687.56	19.6	29.6	692.7	682.7			9/29/1999
			31.47	25.33	27.24	686.97	19.6	29.6	692.7	682.7			12/7/1999
			31.48	24.72	26.63	687.58	19.6	29.6	692.7	682.7			3/31/2000
			31.30	23.48	25.39	688.82	19.4	29.4	692.9	682.9			4/15/2005
		714.48	31.41	23.27	25.45	689.03	19.2	29.2	693.1	683.1			10/20/2006
			31.30	24.32	26.5	687.98	19.1	29.1	693.2	683.2			9/18/2007
			31.30	24.26	26.44	688.04	19.1	29.1	693.2	683.2			1/9/2008
			31.31	24.37	26.55	687.93	19.1	29.1	693.2	683.2			9/25/2012
			---	24.41	26.59	687.89	---	---	---	---			10/21/2013
PZ-01	712.7	714.55											Installed 4/28/193
			92.84	23.29	25.14	689.41	86.0	91.0	626.7	621.7			7/1/1993
			92.84	25.35	27.2	687.35	86.0	91.0	626.7	621.7			9/6/1994
			92.78	24.88	26.73	687.82	85.9	90.9	626.8	621.8			5/13/1999
			92.78	25.48	27.33	687.22	85.9	90.9	626.8	621.8			9/29/1999
			92.78	25.84	27.69	686.86	85.9	90.9	626.8	621.8			12/7/1999
			92.79	25.30	27.15	687.40	85.9	90.9	626.8	621.8			3/31/2000
			92.81	24.53	26.38	688.17	86.0	91.0	626.7	621.7			4/15/2005
		714.90	92.90	24.31	26.51	688.39	85.7	90.7	627.0	622.0			10/20/2006
			92.78	25.23	27.43	687.47	85.6	90.6	627.1	622.1			9/18/2007
			92.74	25.27	27.47	687.43	85.5	90.5	627.2	622.2			9/25/2012
			---	24.91	27.11	687.79	---	---	---	---			10/21/2013

TABLE 1

SUMMARY OF ELEVATIONS
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Well Identification	Ground Surface	TOC Elevation	Depth to (ft from TOC)	Depth to Groundwater (ft. BGS)	Depth to Groundwater (ft. from TOC)	Groundwater Elevation	Screened Interval - ft Top	Screened Interval - ft Bottom	Screened Interval - ftMSL Top	Screened Interval - ftMSL Bottom	Free Product depth (ft. from TOC)	Free Product tickness (ft.)	Date
WT-02	718.5	720.56					28.3	38.3					Installed 4/22/1993
			40.41	29.85	31.91	688.65	28.4	38.4	690.2	680.2	NM	--	7/1/1993
			---	33.94	36	684.56	---	---	---	---	33.49	2.51	7/2/1994
			---	33.19	35.25	685.31	---	---	---	---	34.20	1.05	2/6/1997
			---	35.14	37.2	683.36	---	---	---	---	33.19	4.01	6/5/1997
			---	34.64	36.7	683.86	---	---	---	---	34.50	2.20	10/22/1997
			---	31.56	33.62	686.94	---	---	---	---	32.71	0.91	5/4/1998
			---	33.89	35.95	684.61	---	---	---	---	33.26	2.69	7/2/1998
			40.32	33.77	35.83	684.73	28.3	38.3	690.2	680.2	33.35	2.48	5/19/1999
			40.35	37.14	39.2	681.36	28.3	38.3	690.2	680.2	36.05	3.15	10/5/1999
			40.31	37.10	39.16	681.40	28.3	38.3	690.3	680.3	36.09	3.07	12/9/1999
			40.30	32.69	34.75	685.81	28.2	38.2	690.3	680.3	34.25	0.50	4/5/2000
			40.35	37.54	39.6	680.96	28.3	38.3	690.2	680.2	36.12	3.48	4/14/2005
		720.85	---										10/1/2006
			---	33.31	35.66	685.19	---	---	---	---	34.21	1.45	9/18/2007
			---	32.97	35.32	685.53	---	---	---	---	34.31	1.01	9/19/2007
			---	32.45	34.8	686.05	---	---	---	---	34.38	0.42	9/19/2007
			---	34.41	36.76	684.09	---	---	---	---	34.38	2.38	9/20/2007
			---	33.65	36	684.85	---	---	---	---	34.39	1.61	9/21/2007
			---	31.30	33.65	687.20	---	---	---	---	--	0.00	1/16/2008
			40.08	33.60	35.95	684.90	27.7	37.7	690.8	680.8	34.30	1.65	9/25/2012
			---	33.10	35.45	685.40	---	---	---	---	34.01	1.44	10/21/2013
													GW not sampled since 4-5-00
PZ-02	718.2	720.29					82.0	87.0					Installed 4/26/1993
			89.00	30.00	32.09	688.20	81.9	86.9	636.3	631.3			7/1/1993
			89.17	31.93	34.02	686.27	82.1	87.1	636.1	631.1			9/7/1994
			89.92	31.83	33.92	686.37	82.8	87.8	635.4	630.4			5/13/1999
			89.02	31.77	33.86	686.43	81.9	86.9	636.3	631.3			10/5/1999
			89.03	32.20	34.29	686.00	81.9	86.9	636.3	631.3			12/9/1999
			89.04	31.85	33.94	686.35	82.0	87.0	636.3	631.3			4/4/2000
			88.94	30.87	32.96	687.33	81.9	86.9	636.4	631.4			4/18/2005
		720.58	89.00	30.62	33	687.58	81.6	86.6	636.6	631.6			10/20/2006
			88.93	31.56	33.94	686.64	81.6	86.6	636.7	631.7			9/18/2007
			88.82	31.64	34.02	686.56	81.4	86.4	636.8	631.8			9/25/2012
			---	31.25	33.63	686.95	---	---	---	---			10/21/2013
WT-02A	734.1	736.58					42.5	57.5					Installed 8/11/1994
			59.48	48.78	51.26	685.32	42.0	57.0	692.1	677.1			9/6/1994
			59.31	49.45	51.93	684.65	41.8	56.8	692.3	677.3			5/11/1999
			59.31	48.91	51.39	685.19	41.8	56.8	692.3	677.3			9/29/1999
			59.32	49.32	51.8	684.78	41.8	56.8	692.3	677.3			12/7/1999
			59.33	48.63	51.11	685.47	41.9	56.9	692.3	677.3			3/30/2000
			59.35	48.06	50.54	686.04	41.9	56.9	692.2	677.2			4/18/2005
		736.76	59.43	48.01	50.67	686.09	41.8	56.8	692.3	677.3			10/20/2006
			59.96	48.94	51.6	685.16	42.3	57.3	691.8	676.8			9/18/2007
			59.96	47.92	50.58	686.18	42.3	57.3	691.8	676.8			1/9/2008
			59.97	48.87	51.53	685.23	42.3	57.3	691.8	676.8			9/25/2012
			---	48.59	51.25	685.51	---	---	---	---			10/21/2013

TABLE 1

SUMMARY OF ELEVATIONS
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Well Identification	Ground Surface	TOC Elevation	Depth to (ft from TOC)	Depth to Groundwater (ft. BGS)	Depth to Groundwater (ft. from TOC)	Groundwater Elevation	Screened Interval - ft Top	Screened Interval - ft Bottom	Screened Interval - ftMSL Top	Screened Interval - ftMSL Bottom	Free Product depth (ft. from TOC)	Free Product tickness (ft.)	Date
WT-03	716.6	718.53					24.0	34.0					Installed 4/27/1993
			36.02	29.03	30.96	687.57	24.1	34.1	692.5	682.5			7/1/1993
				30.70	32.63	685.90							7/26/1994
			35.97	30.87	32.8	685.73	24.0	34.0	692.6	682.6			9/6/1994
			35.80	30.52	32.45	686.08	23.9	33.9	692.7	682.7			5/11/1999
			36.05	31.04	32.97	685.56	24.1	34.1	692.5	682.5			9/29/1999
			36.05	31.13	33.06	685.47	24.1	34.1	692.5	682.5			12/7/1999
			36.05	32.10	34.03	684.50	24.1	34.1	692.5	682.5			3/30/2000
			36.00	29.94	31.87	686.66	24.1	34.1	692.5	682.5			4/15/2005
		718.90	36.06	29.84	32.14	686.76	23.8	33.8	692.8	682.8			10/20/2006
			36.01	28.81	31.11	687.79	23.7	33.7	692.9	682.9			9/18/2007
			36.01	29.95	32.25	686.65	23.7	33.7	692.9	682.9			1/9/2008
			36.01	30.69	32.99	685.91	23.7	33.7	692.9	682.9			9/25/2012
			---	30.51	32.81	686.09	---	---	---	---			10/21/2013
PZ-03	716.6	718.67					92.6	97.6					Installed 4/27/1993
			99.73	28.81	30.88	687.79	92.7	97.7	623.9	618.9			7/1/1993
			99.70	30.68	32.75	685.92	92.6	97.6	624.0	619.0			9/6/1994
			99.62	30.18	32.25	686.42	92.6	97.6	624.1	619.1			5/11/1999
			99.62	30.58	32.65	686.02	92.6	97.6	624.1	619.1			9/29/1999
			99.63	31.01	33.08	685.59	92.6	97.6	624.0	619.0			12/7/1999
			99.64	30.43	32.5	686.17	92.6	97.6	624.0	619.0			3/30/2000
			99.65	29.74	31.81	686.86	92.6	97.6	624.0	619.0			4/15/2005
		718.98	99.70	29.64	32.02	686.96	92.3	97.3	624.3	619.3			10/20/2006
			99.65	30.51	32.89	686.09	92.3	97.3	624.3	619.3			9/18/2007
			99.63	30.50	32.88	686.10	92.3	97.3	624.4	619.4			9/25/2012
			---	30.17	32.55	686.43	---	---	---	---			10/21/2013

TABLE 1

SUMMARY OF ELEVATIONS
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Well Identification	Ground Surface	TOC Elevation	Depth to (ft from TOC)	Depth to Groundwater (ft. BGS)	Depth to Groundwater (ft. from TOC)	Groundwater Elevation	Screened Interval - ft Top	Screened Interval - ft Bottom	Screened Interval - ftMSL Top	Screened Interval - ftMSL Bottom	Free Product depth (ft. from TOC)	Free Product tickness (ft.)	Date
WT-05	685.0	687.68					8.5	18.5					Installed 8/17/1994
			20.58	-0.32	2.36	685.32	7.9	17.9	677.1	667.1			9/7/1994
			20.45	-0.75	1.93	685.75	7.8	17.8	677.2	667.2			5/19/1999
			20.46	-0.12	2.56	685.12	7.8	17.8	677.2	667.2			9/30/1999
			20.46	0.30	2.98	684.70	7.8	17.8	677.2	667.2			12/8/1999
			20.46	-0.29	2.39	685.29	7.8	17.8	677.2	667.2			3/30/2000
			20.45	-0.60	2.08	685.60	7.8	17.8	677.2	667.2			4/18/2005
		687.98	20.51	-0.75	2.23	685.75	7.5	17.5	677.5	667.5			10/18/2006
			20.93	0.21	3.19	684.79	7.9	18.0	677.1	667.1			9/21/2007
			20.93	-1.01	1.97	686.01	7.9	18.0	677.1	667.1			1/9/2008
			20.94	0.22	3.2	684.78	8.0	18.0	677.0	667.0			9/25/2012
			---	-0.17	2.81	685.17	---	---	---	---			10/21/2013
PZ-05A	685.0	687.70					32.0	37.0					Installed 8/17/1994
			40.37	0.72	3.42	684.28	32.7	37.7	652.3	647.3			9/7/1994
			40.39	-0.07	2.63	685.07	32.7	37.7	652.3	647.3			5/19/1999
			40.39	0.69	3.39	684.31	32.7	37.7	652.3	647.3			9/30/1999
			40.38	0.96	3.66	684.04	32.7	37.7	652.3	647.3			12/8/1999
			40.38	0.51	3.21	684.49	32.7	37.7	652.3	647.3			3/30/2000
			40.28	0.02	2.72	684.98	32.6	37.6	652.4	647.4			4/18/2005
		687.82	40.31	0.09	2.91	684.91	32.5	37.5	652.5	647.5			10/18/2006
			40.40	0.94	3.76	684.06	32.6	37.6	652.4	647.4			9/21/2007
			40.42	0.90	3.72	684.10	32.6	37.6	652.4	647.4			9/25/2012
			---	0.58	3.40	684.42	---	---	---	---			10/21/2013
PZ-05B	685.2	687.81					53.4	58.4					Installed 8/16/1994
			60.95	0.85	3.46	684.35	53.3	58.3	631.9	626.9			9/7/1994
			60.91	0.07	2.68	685.13	53.3	58.3	631.9	626.9			5/19/1999
			60.91	0.64	3.25	684.56	53.3	58.3	631.9	626.9			9/30/1999
			60.90	1.01	3.62	684.19	53.3	58.3	631.9	626.9			12/8/1999
			60.91	0.53	3.14	684.67	53.3	58.3	631.9	626.9			3/30/2000
			60.79	0.17	2.78	685.03	53.2	58.2	632.0	627.0			4/18/2005
		687.97	60.83	0.23	3	684.97	53.1	58.1	632.1	627.1			10/18/2006
			60.91	1.05	3.82	684.15	53.1	58.1	632.1	627.1			9/21/2007
			60.92	1.03	3.8	684.17	53.2	58.2	632.1	627.1			9/25/2012
			---	-0.16	2.61	685.36	---	---	---	---			10/21/2013

TABLE 1

SUMMARY OF ELEVATIONS
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Well Identification	Ground Surface	TOC Elevation	Depth to (ft from TOC)	Depth to Groundwater (ft. BGS)	Depth to Groundwater (ft. from TOC)	Groundwater Elevation	Screened Interval - ft Top	Screened Interval - ft Bottom	Screened Interval - ftMSL Top	Screened Interval - ftMSL Bottom	Free Product depth (ft. from TOC)	Free Product tickness (ft.)	Date
WT-09	NM	717.84					24.5	34.5					Installed 9-19-06
			36.59		33.55	684.29	---	---	691.3	681.3	30.69	2.86	10/1/2006
			---		32.85	684.99	---	---	---	---	31.34	1.51	9/18/2007
			---		32.9	684.94	---	---	---	---	31.39	1.51	9/19/2007
			---		32.51	685.33	---	---	---	---	31.44	1.07	9/19/2007
			---		32.66	685.18	---	---	---	---	31.43	1.23	9/20/2007
			---		32.6	685.24	---	---	---	---	31.40	1.20	9/21/2007
			---		33.7	684.14	---	---	---	---	30.70	3.00	1/14/2008
			---		33.2	684.64	---	---	---	---	30.65	2.55	1/15/2008
			---		32.5	685.34	---	---	---	---	30.70	1.80	1/16/2008
			---		32.9	684.94	---	---	---	---	30.65	2.25	1/18/2008
			---		31.7	686.14	---	---	---	---	30.66	1.04	1/22/2008
			---		32.6	685.24	---	---	---	---	30.74	1.86	1/29/2008
			36.31		32.79	685.05	---	---	691.5	681.5	31.41	1.38	9/25/2012
			---		32.31	685.53	---	---	---	---	31.22	1.09	10/21/2013
													Product Present - Not Developed
WT-10	NM	727.32					35.0	45.0					Installed 9-20-06
			48.39		41.25	686.07	---	---	688.9	678.9			10/19/2006
			48.33		42.15	685.17	---	---	689.0	679.0			9/19/2007
			48.33		41.38	685.94	---	---	689.0	679.0			1/9/2008
			48.33		41.15	686.17	---	---	689.0	679.0	--	0.00	1/16/2008
			48.20		42.03	685.29	---	---	689.1	679.1			9/25/2012
			---		42.81	684.51	---	---	---	---			10/21/2013
WT-11	NM	687.55					3.0	13.0					Installed 9-19-06
			15.26		3.81	683.74	---	---	682.3	672.3			10/1/2006
			15.21		4.6	682.95	---	---	682.3	672.3			9/20/2007
			15.21		2.61	684.94	---	---	682.3	672.3			1/9/2008
			15.21		4.59	682.96	---	---	682.3	672.3			9/25/2012
			---		4.22	683.33	---	---	---	---			10/21/2013
WT-12	NM	688.19					3.0	13.0					Installed 9-22-06
			15.30		3.75	684.44	---	---	682.9	672.9			10/18/2006
			15.26		4.6	683.59	---	---	682.9	672.9			9/20/2007
			15.26		3.05	685.14	---	---	682.9	672.9			1/9/2008
			15.26		4.48	683.71	---	---	682.9	672.9			9/25/2012
			---		4.21	683.98	---	---	---	---			
PZ-12							20.0	25.0					Installed 8-26-13
	685.3	687.39	---		3.91	683.48	---	---	665.3	660.3			10/21/2013
WT-13	NM	696.77					4.0	14.0					Installed 9-20-06
			16.41		11.19	685.58	---	---	690.4	680.4			10/19/2006
			16.38		12.03	684.74	---	---	690.4	680.4			9/19/2007
			16.38		11.17	685.60	---	---	690.4	680.4			1/9/2008
			16.37		12.01	684.76	---	---	690.4	680.4			9/25/2012
			---		11.62	685.15	---	---	---	---			10/21/2013
WT-14	NM	722.48					27.5	37.5					Installed 9-19-06
			40.26		34.01	688.47	---	---	692.2	682.2	34.00	0.01	10/1/2006
			---		34.91	687.57	---	---	---	---		Sheen	9/18/2007
			---		34.92	687.56	---	---	---	---		Sheen	9/19/2007
			---		---	---	---	---	---	---		Sheen	9/20/2007
			---		34.32	688.16	---	---	---	---		0.00	1/16/2008
			40.20		35.12	687.36	---	---	692.3	682.3	35.09	0.03	9/25/2012
			---		34.94	687.54	---	---	---	---	34.80	0.14	10/21/2013
													Product Present - Not Developed

TABLE 1

SUMMARY OF ELEVATIONS
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Well Identification	Ground Surface	TOC Elevation	Depth to (ft from TOC)	Depth to Groundwater (ft. BGS)	Depth to Groundwater (ft. from TOC)	Groundwater Elevation	Screened Interval - ft Top	Screened Interval - ft Bottom	Screened Interval - ftMSL Top	Screened Interval - ftMSL Bottom	Free Product depth (ft. from TOC)	Free Product tickness (ft.)	Date
WT-15	684.9	686.56					2.0	12.0					Installed 9-4-07
			12.23	1.46	3.12	683.44	0.6	10.6	684.3	674.3			9/21/2007
			12.23	-0.08	1.58	684.98	0.6	10.6	684.3	674.3			1/9/2008
			12.25	1.52	3.18	683.38	0.6	10.6	684.3	674.3			9/25/2012
			---	1.22	2.88	683.68	---	---	---	---			10/21/2013
PZ-15A	684.0	686.52					20.0	25.0					Installed 9-4-07
			27.40	0.50	3.02	683.50	19.9	24.9	664.1	659.1			9/21/2007
			27.40	0.53	3.05	683.47	19.9	24.9	664.1	659.1			9/25/2012
			---	0.15	2.67	683.85	---	---	---	---			10/21/2013
PZ-15B	684.7	686.60					32.5	34.5					Installed 9-4-07
			37.00	1.18	3.08	683.52	33.1	35.1	651.6	649.6			9/21/2007
			37.00	1.16	3.06	683.54	33.1	35.1	651.6	649.6			9/25/2012
			---	0.76	2.66	683.94	---	---	---	---			10/21/2013
WT-16	685.6	687.81					2.0	12.0					Installed 9-5-07
			13.96	3.10	5.31	682.50	1.8	11.8	683.9	673.9			9/20/2007
			14.00	1.20	3.41	684.40	1.8	11.8	683.8	673.8			1/9/2008
			13.96	2.99	5.2	682.61	1.8	11.8	683.9	673.9			9/25/2012
			---	2.59	4.80	683.01	---	---	---	---			10/21/2013
PZ-16	685.7	688.01					19.0	24.0					Installed 9-5-07
			26.55	3.15	5.46	682.55	19.2	24.2	666.5	661.5			9/20/2007
			26.50	3.10	5.41	682.60	19.2	24.2	666.5	661.5			9/25/2012
			---	2.70	5.01	683.00	---	---	---	---			10/21/2013
WT-17	718.4	720.17					27.0	37.0					Installed 9-5-07
			38.83	31.39	33.16	687.01	27.1	37.1	691.3	681.3			9/19/2007
			38.83	30.92	32.69	687.48	27.1	37.1	691.3	681.3			1/9/2008
			38.83	30.69	32.46	687.71	27.1	37.1	691.3	681.3	--	0.00	1/16/2008
			38.83	30.47	32.24	687.93	27.1	37.1	691.3	681.3			9/25/2012
			---	31.37	33.14	687.03	---	---	---	---			10/21/2013
WT-18	729.2	731.72					39.0	49.0					Installed 9-6-07
			51.78	43.60	46.12	685.60	39.3	49.3	689.9	679.9			9/19/2007
			51.78	43.12	45.64	686.08	39.3	49.3	689.9	679.9			1/9/2008
			51.78	42.73	45.25	686.47	39.3	49.3	689.9	679.9	--	0.00	1/16/2008
			51.73	43.42	45.94	685.78	39.2	49.2	690.0	680.0			9/25/2012
			---	43.19	45.71	686.01	---	---	---	---			10/21/2013
WT-19	702.4	704.77					9.0	19.0					Installed 9-6-07
			21.34	13.30	15.67	689.10	9.0	19.0	693.4	683.4			9/19/2007
			21.34	10.69	13.06	691.71	9.0	19.0	693.4	683.4			1/9/2008
			21.26	13.63	16	688.77	8.9	18.9	693.5	683.5			9/25/2012
			---	13.48	15.85	688.92	---	---	---	---			10/21/2013
WT-20	685.0	687.21					2.0	12.0					Installed 12-7-07
			14.42	0.89	3.1	684.11	2.2	12.2	682.8	672.8			1/9/2008
			14.33	2.54	4.75	682.46	2.1	12.1	682.9	672.9			9/25/2012
			---	2.00	4.21	683.00	---	---	---	---			10/21/2013
WT-21	686.3	688.38					2.0	12.0					Installed 12-7-07
			14.30	2.23	4.31	684.07	2.2	12.2	684.1	674.1			1/9/2008
			14.22	4.09	6.17	682.21	2.1	12.1	684.2	674.2			9/25/2012
			---	3.41	5.49	682.89	---	---	---	---			10/21/2013
WT-22	685.9	687.94					2.0	12.0					Installed 12-7-07
			14.09	2.05	4.09	683.85	2.0	12.0	683.9	673.9			1/9/2008
			14.04	3.89	5.93	682.01	2.0	12.0	683.9	673.9			9/25/2012
			---	3.38	5.42	682.52	---	---	---	---			10/21/2013
WT-23	686.6	688.26					2.0	12.0					Installed 12-7-07
			14.23	2.48	4.14	684.12	2.6	12.6	684.0	674.0			1/9/2008
			14.18	3.93	5.59	682.67	2.5	12.5	684.1	674.1			9/25/2012
			---	3.48	5.14	683.12	---	---	---	---			10/21/2013

TABLE 1

SUMMARY OF ELEVATIONS
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Well Identification	Ground Surface	TOC Elevation	Depth to (ft from TOC)	Depth to Groundwater (ft. BGS)	Depth to Groundwater (ft. from TOC)	Groundwater Elevation	Screened Interval - ft Top	Screened Interval - ft Bottom	Screened Interval - ftMSL Top	Screened Interval - ftMSL Bottom	Free Product depth (ft. from TOC)	Free Product tickness (ft.)	Date
WP-01	691.1	693.68					0.5	3.5					Installed 7/7/1994
			6.94	1.72	4.3	689.38	1.4	4.4	689.7	686.7			7/12/1994
			7.02	1.81	4.39	689.29	1.4	4.4	689.7	686.7			5/11/1999
			7.02	1.98	4.56	689.12	1.4	4.4	689.7	686.7			9/30/1999
			7.03	3.04	5.62	688.06	1.5	4.5	689.7	686.7			12/8/1999
			7.04	2.47	5.05	688.63	1.5	4.5	689.6	686.6			3/31/2000
			6.97	1.37	3.95	689.73	1.4	4.4	689.7	686.7			4/18/2005
	DAMAGED												10/1/2006
													not sampled since 4-18-05
WP-02	698.3	700.31					8.5	11.5					Installed 7/6/1994
			13.65	9.69	11.7	688.61	8.6	11.6	689.7	686.7			7/11/1994
			13.75	9.32	11.33	688.98	8.7	11.7	689.6	686.6			5/10/1999
			13.76	10.06	12.07	688.24	8.8	11.8	689.6	686.6			9/23/1999
			13.77	10.07	12.08	688.23	8.8	11.8	689.5	686.5			12/6/1999
			13.76	9.38	11.39	688.92	8.8	11.8	689.6	686.6			3/29/2000
	DAMAGED												4/14/2005
	DAMAGED												10/1/2006
													not sampled since 3-29-00
WP-04	687.1	689.61					1.5	4.5					Installed 7/6/1994
			6.72	2.38	4.89	684.72	1.2	4.2	685.9	682.9			7/11/1994
			6.82	2.04	4.55	685.06	1.3	4.3	685.8	682.8			5/10/1999
			6.95	2.74	5.25	684.36	1.4	4.4	685.7	682.7			9/23/1999
			6.95	2.68	5.19	684.42	1.4	4.4	685.7	682.7			12/6/1999
			6.96	2.16	4.67	684.94	1.5	4.5	685.7	682.7			3/29/2000
			6.88	1.67	4.18	685.43	1.4	4.4	685.7	682.7			4/14/2005
		689.75	6.93	1.73	4.38	685.37	1.4	4.4	685.8	682.8			10/19/2006
			6.88	2.55	5.2	684.55	1.4	4.4	685.9	682.9			9/19/2007
			6.88	1.11	3.76	685.99	1.4	4.4	685.9	682.9			1/9/2008
			6.88	2.50	5.15	684.60	1.4	4.4	685.9	682.9			9/25/2012
			---	2.18	4.83	684.92	---	---	---	---			10/21/2013
WP-05	694.7	695.68					9.5	12.5					Installed 7/6/1994
			13.51	9.52	10.5	685.18	9.5	12.5	685.2	682.2			7/12/1994
			13.66	8.98	9.96	685.72	9.7	12.7	685.0	682.0			5/10/1999
			13.63	9.54	10.52	685.16	9.7	12.7	685.1	682.1			10/5/1999
			13.66	9.80	10.78	684.90	9.7	12.7	685.0	682.0			12/8/1999
			13.67	9.13	10.11	685.57	9.7	12.7	685.0	682.0			3/31/2000
			13.68	8.48	9.46	686.22	9.7	12.7	685.0	682.0			4/14/2005
	DAMAGED												10/1/2006
													not sampled since 4-14-05
													ABANDONNED 9-6-07

TABLE 1

SUMMARY OF ELEVATIONS
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Well Identification	Ground Surface	TOC Elevation	Depth to (ft from TOC)	Depth to Groundwater (ft. BGS)	Depth to Groundwater (ft. from TOC)	Groundwater Elevation	Screened Interval - ft Top	Screened Interval - ft Bottom	Screened Interval - ftMSL Top	Screened Interval - ftMSL Bottom	Free Product depth (ft. from TOC)	Free Product tickness (ft.)	Date
WP-06	698.1	700.19					13.8	16.8					Installed 7/6/1994
			18.50	14.32	16.41	683.78	13.4	16.4	684.7	681.7			7/11/1994
			18.56	13.99	16.08	684.11	13.5	16.5	684.6	681.6			5/10/1999
			18.56	14.55	16.64	683.55	13.5	16.5	684.6	681.6			9/23/1999
			18.57	14.44	16.53	683.66	13.5	16.5	684.6	681.6			12/6/1999
			18.56	13.93	16.02	684.17	13.5	16.5	684.6	681.6			3/29/2000
			18.60	13.67	15.76	684.43	13.5	16.5	684.6	681.6			4/14/2005
		700.11	18.64	13.90	15.91	684.20	13.6	16.6	684.5	681.5			10/19/2006
			18.60	14.44	16.45	683.66	13.6	16.6	684.5	681.5			9/19/2007
			18.60	13.25	15.26	684.85	13.6	16.6	684.5	681.5			1/9/2008
			18.59	14.43	16.44	683.67	13.6	16.6	684.5	681.5			9/25/2012
			---	14.27	16.28	683.83	---	---	---	---			10/21/2013
WP-07	693.8	696.70					7.0	10.0					Installed 7/5/1994
			13.35	8.40	11.3	685.40	7.4	10.4	686.4	683.4			7/11/1994
			13.29	8.42	11.32	685.38	7.4	10.4	686.4	683.4			5/10/1999
			13.63	9.18	12.08	684.62	7.7	10.7	686.1	683.1			9/23/1999
			13.63	9.15	12.05	684.65	7.7	10.7	686.1	683.1			12/6/1999
			13.63	8.42	11.32	685.38	7.7	10.7	686.1	683.1			3/29/2000
			13.52	7.92	10.82	685.88	7.6	10.6	686.2	683.2			4/14/2005
		696.74	13.57	8.07	11.01	685.73	7.6	10.6	686.2	683.2			10/19/2006
			12.52	8.98	11.92	684.82	6.6	9.6	687.2	684.2			9/19/2007
			12.52	7.43	10.37	686.37	6.6	9.6	687.2	684.2			1/9/2008
			13.53	8.87	11.81	684.93	7.6	10.6	686.2	683.2			9/25/2012
			---	8.56	11.5	685.24	---	---	---	---			10/21/2013
WP-08	706.1	708.38					20.5	23.5					Installed 7/6/1994
			25.97	21.40	23.68	684.70	20.7	23.7	685.4	682.4			7/11/1994
			26.03	20.63	22.91	685.47	20.8	23.8	685.4	682.4			5/13/1999
			26.08	21.70	23.98	684.40	20.8	23.8	685.3	682.3			10/5/1999
			26.08	22.14	24.42	683.96	20.8	23.8	685.3	682.3			12/9/1999
			26.08	20.87	23.15	685.23	20.8	23.8	685.3	682.3			3/31/2000
			26.09	20.30	22.58	685.80	20.8	23.8	685.3	682.3			4/14/2005
		708.41	26.13	20.58	22.89	685.52	20.8	23.8	685.3	682.3			10/19/2006
	ABANDONNED 9-6-07												

TABLE 1

SUMMARY OF ELEVATIONS
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Well Identification	Ground Surface	TOC Elevation	Depth to (ft from TOC)	Depth to Groundwater (ft. BGS)	Depth to Groundwater (ft. from TOC)	Groundwater Elevation	Screened Interval - ft Top	Screened Interval - ft Bottom	Screened Interval - ftMSL Top	Screened Interval - ftMSL Bottom	Free Product depth (ft. from TOC)	Free Product tickness (ft.)	Date
SG-1/SW-01	NM												
		689.36			0.81	688.55							7/1/1993
		691.16			2.62	688.54							7/12/1994
SG-2/SW-02	NM												
		691.51			13	678.51							7/1/1993
		699.14			15.4	683.74							7/12/1994
SG-3	NM												
					0.52								7/12/1994
	DAMAGED												10/6/1994
SG-4	NM												
					0.48								7/12/1994
	DAMAGED - REINSTALLED												10/6/1994
					NM								5/19/1999
					0.31								9/30/1999
					0.26								12/8/1999
					0.86								3/30/2003
SG-01	NM	684.47											
					1.22	683.25							10/18/2006
						681.71							10/29/2013
SG-02	NM	685.41											
					0.98	684.43							10/18/2006
						682.28							10/29/2013
SG-03	NM	685.79											
					0.97	684.82							10/18/2006
						682.77							10/29/2013

Notes:
BGS = Below Ground Surface
TOC = Top of Casing
--- or NM = Not Measured

Table 2
SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-01										
			5/20/93	9/7/94	5/13/99	9/29/99	12/7/99	3/31/00	4/15/05	10/20/06	9/18/07	9/24/12	10/21/13
Volatile Organic Compounds (VOCs) (µg/L):													
Benzene	5	0.5	<0.30	<1.0	<0.44	<0.44	**1.7**	<0.44	<0.41	<0.41	<0.47	<0.5	<0.24
t-Butylbenzene	NS	NS	<0.56	<1.0	<0.50	<0.50	<0.50	<0.50	<0.97	<0.97	<0.34	<0.71	<0.36
Chloromethane	3	0.3									<1	<1.9	<0.81
2-Chlorotoluene	NS	NS	<0.37	<1.0	<0.65	<0.65	<0.65	<0.65	<0.85	<0.85	<0.49	<0.7	<0.21
1,2-Dichloroethane	5	0.5	<0.38	<1.0	<0.54	<0.54	<0.54	<0.54	<0.36	<0.36	<0.45	<0.5	<0.41
1,1-Dichloroethane	850	85	<0.34	<1.0	<0.61	<0.61	<0.61	<0.61	<0.75	<0.75	<0.56	<0.98	<0.3
1,1-Dichloroethene	7	0.7	<0.78	<1.0	<0.47	<0.47	<0.47	<0.47	<0.57	<0.57	<0.64	<0.6	<0.4
cis-1,2-Dichloroethene	70	7	<0.39	<1.0	**27**	<0.46	**120**	<0.46	6.1	0.94 Q	<0.68	<0.74	<0.38
trans-1,2-Dichloroethene	100	20	<0.35	<1.0	<0.64	<0.64	<0.64	<0.64	<0.89	<0.89	<0.95	<0.79	<0.35
Ethylbenzene	700	140	<0.44	<1.0	<0.50	<0.50	2.3	<0.50	<0.54	<0.54	<0.38	<0.78	<0.55
Isopropylbenzene	NS	NS	<0.51	<1.0	<0.39	<0.39	<0.39	<0.39	<0.59	<0.59	<0.48	<0.92	<0.3
Methylene chloride	5	0.5	<0.45	**5.8 B**	<0.38	<0.38	<0.38	<0.38	<0.43	<0.43	<0.69	<1.1	<0.5
Naphthalene	100	10	<0.34	<1.0	<0.59	<0.59	2.1	<0.59	<0.74	<0.74	<1.8	<2.1	<1.7
n-Propylbenzene	NS	NS	<0.54	<1.0	<0.54	<0.54	<0.54	<0.54	<0.81	<0.81	<0.38	<0.59	<0.25
Tetrachloroethene	5	0.5	<0.52	<1.0	<0.41	<0.41	<0.41	<0.41	<0.45	<0.45	<0.52	<0.44	<0.33
Toluene	1,000	200	<0.29	<1.0	1.6	<0.40	15	<0.40	<0.67	<0.67	<0.46	<0.53	<0.69
1,1,1-Trichloroethane	200	40	<0.30	<1.0	<0.53	<0.53	0.80 Q	<0.53	<0.90	<0.90	<0.5	<0.85	<0.33
Trichloroethene	5	0.5	<0.34	<1.0	**1.6**	<0.49	**8.9**	**0.80 Q**	**6.9**	<0.48	<0.44	<0.47	<0.33
1,2,4-Trimethylbenzene	--	--	<0.47	<1.0	<0.47	<0.47	0.79 Q	<0.47	<0.97	<0.97	<1.2	<0.8	<2.2
1,3,5-Trimethylbenzene	--	--	<0.47	<1.0	<0.45	<0.45	0.64 Q	<0.45	<0.83	<0.83	<0.37	<0.74	<1.4
Total Trimethylbenzene	480	96	<0.47	<1.0	<0.47	<0.47	1.43	<0.47	<0.97	<0.97	<1.2	<0.8	<2.2
Vinyl Chloride	0.2	0.02	<0.32	<1.0	<0.17	<0.17	<0.17	<0.17	<0.18	<0.18	<0.2	<0.18	<0.18
Xylenes, m + p	--	--	<0.81	<2.0	<0.77	<0.77	6.5	<0.77	<1.8	<1.8	<0.67	<1.1	<0.69
Xylene, o	--	--	<0.41	<1.0	<0.54	<0.54	3.7	<0.54	<0.83	<0.83	<0.32	<0.8	<0.63
Total Xylenes	10,000	1,000	<0.81	<2.0	<0.77	<0.77	10.2	<0.77	<1.8	<1.8	<0.67	<1.1	<0.69
Styrene	100	10	<0.30	<1.0	<0.37	<0.37	0.60 Q	<0.37	<0.86 &	<0.86	NA	NA	NA
Ethane	NS	NS	NA	NA	<1.8	<10	<10	<10	NA	<10	NA	NA	NA
Ethene	NS	NS	NA	NA	<2.3	<10	<10	<10	NA	<10	NA	NA	NA
Methane	NS	NS	NA	NA	14	<10	<10	<10	NA	<10	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):													
1-Methylnaphthalene	NS	NS	NA	NA	<0.044	<0.044	0.12 Q	<0.044	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	<3	<11	<0.049	<0.049	0.15 Q	<0.049	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	<4	<11	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	<5	<11	<0.18	<0.18	<0.18	<0.18	NA	NA	NA	NA	NA
Anthracene	3000	600	<5	<11	<0.0090	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	<5	<11	<0.0088	<0.0087	<0.0087	<0.0087	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	<4	<11	<0.012	<0.012	<0.012	<0.012	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	<4	<11	<0.016	<0.016	<0.016	<0.016	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	<5	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	<4	<11	<0.0080	<0.0079	<0.0079	<0.0079	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	<5	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	120	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	<5	<11	<0.0090	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	<4	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Fluoranthene	400	80	<5	<11	<0.019	<0.019	<0.019	<0.019	NA	NA	NA	NA	NA
Fluorene	400	80	<4	<11	<0.020	<0.020	<0.020	<0.020	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	<4	<11	<0.0084	<0.0083	<0.0083	<0.0083	NA	NA	NA	NA	NA
Naphthalene	100	10	<5	<11	0.16 Q	<0.12	2.2	<0.12	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	<4	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	<3	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	<3	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	<4	<11	<0.011	<0.011	<0.011	<0.011	NA	NA	NA	NA	NA
Pyrene	250	50	<4	<11	<0.13	<0.13	<0.13	<0.13	NA	NA	NA	NA	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-01										
			5/20/93	9/7/94	5/13/99	9/29/99	12/7/99	3/31/00	4/15/05	10/20/06	9/18/07	9/24/12	10/21/13
RCRA Metals (mg/L)													
Antimony	0.006	0.0012	NA	NA	(-0.0032)	0.00025 Q	<0.00020	<0.00020	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	<0.002	<0.0024	**(-0.00047)**	0.00050 Q	(0.00034)	NA	NA	NA	NA	NA
Barium	2	0.4	NA	0.062	0.026	0.025	0.026	0.025	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	<0.00043	<0.000070	<0.000070	<0.000070	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	<0.0030	<0.00017	(0.00013)	<0.000060	0.000080 Q	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	**0.012**	0.0025	(0.00020)	(0.00048)	(0.00017)	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	<0.00094	0.0011	0.0011	(-0.0003)	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	<0.027	(0.0097)	0.0053 Q	(-0.024)	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	<0.025	<0.0028	<0.00015	<0.00015	<0.00015	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	0.00032 Q	0.0003	0.00011 Q	0.00099	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	**0.0034**	<0.000042	<0.000042	0.000044 Q	<0.000042	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	<0.0022	0.00097	0.0013	0.00086	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	<0.001	<0.0023	0.00079 Q	0.0018 Q	(0.00083)	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	<0.010	<0.00046	0.00041	<0.000095	(0.00047)	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	1.8	1.7	1.8	1.9	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	<0.0013	<0.000093	<0.000093	<0.000093	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	0.0094	0.0074	0.0052 Q	0.0037 Q	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):													
Aroclor-1016	NS	NS	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)													
Alkalinity	increase of 100		NA	370	400	470	410	390	NA	NA	NA	NA	NA
Ammonia	NS	NS	NA	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		NA	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	NA	4.8	2.9	2.3	3.3 Q	2.7	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	NA	26	19	18	14	10	NA	NA	NA	NA	NA
TDS	increase of 200		NA	430	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	NA	410	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	NA	400	470 H (1)	410	390	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	NA	<2.5	<1.9	<1.9	<1.9	NA	NA	NA	NA	NA
Conductance, specific (umhos/cm)	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	NA	<0.043	<0.043	<0.044	<0.044	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	NA	0.34	0.39	0.18 Q	0.12 Q	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	NA	0.12	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	NA	0.99	1.2	<0.50	1.8 A(0.67)	NA	NA	NA	NA	NA
Field Screening Measurements													
pH		lU	7.7	7.3	6.92	7.27	7	6.89	6.91	7.26	6.79	6.68	6.18
Conductivity		uS	758	460	708	722	689	660	750	789.9	809	992	696
Temperature		°C	8.1	13	10	10.3	9.6	10.5	10.5	9.7	10.1	10.3	10.67
Dissolved Oxygen		ppm	NA	NA	7.81	6.08	5.59	101	5.19	6.95	--	3.33	5.63
Redox Potential		mV	NA	NA	52	81	51	5.28	136	82	60	190.1	98.3

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	PZ-01										
			5/20/93	9-6-94	5/13/99	9/29/99	12/7/99	3/31/00	4/15/05	10/20/06	9/18/07	9/24/12	10/21/13
Volatile Organic Compounds (VOCs) (µg/L):													
Benzene	5	0.5	<0.30	<1.0	<0.44	<0.44	<0.44	<0.44	<0.41	<0.41	<0.47	<0.5	<0.24
t-Butylbenzene	NS	NS	<0.56	<1.0	<0.50	<0.50	<0.50	<0.50	<0.97	<0.97	<0.34	<0.71	<0.36
Chloromethane	3	0.3									<1	<1.9	<0.81
2-Chlorotoluene	NS	NS	<0.37	<1.0	<0.65	<0.65	<0.65	<0.65	<0.85	<0.85	<0.49	<0.7	<0.21
1,2-Dichloroethane	5	0.5	<0.38	<1.0	<0.54	<0.54	<0.54	<0.54	<0.36	<0.36	<0.45	<0.5	<0.41
1,1-Dichloroethane	850	85	<0.34	<1.0	<0.61	<0.61	<0.61	<0.61	<0.75	<0.75	<0.56	<0.98	<0.3
1,1-Dichloroethene	7	0.7	<0.78	<1.0	<0.47	<0.47	<0.47	<0.47	<0.57	<0.57	<0.64	<0.6	<0.4
cis-1,2-Dichloroethene	70	7	<0.39	6.3	**13**	<0.46	**21**	<0.46	<0.83	<0.83	<0.68	<0.74	<0.38
trans-1,2-Dichloroethene	100	20	<0.35	<1.0	<0.64	<0.64	<0.64	<0.64	<0.89	<0.89	<0.95	<0.79	<0.35
Ethylbenzene	700	140	<0.44	<1.0	<0.50	<0.50	0.69 Q	<0.50	<0.54	<0.54	<0.38	<0.78	<0.55
Isopropylbenzene	NS	NS	<0.51	<1.0	<0.39	<0.39	<0.39	<0.39	<0.59	<0.59	<0.48	<0.92	<0.3
Methylene chloride	5	0.5	<0.45	**6.1 B**	<0.38	<0.38	<0.38	<0.38	<0.43	<0.43	<0.69	<1.1	<0.5
Naphthalene	100	10	<0.34	<1.0	<0.59	<0.59	1.0 Q	<0.59	<0.74	<0.74	<1.8	<2.1	<1.7
n-Propylbenzene	NS	NS	<0.54	<1.0	<0.54	<0.54	<0.54	<0.54	<0.81	<0.81	<0.38	<0.59	<0.25
Tetrachloroethene	5	0.5	<0.52	<1.0	<0.41	<0.41	<0.41	<0.41	<0.45	<0.45	<0.52	<0.44	<0.33
Toluene	1,000	200	<0.29	<1.0	0.87 Q	<0.40	3.1	<0.40	<0.67	<0.67	<0.46	<0.53	<0.69
1,1,1-Trichloroethane	200	40	<0.30	<1.0	<0.53	<0.53	<0.53	<0.53	<0.90	<0.90	<0.5	<0.85	<0.33
Trichloroethene	5	0.5	<2.6	**2.1**	**0.89 Q**	<0.49	**2.3**	<0.49	**1.2 Q**	<0.48	<0.44	<0.47	<0.33
1,2,4-Trimethylbenzene	--	--	<0.47	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97	<0.97	<1.2	<0.8	<2.2
1,3,5-Trimethylbenzene	--	--	<0.47	<1.0	<0.45	<0.45	<0.45	<0.45	<0.83	<0.83	<0.37	<0.74	<1.4
Total Trimethylbenzene	480	96	<0.47	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97	<0.97	<1.2	<0.8	<2.2
Vinyl Chloride	0.2	0.02	<0.32	<1.0	<0.17	<0.17	<0.17	<0.17	<0.18	<0.18	<0.2	<0.18	<0.18
Xylenes, m + p	--	--	<0.81	<2.0	<0.77	<0.77	1.9 Q	<0.77	<1.8	<1.8	<0.67	<1.1	<0.69
Xylene, o	--	--	<0.41	<1.0	<0.54	<0.54	0.96 Q	<0.54	<0.83	<0.83	<0.32	<0.8	<0.63
Total Xylenes	10,000	1,000	<0.81	<2.0	<0.77	<0.77	2.86	<0.77	<1.8	<1.8	<0.67	<1.1	<0.69
Styrene	100	10	<0.30	<1.0	<0.37	<0.37	<0.37	<0.37	<0.86 &	<0.86	NA	NA	NA
Ethane	NS	NS	NA	NA	<1.8	<10	<10	<10	NA	<10	NA	NA	NA
Ethene	NS	NS	NA	NA	<2.3	<10	<10	<10	NA	<10	NA	NA	NA
Methane	NS	NS	NA	NA	3.2	<10	<10	<10	NA	<10	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):													
1-Methylnaphthalene	NS	NS	NA	NA	<0.044	<0.044	0.059 Q	<0.044	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	<3	<11	<0.049	<0.049	0.077 Q	<0.049	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	<4	<11	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	<5	<11	<0.18	<0.18	<0.18	<0.18	NA	NA	NA	NA	NA
Anthracene	3000	600	<5	<11	<0.0090	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	<5	<11	<0.0088	0.049	<0.0087	<0.0087	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	<4	<11	<0.012	**0.044**	<0.012	<0.012	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	<4	<11	<0.016	**0.1**	<0.016	<0.016	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	<5	<11	<0.018	0.081	<0.018	<0.018	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	<4	<11	<0.0080	0.024 Q	<0.0079	<0.0079	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	<5	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	<7	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	<5	<11	<0.0090	0.012 Q	<0.0089	<0.0089	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	<4	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Fluoranthene	400	80	<5	<11	<0.019	0.036 Q	<0.019	<0.019	NA	NA	NA	NA	NA
Fluorene	400	80	<4	<11	<0.020	<0.020	<0.020	<0.020	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	<4	<11	<0.0084	0.096	<0.0083	<0.0083	NA	NA	NA	NA	NA
Naphthalene	100	10	<5	<11	0.16 Q	<0.12	0.84	<0.12	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	<4	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	<3	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	<3	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	<4	<11	<0.011	<0.011	<0.011	<0.011	NA	NA	NA	NA	NA
Pyrene	250	50	<4	<11	<0.13	0.062	<0.13	<0.13	NA	NA	NA	NA	NA

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	PZ-01										
			5/20/93	9-6-94	5/13/99	9/29/99	12/7/99	3/31/00	4/15/05	10/20/06	9/18/07	9/24/12	10/21/13
RCRA Metals (mg/L)													
Antimony	0.006	0.0012	NA	NA	(-0.0032)	**0.0016**	<0.00020	<0.00020	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	**0.003**	<0.0024	**(-0.00047)**	**0.0018**	**(0.00034)**	NA	NA	NA	NA	NA
Barium	2	0.4	NA	0.15	0.17	0.18	0.018	0.18	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	<0.00043	0.00018 Q	<0.000070	<0.000070	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	<0.0030	<0.00017	(0.00013)	<0.000060	0.00043	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	**0.14**	<0.00053	(0.00020)	(0.00048)	(0.00017)	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	<0.00094	0.00088	0.00087	(-0.0003)	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	**0.97**	**0.9**	**0.93**	**0.78**	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	<0.025	<0.0028	0.00027 Q	<0.00015	<0.00015	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	0.021	0.021	0.021	0.02	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	**0.0034**	<0.000042	<0.00042	<0.000042	<00000042	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	<0.0022	0.0011	0.0012	0.00094	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	<0.001	<0.0023	<0.00064	0.00095 Q	(0.00083)	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	<0.010	<0.00046	0.0014	<0.000095	(0.00047)	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	9.3	8.9	9.4	9.4	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	<0.0013	0.00010 Q	<0.000093	<0.000093	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	<0.00089	0.0063 Q	0.0047 Q	0.0095	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):													
Aroclor-1016	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	NA	<2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	<2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)													
Alkalinity	increase of 100		NA	305	320	390 H(1)	330	330	NA	NA	NA	NA	NA
Ammonia	NS	NS	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		NA	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	NA	7.7	7.8	6.5	9.1	8.6	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	NA	26	30	29	31	32	NA	NA	NA	NA	NA
TDS	increase of 200		NA	350	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	NA	110	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	470	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	NA	3230	390 H(1)	330	330	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	NA	<2.5	<1.9 H(1)	<1.9	<3.8	NA	NA	NA	NA	NA
Conductance, specific (umhos/cm)	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	NA	<0.043	<0.043	<0.044	<0.044	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	NA	<0.090	<0.090	<0.080	<0.080	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	NA	<0.037	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	NA	<0.33	0.83 Q	<0.50	1.3 QA(0.67)	NA	NA	NA	NA	NA
Field Screening Measurements													
pH		IU	7.8	7.85	7.13	7.76	7.36	7.21	7.31	7.44	7.18	7.77	7.35
Conductivity		uS	512	575	589	602	612	608	619	620	617.2	601	447
Temperature		°C	9.7	12.8	11.7	10.1	9.2	10.6	10	9.4	10.3	10.55	10.51
Dissolved Oxygen		ppm	NA	NA	1.9	3.58	3.49	3.52	2.1	1.18	1.14	0.11	0.62
Redox Potential		mV	NA	NA	-101	-85	-110	-89	-103	-99	-94	-190	16.1

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-02				
			5/20/93	5/19/99	10/5/99	12/9/99	4/5/00
Volatile Organic Compounds (VOCs) (µg/L):							
Benzene	5	0.5	<0.30	**850**	**650 Q**	**570 Q**	**840**
t-Butylbenzene	NS	NS	<0.56	<100	<250	<250	<50
Chloromethane	3	0.3					
2-Chlorotoluene	NS	NS	<0.37	<130	<330	<330	<65
1,2-Dichloroethane	5	0.5	<0.38	<72	<270	<270	<54
1,1-Dichloroethane	850	85	<0.34	**190 Q**	<310	<310	**240**
1,1-Dichloroethene	7	0.7	<0.78	**130 Q**	<230	<230	**91 Q**
cis-1,2-Dichloroethene	70	7	**62**	**170,000 D**	**160,000 D**	**150,000 D**	**85,000 D**
trans-1,2-Dichloroethene	100	20	<0.35	<130	<320	<320	**640**
Ethylbenzene	700	140	2.9	**170 Q**	**860**	**450 Q**	**150 Q**
Isopropylbenzene	NS	NS	0.64	<78	<200	<200	<39
Methylene chloride	5	0.5	<0.45	200 Q	<190	<190	<38
Naphthalene	100	10	6.9	**140 Q**	**1,300**	**860 Q**	**200**
n-Propylbenzene	NS	NS	1.4	<110	340 Q	<270	<54
Tetrachloroethene	5	0.5	1.0	<82	<200	<200	<41
Toluene	1,000	200	7.3	**2,100**	**4,400**	**2,500**	**1,700**
1,1,1-Trichloroethane	200	40	<0.30	**1,100**	**1,600**	**1,200**	**340**
Trichloroethene	5	0.5	**3.6**	**250 Q**	<250	<250	**720**
1,2,4-Trimethylbenzene	--	--	12	140 Q	2300	1500	220
1,3,5-Trimethylbenzene	--	--	3.8	<90	730	450 Q	63 Q
Total Trimethylbenzene	480	96	15.8	**140**	**3030**	**1950**	**283**
Vinyl Chloride	0.2	0.02	<0.32	<100	<85	<85	<17
Xylenes, m + p	--	--	14	580	3,900	2,000	630
Xylene, o	--	--	6.7	320 Q	1,800	1,000	310
Total Xylenes	10,000	1,000	20.7	900	**5,700**	**3,000**	940
Styrene	100	10	<0.30	<74	<190	<190	<37
Ethane	NS	NS	NA	<10	<2000	<100	<10
Ethene	NS	NS	NA	<10	<2000	<100	<10
Methane	NS	NS	NA	<10	<2000	38	170
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):							
1-Methylnaphthalene	NS	NS	NA	9300	1600	6500	50
2-Methylnaphthalene	NS	NS	670	15000	2600	11000	79
Acenaphthene	NS	NS	<83	<2000	<99	<990	<20
Acenaphthylene	NS	NS	180	9900	1500	6100	<18
Anthracene	3000	600	120	**1400**	<4.5	<44	3.5
Benzo(a)anthracene	NS	NS	<100	750	<4.3	<43	0.98
Benzo(a)pyrene	0.2	0.02	<83	**460**	<6.0	**450**	<1.2
Benzo (b)fluoranthene	0.2	0.02	<83	<160	<8.0	<80	<1.6
Benzo(ghi)perylene	NS	NS	<100	<180	29	<90	<1.8
Benzo(k)fluoranthene	NS	NS	<83	<80	<4.0	<40	<0.79
Butyl benzyl phthalate	NS	NS	<100	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	<150	NA	NA	NA	NA
Chrysene	0.2	0.02	<100	**580**	<4.5	<44	**2.6**
Dibenzo(a,h)anthracene	NS	NS	<83	<180	<9.0	<90	<1.8
Fluoranthene	400	80	**130**	<190	<9.5	<95	<1.9
Fluorene	400	80	<83	**4,500**	**580**	**2,500**	<2.0
Indeno(1,2,3-dc)pyrene	NS	NS	<83	<84	<4.2	<42	<0.83
Naphthalene	100	10	**1,200**	**13,000**	**3,000**	**11,000**	**210**
N-Nitroso-Di-N-Propylamin	NS	NS	<100	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	170	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	170	NA	NA	NA	NA
Phenanthrene	NS	NS	380	6800	1000	4900	19
Pyrene	250	50	**180**	<130	**310**	<65	6

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-02				
			5/20/93	5/19/99	10/5/99	12/9/99	4/5/00
RCRA Metals (mg/L)							
Antimony	0.006	0.0012	NA	**0.0040 Q**	**0.0022**	**0.0043**	**0.0059**
Arsenic	0.01	0.001	**0.011**	**0.017 Q**	**(0.0018)**	**0.019**	**0.021**
Barium	2	0.4	0.09	0.0061	0.1	0.011	0.004
Beryllium	0.004	0.0004	NA	<0.00063	0.00026	<0.000070	<.00007
Cadmium	0.005	0.0005	0.0002	<0.00020	(-0.00068)	0.000070 Q	0.00017 Q
Chromium	0.1	0.01	0.009	B(0.0011)	**0.088**	0.0059	(0.00017)
Copper	1.3	0.13	NA	0.0035 Q	0.03	0.0055	(-0.0003)
Iron	0.3	0.15	NA	**2.7**	**11**	**(0.022)**	**0.51**
Lead	0.015	0.0015	**0.072**	<0.0030	**0.19**	**0.012**	0.0012
Manganese	0.05	0.025	NA	**0.44**	**0.39**	**0.38**	**0.17**
Mercury	0.002	0.0002	**0.00031**	<0.000042	<0.000042	<0.000042 K	0.000047 Q
Nickel	0.1	0.02	NA	0.0092	0.018	0.0048	0.0042
Selenium	0.05	0.01	<0.002	<0.0024 ED	0.0034 Q	0.0013 Q	(0.00083)
Sliver	0.05	0.01	<0.001	<0.00050 N	0.00012 QN,*	(-0.00041)	(0.00047)
Sodium	increase of 10		NA	46	25	31	35
Thallium	0.002	0.0004	NA	<0.0014	(0.00018)	<0.000093	<0.000093
Zinc	5	2.5	NA	0.0087 Q	(0.0023)	(-0.0048)	0.021
Poychlorinated Biphenyls (PCBs) (µg/L):							
Aroclor-1016	NS	NS	NA	<330	<33	<16	<0.33
Aroclor-1221	NS	NS	NA	<330	<33	<16	<0.33
Aroclor-1232	NS	NS	NA	<30	<33	<16	<0.33
Aroclor-1242	NS	NS	NA	<330	<33	<16	<0.33
Aroclor-1248	NS	NS	NA	4,200	720	210	5.9
Aroclor-1254	NS	NS	NA	3,200	620	<16	<0.33
Aroclor-1260	NS	NS	NA	<330	<33	49	<0.33
Total PCBs	0.03	0.003	NA	**7400**	**1340**	**259**	**5.9**
General Chemistry Parameters (mg/L)							
Alkalinity	increase of 100		NA	940	680	640	800
Ammonia	NS	NS	NA	NA	NA	NA	NA
BOD	increase of 25		NA	NA	NA	NA	NA
COD	increase of 25		NA	NA	NA	NA	NA
Chloride	250	125	NA	**270**	**260**	**270**	20
Cyanide	0.2	0.04	NA	NA	NA	NA	NA
Sulfate	250	125	NA	32 ED	16	42	52
TDS	increase of 200		NA	NA	NA	NA	NA
TSS	NS	NS	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	940	680	640	800
Carbonate Alkalinity	NS	NS	NA	<25	<19	<1.9	<38
Conductance, specific (umhos/cm)	increase of 200		NA	NA	NA	1700	1500
Ferrous Iron	NS	NS	NA	220	0.13 Q	0.023	<44 ED
Nitrogen, nitrate	increase of 2		NA	<2.2 ED	<0.090	<0.080	<0.080
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	6.9	7.5
TOC as NPOC - Filtered	increase of 1		NA	290	600 A(0.97)	250	240
Field Screening Measurements							
pH		IU	7.7	NA	NA	NA	NA
Conductivity		uS	780	NA	NA	NA	NA
Temperature		°C	9.8	NA	NA	NA	NA
Dissolved Oxygen		ppm	NA	NA	NA	NA	NA
Redox Potential		mV	NA	NA	NA	NA	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	PZ-02										
			5/20/93	9/7/94	5/13/99	10/5/99	12/9/99	4/4/00	4/18/05	10/20/06	9/18/07	9/24/12	10/21/13
Volatile Organic Compounds (VOCs) (µg/L):													
Benzene	5	0.5	<0.30	<1.0	<0.44	<0.44	<0.44	<0.44	<0.41	<0.41	<0.47	<0.5	<0.24
t-Butylbenzene	NS	NS	<0.56	<1.0	<0.50	<0.50	<0.50	<0.50	<0.97	<0.97	<0.34	<0.71	<0.36
Chloromethane	3	0.3									<1	<1.9	<0.81
2-Chlorotoluene	NS	NS	<0.37	<1.0	<0.65	<0.65	<0.65	<0.65	<0.85	<0.85	<0.49	<0.7	<0.21
1,2-Dichloroethane	5	0.5	<0.38	<1.0	<0.54	<0.54	<0.54	<0.54	<0.36	<0.36	<0.45	<0.5	<0.41
1,1-Dichloroethane	850	85	<0.34	<1.0	<0.61	<0.61	<0.61	<0.61	<0.75	<0.75	<0.56	<0.98	<0.3
1,1-Dichloroethene	7	0.7	<0.78	<1.0	<0.47	<0.47	<0.47	<0.47	<0.57	<0.57	<0.64	<0.6	<0.4
cis-1,2-Dichloroethene	70	7	**7.3**	<1.0	**16**	<0.46	1.7	<0.46	<0.83	<0.83	<0.68	<0.74	<0.38
trans-1,2-Dichloroethene	100	20	<0.35	<1.0	<0.64	<0.64	<0.64	<0.64	<0.89	<0.89	<0.95	<0.79	<0.35
Ethylbenzene	700	140	1.2	<1.0	<0.50	<0.50	<0.50	<0.50	<0.54	<0.54	<0.38	<0.78	<0.55
Isopropylbenzene	NS	NS	<0.51	<1.0	<0.39	<0.39	<0.39	<0.39	<0.59	<0.59	<0.48	<0.92	<0.3
Methylene chloride	5	0.5	<0.45	**5.4 B**	<0.38	<0.38	<0.38	<0.38	<0.43	<0.43	<0.69	<1.1	<0.5
Naphthalene	100	10	<0.34	<1.0	<0.59	<0.59	<0.59	<0.59	<0.74	<0.74	<1.8	<2.1	<1.7
n-Propylbenzene	NS	NS	0.70	<1.0	<0.54	<0.54	<0.54	<0.54	<0.81	<0.81	<0.38	<0.59	<0.25
Tetrachloroethene	5	0.5	<0.52	<1.0	<0.41	<0.41	<0.41	<0.41	<0.45	<0.45	<0.52	<0.44	<0.33
Toluene	1,000	200	<0.29	<1.0	1.0 Q	<0.40	<0.40	<0.40	<0.67	<0.67	<0.46	<0.53	<0.69
1,1,1-Trichloroethane	200	40	<0.30	<1.0	<0.53	<0.53	<0.53	<0.53	<0.90	<0.90	<0.5	<0.85	<0.33
Trichloroethene	5	0.5	**12**	<1.0	**0.98 Q**	<0.49	<0.49	<0.49	<0.48	<0.48	<0.44	<0.47	<0.33
1,2,4-Trimethylbenzene	--	--	3.7	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97	<0.97	<1.2	<0.8	<2.2
1,3,5-Trimethylbenzene	--	--	1.5	<1.0	<0.45	<0.45	<0.45	<0.45	<0.83	<0.83	<0.37	<0.74	<1.4
Total Trimethylbenzene	480	96	5.2	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97	<0.97	<1.2	<0.8	<2.2
Vinyl Chloride	0.2	0.02	<0.32	<1.0	<0.17	<0.17	<0.17	<0.17	<0.18	<0.18	<0.2	<0.18	<0.18
Xylenes, m + p	--	--	4.5	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8	<1.8	<0.67	<1.1	<0.69
Xylene, o	--	--	2.3	<1.0	<0.54	<0.54	<0.54	<0.54	<0.83	<0.83	<0.32	<0.8	<0.63
Total Xylenes	10,000	1,000	6.8	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8	<1.8	<0.67	<1.1	<0.69
Styrene	100	10	<0.30	<1.0	<0.37	<0.37	<0.37	<0.37	<0.86 &	<0.86	NA	NA	NA
Ethane	NS	NS	NA	NA	<1.8	<10	<13	<10	NA	<10	NA	NA	NA
Ethene	NS	NS	NA	NA	<2.3	<10	<13	<10	NA	<10	NA	NA	NA
Methane	NS	NS	NA	NA	26	24	22	35	NA	14	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):													
1-Methylnaphthalene	NS	NS	NA	NA	<0.044	<0.044	<0.044	<0.044	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	<3	<11	<0.049	<0.049	<0.049	<0.049	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	<4	<11	<0.20	<0.011	<0.011	<0.011	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	<5	<11	<0.18	<0.13	<0.13	<0.13	NA	NA	NA	NA	NA
Anthracene	3000	600	<5	<11	<0.0090	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	<5	21	<0.0088	<0.0087	<0.0087	<0.0087	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	<4	<11	<0.012	<0.012	<0.012	<0.012	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	<4	<11	<0.016	<0.016	<0.016	<0.016	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	<5	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	<4	<11	<0.0080	<0.0079	<0.0079	<0.0079	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	<5	66	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	<7	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	<5	**22**	<0.0090	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	<4	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Fluoranthene	400	80	<5	<11	<0.019	<0.019	<0.019	<0.019	NA	NA	NA	NA	NA
Fluorene	400	80	<4	<11	<0.020	<0.020	<0.020	<0.020	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	<4	<11	<0.0084	<0.0083	<0.0083	<0.0083	NA	NA	NA	NA	NA
Naphthalene	100	10	<5	<11	0.16 Q	<0.12	0.16 Q	<0.12	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	<5	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	<3	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	<3	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	<4	<11	<0.011	<0.011	<0.011	<0.011	NA	NA	NA	NA	NA
Pyrene	250	50	<4	<11	<0.13	<0.13	<0.13	<0.13	NA	NA	NA	NA	NA

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	PZ-02										
			5/20/93	9/7/94	5/13/99	10/5/99	12/9/99	4/4/00	4/18/05	10/20/06	9/18/07	9/24/12	10/21/13
RCRA Metals (mg/L)													
Antimony	0.006	0.0012	NA	NA	B(-0.0032)	0.00016 Q	<0.00020	<.00020	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	<0.001	<0.002	<0.0024	**(-0.00047)**	**(0.00038)**	**(0.00034)**	NA	NA	NA	NA	NA
Barium	2	0.4	0.114	0.17	0.15	0.15	0.16	0.17	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	<0.00043	<0.000070	<0.000070	<0.000070	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	<0.0002	<0.0030	<0.00017	(0.00013)	<0.000060	<0.000060	NA	NA	NA	NA	NA
Chromium	0.1	0.01	<0.002	<0.0044	0.001 Q	(0.00020)	(0.00012)	(0.00017)	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	<0.00094	0.00046 Q	<0.00025	(-0.0003)	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	**0.75**	**0.55**	**0.66**	**0.62**	NA	NA	NA	NA	NA
Lead	0.015	0.0015	<0.004	<0.025	<0.0028	<0.00015	<0.00015	<0.00015	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	0.019	0.019	0.021	0.021	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	<0.00020	**0.0014**	<0.000042	<0.000042	<0.000042	<0.000042	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	<0.0022	0.0028	0.0031	0.0033	NA	NA	NA	NA	NA
Selenium	0.05	0.01	<0.002	<0.001	<0.0023	<0.00064	<0.00064	(0.00083)	NA	NA	NA	NA	NA
Sliver	0.05	0.01	<0.001	<0.010	<0.00046	<0.000095	(-0.00041)	(0.00047)	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	11	9.8	10	11	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	<0.0013	<0.000093	<0.000093	<0.00093	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	0.009	0.0029 Q	-0.0048)	0.0047 Q	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):													
Aroclor-1016	NS	NS	NA	<1.0	<0.33	<0.33	<0.33	<0.33	NA	NA	NA	NA	<0.15
Aroclor-1221	NS	NS	NA	<2.0	<0.33	<0.33	<0.33	<0.33	NA	NA	NA	NA	<0.11
Aroclor-1232	NS	NS	NA	<1.0	<0.33	<0.33	<0.33	<0.33	NA	NA	NA	NA	<0.065
Aroclor-1242	NS	NS	NA	<1.0	<0.33	<0.33	<0.33	<0.33	NA	NA	NA	NA	<0.072
Aroclor-1248	NS	NS	NA	<1.0	<0.33	<0.33	<0.33	<0.33	NA	NA	NA	NA	<0.13
Aroclor-1254	NS	NS	NA	<1.0	<0.33	<0.33	<0.33	<0.33	NA	NA	NA	NA	<0.072
Aroclor-1260	NS	NS	NA	<1.0	<0.33	<0.33	<0.33	<0.33	NA	NA	NA	NA	<0.18
Total PCBs	0.03	0.003	NA	<2.0	<0.33	<0.33	<0.33	<0.33	NA	NA	NA	NA	<0.18
General Chemistry Parameters (mg/L)													
Alkalinity	increase of 100		NA	360	340	400	340	340	NA	NA	NA	NA	NA
Ammonia	NS	NS	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		NA	5.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	NA	24	24	26	27	26	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	NA	43	50	47	42	51	NA	NA	NA	NA	NA
TDS	increase of 200		NA	480	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	NA	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	470	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	NA	340	400	340	340	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	NA	<2.5	<1.9	<1.9	<3.8	NA	NA	NA	NA	NA
Conductance, specific (umhos/cm)	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	NA	<0.043	<0.043	<0.044	0.12 Q	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	NA	<0.090	0.43	<0.080	<0.080	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	NA	4	3.8	6.5	(0.67)	NA	NA	NA	NA	NA
Field Screening Measurements													
pH		lU	7.7	7.2	7.01	7.5	7.2	7.19	7.12	7.02	6.95	7.72	7.53
Conductivity		uS	625	500	711	725	728	722	704	721.6	725.4	659	453
Temperature		°C	10.4	13	10.5	10.1	9.3	9.1	10.4	9.7	10.2	10.73	10.37
Dissolved Oxygen		ppm	NA	NA	1.13	3.53	1.97	1.98	0.85	0.62	0.96	0.22	0.68
Redox Potential		mV	NA	NA	-68	-16	-57	-29	-41	-60	-34	-118.1	39.1

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-02A									
			9-6-94	5/11/99	9/29/99	12/7/99	3/30/00	4/18/05	10/20/06	9/18/07	9/24/12	10/24/13
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	**73**	**53**	**95**	**68**	**56 Q**	<20	<51	**90**	<50	**60 J**
t-Butylbenzene	NS	NS	<5.0	<0.50	<25	<2.5	<50	<48	<120	<17	<71	<36
Chloromethane	3	0.3								<50	<190	<81
2-Chlorotoluene	NS	NS	<5.0	<0.65	<32	3.7 Q	<65	<42	<110	<24.5	<70	<21
1,2-Dichloroethane	5	0.5	<5.0	**0.78 Q**	<27	<2.7	<54	<18	<45	<22.5	<50	<41
1,1-Dichloroethane	850	85	<5.0	31	44 Q	30	<61	<38	<94	70 J	<98	<30
1,1-Dichloroethene	7	0.7	<5.0	**6**	<23	**5.7 Q**	<47	<28	<71	<32	<60	<40
cis-1,2-Dichloroethene	70	7	<5.0	**8500 D**	**14,000 D**	**8,900 D**	**9,900**	**6,400**	**12,000**	**5,300**	**4000**	**5,800**
trans-1,2-Dichloroethene	100	20	<5.0	14	<32	5.3 Q	<64	<44	<110	<47.5	<79	<35
Ethylbenzene	700	140	18	58	52 Q	34	<50	<27	<68	94	109 J	66 J
Isopropylbenzene	NS	NS	<5.0	2.2	<20	<1.9	<39	<30	<74	<24	<92	<30
Methylene chloride	5	0.5	**31 B**	<0.38	<19	<1.9	<38	<22	<76	<34.5	<110	<50
Naphthalene	100	10	**18**	**56**	**140**	**38**	<59	<37	<92	<90	<210	<170
n-Propylbenzene	NS	NS	<5.0	3.4	<27	<2.7	<54	<40	<100	<19	<59	<25
Tetrachloroethene	5	0.5	**13**	**5.9**	<20	**2.3 Q**	<41	<22	<56	<26	<44	<33
Toluene	1,000	200	180	**340 D**	**430**	**270**	**300**	110	180 Q	**590**	**450**	**340**
1,1,1-Trichloroethane	200	40	<5.0	**64**	**67 Q**	35	<53	<45	<110	32 J	<85	39 J
Trichloroethene	5	0.5	**430**	**190 D**	**230**	**170**	**280**	**150**	**95 Q**	<30.5	<47	**63 J**
1,2,4-Trimethylbenzene	--	--	9.2	29	24 Q	18	<47	<48	<120	<60	<80	<220
1,3,5-Trimethylbenzene	--	--	<5.0	6.6	<22	4.7 Q	<45	<42	<100	<18.5	<74	<140
Total Trimethylbenzene	480	96	9.2	35.6	24	22.7	<47	<48	<120	<60	<80	<220
Vinyl Chloride	0.2	0.02	<5.0	**1.3 Q**	**55**	**120**	**190**	**580**	**420**	**2,470**	**1220**	**1,070**
Xylenes, m + p	--	--	44	130	140	98	100 Q	<90	<220	272	298 J	180 J
Xylene, o	--	--	28	78	80 Q	59	<54	<42	<100	150	161 J	100 J
Total Xylenes	10,000	1,000	72	208	220	157	100	<90	<220	422	459 J	280 J
Styrene	100	10	<5.0	**13**	<18	9.8	<37	<43 &	<110	NA	NA	NA
Ethane	NS	NS	NA	<2.3	<10	<10	<10	NA	81	NA	NA	NA
Ethene	NS	NS	NA	<1.8	<10	<10	<10	NA	<10	NA	NA	NA
Methane	NS	NS	NA	27	59	85	56	NA	190	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):												
1-Methylnaphthalene	NS	NS	NA	4.3 D	8.8 D	6.7	3.7	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	<12	7.4 D	11 D	9.9	5.1	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	<12	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	<12	<0.18	22 D	17	<0.18	NA	NA	NA	NA	NA
Anthracene	3000	600	<12	<0.0090	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	<12	<0.0088	<0.0087	<0.0087	<0.0087	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	<12	<0.012	<0.012	<0.012	<0.012	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	<12	<0.016	<0.016	<0.016	<0.016	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	<12	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	<12	<0.0080	<0.0079	<0.0079	<0.0079	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	<12	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	<12	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	<12	<0.0090	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	<12	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Fluoranthene	400	80	<12	<0.019	<0.019	<0.019	<0.019	NA	NA	NA	NA	NA
Fluorene	400	80	<12	0.41	0.75	0.52	<0.020	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	<12	<0.0084	<0.0083	<0.0083	<0.0083	NA	NA	NA	NA	NA
Naphthalene	100	10	**13**	**45 D**	**76 D**	**59**	**35**	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	**<12**	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	23	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	<12	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	<12	<0.011	<0.011	<0.011	<0.011	NA	NA	NA	NA	NA
Pyrene	250	50	<12	<0.013	<0.13	<0.13	<0.13	NA	NA	NA	NA	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-02A									
			9-6-94	5/11/99	9/29/99	12/7/99	3/30/00	4/18/05	10/20/06	9/18/07	9/24/12	10/24/13
RCRA Metals (mg/L)												
Antimony	0.006	0.0012	NA	<0.0019	0.0011	0.00028 Q	<0.00020	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	**0.006**	**0.0059 Q**	**(-0.00047)**	**0.011**	**0.0057**	NA	NA	NA	NA	NA
Barium	2	0.4	0.13	0.088	0.078	0.082	0.11	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	<0.00043	<0.000070	<0.000070	<0.000070	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	<0.0030	<0.00017	(0.00013)	<0.000060	<0.000060	NA	NA	NA	NA	NA
Chromium	0.1	0.01	**0.022**	0.0031	(0.00020)	(0.00048)	(-0.00008)	NA	NA	NA	NA	NA
Copper	1.3	0.13	**NA**	<0.00094	0.0017	0.0018	(-0.00041)	NA	NA	NA	NA	NA
Iron	0.3	0.15	**NA**	**3.1**	(0.0097)	**2.3**	**1**	NA	NA	NA	NA	NA
Lead	0.015	0.0015	<0.025	<0.0028	<0.00015	<0.00015	<0.00015	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	**0.077**	**0.062**	**0.067**	**0.038**	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	<0.0002	<0.000042	<0.000042	<0.000042	<0.000042	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	<0.0022	0.002	0.0025	0.0027	NA	NA	NA	NA	NA
Selenium	0.05	0.01	<0.001	<0.0023	<0.00064	0.0014 Q	0.0023	NA	NA	NA	NA	NA
Sliver	0.05	0.01	<0.010	<0.00046	<0.000095	<0.000095	<0.00010	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	11	11	12	18	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	<0.0013	<0.000093	<0.000093	<0.000093	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	0.00039	0.01	0.0073	0.0079	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):												
Aroclor-1016	NS	NS	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	<0.12
Aroclor-1221	NS	NS	<2.2	NA	NA	NA	NA	NA	NA	NA	NA	<0.086
Aroclor-1232	NS	NS	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	<0.050
Aroclor-1242	NS	NS	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	<0.055
Aroclor-1248	NS	NS	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	<0.10
Aroclor-1254	NS	NS	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	<0.055
Aroclor-1260	NS	NS	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	<0.14
Total PCBs	0.03	0.003	<2.2	NA	NA	NA	NA	NA	NA	NA	NA	<0.14
General Chemistry Parameters (mg/L)												
Alkalinity	increase of 100		660	490	60 H(1)	500	580	NA	NA	NA	NA	NA
Ammonia	NS	NS	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	18	19	1.7	22	20	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	100	72	19	100	110	NA	NA	NA	NA	NA
TDS	increase of 200		800	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	190	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		900	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	490	60 H(1)	500	580	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	<2.5	<1.9 H(1)	<1.9	<3.8	NA	NA	NA	NA	NA
Conductance, specific (umhos/cm)	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	<0.043	<0.043	<0.044	<0.044	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	0.33	0.63	0.38	0.59	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	0.91	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	6.9	11	0.76 Q	12	NA	NA	NA	NA	NA
Field Screening Measurements												
pH		IU	6.98	6.79	7.09	6.92	6.83	684	6.7	6.89	7.17	6.75
Conductivity		uS	1446	870	996	1021	1098	1015	1007	983.6	973	1679
Temperature		°C	10	11.1	10.6	9	10.6	11.4	10.4	10.4	10.9	11.29
Dissolved Oxygen		ppm	NA	1.84	1.41	1.73	1.7	2.87	2.75	--	1.23	3.15
Redox Potential		mV	NA	-66	0.26	-54	-39	-53	-81	-53	-127.8	77.3

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-03										
			5/20/93	9-6-94	5/11/99	9/29/99	12/7/99	3/30/00	4/15/05	10/20/06	9/18/07	9/24/12	10/24/13
Volatile Organic Compounds (VOCs) (µg/L):													
Benzene	5	0.5	<1.5	<5.0	<0.44	<0.44	<0.44	<0.44	<0.41	<0.41	<2.35	<0.5	<0.24
t-Butylbenzene	NS	NS	<2.8	<5.0	<0.50	<0.50	<0.50	<0.50	<0.97	<0.97	<1.7	<0.71	<0.36
Chloromethane	3	0.3									<5	<1.9	<0.81
2-Chlorotoluene	NS	NS	<1.9	<5.0	<0.65	<0.65	<0.65	<0.65	<0.85	<0.85	<2.45	<0.7	<0.21
1,2-Dichloroethane	5	0.5	<1.9	<5.0	<0.54	<0.54	<0.54	<0.54	<0.36	<0.36	<2.25	<0.5	<0.41
1,1-Dichloroethane	850	85	<1.7	<5.0	<0.61	0.72 Q	<0.61	<0.61	<0.75	<0.75	<2.8	<0.98	0.32 J
1,1-Dichloroethene	7	0.7	<3.9	<5.0	<0.47	<0.47	<0.47	<0.47	<0.57	<0.57	<3.2	<0.6	<0.4
cis-1,2-Dichloroethene	70	7	**100**	**230**	**140**	**180 D**	**100**	**89**	**130**	**170**	**88**	**68**	**85**
trans-1,2-Dichloroethene	100	20	<1.8	<5.0	<0.64	<0.64	<0.64	<0.64	<0.89	<0.89	<4.75	<0.79	<0.35
Ethylbenzene	700	140	<2.2	<5.0	<0.50	<0.50	<0.50	<0.50	<0.54	<0.54	<1.9	<0.78	<0.55
Isopropylbenzene	NS	NS	<2.6	<5.0	<0.39	<0.39	<0.39	<0.39	<0.59	<0.59	<2.4	<0.92	<0.3
Methylene chloride	5	0.5	<2.3	**30 B**	<0.38	<0.38	<0.38	<0.38	<0.43	<0.43	<3.45	<1.1	<0.5
Naphthalene	100	10	<1.7	<5.0	<0.59	<0.59	<0.59	<0.59	<0.74	<0.74	<9	<2.1	<1.7
n-Propylbenzene	NS	NS	<2.7	<5.0	<0.54	<0.54	<0.54	<0.54	<0.81	<0.81	<1.9	<0.59	<0.25
Tetrachloroethene	5	0.5	<2.6	<5.0	<0.41	**0.73 Q**	<0.41	0.43 Q	<0.45	<0.45	<2.6	<0.44	0.39 J
Toluene	1,000	200	<1.5	8.6	<0.40	<0.40	<0.40	<0.40	<0.67	<0.67	<2.3	<0.53	<0.69
1,1,1-Trichloroethane	200	40	<1.5	<5.0	10	13	7.1	8.7	8.0	8.9	5.3 J	5.4	5.8
Trichloroethene	5	0.5	**570**	**240**	**180**	**220 D**	**170**	**120**	**88**	**140**	**78**	**58**	**57**
1,2,4-Trimethylbenzene	--	--	<2.4	<5.0	<0.47	<0.47	<0.47	<0.47	<0.97	<0.97	<6	<0.8	<2.2
1,3,5-Trimethylbenzene	--	--	<2.4	<5.0	<0.45	<0.45	<0.45	<0.45	<0.83	<0.83	<1.85	<0.74	<1.4
Total Trimethylbenzene	480	96	<2.4	<5.0	<0.47	<0.47	<0.47	<0.47	<0.97	<0.97	<6	<0.8	<2.2
Vinyl Chloride	0.2	0.02	<1.6	<5.0	<0.17	<0.17	<0.17	<0.17	<0.18	<0.18	<1	<0.18	<0.18
Xylenes, m + p	--	--	<4.1	<10	<0.77	<0.77	<0.77	<0.77	<1.8	<1.8	<3.35	<1.1	<0.69
Xylene, o	--	--	<2.1	<5.0	<0.54	<0.54	<0.54	<0.54	<0.83	<0.83	<1.6	<0.8	<0.63
Total Xylenes	10,000	1,000	<4.1	<10	<0.77	<0.77	<0.77	<0.77	<1.8	<1.8	<3.35	<1.1	<0.69
Styrene	100	10	<1.5	<5.0	<0.37	<0.37	<0.37	<0.37	<0.86	<0.86	NA	NA	NA
Ethane	NS	NS	NA	NA	<2.3	<10	<10	<10	NA	<10	NA	NA	NA
Ethene	NS	NS	NA	NA	<1.8	<10	<10	<10	NA	<10	NA	NA	NA
Methane	NS	NS	NA	NA	<0.9	<10	<10	<10	NA	<10	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):													
1-Methylnaphthalene	NS	NS	NA	NA	<0.044	<0.044	<0.044	<0.044	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	<3	<11	<0.049	<0.049	<0.049	<0.049	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	<4	<11	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	<5	<11	<0.18	<0.18	<0.18	<0.18	NA	NA	NA	NA	NA
Anthracene	3000	600	<5	<11	<0.0090	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	<5	<11	<0.0088	<0.0087	<0.0087	<0.0087	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	<4	<11	<0.012	<0.012	<0.012	<0.012	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	<4	<11	<0.016	<0.016	<0.016	<0.016	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	<5	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	<4	<11	<0.0080	<0.0079	<0.0079	<0.0079	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	<5	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	8	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	<5	<11	<0.0090	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	<4	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Fluoranthene	400	80	<5	<11	<0.019	<0.019	<0.019	<0.019	NA	NA	NA	NA	NA
Fluorene	400	80	<4	<11	<0.02	<0.020	<0.020	<0.020	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	<4	<11	<0.0084	<0.0083	<0.0083	<0.0083	NA	NA	NA	NA	NA
Naphthalene	100	10	<5	<11	<0.12	<0.12	<0.12	<0.12	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	<5	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	<3	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	<3	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	<4	<11	<0.011	<0.011	<0.011	<0.011	NA	NA	NA	NA	NA
Pyrene	250	50	<4	<11	<0.013	<0.13	<0.13	<0.13	NA	NA	NA	NA	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-03										
			5/20/93	9-6-94	5/11/99	9/29/99	12/7/99	3/30/00	4/15/05	10/20/06	9/18/07	9/24/12	10/24/13
RCRA Metals (mg/L)													
Antimony	0.006	0.0012	NA	NA	B(-0.0032)	**0.0012**	0.00092	<0.00020	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	<0.002	<0.0024	**(-0.00047)**	0.00061 Q	<0.00020	NA	NA	NA	NA	NA
Barium	2	0.4	NA	0.054	0.032	0.0333	0.035	0.033	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	<0.00043	0.00011 Q	<0.000070	<0.000070	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	<0.0030	<0.00017	(0.00013)	<0.000060	0.000090 Q	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	0.006	0.0027	(0.00020)	(0.00048)	(-0.00008)	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	<0.00094	0.0024	0.0036	(-0.00041)	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	<0.027	(0.0097)	<0.0037	0.013	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	<0.025	<0.0028	**0.0026 Q**	**0.00026 Q**	0.00023 Q	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	0.002	0.0073	0.00036	0.0013	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	**0.0023**	<0.000042	<0.000042	<0.000042	<0.000042	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	0.0027 Q	0.0019	0.0024	0.0018	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	<0.001	<0.0023	0.0015 Q	0.0018 QMS	0.00095 W	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	<0.010	<0.00046	<0.000095	<0.000095	<0.00010	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	4.6	4	4.5	4.5	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	<0.0013	<0.000093	<0.000093	<0.0093	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	0.0059	0.0083	0.0082	0.0093	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):													
Aroclor-1016	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	NA	<2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	<2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)													
Alkalinity	increase of 100		NA	440	410	390 H(1)	410	390	NA	NA	NA	NA	NA
Ammonia	NS	NS	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		NA	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	NA	12	14	13	7.9	7	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	NA	110	44	43	60	52	NA	NA	NA	NA	NA
TDS	increase of 200		NA	740	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	NA	930	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	640	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	NA	410	390 H(1)	410	390	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	NA	<2.5	<1.9 H(1)	<1.9	<1.9	NA	NA	NA	NA	NA
Conductance, specific (umhos/cm)	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	NA	<0.043	<0.043	<0.044	.051 Q	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	NA	9.8	17	15	11 H(0.15)	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	NA	21	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	NA	3.7	6.5	4.9	(0.67)	NA	NA	NA	NA	NA
Field Screening Measurements													
pH		IU	7.5	7.93	6.97	7.09	7.06	6.8	6.84	7.03	6.88	7.09	6.78
Conductivity		uS	976	1057	846	894	894	836	882	895.3	767	781	818
Temperature		°C	9.8	13.3	12.1	10.6	10.1	11	10.6	9.5	10.2	10.8	11.4
Dissolved Oxygen		ppm	NA	NA	6.11	8.55	8.56	8.01	5.13	8.2	--	4.01	7.23
Redox Potential		mV	NA	NA	53	140	139	81	116	97	103	-28.9	99.6

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	PZ-03										
			5/20/93	9-6-94	5/11/99	9/29/99	12/7/99	3/30/00	4/15/05	10/20/06	9/18/07	9/24/12	10/24/13
Volatile Organic Compounds (VOCs) (µg/L):													
Benzene	5	0.5	<0.30	<1.0	<0.44	<0.44	<0.44	<0.44	<0.41	<0.41	<0.47	<0.5	0.44 J
t-Butylbenzene	NS	NS	<0.56	<1.0	<0.50	<0.50	<0.50	<0.50	<0.97	<0.97	<0.34	<0.71	<0.36
Chloromethane	3	0.3									<1	<1.9	<0.81
2-Chlorotoluene	NS	NS	<0.37	<1.0	<0.65	<0.65	<0.65	<0.65	<0.85	<0.85	<0.49	<0.7	<0.21
1,2-Dichloroethane	5	0.5	<0.38	<1.0	<0.54	<0.54	<0.54	<0.54	<0.36	<0.36	<0.45	<0.5	<0.41
1,1-Dichloroethane	850	85	<0.34	<1.0	<0.61	<0.61	<0.61	<0.61	<0.75	<0.75	<0.56	<0.98	<0.3
1,1-Dichloroethene	7	0.7	<0.78	<1.0	<0.47	<0.47	<0.47	<0.47	<0.57	<0.57	<0.64	<0.6	<0.4
cis-1,2-Dichloroethene	70	7	<0.39	**9.4**	<0.46	<0.46	<0.46	0.47 Q	<0.83	0.84 Q	<0.68	<0.74	<0.38
trans-1,2-Dichloroethene	100	20	<0.35	<1.0	<0.64	<0.64	<0.64	<0.64	<0.89	<0.89	<0.95	<0.79	<0.35
Ethylbenzene	700	140	<0.44	<1.0	<0.50	<0.50	<0.50	<0.50	<0.54	<0.54	<0.38	<0.78	<0.55
Isopropylbenzene	NS	NS	<0.51	<1.0	<0.39	<0.39	<0.39	<0.39	<0.59	<0.59	<0.48	<0.92	<0.3
Methylene chloride	5	0.5	<0.45	**5.3 B**	<0.38	<0.38	<0.38	<0.38	<0.43	<0.43	<0.69	<1.1	<0.5
Naphthalene	100	10	<0.34	<1.0	<0.59	<0.59	<0.59	<0.59	<0.74	<0.74	<1.8	<2.1	<1.7
n-Propylbenzene	NS	NS	<0.54	<1.0	<0.54	<0.54	<0.54	<0.54	<0.81	<0.81	<0.38	<0.59	<0.25
Tetrachloroethene	5	0.5	<0.52	<1.0	<0.41	<0.41	<0.41	<0.41	<0.45	<0.45	<0.52	<0.44	<0.33
Toluene	1,000	200	1.1	1.3	<0.40	<0.40	<0.40	<0.40	<0.67	<0.67	<0.46	<0.53	<0.69
1,1,1-Trichloroethane	200	40	<0.30	<1.0	<0.53	<0.53	<0.53	<0.53	<0.90	<0.90	<0.5	<0.85	<0.33
Trichloroethene	5	0.5	**8.4**	**2.8**	<0.49	<0.49	**1.6**	**1.1 Q**	<0.48	<0.48	<0.44	<0.47	<0.33
1,2,4-Trimethylbenzene	--	--	<0.47	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97	<0.97	<1.2	<0.8	<2.2
1,3,5-Trimethylbenzene	--	--	<0.47	<1.0	<0.45	<0.45	<0.45	<0.45	<0.83	<0.83	<0.37	<0.74	<1.4
Total Trimethylbenzene	480	96	<0.47	<1.0	<0.47	<.47	<0.47	<0.47	<0.97	<0.97	<1.2	<0.8	<2.2
Vinyl Chloride	0.2	0.02	<0.32	<1.0	<0.17	<0.17	<0.17	<0.17	<0.18	<0.18	<0.2	<0.18	<0.18
Xylenes, m + p	--	--	<0.81	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8	<1.8	<0.67	<1.1	<0.69
Xylene, o	--	--	<0.41	<1.0	<0.54	<0.54	<0.54	<0.54	<0.83	<0.83	<0.32	<0.8	<0.63
Total Xylenes	10,000	1,000	<0.81	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8	<1.8	<0.67	<1.1	<0.69
Styrene	100	10	<0.30	<1.0	<0.37	<0.37	<0.37	<0.37	<0.86	<0.86	NA	NA	NA
Ethane	NS	NS	NA	NA	<2.3	<10	<10	<10	NA	<10	NA	NA	NA
Ethene	NS	NS	NA	NA	<1.8	<10	<10	<10	NA	<10	NA	NA	NA
Methane	NS	NS	NA	NA	1.3	<10	<10	<10	NA	<10	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):													
1-Methylnaphthalene	NS	NS	NA	NA	<0.044	<0.044	<0.044	<0.044	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	<3	<11	<0.049	<0.049	<0.049	<0.049	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	<4	<11	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	<5	<11	<0.18	<0.18	<0.18	<0.18	NA	NA	NA	NA	NA
Anthracene	3000	600	<5	<11	<0.0090	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	<5	<11	<0.0088	<0.0087	<0.0087	<0.0087	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	<4	<11	<0.012	<0.012	<0.012	<0.012	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	<4	<11	<0.016	<0.016	<0.016	<0.016	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	<5	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	<4	<11	<0.0080	<0.0079	<0.0079	<0.0079	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	<5	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	<7	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	<5	<11	<0.0090	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	<4	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Fluoranthene	400	80	<5	<11	<0.019	<0.019	<0.019	<0.019	NA	NA	NA	NA	NA
Fluorene	400	80	<4	<11	<0.02	<0.020	<0.020	<0.020	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	<4	<11	<0.0084	<0.0083	<0.0083	<0.0083	NA	NA	NA	NA	NA
Naphthalene	100	10	<5	<11	<0.12	<0.12	<0.12	<0.12	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	<5	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	<3	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	<3	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	<4	<11	<0.011	<0.011	<0.011	<0.011	NA	NA	NA	NA	NA
Pyrene	250	50	<4	<11	<0.013	<0.13	<0.13	<0.13	NA	NA	NA	NA	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	PZ-03										
			5/20/93	9-6-94	5/11/99	9/29/99	12/7/99	3/30/00	4/15/05	10/20/06	9/18/07	9/24/12	10/24/13
RCRA Metals (mg/L)													
Antimony	0.006	0.0012	NA	NA	B(-0.0032)	0.00027 Q	<0.00020	<0.0020	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	<0.002	<0.0024	**(-0.47)**	**0.0019**	**0.0017**	NA	NA	NA	NA	NA
Barium	2	0.4	NA	0.086	0.18	0.19	0.19	0.19	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	<0.00043	<0.000070	<0.000070	<0.000070	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	<0.0030	<0.00017	(0.00013)	<0.000060	0.000090 Q	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	0.006	<0.00053	(0.00020)	(0.00048)	(-0.00008)	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	<0.00094	0.00073 Q	0.00092	(-0.00041)	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	0.14	(0.0097)	0.023	0.033	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	<0.025	<0.0028	0.00028 Q	<0.00015	<0.00015	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	**0.056**	**0.058**	**0.065**	**0.06**	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	**0.0021**	<0.000042	<0.000042	<0.000042	<0.000042	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	<0.0022	0.00056	0.00093	0.00056	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	<0.001	<0.0023	<0.00064	0.00097 Q	0.00079 Q	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	<0.010	B(0.00056)	<0.000095	<0.00005	<0.00010	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	9.1	8.7	9.5	9	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	<0.0013	<0.000093	<0.000093	<0.000093	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	<0.00089	0.00.7 Q	0.0068	0.0042 Q	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):													
Aroclor-1016	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	NA	<2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	NA	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	<2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)													
Alkalinity	increase of 100		NA	300	320	310 H(1)	330	310	NA	NA	NA	NA	NA
Ammonia	NS	NS	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		NA	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	NA	7.3	7.4	7.2	8.7	8	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	NA	27	30	30	30	31	NA	NA	NA	NA	NA
TDS	increase of 200		NA	320	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	NA	18	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	640	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	NA	320	310 H(1)	330	310	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	NA	<2.5	<1.9 H(1)	<1.9	<1.9	NA	NA	NA	NA	NA
Conductance, specific (umhos/cm)	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	NA	<0.043	<0.043	<0.044	<0.044	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	NA	<0.090	<0.090	<0.080	(0.09)	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	NA	<0.037	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	NA	<0.33	2	<0.50	1.5	NA	NA	NA	NA	NA
Field Screening Measurements													
pH		lU	7.8	7.99	7.33	7.7	7.69	7.48	7.41	7.59	7.15	8.02	6.63
Conductivity		uS	519	567	586	584	587	588	NA	614.9	619.7	591	669
Temperature		°C	10.8	8.3	10.9	10.6	8.2	10.6	9.6	9.4	11.6	10.89	10.29
Dissolved Oxygen		ppm	NA	NA	0.99	2.54	2.66	2.23	NA	1.95	1.58	0.24	0.84
Redox Potential		mV	NA	NA	101	224	239	-60	NA	0	-22	-134.8	81.3

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-05									
			9/7/94	5/19/99	9/30/99	12/8/99	3/30/00	4/18/05	10/18/06	9/21/07	9/26/12	10/24/13
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	<1.0	<0.44	<0.44	<0.44	<0.44	<0.41	<0.41	<0.47	<0.5	<0.24
t-Butylbenzene	NS	NS	<1.0	<0.50	<0.50	<0.50	<0.50	<0.97	<0.97	<0.34	<0.71	<0.36
Chloromethane	3	0.3								<1	<1.9	<0.81
2-Chlorotoluene	NS	NS	<1.0	<0.65	<0.65	<0.65	<0.65	<0.85	<0.85	<0.49	<0.7	<0.21
1,2-Dichloroethane	5	0.5	<1.0	<0.54	<0.54	<0.54	<0.54	<0.36	<0.36	<0.45	<0.5	<0.41
1,1-Dichloroethane	850	85	<1.0	<0.61	<0.61	<0.61	<0.61	<0.75	<0.75	<0.56	<0.98	<0.3
1,1-Dichloroethene	7	0.7	<1.0	<0.47	<0.47	<0.47	<0.47	<0.57	<0.57	<0.64	<0.6	<0.4
cis-1,2-Dichloroethene	70	7	**7.8**	**16**	**18**	**18**	**14**	**30**	**40**	**38**	**41**	**49**
trans-1,2-Dichloroethene	100	20	<1.0	<0.64	<0.64	<0.64	<0.64	<0.89	<0.89	<0.95	<0.79	<0.35
Ethylbenzene	700	140	<1.0	<0.50	<0.50	<0.50	<0.50	<0.54	<0.54	<0.38	<0.78	<0.55
Isopropylbenzene	NS	NS	<1.0	<0.39	<0.39	<0.39	<0.39	<0.59	<0.59	<0.48	<0.92	<0.3
Methylene chloride	5	0.5	**5.7 B**	<0.38	<0.38	<0.38	<0.38	<0.43	<0.43	<0.69	<1.1	<0.5
Naphthalene	100	10	<1.0	<0.59	<0.59	<0.59	<0.59	<0.74	<0.74	<1.8	<2.1	<1.7
n-Propylbenzene	NS	NS	<1.0	<0.54	<0.54	<0.54	<0.54	<0.81	<0.81	<0.38	<0.59	<0.25
Tetrachloroethene	5	0.5	<1.0	<0.41	<0.41	<0.41	<0.41	<0.45	<0.45	<0.52	<0.44	<0.33
Toluene	1,000	200	<1.0	<0.40	<0.40	0.66 Q	<0.40	<0.67	<0.67	<0.46	<0.53	<0.69
1,1,1-Trichloroethane	200	40	<1.0	<0.53	<0.53	<0.53	<0.53	<0.90	<0.90	<0.5	<0.85	<0.33
Trichloroethene	5	0.5	**2.2**	**1.5 Q**	**1.9**	**1.8**	**1.7**	<0.48	**1.5 Q**	**1.76**	**1.53**	**1.6**
1,2,4-Trimethylbenzene	--	--	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97	<0.97	<1.2	<0.8	<2.2
1,3,5-Trimethylbenzene	--	--	<1.0	<0.45	<0.45	<0.45	<0.45	<0.83	<0.83	<0.37	<0.74	<1.4
Total Trimethylbenzene	480	96	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97	<0.97	<1.2	<0.8	<2.2
Vinyl Chloride	0.2	0.02	<1.0	**1.5 Q**	**1.7**	**1.3**	**1.3**	**2.5**	**4.4**	**3.6**	**1.93**	**2.29**
Xylenes, m + p	--	--	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8	<1.8	<0.67	<1.1	<0.69
Xylene, o	--	--	<1.0	<0.54	<0.54	<0.54	<0.54	<0.83	<0.83	<0.32	<0.8	<0.63
Total Xylenes	10,000	1,000	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8	<1.8	<0.67	<1.1	<0.69
Styrene	100	10	<1.0	<0.37	<0.37	<0.37	<0.37	<0.86	<0.86	NA	NA	NA
Ethane	NS	NS	NA	<10	<10	<10	<10	NA	<10	NA	NA	NA
Ethene	NS	NS	NA	<10	<10	<10	<10	NA	<10	NA	NA	NA
Methane	NS	NS	NA	<10	50	20	40	NA	35	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):												
1-Methylnaphthalene	NS	NS	NA	<0.044	<0.044	<0.044	<0.044	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	<11	<0.049	<0.049	<0.049	<0.049	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	<11	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	<11	<0.18	<0.18	<0.18	<0.18	NA	NA	NA	NA	NA
Anthracene	3000	600	<11	<0.0089	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	<11	<0.0087	<0.0087	<0.0087	<0.0087	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	<11	<0.012	<0.012	<0.012	<0.012	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	<11	<0.016	<0.016	<0.016	<0.016	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	<11	<0.0079	<0.0079	<0.0079	<0.0079	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	<11	<0.0089	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Fluoranthene	400	80	<11	<0.019	<0.019	<0.019	<0.019	NA	NA	NA	NA	NA
Fluorene	400	80	<11	<0.020	<0.020	<0.020	<0.020	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	<11	<0.0083	<0.0083	<0.0083	<0.0083	NA	NA	NA	NA	NA
Naphthalene	100	10	<11	0.24	0.24	0.24	<0.12	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	<11	<0.011	<0.011	<0.011	<0.011	NA	NA	NA	NA	NA
Pyrene	250	50	<11	<0.13	<0.13	<0.13	<0.13	NA	NA	NA	NA	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-05									
			9/7/94	5/19/99	9/30/99	12/8/99	3/30/00	4/18/05	10/18/06	9/21/07	9/26/12	10/24/13
RCRA Metals (mg/L)												
Antimony	0.006	0.0012	NA	B(-0.0032)	<0.00016	**0.0013**	<0.00020	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	<0.002	<0.0024	**(-0.00047)**	**(0.00035)**	0.00064	NA	NA	NA	NA	NA
Barium	2	0.4	0.13	0.098	0.1	0.11	0.1	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	<0.00043	<0.000070	0.00029	<0.000070	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	<0.0030	B(-0.00020)	(0.00013)	0.00031	0.000060 Q	NA	NA	NA	NA	NA
Chromium	0.1	0.01	**0.013**	<0.00053	(0.00020)	(0.00012)	(-0.00008)	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	0.0011 Q	0.0015	0.00067 Q	(-0.00041)	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	**0.19**	(0.0097)	(0.022)	0.12	NA	NA	NA	NA	NA
Lead	0.015	0.0015	<0.025	<0.0028	<0.00015	0.00027 Q	<0.00015	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	**0.07**	**0.06**	**0.063**	**0.062**	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	**0.0024**	<0.000042	<0.000042	<0.000042	<0.000042	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	<0.0022	0.0017	0.0018	0.0016	NA	NA	NA	NA	NA
Selenium	0.05	0.01	<0.001	<0.0023	<0.00064	0.0014 Q	0.0014 Q	NA	NA	NA	NA	NA
Sliver	0.05	0.01	<0.010	<0.00046	<0.000095	(-0.0004)	<0.00010	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	44	38	34	34	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	**0.0017 Q**	<0.000093	0.00028 Q	<0.000093	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	<0.00089	0.0023 Q	(-0.0048)	0.0045 Q	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):												
Aroclor-1016	NS	NS	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)												
Alkalinity	increase of 100		320	320	370	350	340	NA	NA	NA	NA	NA
Ammonia	NS	NS	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		<2	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		10.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	**190**	51	50	44	44	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	46	56	67	70	68	NA	NA	NA	NA	NA
TDS	increase of 200		720	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	57	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		450	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	320	370	350	340	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	<2.5	<1.9	<1.9	<1.9	NA	NA	NA	NA	NA
Conductance, specific (umhos/cm)	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	<0.043	<0.043	<0.044	<0.044	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	<0.090	<0.090	<0.080	<0.080	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	<0.037	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	2.8	2.4	1.4 Q	(0.67)	NA	NA	NA	NA	NA
Field Screening Measurements												
pH		IU	7.2	6.76	7.39	7.19	7.01	7.04	7.07	6.96	6.8	7.05
Conductivity		uS	800	818	827	836	807	824	840.2	798.6	801	858
Temperature		°C	12	10	12.8	10.1	9.6	7.2	10.8	13.5	12.28	11.5
Dissolved Oxygen		ppm	NA	1.59	0.58	0.66	0.98	2.7	1.03	0.98	0.21	0.27
Redox Potential		mV	NA	0	28	16	533	-52	-66	131	-78.8	69.4

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	PZ-05A									
			9/7/94	5/19/99	9/30/99	12/8/99	3/30/00	4/18/05	10/18/06	9/21/07	9/26/12	10/24/13
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	**1.0**	<0.44	<0.44	<0.44	<0.44	<0.41	<0.41	<0.47	<0.5	<0.24
t-Butylbenzene	NS	NS	<1.0	<0.50	<0.50	<0.50	<0.50	<0.97	<0.97	<0.34	<0.71	<0.36
Chloromethane	3	0.3								<1	<1.9	**1.1 J**
2-Chlorotoluene	NS	NS	<1.0	<0.65	<0.65	<0.65	<0.65	<0.85	<0.85	<0.49	<0.7	<0.21
1,2-Dichloroethane	5	0.5	<1.0	<0.54	<0.54	<0.54	<0.54	<0.36	<0.36	<0.45	<0.5	<0.41
1,1-Dichloroethane	850	85	<1.0	<0.61	<0.61	<0.61	<0.61	<0.75	<0.75	<0.56	<0.98	<0.3
1,1-Dichloroethene	7	0.7	<1.0	<0.47	<0.47	<0.47	<0.47	<0.57	<0.57	<0.64	<0.6	<0.4
cis-1,2-Dichloroethene	70	7	**15**	0.70 Q	1.0 Q	2.8	0.93 Q	<0.83	<0.83	<0.68	<0.74	<0.38
trans-1,2-Dichloroethene	100	20	<1.0	<0.64	<0.64	<0.64	<0.64	<0.89	<0.89	<0.95	<0.79	<0.35
Ethylbenzene	700	140	<1.0	<0.50	<0.50	<0.50	<0.50	<0.54	<0.54	<0.38	<0.78	<0.55
Isopropylbenzene	NS	NS	<1.0	<0.39	<0.39	<0.39	<0.39	<0.59	<0.59	<0.48	<0.92	<0.3
Methylene chloride	5	0.5	**5.9 B**	<0.38	<0.38	<0.38	<0.38	<0.43	<0.43	<0.69	<1.1	<0.5
Naphthalene	100	10	<1.0	<0.59	<0.59	<0.59	<0.59	<0.74	<0.74	<1.8	<2.1	<1.7
n-Propylbenzene	NS	NS	<1.0	<0.54	<0.54	<0.54	<0.54	<0.81	<0.81	<0.38	<0.59	<0.25
Tetrachloroethene	5	0.5	<1.0	<0.41	<0.41	<0.41	<0.41	<0.45	<0.45	<0.52	<0.44	<0.33
Toluene	1,000	200	<1.0	<0.40	<0.40	<0.40	<0.40	<0.67	<0.67	<0.46	<0.53	<0.69
1,1,1-Trichloroethane	200	40	<1.0	<0.53	<0.53	<0.53	<0.53	<0.90	<0.90	<0.5	<0.85	<0.33
Trichloroethene	5	0.5	**5.9**	**0.84 Q**	**0.96 Q**	**1.2 Q**	**1.2 Q**	<0.48	<0.48	0.46 J	<0.47	<0.33
1,2,4-Trimethylbenzene	--	--	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97	<0.97	<1.2	<0.8	<2.2
1,3,5-Trimethylbenzene	--	--	<1.0	<0.45	<0.45	<0.45	<0.45	<0.83	<0.83	<0.37	<0.74	<1.4
Total Trimethylbenzene	480	96	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97	<0.97	<1.2	<0.8	<2.2
Vinyl Chloride	0.2	0.02	**9.8**	<0.17	**1.2**	**0.57**	<0.17	<0.18	<0.18	<0.2	<0.18	<0.18
Xylenes, m + p	--	--	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8	<1.8	<0.67	<1.1	<0.69
Xylene, o	--	--	<1.0	<0.54	<0.54	<0.54	<0.54	<0.83	<0.83	<0.32	<0.8	<0.63
Total Xylenes	10,000	1,000	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8	<1.8	<0.67	<1.1	<0.69
Styrene	100	10	<1.0	<0.37	<0.37	<0.37	<0.37	<0.86	<0.86	NA	NA	NA
Ethane	NS	NS	NA	<10	<10	<10	<10	NA	<10	NA	NA	NA
Ethene	NS	NS	NA	<10	<10	<10	<10	NA	<10	NA	NA	NA
Methane	NS	NS	NA	<10	18	11	19	NA	<10	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):												
1-Methylnaphthalene	NS	NS	NA	<0.044	<0.044	<0.044	<0.044	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	<11	<0.049	<0.049	<0.049	<0.049	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	<11	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	<11	<0.18	<0.18	<0.18	<0.18	NA	NA	NA	NA	NA
Anthracene	3000	600	<11	<0.0089	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	<11	<0.0087	<0.0087	<0.0087	<0.0087	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	<11	<0.012	<0.012	<0.012	<0.012	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	<11	<0.016	<0.016	<0.016	<0.016	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	<11	<0.0079	<0.0079	<0.0079	<0.0079	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	<11	<0.0089	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Fluoranthene	400	80	<11	<0.019	<0.019	<0.019	<0.019	NA	NA	NA	NA	NA
Fluorene	400	80	<11	<0.020	<0.020	<0.020	<0.020	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	<11	<0.0083	<0.0083	<0.0083	<0.0083	NA	NA	NA	NA	NA
Naphthalene	100	10	<11	<0.12	0.17 Q	0.17 Q	<0.12	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	<11	<0.011	<0.011	<0.011	<0.011	NA	NA	NA	NA	NA
Pyrene	250	50	<11	<0.13	<0.13	<0.13	<0.13	NA	NA	NA	NA	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	PZ-05A									
			9/7/94	5/19/99	9/30/99	12/8/99	3/30/00	4/18/05	10/18/06	9/21/07	9/26/12	10/24/13
RCRA Metals (mg/L)												
Antimony	0.006	0.0012	NA	<0.0019	<0.00016	0.0011	**0.0012**	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	<0.002	<0.0024	**(-0.00047)**	**(0.00038)**	**(0.00034)**	NA	NA	NA	NA	NA
Barium	2	0.4	0.13	0.12	0.12	0.12	0.021	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	B(0.00045)	<0.000070	0.00022	0.00021 Q	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	<0.0030	B(-0.00020)	(0.00013)	<0.000060	**0.0029**	NA	NA	NA	NA	NA
Chromium	0.1	0.01	<0.0044	0.00069 Q	(0.00020)	(0.00012)	(0.00017)	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	<0.00094	0.00081	0.00084	(-0.0003)	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	**0.63**	**0.67**	**0.64**	(-0.024)	NA	NA	NA	NA	NA
Lead	0.015	0.0015	<0.025	<0.0028	<0.00015	0.00040 Q	0.00025 Q	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	**0.072**	**0.064**	**0.073**	0.00024	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	**0.0023**	<0.000042	<0.000042	<0.000042	<0.000042	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	<0.0022	0.00097	0.0011	0.00040 Q	NA	NA	NA	NA	NA
Selenium	0.05	0.01	<0.001	<0.0023	<0.00064	0.00086 Q	(0.00083)	NA	NA	NA	NA	NA
Sliver	0.05	0.01	<0.010	<0.00046	0.00029 Q	(-0.00041)	(0.00047)	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	14	13	13	0.51	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	<0.0011	<0.000093	0.00025 Q	0.00019 Q	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	<0.00089	0.0032 Q	(-0.0048)	0.013	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):												
Aroclor-1016	NS	NS	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)												
Alkalinity	increase of 100		39	340	420	370	370	NA	NA	NA	NA	NA
Ammonia	NS	NS	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		<2	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		7.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	26	26	27	22	26	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	39	31	38	37	40	NA	NA	NA	NA	NA
TDS	increase of 200		500	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	12	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		510	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	340	420	370	370	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	<2.5	<1.9	<1.9	<3.8	NA	NA	NA	NA	NA
Conductance, specific (umhos/cm)	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	<0.043	<0.043	<0.044	<0.044	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	<0.090	<0.090	<0.080	<0.080	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	<0.037	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	4.3	4.1	3.6	4.5 A(0.67)	NA	NA	NA	NA	NA
Field Screening Measurements												
pH		IU	7	6.87	7.4	7.15	7.04	7.11	7.18	7	6.99	7.16
Conductivity		uS	500	719	732	746	728	731	727.1	700.2	705	763
Temperature		°C	11	10.2	10.9	9.2	10.6	10	9.6	10.7	10.11	10.25
Dissolved Oxygen		ppm	NA	1.96	1.21	1.2	1.01	1.09	1.26	1.6	0.16	0.3
Redox Potential		mV	NA	-66	-38	-44	-40	-48	-59	118	-110.1	55.9

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	PZ-05B									
			9/7/94	5/19/99	9/30/99	12/8/99	3/30/00	4/18/05	10/18/06	9/21/07	9/26/12	10/24/13
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	<1.0	<0.44	<0.44	<0.44	<0.44	<0.41	<0.41	<0.47	<0.5	<0.24
t-Butylbenzene	NS	NS	<1.0	<0.50	<0.50	<0.50	<0.50	<0.97	<0.97	<0.34	<0.71	<0.36
Chloromethane	3	0.3								<1	<1.9	**1.13 J**
2-Chlorotoluene	NS	NS	<1.0	<0.65	<0.65	<0.65	<0.65	<0.85	<0.85	<0.49	<0.7	<0.21
1,2-Dichloroethane	5	0.5	<1.0	<0.54	<0.54	<0.54	<0.54	<0.36	<0.36	<0.45	<0.5	<0.41
1,1-Dichloroethane	850	85	<1.0	<0.61	<0.61	<0.61	<0.61	<0.75	<0.75	<0.56	<0.98	<0.3
1,1-Dichloroethene	7	0.7	<1.0	<0.47	<0.47	<0.47	<0.47	<0.57	<0.57	<0.64	<0.6	<0.4
cis-1,2-Dichloroethene	70	7	1.6	<0.46	<0.46	1.7	<0.46	<0.83	<0.83	<0.68	<0.74	<0.38
trans-1,2-Dichloroethene	100	20	<1.0	<0.64	<0.64	<0.64	<0.64	<0.89	<0.89	<0.95	<0.79	<0.35
Ethylbenzene	700	140	<1.0	<0.50	<0.50	<0.50	<0.50	<0.54	<0.54	<0.38	<0.78	<0.55
Isopropylbenzene	NS	NS	<1.0	<0.39	<0.39	<0.39	<0.39	<0.59	<0.59	<0.48	<0.92	<0.3
Methylene chloride	5	0.5	**5.8 B**	<0.38	<0.38	<0.38	<0.38	<0.43	<0.43	<0.69	<1.1	<0.5
Naphthalene	100	10	<1.0	<0.59	<0.59	<0.59	<0.59	<0.74	<0.74	<1.8	<2.1	<1.7
n-Propylbenzene	NS	NS	<1.0	<0.54	<0.54	<0.54	<0.54	<0.81	<0.81	<0.38	<0.59	<0.25
Tetrachloroethene	5	0.5	<1.0	<0.41	<0.41	<0.41	<0.41	<0.45	<0.45	<0.52	<0.44	<0.33
Toluene	1,000	200	<1.0	<0.40	<0.40	<0.40	<0.40	<0.67	<0.67	<0.46	<0.53	<0.69
1,1,1-Trichloroethane	200	40	<1.0	<0.53	<0.53	<0.53	<0.53	<0.90	<0.90	<0.5	<0.85	<0.33
Trichloroethene	5	0.5	**1.6**	<0.49	<0.49	<0.49	<0.49	<0.48	<0.48	<0.44	<0.47	<0.33
1,2,4-Trimethylbenzene	--	--	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97	<0.97	<1.2	<0.8	<2.2
1,3,5-Trimethylbenzene	--	--	<1.0	<0.45	<0.45	<0.45	<0.45	<0.83	<0.83	<0.37	<0.74	<1.4
Total Trimethylbenzene	480	96	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97	<0.97	<1.2	<0.8	<2.2
Vinyl Chloride	0.2	0.02	<1.0	<0.17	<0.17	<0.17	<0.17	<0.18	<0.18	<0.2	<0.18	<0.18
Xylenes, m + p	--	--	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8	<1.8	<0.67	<1.1	<0.69
Xylene, o	--	--	<1.0	<0.54	<0.54	<0.54	<0.54	<0.83	<0.83	<0.32	<0.8	<0.63
Total Xylenes	10,000	1,000	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8	<1.8	<0.67	<1.1	<0.69
Styrene	100	10	<1.0	<0.37	<0.37	<0.37	<0.37	<0.86	<0.86	NA	NA	NA
Ethane	NS	NS	NA	<10	<10	<10	<10	NA	<10	NA	NA	NA
Ethene	NS	NS	NA	<10	<10	<10	<10	NA	<10	NA	NA	NA
Methane	NS	NS	NA	<10	17	12	19	NA	<10	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):												
1-Methylnaphthalene	NS	NS	NA	<0.044	<0.044	<0.044	<0.044	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	<11	<0.049	<0.049	<0.049	<0.049	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	<11	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	<11	<0.18	<0.18	<0.18	<0.18	NA	NA	NA	NA	NA
Anthracene	3000	600	<11	<0.0089	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	<11	<0.0087	<0.0087	<0.0087	<0.0087	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	<11	<0.012	<0.012	<0.012	<0.012	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	<11	<0.016	<0.016	<0.016	<0.016	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	<11	<0.0079	<0.0079	<0.0079	<0.0079	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	<11	<0.0089	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	<11	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Fluoranthene	400	80	<11	<0.019	<0.019	<0.019	<0.019	NA	NA	NA	NA	NA
Fluorene	400	80	<11	<0.020	<0.020	<0.020	<0.020	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	<11	<0.0083	<0.0083	<0.0083	<0.0083	NA	NA	NA	NA	NA
Naphthalene	100	10	<11	<0.12	<0.12	0.16 Q	<0.12	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	<11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	<11	<0.011	<0.011	<0.011	<0.011	NA	NA	NA	NA	NA
Pyrene	250	50	<11	<0.13	<0.13	<0.13	<0.13	NA	NA	NA	NA	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	PZ-05B									
			9/7/94	5/19/99	9/30/99	12/8/99	3/30/00	4/18/05	10/18/06	9/21/07	9/26/12	10/24/13
RCRA Metals (mg/L)												
Antimony	0.006	0.0012	NA	<0.0019	<0.00016	<0.00020	<0.00020	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	<0.002	<0.0024	**(-0.00047)**	**(0.38)**	**(0.00034)**	NA	NA	NA	NA	NA
Barium	2	0.4	0.089	0.094	0.092	0.09	0.097	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	<0.00043	<0.000070	<0.000070	<0.000070	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	<0.0030	B(-0.0020)	(0.00013)	0.00019	**0.0024**	NA	NA	NA	NA	NA
Chromium	0.1	0.01	<0.0044	<0.00053	(0.00020)	(0.00012)	(0.00017)	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	<0.00094	0.00067 Q	<0.00025	(-0.0003)	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	**0.9**	**0.8**	**0.82**	**0.7**	NA	NA	NA	NA	NA
Lead	0.015	0.0015	<0.025	<0.0028	<0.00015	0.00016 Q	<0.00015	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	0.017	0.017	0.017	0.016	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	**0.0014**	<0.000042	<0.000042	<0.000042	<0.000042	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	<0.0022	0.00093	0.00084	0.00099	NA	NA	NA	NA	NA
Selenium	0.05	0.01	<0.001	<0.0023	<0.00064	<0.00064	(0.00083)	NA	NA	NA	NA	NA
Sliver	0.05	0.01	<0.010	<0.00046	0.00033	(-0.00041)	(0.00047)	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	13	12	12	13	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	**0.0015 Q**	<0.000093	<0.000093	<0.000093	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	<0.00089	0.0031 Q	(-0.0048)	0.005 Q	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):												
Aroclor-1016	NS	NS	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	<2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	<1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	<2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)												
Alkalinity	increase of 100		330	330	390	350	330	NA	NA	NA	NA	NA
Ammonia	NS	NS	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		<2	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	17	22	22	18	22	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	44	38	47	50	51	NA	NA	NA	NA	NA
TDS	increase of 200		430	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		550	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	330	390	350	320	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	<2.5	<1.9	<1.9	8	NA	NA	NA	NA	NA
Conductance, specific (umhos/cm)	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	<0.043	<0.043	<0.044	<0.044	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	<0.090	<0.090	<0.080	<0.080	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	<0.037	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	1.8	2.2	11	2.2	NA	NA	NA	NA	NA
Field Screening Measurements												
pH		IU	6.8	7.11	7.63	7.36	7.28	7.32	7.4	6.79	7.07	7.38
Conductivity		uS	400	688	706	710	696	716	719.4	682.7	689	715
Temperature		°C	13	10.6	10.5	9	10.6	10	9.6	11.7	9.9	10.34
Dissolved Oxygen		ppm	NA	0.76	1.49	1.56	1.54	1.58	1.05	0.73	0.18	1.75
Redox Potential		mV	NA	-98	-38	-76	-68	-63	-88	158	-109	69

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-10				WT-11				WT-12				PZ-12
			10/19/06	9/19/07	9/26/12	10/24/13	10/18/06	9/20/07	9/26/12	10/22/2013	10/18/06	9/20/07	9/26/12	10/22/2013	10/22/13
Volatile Organic Compounds (VOCs) (µg/L):															
Benzene	5	0.5	**20 Q**	<0.94	<50	<24	<4.1	<9.4	<5	<2.4	<4.1	<23.5	<25	**13 J**	**72 J**
t-Butylbenzene	NS	NS	<24	<0.68	<71	<36	<9.7	<6.8	<7.1	<3.6	<9.7	<17	<35.5	<18	<36
Chloromethane	3	0.3		<200	<190	<81		<9.4	<19	<8.1		<50	<95	<40.5	<81
2-Chlorotoluene	NS	NS	<21	<98	<70	<21	<8.5	<9.8	<7	<2.1	<8.5	<24.5	<35	<10.5	<21
1,2-Dichloroethane	5	0.5	<9.0	<90	<50	<41	<3.6	<9	<5	<4.1	<3.6	<22.5	<25	<20.5	<41
1,1-Dichloroethane	850	85	<19	<112	<98	<30	<7.5	<11.2	<9.8	4.0 J	<7.5	<28	<49	<15	<30
1,1-Dichloroethene	7	0.7	<14	<128	<60	<40	<5.7	<12.8	<6	<4	<5.7	<32	<30	<20	<40
cis-1,2-Dichloroethene	70	7	**2700**	**4,700**	**1210**	**1,600**	**950**	**480**	**500**	**600**	**730**	**940**	**2410**	**1670**	**4800**
trans-1,2-Dichloroethene	100	20	<22	<190	<079	<35	<8.9	<19	<7.9	<3.5	<8.9	<47.5	<39.5	<17.5	<35
Ethylbenzene	700	140	<14	<76	<78	<55	<5.4	<7.6	<7.8	<5.5	<5.4	<19	<39	<27.5	<55
Isopropylbenzene	NS	NS	<15	<96	<92	<30	<5.9	<9.6	<9.2	<3	<5.9	<24	<46	<15	<30
Methylene chloride	5	0.5	<11	<138	<110	<50	<4.3	<13.8	<11	<5	<4.3	<34.5	<55	<25	<50
Naphthalene	100	10	<18	<360	<210	<170	<7.4	<36	<21	<17	<7.4	<90	<105	<85	<170
n-Propylbenzene	NS	NS	<20	<76	<59	<25	<8.1	<7.6	<5.9	<2.5	<8.1	<19	<29.5	<12.5	<25
Tetrachloroethene	5	0.5	<11	<104	<44	<33	<4.5	<10.4	<4.4	<3.3	<4.5	<26	<22	<16.5	<33
Toluene	1,000	200	120	<92	139 J	83 J	<6.7	<9.2	<5.3	<6.9	<6.7	<23	<26.5	<34.5	<69
1,1,1-Trichloroethane	200	40	<22	<100	<85	<33	<9.0	<10	<8.5	<3.3	<9.0	<25	<42.5	<16.5	<33
Trichloroethene	5	0.5	**16 Q**	<88	<47	<33	**16 Q**	**12.8 J**	**10.2 J**	**10.5**	**16 Q**	**22.5 J**	**29 J**	**22.5 J**	<33
1,2,4-Trimethylbenzene	--	--	<24	<240	<80	<220	<9.7	<24	<8	<22	<9.7	<60	<75	<110	<220
1,3,5-Trimethylbenzene	--	--	<21	<74	<74	<140	<8.3	<7.4	<7.4	<14	<8.3	<18.5	<37	<70	<140
Total Trimethylbenzene	480	96	<24	<240	<80	<220	<9.7	<24	<8	<22	<9.7	<60	<75	<110	<220
Vinyl Chloride	0.2	0.02	**1800**	**760**	**2250**	**1,050**	**6.7**	<4	<1.8	**13.7**	**31**	**37**	**510**	**262**	**2980**
Xylenes, m + p	--	--	<45	<134	<110	<69	<18	<13.4	<11	<6.9	<18	<33.5	<55	<34.5	<69
Xylene, o	--	--	<21	<64	<80	<63	<8.3	<6.4	<8	<6.3	<8.3	<16	<40	<31.5	<63
Total Xylenes	10,000	1,000	<45	<134	<110	<69	<18	<13.4	<11	<6.9	<18	<33.5	<55	<34.5	<69
Styrene	100	10	<22	NA	NA	NA	<8.6	NA	NA	NA	<8.6	NA	NA	NA	NA
Ethane	NS	NS	84	NA	NA	NA	<10	NA	NA	NA	<10	NA	NA	NA	NA
Ethene	NS	NS	<10	NA	NA	NA	<10	NA	NA	NA	<10	NA	NA	NA	NA
Methane	NS	NS	110	NA	NA	NA	<10	NA	NA	NA	11	NA	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):															
1-Methylnaphthalene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	3000	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	400	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	400	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	250	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-10				WT-11				WT-12				PZ-12
			10/19/06	9/19/07	9/26/12	10/24/13	10/18/06	9/20/07	9/26/12	10/22/2013	10/18/06	9/20/07	9/26/12	10/22/2013	10/22/13
RCRA Metals (mg/L)															
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):															
Aroclor-1016	NS	NS	NA	NA	NA	<0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	NA	NA	NA	<0.081	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	NA	NA	NA	<0.047	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	NA	NA	NA	<0.052	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	NA	NA	NA	<0.095	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	NA	NA	NA	<0.052	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	NA	NA	NA	<0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	<0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)															
Alkalinity	increase of 100		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TDS	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Conductance, specific (umhos/cm)	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements															
pH		IU	6.5	7.07	6.88	7.55	6.81	6.92	6.82	7.17	7.41	7.14	6.68	7.15	7.18
Conductivity		uS	754.5	708.4	1082	1076	805	776.4	758	663	728.5	678.9	708	617	635
Temperature		°C	9.9	10.5	10.83	12.01	11.8	12.5	12.03	11.13	12.4	14	12.84	11.51	10.14
Dissolved Oxygen		ppm	0.79	--	0.23	0.38	0.95	0.53	0.14	0.45	0.94	0.81	0.09	0.46	0.68
Redox Potential		mV	-54	-116	-145.4	-37.4	0.96	201	-58.2	88.6	41	195	-39	88.4	88

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-13				WT-15			PZ-15A			PZ-15B		
			10/19/06	9/19/07	9/25/12	10/22/13	9/21/07	9/26/12	10/23/13	9/21/07	9/26/12	10/23/13	9/21/07	9/26/12	10/23/13
Volatile Organic Compounds (VOCs) (µg/L):															
Benzene	5	0.5	<0.41	<0.47	<0.5	<0.24	<0.47	<0.5	<0.24	<0.47	<0.5	<0.24	<0.47	<0.5	<0.24
t-Butylbenzene	NS	NS	<0.97	<0.34	<0.71	<0.36	<0.34	<0.71	<0.36	<0.34	<0.71	<0.36	<0.34	<0.71	<0.36
Chloromethane	3	0.3		**1.33 J**	<1.9	<0.81	<1	<1.9	<0.81	<1	**12.5**	<0.81	<1	**10.6**	<0.81
2-Chlorotoluene	NS	NS	<0.85	<0.49	<0.7	<0.21	<0.49	<0.7	<0.21	<0.49	<0.7	<0.21	<0.49	<0.7	<0.21
1,2-Dichloroethane	5	0.5	<0.36	<0.45	<0.5	<0.41	<0.45	<0.5	<0.41	<0.45	<0.5	<0.41	<0.45	<0.5	<0.41
1,1-Dichloroethane	850	85	<0.75	<0.56	<0.98	<0.3	<0.56	<0.98	<0.3	<0.56	<0.98	<0.3	<0.56	<0.98	<0.3
1,1-Dichloroethene	7	0.7	<0.57	<0.64	<0.6	<0.4	<0.64	<0.6	<0.4	<0.64	<0.6	<0.4	<0.64	<0.6	<0.4
cis-1,2-Dichloroethene	70	7	<0.83	<0.68	<0.74	<0.38	<0.68	<0.74	<0.38	<0.68	<0.74	<0.38	<0.68	<0.74	<0.38
trans-1,2-Dichloroethene	100	20	<0.89	<0.95	<0.79	<0.35	<0.95	<0.79	<0.35	<0.95	<0.79	<0.35	<0.95	<0.79	<0.35
Ethylbenzene	700	140	<0.54	<0.38	<0.78	<0.55	<0.38	<0.78	<0.55	<0.38	<0.78	<0.55	<0.38	<0.78	<0.55
Isopropylbenzene	NS	NS	<0.59	<0.48	<0.92	<0.3	<0.48	<0.92	<0.3	<0.48	<0.92	<0.3	<0.48	<0.92	<0.3
Methylene chloride	5	0.5	<0.43	<0.69	<1.1	<0.5	<0.69	<1.1	<0.5	<0.69	<1.1	<0.5	<0.69	<1.1	<0.5
Naphthalene	100	10	<0.74	<1.8	<2.1	<1.7	<1.8	<2.1	<1.7	<1.8	<2.1	<1.7	<1.8	<2.1	<1.7
n-Propylbenzene	NS	NS	<0.81	<0.38	<0.59	<0.25	<0.38	<0.59	<0.25	<0.38	<0.59	<0.25	<0.38	<0.59	<0.25
Tetrachloroethene	5	0.5	<0.45	<0.52	<0.44	<0.33	<0.52	<0.44	<0.33	<0.52	<0.44	<0.33	<0.52	<0.44	<0.33
Toluene	1,000	200	<0.67	<0.46	<0.53	<0.69	<0.46	<0.53	<0.69	<0.46	<0.53	<0.69	<0.46	<0.53	<0.69
1,1,1-Trichloroethane	200	40	<0.90	<0.5	<0.85	<0.33	<0.5	<0.85	<0.33	<0.5	<0.85	<0.33	<0.5	<0.85	<0.33
Trichloroethene	5	0.5	<0.48	<0.44	<0.47	<0.33	<0.44	<0.47	<0.33	<0.44	<0.47	<0.33	<0.44	<0.47	<0.33
1,2,4-Trimethylbenzene	--	--	<0.97	<1.2	<0.8	<2.2	<1.2	<0.8	<2.2	<1.2	<0.8	<2.2	<1.2	<0.8	<2.2
1,3,5-Trimethylbenzene	--	--	<0.83	<0.37	<0.74	<1.4	<0.37	<0.74	<1.4	<0.37	<0.74	<1.4	<0.37	<0.74	<1.4
Total Trimethylbenzene	480	96	<0.97	<1.2	<0.8	<2.2	<1.2	<0.8	<2.2	<1.2	<0.8	<2.2	<1.2	<0.8	<2.2
Vinyl Chloride	0.2	0.02	<0.18	<0.2	**0.59**	<0.18	<0.2	<0.18	<0.18	<0.2	<0.18	<0.18	<0.2	<0.18	<0.18
Xylenes, m + p	--	--	<1.8	<0.67	<1.1	<0.69	<0.67	<1.1	<0.69	<0.67	<1.1	<0.69	<0.67	<1.1	<0.69
Xylene, o	--	--	<0.83	<0.32	<0.8	<0.63	<0.32	<0.8	<0.63	<0.32	<0.8	<0.63	<0.32	<0.8	<0.63
Total Xylenes	10,000	1,000	<1.8	<0.67	<1.1	<0.69	<0.67	<1.1	<0.69	<0.67	<1.1	<0.69	<0.67	<1.1	<0.69
Styrene	100	10	<0.86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	NS	NS	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	NS	NS	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	NS	NS	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):															
1-Methylnaphthalene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	3000	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	400	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	400	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	250	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-13				WT-15			PZ-15A			PZ-15B		
			10/19/06	9/19/07	9/25/12	10/22/13	9/21/07	9/26/12	10/23/13	9/21/07	9/26/12	10/23/13	9/21/07	9/26/12	10/23/13
RCRA Metals (mg/L)															
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):															
Aroclor-1016	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)															
Alkalinity	increase of 100		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TDS	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Conductance, specific (umhos/cm)	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements															
pH		IU	7.72	7.37	7.3	7.41	7	6.89	7.02	7.14	6.83	6.98	7.09	6.89	7.02
Conductivity		uS	302.3	382.9	470	400	727.5	725	782	733.5	718	785	754.4	723	785
Temperature		°C	13.4	15.9	15.51	12.62	13.7	12.78	10.84	12.2	11.39	9.99	10.5	10.68	10.39
Dissolved Oxygen		ppm	8.17	--	3.47	7.24	3.06	1.21	2.37	3.48	1.42	2.88	0.47	1.29	0.98
Redox Potential		mV	115	10	-54.1	91.2	177	-59.4	91.4	81	-54	91.8	166	-58.8	90.7

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-16				PZ-16			WT-17			WT-18			WT-19		
			9/20/07	1/9/08	9/27/12	10/23/13	9/20/07	9/27/12	10/23/13	9/18/07	9/25/12	10/24/13	9/19/07	9/25/12	10/24/13	9/19/07	9/24/12	10/24/13
Volatile Organic Compounds (VOCs) (µg/L):																		
Benzene	5	0.5	**39 J**	**25 J**	**49 J**	**46**	<9.4	**5.6 J**	**3.8 J**	<4.7	<0.5	<0.24	**30.5 J**	**77**	**59**	<0.47	<0.5	<0.24
t-Butylbenzene	NS	NS	<17	<17	<35.5	<18	<6.8	<7.1	<3.6	<3.4	<0.71	<0.36	<17	<7.1	<3.6	<0.34	<0.71	<0.36
Chloromethane	3	0.3	<50	<50	<95	<40.5	<20	<19	<8.1	<10	<1.9	<0.81	<23.5	<19	<8.1	<0.48	<1.9	<0.81
2-Chlorotoluene	NS	NS	<24.5	<24.5	<35	<10.5	<9.8	<7	<2.1	<4.9	<0.7	<0.21	<24.5	<7	<2.1	<0.49	<0.7	<0.21
1,2-Dichloroethane	5	0.5	<22.5	<22.5	<25	<20.5	<9	<5	<4.1	<4.5	<0.5	<0.41	<22.5	<5	<4.1	<0.45	<0.5	<0.41
1,1-Dichloroethane	850	85	<28	<28	<49	<15	<11.2	<9.8	<3	<5.6	2.06 J	2.26	<28	36	28.8	<0.56	<0.98	<0.3
1,1-Dichloroethene	7	0.7	<32	<32	<30	<20	<12.8	<6	<4	<6.4	<0.6	<0.4	<32	<6	<4	<0.64	<0.6	<0.4
cis-1,2-Dichloroethene	70	7	**2,490**	**1,450**	**2,490**	**2,600**	**700**	**680**	**241**	**199**	**155**	**119**	**238**	**20.8 J**	**9.2 J**	1.57 J	2.32 J	0.72 J
trans-1,2-Dichloroethene	100	20	<47.5	<47.5	<39.5	<17.5	<19	**17 J**	15	<9.5	<0.79	1.38	<47.5	<7.9	<3.5	<0.95	<0.79	<0.35
Ethylbenzene	700	140	<19	<19	<39	<27.5	<7.6	<7.8	<5.5	<3.8	<0.78	<0.55	<19	36	29.7	<0.38	<0.78	<0.55
Isopropylbenzene	NS	NS	<24	<24	<46	<15	<9.6	<9.2	<3	<4.8	<0.92	<0.3	<24	<9.22	<3	<0.48	<0.92	<0.3
Methylene chloride	5	0.5	<34.5	<34.5	<55	<25	<13.8	<11	<5	<6.9	<1.1	<0.5	<34.5	<11	<5	<0.69	<1.1	<0.5
Naphthalene	100	10	<90	<90	<105	<85	<36	<21	<17	<18	<2.1	<1.7	<90	**28.4 J**	**24.8 J**	<1.8	<2.1	<1.7
n-Propylbenzene	NS	NS	<19	<19	<29.5	<12.5	<7.6	<5.9	<2.5	<3.8	<0.59	<0.25	<19	<5.9	3.2 J	<0.38	<0.59	<0.25
Tetrachloroethene	5	0.5	<26	<26	<22	<16.5	<10.4	<4.4	<3.3	<5.2	<0.44	<0.33	<26	<4.4	<3.3	<0.52	<0.44	<0.33
Toluene	1,000	200	<23	<23	<26.5	<34.5	<9.2	<5.3	<6.9	<4.6	<0.53	<0.69	75	**203**	89	<0.46	<0.53	<0.69
1,1,1-Trichloroethane	200	40	<25	<25	<42.5	<16.5	<10	<8.5	<3.3	7.2 J	5.3	4.5	<25	<8.5	<3.3	<0.5	<0.85	<0.33
Trichloroethene	5	0.5	<22	<22	<23.5	**21 J**	<8.8	<4.7	**3.7 J**	**29.9**	**14.4**	**36**	<30.5	**5.8 J**	**3.8 J**	**0.98 J**	**0.69 J**	**0.53 J**
1,2,4-Trimethylbenzene	--	--	<60	<60	<40	<110	<24	<8	<22	<12	<0.8	<2.2	<60	20.4 J	<22	<1.2	<0.8	<2.2
1,3,5-Trimethylbenzene	--	--	<18.5	<18.5	<37	<70	<7.4	<7.4	<14	<3.7	<0.74	<1.4	<18.5	<7.4	<14	<0.37	<0.74	<1.4
Total Trimethylbenzene	480	96	<60	<60	<40	<110	<24	<8	<22	<12	<0.8	<2.2	<60	20.4 J	<22	<1.2	<0.8	<2.2
Vinyl Chloride	0.2	0.02	**1,430**	**950**	**2,210**	**1,890**	**340**	**294**	**89**	<2	<0.18	<0.18	**1,520**	**360**	**244**	<0.2	**0.22 J**	<0.18
Xylenes, m + p	--	--	<33.5	<33.5	<55	<34.5	<13.4	<11	<6.9	<6.7	<1.1	<0.69	<33.5	61	37	<0.67	<1.1	<0.69
Xylene, o	--	--	<16	<16	<40	<31.5	<6.4	<9	<6.3	<3.2	<0.8	<0.63	19 J	47	34	<0.32	<0.8	<0.63
Total Xylenes	10,000	1,000	<33.5	<33.5	<55	<34.5	<13.4	<11	<6.9	<6.7	<1.1	<0.69	19 J	108	101	<0.67	<1.1	<0.69
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):																		
1-Methylnaphthalene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	3000	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	400	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	400	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	250	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-16				PZ-16			WT-17			WT-18			WT-19		
			9/20/07	1/9/08	9/27/12	10/23/13	9/20/07	9/27/12	10/23/13	9/18/07	9/25/12	10/24/13	9/19/07	9/25/12	10/24/13	9/19/07	9/24/12	10/24/13
RCRA Metals (mg/L)																		
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																		
Aroclor-1016	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.12	NA	NA	<0.12	NA	NA	NA
Aroclor-1221	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.086	NA	NA	<0.086	NA	NA	NA
Aroclor-1232	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.050	NA	NA	<0.050	NA	NA	NA
Aroclor-1242	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.055	NA	NA	<0.055	NA	NA	NA
Aroclor-1248	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	NA	NA	<0.10	NA	NA	NA
Aroclor-1254	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.055	NA	NA	<0.055	NA	NA	NA
Aroclor-1260	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.14	NA	NA	<0.14	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.14	NA	NA	<0.14	NA	NA	NA
General Chemistry Parameters (mg/L)																		
Alkalinity	increase of 100		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TDS	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Conductance, specific (umhos/cm)	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																		
pH		IU	6.93		7.25	7.34	6.81	7.29	7.43	6.83	6.57	6.83	6.99	6.87	7.31	7.08	6.98	6.8
Conductivity		uS	706		727	798	677.2	679	538	515.2	725	797	947.8	1134	1200	891.3	888	790
Temperature		°C	14.4		13.89	11.59	10.7	10.67	10	10.5	10.53	10.55	10.8	11.59	11.3	14.3	13.01	11.01
Dissolved Oxygen		ppm	1.39		0.27	0.5	1.08	0.16	0.5	--	1.04	5.03	--	0.34	0.55	--	0.79	1.02
Redox Potential		mV	118		-120.3	62.8	156	-123.9	24	88	0	87.9	-80	-132	-9	71	-51.2	85.8

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-20			WT-21			WT-22			WT-23		
			1/9/08	9/25/12	10/23/13	1/9/08	9/25/12	10/23/13	1/9/08	9/27/12	10/23/13	1/9/08	9/27/12	10/23/13
Volatile Organic Compounds (VOCs) (µg/L):														
Benzene	5	0.5	<0.47	<0.5	<0.24	<0.47	<0.5	<0.24	<0.47	<0.5	<0.24	<0.47	<0.5	<0.24
t-Butylbenzene	NS	NS	<0.34	<0.71	<0.36	<0.34	<0.71	<0.36	<0.34	<0.71	<0.36	<0.34	<0.71	<0.36
Chloromethane	3	0.3	<1	<1.9	<0.81	<0.47	<1.9	<0.81	<1	<1.9	<0.81	<1	<1.9	<0.81
2-Chlorotoluene	NS	NS	<0.49	<0.7	<0.21	<0.49	<0.7	<0.21	<0.49	<0.7	<0.21	<0.49	<0.7	<0.21
1,2-Dichloroethane	5	0.5	<0.45	<0.5	<0.41	<0.45	<0.5	<0.41	<0.45	<0.5	<0.41	<0.45	<0.5	<0.41
1,1-Dichloroethane	850	85	<0.56	<0.98	<0.3	<0.56	<0.98	<0.3	<0.56	<0.98	<0.3	<0.56	<0.98	<0.3
1,1-Dichloroethene	7	0.7	<0.64	<0.6	<0.4	<0.64	<0.6	<0.4	<0.64	<0.6	<0.4	<0.64	<0.6	<0.4
cis-1,2-Dichloroethene	70	7	<0.68	<0.74	<0.38	<0.68	<0.74	<0.38	<0.68	<0.74	<0.38	<0.68	2.7	<0.38
trans-1,2-Dichloroethene	100	20	<0.95	<0.79	<0.35	<0.95	<0.79	<0.35	<0.95	<0.79	<0.35	<0.95	<0.79	<0.35
Ethylbenzene	700	140	<0.38	<0.78	<0.55	<0.38	<0.78	<0.55	<0.38	<0.78	<0.55	<0.38	<0.78	<0.55
Isopropylbenzene	NS	NS	<0.48	<0.92	<0.3	<0.48	<0.92	<0.3	<0.48	<0.92	<0.3	<0.48	<0.92	<0.3
Methylene chloride	5	0.5	<0.69	<1.1	<0.5	<0.69	<1.1	<0.5	<0.69	<1.1	<0.5	<0.69	<1.1	<0.5
Naphthalene	100	10	<1.8	<2.1	<1.7	<1.8	<2.1	<1.7	<1.8	<2.1	<1.7	<1.8	<2.1	<1.7
n-Propylbenzene	NS	NS	<0.38	<0.59	<0.25	<0.38	<0.59	<0.25	<0.38	<0.59	<0.25	<0.38	<0.59	<0.25
Tetrachloroethene	5	0.5	<0.52	<0.44	<0.33	<0.52	<0.44	<0.33	<0.52	<0.44	<0.33	<0.52	<0.44	<0.33
Toluene	1,000	200	<0.46	<0.53	<0.69	<0.46	<0.53	<0.69	<0.46	<0.53	<0.69	<0.46	<0.53	<0.69
1,1,1-Trichloroethane	200	40	<0.5	<0.85	<0.33	<0.5	<0.85	<0.33	<0.5	<0.85	<0.33	<0.5	<0.85	<0.33
Trichloroethene	5	0.5	<0.44	<0.47	<0.33	<0.44	<0.47	<0.33	<0.44	<0.47	<0.33	<0.44	<0.47	<0.33
1,2,4-Trimethylbenzene	--	--	<1.2	<0.8	<2.2	<1.2	<0.8	<2.2	<1.2	<0.8	<2.2	<1.2	<0.8	<2.2
1,3,5-Trimethylbenzene	--	--	<0.37	<0.74	<1.4	<0.37	<0.74	<1.4	<0.37	<0.74	<1.4	<0.38	<0.74	<1.4
Total Trimethylbenzene	480	96	<1.2	<0.8	<2.2	<1.2	<0.8	<2.2	<1.2	<0.8	<2.2	<1.2	<0.8	<2.2
Vinyl Chloride	0.2	0.02	<0.2	<0.18	<0.18	<0.2	<0.18	<0.18	<0.2	<0.18	<0.18	<0.2	**1.9**	<0.18
Xylenes, m + p	--	--	<0.67	<1.1	<0.69	<0.67	<1.1	<0.69	<0.67	<1.1	<0.69	<0.67	<1.1	<0.69
Xylene, o	--	--	<0.32	<0.8	<0.63	<0.32	<0.8	<0.63	<0.32	<0.8	<0.63	<0.32	<0.8	<0.63
Total Xylenes	10,000	1,000	<0.67	<1.1	<0.69	<0.67	<1.1	<0.69	<0.67	<1.1	<0.69	<0.67	<1.1	<0.69
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):														
1-Methylnaphthalene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	3000	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	400	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	400	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	250	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WT-20			WT-21			WT-22			WT-23		
			1/9/08	9/25/12	10/23/13	1/9/08	9/25/12	10/23/13	1/9/08	9/27/12	10/23/13	1/9/08	9/27/12	10/23/13
RCRA Metals (mg/L)														
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):														
Aroclor-1016	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)														
Alkalinity	increase of 100		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TDS	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Conductance, specific (umhos/cm)	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements														
pH		IU		7.07	6.88		8.06	7.4		7.23	7.13		6.91	7.46
Conductivity		uS		612	440		244	201		362	687		718	411
Temperature		°C		17.11	13.27		18.18	13.97		16.16	13.07		15.82	13.83
Dissolved Oxygen		ppm		0.22	1.42		4.89	5.54		2.42	2.16		0.2	3.68
Redox Potential		mV		-42.9	88.1		-58.5	89.3		-27.5	85.2		-56.2	80.2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WP-01 - DAMAGED					
			7/11/94	5/11/99	9/30/99	12/8/99	3/31/00	4/18/05
Volatile Organic Compounds (VOCs) (µg/L):								
Benzene	5	0.5	<1.0	<0.44	<0.44	<0.44	<0.44	<0.41
t-Butylbenzene	NS	NS	NA	<0.50	<0.50	<0.50	<0.50	<0.97
Chloromethane	3	0.3						
2-Chlorotoluene	NS	NS	<1.0	<0.65	<0.65	<0.65	<0.65	<0.85
1,2-Dichloroethane	5	0.5	<1.0	<0.54	<0.54	<0.54	<0.54	<0.36
1,1-Dichloroethane	850	85	<1.0	<0.61	<0.61	<0.61	<0.61	<0.75
1,1-Dichloroethene	7	0.7	<1.0	<0.47	<0.47	<0.47	<0.47	<0.57
cis-1,2-Dichloroethene	70	7	<1.0	<0.46	<0.46	<0.46	<0.46	<0.83
trans-1,2-Dichloroethene	100	20	NA	<0.64	<0.64	<0.64	<0.64	<0.89
Ethylbenzene	700	140	<1.0	<0.50	<0.50	<0.50	<0.50	<0.54
Isopropylbenzene	NS	NS	<1.0	<0.39	<0.39	<0.39	<0.39	<0.59
Methylene chloride	5	0.5	**6.2 B**	<0.38	<0.38	<0.38	<0.38	<0.43
Naphthalene	100	10	<1.0	<0.59	<0.59	<0.59	<0.59	<0.74
n-Propylbenzene	NS	NS	<1.0	<0.54	<0.54	<0.54	<0.54	<0.81
Tetrachloroethene	5	0.5	<1.0	<0.41	<0.41	<0.41	<0.41	<0.45
Toluene	1,000	200	<1.0	<0.40	<0.40	<0.40	<0.40	<0.67
1,1,1-Trichloroethane	200	40	<1.0	<0.53	<0.53	<0.53	<0.53	<0.90
Trichloroethene	5	0.5	<1.0	<0.49	<0.49	<0.49	<0.49	<0.48
1,2,4-Trimethylbenzene	--	--	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97
1,3,5-Trimethylbenzene	--	--	<1.0	<0.45	<0.45	<0.45	<0.45	<0.83
Total Trimethylbenzene	480	96	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97
Vinyl Chloride	0.2	0.02	<1.0	<0.17	<0.17	<0.17	<0.17	<0.18
Xylenes, m + p	--	--	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8
Xylene, o	--	--	<1.0	<0.54	<0.54	<0.54	<0.54	<0.83
Total Xylenes	10,000	1,000	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8
Styrene	100	10	<1.0	<0.37	<0.37	<0.37	<0.37	<0.86
Ethane	NS	NS	NA	<2.3	<10	<10	<10	NA
Ethene	NS	NS	NA	<1.8	<10	<10	<10	NA
Methane	NS	NS	NA	<0.9	46	<1.0	<10	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):								
1-Methylnaphthalene	NS	NS	NA	<0.044	<0.044	<0.044	<0.044	NA
2-Methylnaphthalene	NS	NS	NA	<0.049	<0.049	<0.049	<0.049	NA
Acenaphthene	NS	NS	NA	<0.20	<0.20	<0.20	<0.20	NA
Acenaphthylene	NS	NS	NA	<0.18	<0.18	<0.18	<0.18	NA
Anthracene	3000	600	NA	<0.0090	<0.0089	<0.0089	<0.0089	NA
Benzo(a)anthracene	NS	NS	NA	<0.0088	<0.0087	<0.0087	<0.0087	NA
Benzo(a)pyrene	0.2	0.02	NA	<0.012	<0.012	<0.012	<0.012	NA
Benzo (b)fluoranthene	0.2	0.02	NA	<0.016	<0.016	<0.016	<0.016	NA
Benzo(ghi)perylene	NS	NS	NA	<0.018	<0.018	<0.018	<0.018	NA
Benzo(k)fluoranthene	NS	NS	NA	<0.0080	<0.0079	<0.0079	<0.0079	NA
Butyl benzyl phthalate	NS	NS	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	NA	<0.0090	<0.0089	<0.0089	<0.0089	NA
Dibenzo(a,h)anthracene	NS	NS	NA	<0.018	<0.018	<0.018	<0.018	NA
Fluoranthene	400	80	NA	<0.019	<0.019	<0.019	<0.019	NA
Fluorene	400	80	NA	<0.02	<0.02	<0.02	<0.02	NA
Indeno(1,2,3-dc)pyrene	NS	NS	NA	<0.0084	<0.0083	<0.0083	<0.0083	NA
Naphthalene	100	10	NA	<0.12	<0.12	<0.12	<0.12	NA
N-Nitroso-Di-N-Propylamin	NS	NS	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	NA	<0.011	<0.011	<0.011	<0.011	NA
Pyrene	250	50	NA	<0.013	0.15	<0.013	<0.013	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WP-01 - DAMAGED					
			7/11/94	5/11/99	9/30/99	12/8/99	3/31/00	4/18/05
RCRA Metals (mg/L)								
Antimony	0.006	0.0012	NA	<0.0019 B((-0.0032)	**0.0014**	0.00081	<0.00020	NA
Arsenic	0.01	0.001	NA	<0.0024	**0.0018 A(-0.00047)**	0.00082 A(0.00038)	0.00050 QA(0.00034)	NA
Barium	2	0.4	NA	0.032	0.031	0.04	0.059	NA
Beryllium	0.004	0.0004	NA	<0.00043	<0.000070	<0.000070	<0.000070	NA
Cadmium	0.005	0.0005	NA	<0.00017	<0.000076 A(0.00013)	<0.000060	0.00010 Q	NA
Chromium	0.1	0.01	NA	<0.00053	0.00046 A(0.00020)	0.00080 A(0.00012)	0.00014 QA(0.00017)	NA
Copper	1.3	0.13	NA	<0.00094	0.00035 Q	<0.00025	0.00086 A(-0.0003)	NA
Iron	0.3	0.15	NA	<0.027	0.012 A(0.0097)	0.110 A(0.022)	0.1 A(-0.024)	NA
Lead	0.015	0.0015	NA	<0.0028	<0.00015	<0.00015	0.00063	NA
Manganese	0.05	0.025	NA	0.0025	**0.11**	**0.057**	**0.034**	NA
Mercury	0.002	0.0002	NA	<0.000042	<0.000042	<0.000042	<0.000042	NA
Nickel	0.1	0.02	NA	<0.0022	0.0015	0.0019	0.0028	NA
Selenium	0.05	0.01	NA	<0.0023	<0.00064	0.00082 Q	<0.00064 A(0.00083)	NA
Sliver	0.05	0.01	NA	<0.00046	0.00021 Q	<0.000095 A(-0.00041)	<0.00010 A(0.00047)	NA
Sodium	increase of 10		NA	1.4	1.5	1.6	1.6	NA
Thallium	0.002	0.0004	NA	<0.0013	<0.000093	<0.000093	<0.000093	NA
Zinc	5	2.5	NA	0.06	0.029	0.015 A(-0.0048)	0.15	NA
Poychlorinated Biphenyls (PCBs) (µg/L):								
Aroclor-1016	NS	NS	NA	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	NA	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	NA	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	NA	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	NA	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	NA	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)								
Alkalinity	increase of 100		NA	180	200	220	330	NA
Ammonia	NS	NS	NA	NA	NA	NA	NA	NA
BOD	increase of 25		NA	NA	NA	NA	NA	NA
COD	increase of 25		NA	NA	NA	NA	NA	NA
Chloride	250	125	NA	1.2	0.83	2.4	1	NA
Cyanide	0.2	0.04	NA	NA	NA	NA	NA	NA
Sulfate	250	125	NA	7.7	0.9	11	7.6	NA
TDS	increase of 200		NA	NA	NA	NA	NA	NA
TSS	NS	NS	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	180	200	220	330	NA
Carbonate Alkalinity	NS	NS	NA	<2.5	<1.9	<1.9	<3.8	NA
Conductance, specific (umhos/c	increase of 200		NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	<0.043	<0.043	<0.044	<0.044	NA
Nitrogen, nitrate	increase of 2		NA	<0.090	<0.090	<0.080	<0.080	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	<0.037	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	1	1.3 Q	2.1	1.6	NA
Field Screening Measurements								
pH		lU	7.96	7.5	7.36	7.46	7.27	7.11
Conductivity		uS	411	333	331	381	497	784
Temperature		°C	20	11.1	13.8	8.8	8.4	7.6
Dissolved Oxygen		ppm	NA	5.78	2.14	2.39	2.33	2.66
Redox Potential		mV	NA	26	41	43	6	-99

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WP-02 - DAMAGED				
			7/11/94	5/10/99	9/23/99	12/6/99	3/29/00
Volatile Organic Compounds (VOCs) (µg/L):							
Benzene	5	0.5	<1.0	<0.44	<0.44	<0.44	<0.44
t-Butylbenzene	NS	NS	NA	<0.50	<0.50	<0.50	<0.50
Chloromethane	3	0.3					
2-Chlorotoluene	NS	NS	<1.0	<0.65	<0.65	<0.65	<0.65
1,2-Dichloroethane	5	0.5	<1.0	<0.54	<0.54	<0.54	<0.54
1,1-Dichloroethane	850	85	<1.0	<0.61	<0.61	<0.61	<0.61
1,1-Dichloroethene	7	0.7	<1.0	<0.47	<0.47	<0.47	<0.47
cis-1,2-Dichloroethene	70	7	<1.0	<0.46	<0.46	<0.46	<0.46
trans-1,2-Dichloroethene	100	20	NA	<0.64	<0.64	<0.64	<0.64
Ethylbenzene	700	140	<1.0	<0.50	<0.50	<0.50	<0.50
Isopropylbenzene	NS	NS	<1.0	<0.39	<0.39	<0.39	<0.39
Methylene chloride	5	0.5	**6.7 B**	<0.38	<0.38	<0.38	<0.38
Naphthalene	100	10	<1.0	<0.59	<0.59	<0.59	<0.59
n-Propylbenzene	NS	NS	<1.0	<0.54	<0.54	<0.54	<0.54
Tetrachloroethene	5	0.5	<1.0	<0.41	<0.41	<0.41	<0.41
Toluene	1,000	200	<1.0	<0.40	<0.40	<0.40	<0.40
1,1,1-Trichloroethane	200	40	<1.0	<0.53	<0.53	<0.53	<0.53
Trichloroethene	5	0.5	<1.0	<0.49	<0.49	<0.49	<0.49
1,2,4-Trimethylbenzene	--	--	<1.0	<0.47	<0.47	<0.47	<0.47
1,3,5-Trimethylbenzene	--	--	<1.0	<0.45	<0.45	<0.45	<0.45
Total Trimethylbenzene	480	96	<1.0	<0.47	<0.47	<0.47	<0.47
Vinyl Chloride	0.2	0.02	<1.0	<0.52	<0.17	<0.17	<0.17
Xylenes, m + p	--	--	<2.0	<0.77	<0.77	<0.77	<0.77
Xylene, o	--	--	<1.0	<0.54	<0.54	<0.54	<0.54
Total Xylenes	10,000	1,000	<2.0	<0.77	<0.77	<0.77	<0.77
Styrene	100	10	<1.0	<0.37	<0.37	<0.37	<0.37
Ethane	NS	NS	NA	<2.3	<10	<10	<10
Ethene	NS	NS	NA	<1.4	<10	<10	<10
Methane	NS	NS	NA	300	<10	<10	<10
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):							
1-Methylnaphthalene	NS	NS	NA	<0.044	<0.044	<0.044	<0.044
2-Methylnaphthalene	NS	NS	NA	<0.049	<0.049	<0.049	<0.049
Acenaphthene	NS	NS	NA	<0.20	<0.20	<0.20	<0.20
Acenaphthylene	NS	NS	NA	<0.18	<0.18	<0.18	<0.18
Anthracene	3000	600	NA	<0.0089	<0.0089	<0.0089	<0.0089
Benzo(a)anthracene	NS	NS	NA	<0.0087	<0.0087	<0.0087	<0.0087
Benzo(a)pyrene	0.2	0.02	NA	<0.012	<0.012	<0.012	<0.012
Benzo (b)fluoranthene	0.2	0.02	NA	<0.016	<0.016	<0.016	<0.016
Benzo(ghi)perylene	NS	NS	NA	<0.018	<0.018	<0.018	<0.018
Benzo(k)fluoranthene	NS	NS	NA	<0.0079	<0.0079	<0.0079	<0.0079
Butyl benzyl phthalate	NS	NS	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	NA	<0.0089	<0.0089	<0.0089	<0.0089
Dibenzo(a,h)anthracene	NS	NS	NA	<0.018	<0.018	<0.018	<0.018
Fluoranthene	400	80	NA	<0.019	<0.019	<0.019	<0.019
Fluorene	400	80	NA	<0.02	<0.02	<0.02	<0.02
Indeno(1,2,3-dc)pyrene	NS	NS	NA	<0.0083	<0.0083	<0.0083	<0.0083
Naphthalene	100	10	NA	<0.12	<0.12	<0.12	<0.12
N-Nitroso-Di-N-Propylamin	NS	NS	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	NA	<0.011	<0.011	<0.011	<0.011
Pyrene	250	50	NA	<0.013	<0.013	<0.013	0.017 Q

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WP-02 - DAMAGED				
			7/11/94	5/10/99	9/23/99	12/6/99	3/29/00
RCRA Metals (mg/L)							
Antimony	0.006	0.0012	NA	<0.0019 B(-0.0032)	**0.0016**	<0.00020	<0.00020
Arsenic	0.01	0.001	NA	<0.0024	0.00074 A(0.00035)	0.00057 Q	0.00037 Q
Barium	2	0.4	NA	0.017	0.023	0.022	0.02
Beryllium	0.004	0.0004	NA	<0.00043	<0.000070	<0.000070	<00007
Cadmium	0.005	0.0005	NA	<0.00017	<0.000060 A(-0.00047)	<0.000060	0.00014 Q
Chromium	0.1	0.01	NA	0.00070 Q	0.00050 A(-0.00024)	0.0012 A(0.00048)	0.00047 A(-.00008)
Copper	1.3	0.13	NA	<0.00094	0.00087	0.001	0.00028 QA(-.00041)
Iron	0.3	0.15	NA	<0.027	<0.0037 A(-0.022)	<0.0037	<0.0037
Lead	0.015	0.0015	NA	<0.0028	<0.00015	0.00019 Q	<0.00015
Manganese	0.05	0.025	NA	0.00098	0.00026 A(0.00013)	0.00017Q	<0.000069
Mercury	0.002	0.0002	NA	<0.000042	<0.000042	<0.000042	<0.000042
Nickel	0.1	0.02	NA	<0.0022	0.00031 Q	0.00045	0.00016 Q
Selenium	0.05	0.01	NA	<0.00057	<0.00064	<0.00064	<0.00064
Sliver	0.05	0.01	NA	0.00052 Q B(0.00056)	<0.000095 A(-0.00089)	<0.000095	0.00027 Q
Sodium	increase of 10		NA	0.320 Q	0.45	0.49	0.47
Thallium	0.002	0.0004	NA	<0.0013	<0.000093	<0.000093	<.000093
Zinc	5	2.5	NA	0.074	0.014	0.019	0.014
Poychlorinated Biphenyls (PCBs) (µg/L):							
Aroclor-1016	NS	NS	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)							
Alkalinity	increase of 100		NA	150	140	140	140
Ammonia	NS	NS	NA	NA	NA	NA	NA
BOD	increase of 25		NA	NA	NA	NA	NA
COD	increase of 25		NA	NA	NA	NA	NA
Chloride	250	125	NA	0.62 Q	<0.24	0.57	0.30 Q
Cyanide	0.2	0.04	NA	NA	NA	NA	NA
Sulfate	250	125	NA	4.9	3.2	3.6	4.7
TDS	increase of 200		NA	NA	NA	NA	NA
TSS	NS	NS	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	150	140	140	140
Carbonate Alkalinity	NS	NS	NA	<2.5	<2.5	4.0 Q	<1.9
Conductance, specific (umhos/c	increase of 200		NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	<0.043	<0.043	<0.044	<.044
Nitrogen, nitrate	increase of 2		NA	0.23 Q	0.14	0.3	0.39
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	1.1 B(0.70)	1.4	<0.50	1.6 A(.48)
Field Screening Measurements							
pH		IU	7.76	8.14	8.36	8.03	8.02
Conductivity		uS	249	226	261	254	250
Temperature		°C	13	9.8	16.3	12.6	7.8
Dissolved Oxygen		ppm	NA	11.7	9.06	8.94	6.9
Redox Potential		mV	NA	201	111	120	220

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WP-04									
			7/11/94	5/10/99	9/23/99	12/6/99	3/29/00	4/14/05	10/19/06	9/19/07	9/25/12	10/22/13
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	<1.0	<0.44	<0.44	<0.44	<0.44	<0.41 H	<0.41	<0.47	<0.5	<0.24
t-Butylbenzene	NS	NS	NA	<0.50	<0.50	<0.50	<0.50	<0.97 H	<0.97	<0.34	<0.71	<0.36
Chloromethane	3	0.3								<1	<1.9	<0.81
2-Chlorotoluene	NS	NS	<1.0	<0.65	<0.65	<0.65	<0.65	<0.85 H	<0.85	<0.49	<0.7	<0.21
1,2-Dichloroethane	5	0.5	<1.0	<0.54	<0.54	<0.54	<0.54	<0.36 H	<0.36	<0.45	<0.5	<0.41
1,1-Dichloroethane	850	85	<1.0	<0.61	<0.61	<0.61	<0.61	<0.75 H	<0.75	<0.56	<0.98	<0.3
1,1-Dichloroethene	7	0.7	<1.0	<0.47	<0.47	<0.47	<0.47	<0.57 H	<0.57	<0.64	<0.6	<0.4
cis-1,2-Dichloroethene	70	7	2.4	1.3 Q	**9.8**	6.8	3.6	1.1 QH	6	**9.6**	**7.4**	**7.5**
trans-1,2-Dichloroethene	100	20	NA	<0.64	<0.64	<0.64	<0.64	<0.89 H	<0.89	<0.95	<0.79	<0.35
Ethylbenzene	700	140	<1.0	<0.50	<0.50	<0.50	<0.50	<0.54 H	<0.54	<0.38	<0.78	<0.55
Isopropylbenzene	NS	NS	<1.0	<0.39	<0.39	<0.39	<0.39	<0.59 H	<0.59	<0.48	<0.92	<0.3
Methylene chloride	5	0.5	**10 B**	<0.38	<0.38	<0.38	<0.38	<0.43 H	<0.43	<0.69	<1.1	<0.5
Naphthalene	100	10	<1.0	<0.59	<0.59	<0.59	<0.59	<0.74 H	<0.74	<1.8	<2.1	<1.7
n-Propylbenzene	NS	NS	<1.0	<0.54	<0.54	<0.54	<0.54	<0.81 H	<0.81	<0.38	<0.59	<0.25
Tetrachloroethene	5	0.5	<1.0	<0.41	<0.41	<0.41	<0.41	<0.45 H	<0.45	<0.52	<0.44	<0.33
Toluene	1,000	200	<1.0	<0.40	<0.40	<0.40	<0.40	<0.67 H	<0.67	<0.46	<0.53	<0.69
1,1,1-Trichloroethane	200	40	<1.0	<0.53	<0.53	<0.53	<0.53	<0.90 H	<0.90	<0.5	<0.85	0.50 J
Trichloroethene	5	0.5	**6.2**	**5.5**	**8.9**	**12**	**7.7**	**2.3 H**	**5.3**	**6**	**2.66**	**3.5**
1,2,4-Trimethylbenzene	--	--	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97 H	<0.97	<1.2	<0.8	<2.2
1,3,5-Trimethylbenzene	--	--	<1.0	<0.45	<0.45	<0.45	<0.45	<0.83 H	<0.83	<0.37	<0.74	<1.4
Total Trimethylbenzene	480	96	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97 H	<0.97	<1.2	<0.8	<2.2
Vinyl Chloride	0.2	0.02	<1.0	<0.52	<0.17	<0.17	<0.17	<0.18 H	<0.18	<0.2	**0.31 J**	<0.18
Xylenes, m + p	--	--	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8 H	<1.8	<0.67	<1.1	<0.69
Xylene, o	--	--	<1.0	<0.54	<0.54	<0.54	<0.54	<0.83 H	<0.83	<0.32	<0.8	<0.63
Total Xylenes	10,000	1,000	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8 H	<1.8	<0.67	<1.1	<0.69
Styrene	100	10	<1.0	<0.37	<0.37	<0.37	<0.37	<0.86 H&	<0.86	NA	NA	NA
Ethane	NS	NS	NA	<2.3	<10	<10	<10	NA	<10	NA	NA	NA
Ethene	NS	NS	NA	<1.4	<10	<10	<10	NA	<10	NA	NA	NA
Methane	NS	NS	NA	4.8	<10	<10	<10	NA	<10	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):												
1-Methylnaphthalene	NS	NS	NA	<0.044	<0.044	<0.044	<0.044	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	NA	<0.049	<0.049	<0.049	<0.049	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	NA	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	NA	<0.18	<0.18	<0.18	<0.18	NA	NA	NA	NA	NA
Anthracene	3000	600	NA	<0.0089	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	NA	<0.0087	<0.0087	<0.0087	<0.0087	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	NA	<0.012	<0.012	<0.012	<0.012	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	NA	<0.016	<0.016	<0.016	<0.016	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	NA	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	NA	<0.0079	<0.0079	<0.0079	<0.0079	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	NA	<0.0089	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	NA	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Fluoranthene	400	80	NA	<0.019	<0.019	<0.019	<0.019	NA	NA	NA	NA	NA
Fluorene	400	80	NA	<0.02	<0.02	<0.02	<0.02	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	NA	<0.0083	<0.0083	<0.0083	<0.0083	NA	NA	NA	NA	NA
Naphthalene	100	10	NA	<0.12	<0.12	<0.12	<0.12	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	NA	<0.011	<0.011	<0.011	<0.011	NA	NA	NA	NA	NA
Pyrene	250	50	NA	<0.013	<0.013	<0.013	<0.013	NA	NA	NA	NA	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WP-04									
			7/11/94	5/10/99	9/23/99	12/6/99	3/29/00	4/14/05	10/19/06	9/19/07	9/25/12	10/22/13
RCRA Metals (mg/L)												
Antimony	0.006	0.0012	NA	<0.0019 B(-0.0032)	0.0007	<0.00020	0.00020 Q	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	<0.0024	**0.0014 A(0.00035)**	0.00097	0.00078	NA	NA	NA	NA	NA
Barium	2	0.4	NA	0.043	0.047	0.052	0.051	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	<0.00043	<0.000070	<0.000070	<.000070	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	<0.00017	<0.000060 A(-0.00047)	<0.000060	0.0003	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	0.00057 Q	0.00054 A(-0.00024)	0.0017 A(0.00048)	0.00023 QA(-0.00008)	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	0.0013 Q	0.0027	0.0046	0.0059 A(-0.00041)	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	**0.17**	**0.36**	**0.36**	0.028	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	<0.0028	<0.00015	0.00037 Q	0.00051	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	**0.029**	**0.16**	**0.13**	0.0056	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	<0.000042 *	<0.000042	0.000052 Q	<0.000042	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	0.0027 Q	0.0052	0.006	0.0049	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	<0.00057	<0.00064	0.0010 Q	0.0011 Q	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	<0.00046	<0.000095 A(-0.00089)	<0.000095	<.00010	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	5.7	6.6	6.6	5.4	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	<0.0013	<0.00093	<0.000093	<0.000093	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	0.12	0.15	0.18	0.29	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):												
Aroclor-1016	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)												
Alkalinity	increase of 100		NA	320	310	360	330	NA	NA	NA	NA	NA
Ammonia	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	NA	17	12	22	17	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	NA	28	26	34	29	NA	NA	NA	NA	NA
TDS	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	320	310	360	330	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	<2.5	<2.5	<1.9	<1.9	NA	NA	NA	NA	NA
Conductance, specific (umhos/c	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	<0.043	<0.043	<0.044	<0.044	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	0.25 Q	0.61	1.4	1.1	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	2.7	4.2	2	4.1 A(.48)	NA	NA	NA	NA	NA
Field Screening Measurements												
pH		IU	7.18	7.3	7.36	7.19	7.15	7.2	7.23	6.73	7.01	7.23
Conductivity		uS	539	625	630	715	628	638	540.5	675	705	550
Temperature		°C	18	10.4	16.2	8.4	7.5	7	11.1	17	15.11	11.4
Dissolved Oxygen		ppm	NA	1.68	1.8	1.98	1.98	253	3.2	0.76	0.28	1.14
Redox Potential		mV	NA	133	116	120	80	64	34	-31	-86.8	66.1

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WP-05 - ABANDONED						
			7/11/94	5/10/99	10/5/99	12/8/99	3/31/00	4/14/05	9/6/07
Volatile Organic Compounds (VOCs) (µg/L):									
Benzene	5	0.5	<1.0	<0.44	<0.44	<0.44	<0.44	<0.41 H	NS
t-Butylbenzene	NS	NS	NA	<0.50	<0.50	<0.50	<0.50	<0.97 H	NS
Chloromethane	3	0.3							NS
2-Chlorotoluene	NS	NS	<1.0	<0.65	<0.65	<0.65	<0.65	<0.85 H	NS
1,2-Dichloroethane	5	0.5	<1.0	<0.54	<0.54	<0.54	<0.54	<0.36 H	NS
1,1-Dichloroethane	850	85	<1.0	<0.61	<0.61	<0.61	<0.61	<0.75 H	NS
1,1-Dichloroethene	7	0.7	<1.0	<0.47	<0.47	<0.47	<0.47	<0.57 H	NS
cis-1,2-Dichloroethene	70	7	<1.0	<0.46	<0.46	<0.46	<0.46	<0.83 H	NS
trans-1,2-Dichloroethene	100	20	NA	<0.64	<0.64	<0.64	<0.64	<0.89 H	NS
Ethylbenzene	700	140	<1.0	<0.50	<0.50	<0.50	<0.50	<0.54 H	NS
Isopropylbenzene	NS	NS	<1.0	<0.39	<0.39	<0.39	<0.39	<0.59 H	NS
Methylene chloride	5	0.5	**4.5**	<0.38	<0.38	<0.38	<0.38	<0.43 H	NS
Naphthalene	100	10	<1.0	<0.59	<0.59	<0.59	<0.59	<0.74 H	NS
n-Propylbenzene	NS	NS	<1.0	<0.54	<0.54	<0.54	<0.54	<0.81 H	NS
Tetrachloroethene	5	0.5	<1.0	<0.41	<0.41	<0.41	<0.41	<0.45 H	NS
Toluene	1,000	200	<1.0	<0.40	<0.40	<0.40	<0.40	<0.67 H	NS
1,1,1-Trichloroethane	200	40	<1.0	<0.53	<0.53	<0.53	<0.53	<0.90 H	NS
Trichloroethene	5	0.5	<1.0	<0.49	<0.49	<0.49	<0.49	<0.48 H	NS
1,2,4-Trimethylbenzene	--	--	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97 H	NS
1,3,5-Trimethylbenzene	--	--	<1.0	<0.45	<0.45	<0.45	<0.45	<0.83 H	NS
Total Trimethylbenzene	480	96	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97 H	NS
Vinyl Chloride	0.2	0.02	<1.0	<0.52	<0.17	<0.17	<0.17	<0.18 H	NS
Xylenes, m + p	--	--	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8 H	NS
Xylene, o	--	--	<1.0	<0.54	<0.54	<0.54	<0.54	<0.83 H	NS
Total Xylenes	10,000	1,000	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8 H	NS
Styrene	100	10	<1.0	<0.37	<0.37	<0.37	<0.37	<0.86 H&	NS
Ethane	NS	NS	NA	<2.3	<10	<10	<10	NA	NS
Ethene	NS	NS	NA	<1.4	<10	<10	<10	NA	NS
Methane	NS	NS	NA	210	280	31	180	NA	NS
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):									
1-Methylnaphthalene	NS	NS	NA	<0.044	<0.044	<0.044	<0.044	NA	NS
2-Methylnaphthalene	NS	NS	NA	<0.049	<0.049	<0.049	<0.049	NA	NS
Acenaphthene	NS	NS	NA	<0.20	<0.20	<0.20	<0.20	NA	NS
Acenaphthylene	NS	NS	NA	<0.18	<0.18	<0.18	<0.18	NA	NS
Anthracene	3000	600	NA	<0.0089	<0.0089	<0.0089	<0.0089	NA	NS
Benzo(a)anthracene	NS	NS	NA	<0.0087	<0.0087	<0.0087	<0.0087	NA	NS
Benzo(a)pyrene	0.2	0.02	NA	<0.012	<0.012	<0.012	<0.012	NA	NS
Benzo (b)fluoranthene	0.2	0.02	NA	<0.016	<0.016	<0.016	<0.016	NA	NS
Benzo(ghi)perylene	NS	NS	NA	0.019 Q	<0.018	<0.018	<0.018	NA	NS
Benzo(k)fluoranthene	NS	NS	NA	<0.0079	<0.0079	<0.0079	<0.0079	NA	NS
Butyl benzyl phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NS
Bis (2-Ethylhexyl) Phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NS
Chrysene	0.2	0.02	NA	**0.024 Q**	<0.0089	<0.0089	<0.0089	NA	NS
Dibenzo(a,h)anthracene	NS	NS	NA	<0.018	<0.018	<0.018	<0.018	NA	NS
Fluoranthene	400	80	NA	<0.019	<0.019	<0.019	<0.019	NA	NS
Fluorene	400	80	NA	<0.02	<0.02	<0.02	<0.02	NA	NS
Indeno(1,2,3-dc)pyrene	NS	NS	NA	<0.0083	<0.0083	<0.0083	<0.0083	NA	NS
Naphthalene	100	10	NA	<0.12	<0.12	<0.12	<0.12	NA	NS
N-Nitroso-Di-N-Propylamin	NS	NS	NA	NA	NA	NA	NA	NA	NS
o-Cresol (2-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NS
p-Cresol (4-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NS
Phenanthrene	NS	NS	NA	<0.011	<0.011	<0.011	<0.011	NA	NS
Pyrene	250	50	NA	<0.013	<0.013	<0.013	<0.013	NA	NS

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WP-05 - ABANDONED						
			7/11/94	5/10/99	10/5/99	12/8/99	3/31/00	4/14/05	9/6/07
RCRA Metals (mg/L)									
Antimony	0.006	0.0012	NA	<0.0019 B(-0.0032)	<0.00016	0.0023	<0.00020	NA	NS
Arsenic	0.01	0.001	NA	<0.0024	**0.0016 A(-0.00047)**	**0.0014 A(0.00038)**	**0.0018 A(0.00034)**	NA	NS
Barium	2	0.4	NA	0.043	0.058	0.045	0.046	NA	NS
Beryllium	0.004	0.0004	NA	<0.00043	<0.000070	<0.000070	<0.000070	NA	NS
Cadmium	0.005	0.0005	NA	<0.00017	<0.000076 A(0.00013)	<0.000060	0.00015 Q	NA	NS
Chromium	0.1	0.01	NA	0.00068 Q	0.0015 A(0.00020)	0.00063 A(0.00012)	0.00026 A(0.00017)	NA	NS
Copper	1.3	0.13	NA	<0.00094	0.00083	<0.00025	0.0013 A(-0.0003)	NA	NS
Iron	0.3	0.15	NA	0.034 Q	0.130 A(0.0097)	0.011 QA(0.022)	<0.0037 A(-0.024)	NA	NS
Lead	0.015	0.0015	NA	<0.0028	<0.00015	<0.00015	0.00034 Q	NA	NS
Manganese	0.05	0.025	NA	**0.33**	**0.48**	**0.32**	**0.28**	NA	NS
Mercury	0.002	0.0002	NA	<0.000042	<0.000042	<0.000042	<0.000042	NA	NS
Nickel	0.1	0.02	NA	0.0094	0.0075	0.0082	0.012	NA	NS
Selenium	0.05	0.01	NA	<0.00057	<0.00064	0.00079 Q	<0.00064 A(0.00083)	NA	NS
Sliver	0.05	0.01	NA	<0.00046	<0.000095	<0.000095 A(-0.00041)	<0.00010 A(0.00047)	NA	NS
Sodium	increase of 10		NA	5.6	4.6	5.1	6.4	NA	NS
Thallium	0.002	0.0004	NA	<0.0013	<0.000093	<0.000093	<0.000093	NA	NS
Zinc	5	2.5	NA	0.096	0.23	0.093 A(-0.0048)	0.19	NA	NS
Poychlorinated Biphenyls (PCBs) (µg/L):									
Aroclor-1016	NS	NS	NA	NA	NA	NA	NA	NA	NS
Aroclor-1221	NS	NS	NA	NA	NA	NA	NA	NA	NS
Aroclor-1232	NS	NS	NA	NA	NA	NA	NA	NA	NS
Aroclor-1242	NS	NS	NA	NA	NA	NA	NA	NA	NS
Aroclor-1248	NS	NS	NA	NA	NA	NA	NA	NA	NS
Aroclor-1254	NS	NS	NA	NA	NA	NA	NA	NA	NS
Aroclor-1260	NS	NS	NA	NA	NA	NA	NA	NA	NS
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NS
General Chemistry Parameters (mg/L)									
Alkalinity	increase of 100		NA	340	420	340	340	NA	NS
Ammonia	NS	NS	NA	NA	NA	NA	NA	NA	NS
BOD	increase of 25		NA	NA	NA	NA	NA	NA	NS
COD	increase of 25		NA	NA	NA	NA	NA	NA	NS
Chloride	250	125	NA	14	17	16	26	NA	NS
Cyanide	0.2	0.04	NA	NA	NA	NA	NA	NA	NS
Sulfate	250	125	NA	34	29	35	34	NA	NS
TDS	increase of 200		NA	NA	NA	NA	NA	NA	NS
TSS	NS	NS	NA	NA	NA	NA	NA	NA	NS
Hardness, Total	increase of 100		NA	NA	NA	NA	NA	NA	NS
Bicarbonate Alkalinity	NS	NS	NA	340	420	340	340	NA	NS
Carbonate Alkalinity	NS	NS	NA	<2.5	<1.9	<1.9	<1.9	NA	NS
Conductance, specific (umhos/c	increase of 200		NA	NA	NA	NA	NA	NA	NS
Ferrous Iron	NS	NS	NA	<0.043	<0.043	<0.044	<0.044	NA	NS
Nitrogen, nitrate	increase of 2		NA	0.98	0.43	0.16 Q	0.92	NA	NS
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	1	NA	NS
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NS
TOC as NPOC - Filtered	increase of 1		NA	3.2 B(0.70)	4.6	1.2 Q	3.7 A(0.67)	NA	NS
Field Screening Measurements									
pH		IU	6.57	6.73	6.86	6.67	6.7	6.94	NS
Conductivity		uS	850	680	722	694	692	696	NS
Temperature		°C	12	10.5	3.9	11.8	8.4	8.4	NS
Dissolved Oxygen		ppm	NA	1.4	1.09	1.33	1.29	1.79	NS
Redox Potential		mV	NA	165	33	17	26	-12	NS

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WP-06									
			7/11/94	5/10/99	9/23/99	12/6/99	3/29/00	4/14/05	10/19/06	9/19/07	9/25/12	10/22/2013
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	<20	<0.44	<2.2	<0.88	<0.44	<0.41 H	<0.41	<4.7	<5	<0.24
t-Butylbenzene	NS	NS	<20	<0.50	<0.50	<0.50	<0.50	<0.97 H	<0.97	<3.4	<7.1	<0.36
Chloromethane	3	0.3								<10	<19	<0.81
2-Chlorotoluene	NS	NS	<20	<0.65	<3.2	<1.3	<0.65	<0.85 H	<0.85	<4.9	<7	<0.21
1,2-Dichloroethane	5	0.5	<20	<0.54	<2.7	<0.54	<0.54	<0.36 H	<0.36	<4.5	<5	<0.41
1,1-Dichloroethane	850	85	<20	0.95 Q	<3.0	<1.2	<0.61	<0.75 H	<0.75	<5.6	<9.8	<0.3
1,1-Dichloroethene	7	0.7	<20	<0.47	<2.3	<0.94	<0.47	<0.57 H	<0.57	<6.4	<6	<0.4
cis-1,2-Dichloroethene	70	7	**3,400 OC**	**200 D**	**630**	**280**	**140**	**87 H**	**81**	**249**	**185**	**22.6**
trans-1,2-Dichloroethene	100	20	**28**	0.90 Q	<3.2	<1.3	<0.64	<0.89 H	<0.89	<9.5	<7.9	0.38 J
Ethylbenzene	700	140	<20	<0.50	<2.5	<1.0	<0.50	<0.54 H	<0.54	<3.8	<7.8	<0.55
Isopropylbenzene	NS	NS	<20	<0.39	<0.39	<0.39	<0.39	<0.59 H	<0.59	<4.8	<9.2	<0.3
Methylene chloride	5	0.5	**480 B**	<0.38	<1.9	<0.76	<0.38	<0.43 H	<0.43	<6.9	<11	<0.5
Naphthalene	100	10	<20	<0.59	<2.9	<1.2	<0.59	<0.74 H	<0.74	<18	<21	<1.7
n-Propylbenzene	NS	NS	<20	<0.54	<2.7	<1.1	<0.54	<0.81 H	<0.81	<3.8	<5.9	<0.25
Tetrachloroethene	5	0.5	<20	<0.41	<2.0	<0.82	<0.41	<0.45 H	<0.45	<5.2	<4.4	<0.33
Toluene	1,000	200	<20	<0.40	<2.0	<0.80	<0.40	<0.67 H	<0.67	<4.6	<5.3	<0.69
1,1,1-Trichloroethane	200	40	<20	2.3	3.9 Q	2.2 Q	2.1	<0.90 H	1.1 Q	<5	<8.5	0.79 J
Trichloroethene	5	0.5	**43**	**20**	**28**	**26**	**21**	**11 H**	**10**	**14.3**	**11.9 J**	**5.3**
1,2,4-Trimethylbenzene	--	--	<20	<0.47	<2.3	<0.94	<0.47	<0.97 H	<0.97	<12	<8	<2.2
1,3,5-Trimethylbenzene	--	--	<20	<0.45	<2.2	<0.90	<0.45	<0.83 H	<0.83	<3.7	<7.4	<1.4
Total Trimethylbenzene	480	96	<20	<0.47	<2.3	<0.94	<0.47	<0.97 H	<0.97	<12	<8	<2.2
Vinyl Chloride	0.2	0.02	<20	<0.52	<0.85	<0.34	<0.17	<0.18 H	<0.18	<2	<1.8	<0.18
Xylenes, m + p	--	--	<40	<0.77	<3.9	<1.5	<0.77	<1.8 H	<1.8	<6.7	<11	<0.69
Xylene, o	--	--	<20	<0.54	<2.7	<1.1	<0.54	<0.83 H	<0.83	<3.2	<8	<0.63
Total Xylenes	10,000	1,000	<40	<0.77	<3.9	<1.5	<0.77	<1.8 H	<1.8	<6.7	<11	<0.69
Styrene	100	10	<20	<0.37	<1.8	<0.74	<0.37	<0.86 H&	<0.86	NA	NA	NA
Ethane	NS	NS	NA	<2.3	<10	<10	<10	NA	<10	NA	NA	NA
Ethene	NS	NS	NA	<1.4	<10	<10	<10	NA	<10	NA	NA	NA
Methane	NS	NS	NA	1.2	<10	<10	<10	NA	<10	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):												
1-Methylnaphthalene	NS	NS	NA	<0.044	<0.044	<0.044	<0.044	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	NA	<0.049	<0.049	<0.049	<0.049	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	NA	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	NA	<0.18	<0.18	<0.18	<0.18	NA	NA	NA	NA	NA
Anthracene	3000	600	NA	<0.0089	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	NA	<0.0087	<0.0087	<0.0087	<0.0087	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	NA	<0.012	<0.012	<0.012	<0.012	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	NA	<0.016	<0.016	<0.016	<0.016	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	NA	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	NA	<0.0079	<0.0079	<0.0079	<0.0079	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	NA	<0.0089	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	NA	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Fluoranthene	400	80	NA	<0.019	<0.019	<0.019	<0.019	NA	NA	NA	NA	NA
Fluorene	400	80	NA	<0.02	<0.02	<0.02	<0.02	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	NA	<0.0083	<0.0083	<0.0083	<0.0083	NA	NA	NA	NA	NA
Naphthalene	100	10	NA	<0.12	<0.12	<0.12	<0.12	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	NA	<0.011	<0.011	<0.011	<0.011	NA	NA	NA	NA	NA
Pyrene	250	50	NA	<0.013	<0.013	<0.013	<0.013	NA	NA	NA	NA	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WP-06									
			7/11/94	5/10/99	9/23/99	12/6/99	3/29/00	4/14/05	10/19/06	9/19/07	9/25/12	10/22/2013
RCRA Metals (mg/L)												
Antimony	0.006	0.0012	NA	<0.0019 B(-0.0032)	**0.0023**	<0.00020	<0.00020	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	<0.0024	**0.0010 A(0.00035)**	0.00045 Q	<0.00020	NA	NA	NA	NA	NA
Barium	2	0.4	NA	0.11	0.11	0.11	0.11	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	<0.00043	0.00021 Q	<0.000070	<0.000070	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	<0.00017	<0.000060 A(-0.00047)	<0.000060	0.00035	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	0.00058 Q	0.00039 A(-0.00024)	0.0023 A(0.00048)	0.00069 A(-0.00008)	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	<0.00094	0.0056	0.0035	0.0088	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	<0.027	0.018 A(-0.022)	0.02	0.009 Q	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	<0.0028	0.00033 Q	0.00026 Q	0.00061	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	0.008	0.0016 A(0.00013)	0.0026	0.0022	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	<0.000042	<0.000042	<0.000042	<0.000042	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	**0.027 Q**	0.0022	0.0019	0.0017	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	<0.00057	<0.00064	0.00075 Q	<0.00064	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	<0.00046	<0.000095 A(-0.00089)	<0.000095	<0.0001	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	5.2	5.1	5.1	5.4	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	<0.0013	0.00020 Q	<0.000093	<0.000093	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	0.17	0.084	0.17	0.46	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):												
Aroclor-1016	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)												
Alkalinity	increase of 100		NA	470	410	430	480	NA	NA	NA	NA	NA
Ammonia	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	NA	11	12	14	15	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	NA	35	33	32	32	NA	NA	NA	NA	NA
TDS	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	470	410	430	480	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	<2.5	<2.5	<1.9	<1.9	NA	NA	NA	NA	NA
Conductance, specific (umhos/c	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	<0.043	<0.043	<0.044	<0.088 ED	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	0.67	0.53	0.92	1.1 H(0.02)	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	2.0 B(0.70)	2.5	1.8	3.9 A(.48)	NA	NA	NA	NA	NA
Field Screening Measurements												
pH		lU	7.2	7.17	7.4	7.2	7.24	6.98	7.34	6.95	6.95	7.3
Conductivity		uS	930	809	785	814	818	851	786.1	808.4	787	624
Temperature		°C	10	8.9	12.6	10	8.9	7.9	10.9	11.8	11.73	10.34
Dissolved Oxygen		ppm	NA	4.6	4.21	3.98	3.9	83	3.07	--	1.56	1.64
Redox Potential		mV	NA	59	131	137	138	4.81	110	70	-41.3	84.6

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WP-07									
			7/11/94	5/10/99	9/23/99	12/6/99	3/29/00	4/14/05	10/19/06	9/19/07	9/25/12	10/21/13
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	<1.0	<0.44	<0.44	<0.44	<0.44	<0.41 H	<0.41	<0.47	<0.5	<0.24
t-Butylbenzene	NS	NS	NA	<0.50	<0.50	<0.50	<0.50	<0.97 H	<0.97	<0.34	<0.71	<0.36
Chloromethane	3	0.3								<1	<1.9	<0.81
2-Chlorotoluene	NS	NS	<1.0	<0.65	<0.65	<0.65	<0.65	<0.85 H	<0.85	<0.49	<0.7	<0.21
1,2-Dichloroethane	5	0.5	<1.0	<0.54	<0.54	<0.54	<0.54	<0.36 H	<0.36	<0.45	<0.5	<0.41
1,1-Dichloroethane	850	85	<1.0	<0.61	<0.61	<0.61	<0.61	<0.75 H	<0.75	<0.56	<0.98	<0.3
1,1-Dichloroethene	7	0.7	**1.3**	<0.47	<0.47	<0.47	<0.47	<0.57 H	<0.57	<0.64	<0.6	<0.4
cis-1,2-Dichloroethene	70	7	<1.0	<0.46	<0.46	<0.46	<0.46	<0.83 H	<0.83	<0.68	<0.74	<0.38
trans-1,2-Dichloroethene	100	20	NA	<0.64	<0.64	<0.64	<0.64	<0.89 H	<0.89	<0.95	<0.79	<0.35
Ethylbenzene	700	140	<1.0	<0.50	<0.50	<0.50	<0.50	<0.54 H	<0.54	<0.38	<0.78	<0.55
Isopropylbenzene	NS	NS	<1.0	<0.39	<0.39	<0.39	<0.39	<0.59 H	<0.59	<0.48	<0.92	<0.3
Methylene chloride	5	0.5	**22 B**	<0.38	<0.38	<0.38	<0.38	<0.43 H	<0.43	<0.69	<1.1	<0.5
Naphthalene	100	10	<1.0	<0.59	<0.59	<0.59	<0.59	<0.74 H	<0.74	<1.8	<2.1	<1.7
n-Propylbenzene	NS	NS	<1.0	<0.54	<0.54	<0.54	<0.54	<0.81 H	<0.81	<0.38	<0.59	<0.25
Tetrachloroethene	5	0.5	<1.0	<0.41	<0.41	<0.41	<0.41	<0.45 H	<0.45	<0.52	<0.44	<0.33
Toluene	1,000	200	<1.0	<0.40	<0.40	<0.40	<0.40	<0.67 H	<0.67	<0.46	<0.53	<0.69
1,1,1-Trichloroethane	200	40	<1.0	<0.53	<0.53	<0.53	<0.53	<0.90 H	<0.90	<0.5	<0.85	<0.33
Trichloroethene	5	0.5	**1.6**	**0.59 Q**	**0.66 Q**	<0.49	<0.49	<0.48 H	<0.48	<0.44	<0.47	<0.33
1,2,4-Trimethylbenzene	--	--	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97 H	<0.97	<1.2	<0.8	<2.2
1,3,5-Trimethylbenzene	--	--	<1.0	<0.45	<0.45	<0.45	<0.45	<0.83 H	<0.83	<0.37	<0.74	<1.4
Total Trimethylbenzene	480	96	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97 H	<0.97	<1.2	<0.8	<2.2
Vinyl Chloride	0.2	0.02	<1.0	<0.52	<0.17	<0.17	<0.17	<0.18 H	<0.18	<0.2	<0.18	<0.18
Xylenes, m + p	--	--	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8 H	<1.8	<0.67	<1.1	<0.69
Xylene, o	--	--	<1.0	<0.54	<0.54	<0.54	<0.54	<0.83 H	<0.83	<0.32	<0.8	<0.63
Total Xylenes	10,000	1,000	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8 H	<1.8	<0.67	<1.1	<0.69
Styrene	100	10	<1.0	<0.37	<0.37	<0.37	<0.37	<0.86 H&	<0.86	NA	NA	NA
Ethane	NS	NS	NA	<2.3	<10	<10	<10	NA	<10	NA	NA	NA
Ethene	NS	NS	NA	<1.4	<10	<10	<10	NA	<10	NA	NA	NA
Methane	NS	NS	NA	18	<10	<10	<10	NA	10	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):												
1-Methylnaphthalene	NS	NS	NA	<0.044	<0.044	<0.044	<0.044	NA	NA	NA	NA	NA
2-Methylnaphthalene	NS	NS	NA	<0.049	<0.049	<0.049	<0.049	NA	NA	NA	NA	NA
Acenaphthene	NS	NS	NA	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA
Acenaphthylene	NS	NS	NA	<0.18	<0.18	<0.18	<0.18	NA	NA	NA	NA	NA
Anthracene	3000	600	NA	<0.0089	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Benzo(a)anthracene	NS	NS	NA	<0.0087	<0.0087	<0.0087	<0.0087	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.02	NA	<0.012	<0.012	<0.012	<0.012	NA	NA	NA	NA	NA
Benzo (b)fluoranthene	0.2	0.02	NA	<0.016	<0.016	<0.016	<0.016	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NS	NS	NA	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NS	NS	NA	<0.0079	<0.0079	<0.0079	<0.0079	NA	NA	NA	NA	NA
Butyl benzyl phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.2	0.02	NA	<0.0089	<0.0089	<0.0089	<0.0089	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NS	NS	NA	<0.018	<0.018	<0.018	<0.018	NA	NA	NA	NA	NA
Fluoranthene	400	80	NA	<0.019	<0.019	<0.019	<0.019	NA	NA	NA	NA	NA
Fluorene	400	80	NA	<0.02	<0.02	<0.02	<0.02	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene	NS	NS	NA	<0.0083	<0.0083	<0.0083	<0.0083	NA	NA	NA	NA	NA
Naphthalene	100	10	NA	<0.12	<0.12	<0.12	<0.12	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NS	NS	NA	<0.011	<0.011	<0.011	<0.011	NA	NA	NA	NA	NA
Pyrene	250	50	NA	<0.013	<0.013	<0.013	<0.013	NA	NA	NA	NA	NA

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WP-07									
			7/11/94	5/10/99	9/23/99	12/6/99	3/29/00	4/14/05	10/19/06	9/19/07	9/25/12	10/21/13
RCRA Metals (mg/L)												
Antimony	0.006	0.0012	NA	<0.0019	**0.0037**	<0.00020	<0.00020	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	<0.0024	**0.0021 A(0.00035)**	**0.0036**	**0.0047**	NA	NA	NA	NA	NA
Barium	2	0.4	NA	0.072	0.082	0.065	0.046	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	<0.00043	0.000090 Q	<0.000070	<0.000070	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	<0.00017	0.00011 QA(-0.00047)	<0.000060	0.00017 Q	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	<0.00053	0.00073 A(-0.00024)	0.0016 A(0.00048)	0.00087 A(-0.00008)	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	<0.00094	0.0018	0.0021	0.0055 A(-0.00041)	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	**0.26**	**0.200 A(-0.022)**	**0.28**	**0.71**	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	<0.0028	0.00016 Q	<0.00015	0.00086	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	**0.39**	**0.14**	**0.11**	**0.04**	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	<0.000042	<0.000042	**0.0002**	<.000042	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	0.0093	0.0067	0.0056	0.004	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	<0.00057	<0.00064	<0.00064	0.00089 Q	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	<0.00046	<0.000095 A(-0.00089)	<0.000095	<.0001	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	6.6	8.5	6.7	4.6	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	<0.0013	<0.000093	<0.000093	<.000093	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	0.05	0.034	0.066	0.1	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):												
Aroclor-1016	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)												
Alkalinity	increase of 100		NA	2000	360	350	340	NA	NA	NA	NA	NA
Ammonia	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	125	NA	14	21	21	12	NA	NA	NA	NA	NA
Cyanide	0.2	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	125	NA	35	38	36	27	NA	NA	NA	NA	NA
TDS	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	increase of 100		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity	NS	NS	NA	2000	360	350	340	NA	NA	NA	NA	NA
Carbonate Alkalinity	NS	NS	NA	<2.5	<2.5	<1.9	<9.5	NA	NA	NA	NA	NA
Conductance, specific (umhos/cı	increase of 200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	NS	NS	NA	<0.043	<0.043	<0.044	0.045 Q	NA	NA	NA	NA	NA
Nitrogen, nitrate	increase of 2		NA	<0.090	<0.090	0.090 Q	0.23 QH(0.07)	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	0.26	NA	NA	NA	NA	NA
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered	increase of 1		NA	2.5	4.4	3.9	6.5 A(.48)	NA	NA	NA	NA	NA
Field Screening Measurements												
pH		IU	7.18	7.09	7.16	7.28	7.07	7.09	6.95	6.57	6.91	7.03
Conductivity		uS	740	628	736	699	542	784	701.1	741.3	739	576
Temperature		°C	16	12.3	15.1	10.8	8.4	8.3	12.2	14.7	13.75	12.35
Dissolved Oxygen		ppm	NA	3.01	2.27	2.27	1.88	1.96	1.18	--	0.1	0.82
Redox Potential		mV	NA	3	26	16	40	62	73	19	-64.9	55.3

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WP-08 - ABANDONED							
			7/11/94	5/10/99	10/5/99	12/9/99	3/31/00	4/14/05	10/19/06	9/6/07
Volatile Organic Compounds (VOCs) (µg/L):										
Benzene	5	0.5	**1.1**	<0.44	<0.44	<0.44	<0.44	<0.41 H	<0.41	NS
t-Butylbenzene	NS	NS	NA	0.61 Q	<0.50	<0.50	<0.50	<0.97 H	<0.97	NS
Chloromethane	3	0.3								NS
2-Chlorotoluene	NS	NS	<1.0	<0.65	<0.65	<0.65	<0.65	<0.85 H	<0.85	NS
1,2-Dichloroethane	5	0.5	<1.0	<0.54	<0.54	<0.54	<0.54	<0.36 H	<0.36	NS
1,1-Dichloroethane	850	85	<1.0	<0.61	<0.61	<0.61	<0.61	<0.75 H	<0.75	NS
1,1-Dichloroethene	7	0.7	<1.0	<0.47	<0.47	<0.47	<0.47	<0.57 H	<0.57	NS
cis-1,2-Dichloroethene	70	7	<1.0	<0.46	<0.46	<0.46	<0.46	<0.83 H	<0.83	NS
trans-1,2-Dichloroethene	100	20	NA	<0.64	<0.64	<0.64	<0.64	<0.89 H	<0.89	NS
Ethylbenzene	700	140	<1.0	<0.50	<0.50	<0.50	<0.50	<0.54 H	<0.54	NS
Isopropylbenzene	NS	NS	<1.0	<0.39	<0.39	<0.39	<0.39	<0.59 H	<0.59	NS
Methylene chloride	5	0.5	**6.3 B**	<0.38	<0.38	<0.38	<0.38	<0.43 H	<0.43	NS
Naphthalene	100	10	1.1	<0.59	<0.59	<0.59	<0.59	<0.74 H	<0.74	NS
n-Propylbenzene	NS	NS	<1.0	<0.54	<0.54	<0.54	<0.54	<0.81 H	<0.81	NS
Tetrachloroethene	5	0.5	<1.0	<0.41	<0.41	<0.41	<0.41	<0.45 H	<0.45	NS
Toluene	1,000	200	<1.0	<0.40	<0.40	<0.40	<0.40	<0.67 H	<0.67	NS
1,1,1-Trichloroethane	200	40	<1.0	<0.53	<0.53	<0.53	<0.53	<0.90 H	<0.90	NS
Trichloroethene	5	0.5	<1.0	<0.49	<0.49	<0.49	<0.49	<0.48 H	<0.48	NS
1,2,4-Trimethylbenzene	--	--	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97 H	<0.97	NS
1,3,5-Trimethylbenzene	--	--	<1.0	<0.45	<0.45	<0.45	<0.45	<0.83 H	<0.83	NS
Total Trimethylbenzene	480	96	<1.0	<0.47	<0.47	<0.47	<0.47	<0.97 H	<0.97	NS
Vinyl Chloride	0.2	0.02	<1.0	<0.52	<0.17	<0.17	<0.17	<0.18 H	<0.18	NS
Xylenes, m + p	--	--	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8 H	<1.8	NS
Xylene, o	--	--	<1.0	<0.54	<0.54	<0.54	<0.54	<0.83 H	<0.83	NS
Total Xylenes	10,000	1,000	<2.0	<0.77	<0.77	<0.77	<0.77	<1.8 H	<1.8	NS
Styrene	100	10	<1.0	<0.37	<0.37	<0.37	<0.37	<0.86 H&	<0.86	NS
Ethane	NS	NS	NA	<1.8	<10	<10	<10	NA	<10	NS
Ethene	NS	NS	NA	<2.3	<10	<10	<10	NA	<10	NS
Methane	NS	NS	NA	140	150	260	110	NA	54	NS
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):										
1-Methylnaphthalene	NS	NS	NA	0.069 Q	<0.044	<0.044	<0.044	NA	NA	NS
2-Methylnaphthalene	NS	NS	NA	0.3	<0.049	<0.049	<0.049	NA	NA	NS
Acenaphthene	NS	NS	NA	<0.20	<0.20	<0.20	<0.20	NA	NA	NS
Acenaphthylene	NS	NS	NA	<0.18	<0.18	<0.18	<0.18	NA	NA	NS
Anthracene	3000	600	NA	0.068	0.11	0.053	0.020 Q	NA	NA	NS
Benzo(a)anthracene	NS	NS	NA	0.053	0.22	0.084	0.011 Q	NA	NA	NS
Benzo(a)pyrene	0.2	0.02	NA	**0.025 Q**	<0.012	**0.097**	<0.012	NA	NA	NS
Benzo (b)fluoranthene	0.2	0.02	NA	**0.11**	**0.28**	**0.078**	<0.016	NA	NA	NS
Benzo(ghi)perylene	NS	NS	NA	0.056 Q	NA	0.056	<0.018	NA	NA	NS
Benzo(k)fluoranthene	NS	NS	NA	0.028	NA	0.053	<0.0079	NA	NA	NS
Butyl benzyl phthalate	NS	NS	NA	NA	<0.018	NA	NA	NA	NA	NS
Bis (2-Ethylhexyl) Phthalate	NS	NS	NA	NA	0.12	NA	NA	NA	NA	NS
Chrysene	0.2	0.02	NA	**0.045**	**0.2**	**0.08**	**0.022 Q**	NA	NA	NS
Dibenzo(a,h)anthracene	NS	NS	NA	<0.018	0.026 Q	<0.018	<0.018	NA	NA	NS
Fluoranthene	400	80	NA	0.1	0.34	0.19	<0.019	NA	NA	NS
Fluorene	400	80	NA	0.13	0.11	0.071	0.053 Q	NA	NA	NS
Indeno(1,2,3-dc)pyrene	NS	NS	NA	0.031	0.19	0.064	<0.0083	NA	NA	NS
Naphthalene	100	10	NA	0.25 Q	<0.12	<0.12	<0.12	NA	NA	NS
N-Nitroso-Di-N-Propylamin	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS
o-Cresol (2-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS
p-Cresol (4-Methylphenol)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS
Phenanthrene	NS	NS	NA	0.2	0.35	0.16	0.049	NA	NA	NS
Pyrene	250	50	NA	<0.013	0.43	0.19	0.038 Q	NA	NA	NS

TABLE 2

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	ES[1]	PAL[2]	WP-08 - ABANDONED							
			7/11/94	5/10/99	10/5/99	12/9/99	3/31/00	4/14/05	10/19/06	9/6/07
RCRA Metals (mg/L)										
Antimony	0.006	0.0012	NA	<0.0019 B(-0.0032)	**0.0017**	<0.00020	<0.00020	NA	NA	NS
Arsenic	0.01	0.001	NA	<0.0024	**0.0031 A(-0.00047)**	**0.002 A(0.00038)**	**0.0018 A(0.00034)**	NA	NA	NS
Barium	2	0.4	NA	0.1	0.1	0.095	0.11	NA	NA	NS
Beryllium	0.004	0.0004	NA	<0.00043	<0.000070	<0.000070	<0.000070	NA	NA	NS
Cadmium	0.005	0.0005	NA	<0.00017	<0.000076 A(0.00013	0.00023	0.00010 Q	NA	NA	NS
Chromium	0.1	0.01	NA	<0.00053	0.0027 A(0.00020)	0.0010 A(0.00012)	0.00088 A(0.00017)	NA	NA	NS
Copper	1.3	0.13	NA	<0.00094	0.0016	0.00087	0.0018 A(-0.0003)	NA	NA	NS
Iron	0.3	0.15	NA	**3.3**	**2.2**	**2.2**	**2.6**	NA	NA	NS
Lead	0.015	0.0015	NA	<0.0028	<0.00015	0.00021 Q	<0.00055	NA	NA	NS
Manganese	0.05	0.025	NA	**0.66**	**0.58**	**0.56**	**0.62**	NA	NA	NS
Mercury	0.002	0.0002	NA	<0.000042	<0.000042	<0.000042	<0.000042	NA	NA	NS
Nickel	0.1	0.02	NA	0.0051 Q	0.008	0.0099	0.013	NA	NA	NS
Selenium	0.05	0.01	NA	<0.0023	0.00076 Q	0.0022	0.0014 QA(0.00083)	NA	NA	NS
Sliver	0.05	0.01	NA	<0.00046	<0.000098	<0.000095 A(-0.00041)	<0.00010 A(0.00047)	NA	NA	NS
Sodium	increase of 10		NA	56	55	50	47	NA	NA	NS
Thallium	0.002	0.0004	NA	<0.0013	<0.000093	<0.000093	<0.000093	NA	NA	NS
Zinc	5	2.5	NA	1.1	0.2	0.42	0.22	NA	NA	NS
Poychlorinated Biphenyls (PCBs) (µg/L):										
Aroclor-1016	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS
Aroclor-1221	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS
Aroclor-1232	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS
Aroclor-1242	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS
Aroclor-1248	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS
Aroclor-1254	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS
Aroclor-1260	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NS
General Chemistry Parameters (mg/L)										
Alkalinity	increase of 100		NA	830	1200	880	800	NA	NA	NS
Ammonia	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS
BOD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NS
COD	increase of 25		NA	NA	NA	NA	NA	NA	NA	NS
Chloride	250	125	NA	33	35	32	29	NA	NA	NS
Cyanide	0.2	0.04	NA	NA	NA	NA	NA	NA	NA	NS
Sulfate	250	125	NA	38	41	70	37	NA	NA	NS
TDS	increase of 200		NA	NA	NA	NA	NA	NA	NA	NS
TSS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS
Hardness, Total	increase of 100		NA	NA	NA	NA	NA	NA	NA	NS
Bicarbonate Alkalinity	NS	NS	NA	830	1200	880	800	NA	NA	NS
Carbonate Alkalinity	NS	NS	NA	<2.5	<19	<1.9	<9.5	NA	NA	NS
Conductance, specific (umhos/c	increase of 200		NA	NA	NA	NA	NA	NA	NA	NS
Ferrous Iron	NS	NS	NA	<0.043	0.045 Q	0.054 Q	0.37	NA	NA	NS
Nitrogen, nitrate	increase of 2		NA	<0.090	0.26 Q	0.52	0.29	NA	NA	NS
Nitrogen, NO3 + NO2	increase of 2		NA	NA	NA	NA	0.34	NA	NA	NS
pH, Laboratory (su)	increase of 1		NA	NA	NA	NA	NA	NA	NA	NS
TOC as NPOC - Filtered	increase of 1		NA	9.1	7.3	9	7.5 A(0.67)	NA	NA	NS
Field Screening Measurements										
pH		IU	6.74	6.58	6.86	6.75	6.74	6.88	6.52	NS
Conductivity		uS	1947	1456	1550	1495	14.5	1611	1518	NS
Temperature		°C	13	9.5	10.4	11.4	10.8	9.6	10.9	NS
Dissolved Oxygen		ppm	NA	1.59	0.96	0.96	0.96	2.18	1.56	NS
Redox Potential		mV	NA	-60	-44	-49	-42	-18	-56	NS

SUMMARY OF CONTAMINATES DETECTED IN GROUNDWATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

NOTES:

(1) Enforcement Standard from NR140, January 2007.
(2) Preventive Action Limit from NR140, January 2007.
NL - ES or PAL not listed in NR140.

NA - Not analyzed.
ND - Not detected.
NS - Not sampled.
J - Compound was detected at a concentration between the limit of detection (LOD) and the limit of quantitation (LOQ).
Q - Compound was detected at a concentration between the limit of detection (LOD) and the limit of quantitation (LOQ).
& - LCS recovery was outside of control limits.
H - Holding time exceeded by (n) days
D - The result is from a dilution analysis.
A - Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory LOD. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
ED - Elevated detection limit due to matric effects.
MS - Either the matrix spike or matrix spike duplicate was outside of the acceptable control limits. All other supporting QC was within the acceptable control limits.
E - Analyte concentraion exceeds calibration range (see Sample Narrative).
* - Duplicate analyses not within control limits.
B(x) - Analyte is detected in the method blank at "x" concentration. Method blank criteria is evaluated to the laboratory LOD. Additionally, method blank acceptance may be basedon project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
N - Spiked sample revocery not within control limits; post-digestion spike recovery accepted.
B - Analyte found in method blank.
OC - Elevated reporting limit due to analyte concentration.

Bold indicates a PAL exceedance.
Bold and underlining indicates an ES exceedance.

Table 3
SUMMARY OF CONTAMINATES DETECTED IN SURFACE WATER

SUMMARY OF CONTAMINATES DETECTED IN SURFACE WATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	Table 9 NR 105[(1)]	SG-1/SW-01 (upstream location abandoned 2003)	SG-2/SW-02 (upstream location abandoned 2003)
		4/30/93	4/30/93
Volatile Organic Compounds (VOCs) (µg/L):			
Benzene	140	<0.30	<0.30
t-Butylbenzene		NA	NA
Chloromethane			
2-Chlorotoluene		<0.37	<0.37
1,2-Dichloroethane	217	<0.38	<0.38
1,1-Dichloroethane		<0.34	<0.34
1,1-Dichloroethene		<0.78	<0.78
cis-1,2-Dichloroethene		<0.39	<0.39
trans-1,2-Dichloroethene		<0.35	<0.35
Ethylbenzene		<0.44	<0.44
Isopropylbenzene		NA	NA
Methylene chloride	2,700	<0.45	<0.45
Naphthalene		<0.34	<0.34
n-Propylbenzene		<0.54	<0.54
Tetrachloroethene	46	<0.52	<0.52
Toluene		<0.29	<0.29
1,1,1-Trichloroethane		<0.30	<0.30
Trichloroethene	539	<0.34	<0.34
1,2,4-Trimethylbenzene		<0.47	<0.47
1,3,5-Trimethylbenzene		<0.47	<0.47
Total Trimethylbenzene		<0.47	<0.47
Vinyl Chloride	10	<0.32	<0.32
Xylenes, m + p		<0.81	<0.81
Xylene, o		<0.41	<0.41
Total Xylenes		<0.81	<0.81
Styrene		<0.30	<0.30
Ethane		NA	NA
Ethene		NA	NA
Methane		NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L):			
1-Methylnaphthalene		NA	NA
2-Methylnaphthalene		NA	NA
Acenaphthene		NA	NA
Acenaphthylene		NA	NA
Anthracene		NA	NA
Benzo(a)anthracene		NA	NA
Benzo(a)pyrene		NA	NA
Benzo (b)fluoranthene		NA	NA
Benzo(ghi)perylene		NA	NA
Benzo(k)fluoranthene		NA	NA
Butyl benzyl phthalate		NA	NA
Bis (2-Ethylhexyl) Phthalate		NA	NA
Chrysene		NA	NA
Dibenzo(a,h)anthracene		NA	NA
Fluoranthene		NA	NA
Fluorene		NA	NA
Indeno(1,2,3-dc)pyrene		NA	NA
Naphthalene		NA	NA
N-Nitroso-Di-N-Propylamin		NA	NA
o-Cresol (2-Methylphenol)		NA	NA
p-Cresol (4-Methylphenol)		NA	NA
Phenanthrene		NA	NA
Pyrene		NA	NA

SUMMARY OF CONTAMINATES DETECTED IN SURFACE WATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	Table 9 NR 105[(1)]	SG-1/SW-01 (upstream location abandoned 2003)	SG-2/SW-02 (upstream location abandoned 2003)
		4/30/93	4/30/93
RCRA Metals (mg/L)			
Antimony		NA	NA
Arsenic	0.0133	NA	NA
Barium		NA	NA
Beryllium	0.00033	NA	NA
Cadmium		NA	NA
Chromium		NA	NA
Copper		NA	NA
Iron		NA	NA
Lead		NA	NA
Manganese		NA	NA
Mercury		NA	NA
Nickel		NA	NA
Selenium		NA	NA
Sliver		NA	NA
Sodium		NA	NA
Thallium		NA	NA
Zinc		NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):			
Aroclor-1016		NA	NA
Aroclor-1221		NA	NA
Aroclor-1232		NA	NA
Aroclor-1242		NA	NA
Aroclor-1248		NA	NA
Aroclor-1254		NA	NA
Aroclor-1260		NA	NA
Total PCBs		NA	NA
General Chemistry Parameters (mg/L)			
Alkalinity		NA	NA
Ammonia		NA	NA
BOD		NA	NA
COD		NA	NA
Chloride		NA	NA
Cyanide		NA	NA
Sulfate		NA	NA
TDS		NA	NA
TSS		NA	NA
Hardness, Total		NA	NA
Bicarbonate Alkalinity		NA	NA
Carbonate Alkalinity		NA	NA
Conductance, specific (umhos/cm)		NA	NA
Ferrous Iron		NA	NA
Nitrogen, nitrate		NA	NA
Nitrogen, NO3 + NO2		NA	NA
pH, Laboratory (su)		NA	NA
TOC as NPOC - Filtered		NA	NA
Field Screening Measurements			
pH		NA	NA
Conductivity		NA	NA
Temperature		NA	NA
Dissolved Oxygen		NA	NA
Redox Potential		NA	NA

SUMMARY OF CONTAMINATES DETECTED IN SURFACE WATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	Table 9 NR 105[(1)]	SG-4 (abandoned 2003)			
		5/19/99	9/30/99	12/8/99	3/30/00
Volatile Organic Compounds (VOCs) (µg/L)					
Benzene	140	<0.44	<0.44	<0.44	<0.44
t-Butylbenzene		<0.50	<0.50	<0.50	<0.50
Chloromethane					
2-Chlorotoluene		<0.65	<0.65	<0.65	<0.65
1,2-Dichloroethane	217	<0.54	<0.54	<0.54	<0.54
1,1-Dichloroethane		<0.61	<0.61	<0.61	<0.61
1,1-Dichloroethene		<0.47	<0.47	<0.47	<0.47
cis-1,2-Dichloroethene		1.4 Q	<0.46	0.8 Q	2.6
trans-1,2-Dichloroethene		<0.64	<0.64	<0.64	<0.64
Ethylbenzene		<0.50	<0.50	<0.50	<0.50
Isopropylbenzene		<0.39	<0.39	<0.39	<0.39
Methylene chloride	2,700	<0.38	<0.38	<0.38	<0.38
Naphthalene		<0.59	<0.59	<0.59	<0.59
n-Propylbenzene		<0.54	<0.54	<0.54	<0.54
Tetrachloroethene	46	<0.41	<0.41	<0.41	<0.41
Toluene		<0.40	<0.40	<0.40	<0.40
1,1,1-Trichloroethane		<0.53	<0.53	<0.53	<0.53
Trichloroethene	539	<0.49	<0.49	<0.49	<0.49
1,2,4-Trimethylbenzene		<0.47	<0.47	<0.47	<0.47
1,3,5-Trimethylbenzene		<0.45	<0.45	<0.45	<0.45
Total Trimethylbenzene		<0.47	<0.47	<0.47	<0.47
Vinyl Chloride	10	<0.52	<0.17	<0.17	0.43
Xylenes, m + p		<0.77	<0.77	<0.77	<0.77
Xylene, o		<0.54	<0.54	<0.54	<0.54
Total Xylenes		<0.77	<0.77	<0.77	<0.77
Styrene		<0.37	<0.37	<0.37	<0.37
Ethane		NA	NA	<10	NA
Ethene		NA	NA	<10	NA
Methane		NA	NA	32	NA
SVOCs Polycyclic Aromatic Hydrocarbons					
1-Methylnaphthalene		<0.044	<0.044	<0.044	<0.044
2-Methylnaphthalene		<0.049	<0.049	<0.049	<0.049
Acenaphthene		<0.20	<0.20	<0.20	<0.20
Acenaphthylene		<0.18	<0.18	<0.18	<0.18
Anthracene		<0.0090	<0.0089	<0.0089	<0.0089
Benzo(a)anthracene		<0.0088	<0.0087	<0.0087	<0.0087
Benzo(a)pyrene		<0.012	<0.012	<0.012	<0.012
Benzo (b)fluoranthene		<0.016	<0.016	<0.016	<0.016
Benzo(ghi)perylene		<0.018	<0.018	<0.018	<0.018
Benzo(k)fluoranthene		<0.0080	<0.0079	<0.0079	<0.0079
Butyl benzyl phthalate		NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate		NA	NA	NA	NA
Chrysene		<0.0090	<0.0089	<0.0089	<0.0089
Dibenzo(a,h)anthracene		<0.018	<0.018	<0.018	<0.018
Fluoranthene		<0.019	<0.019	<0.019	<0.019
Fluorene		<0.020	<0.020	<0.020	<0.020
Indeno(1,2,3-dc)pyrene		<0.0084	<0.0083	<0.0083	<0.0083
Naphthalene		<0.12	<0.12	<0.12	<0.12
N-Nitroso-Di-N-Propylamin		NA	NA	NA	NA
o-Cresol (2-Methylphenol)		NA	NA	NA	NA
p-Cresol (4-Methylphenol)		NA	NA	NA	NA
Phenanthrene		<0.011	<0.011	<0.011	<0.011
Pyrene		<0.013	<0.013	<0.013	<0.013

SUMMARY OF CONTAMINATES DETECTED IN SURFACE WATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	Table 9 NR 105[(1)]	SG-4 (abandoned 2003)			
		5/19/99	9/30/99	12/8/99	3/30/00
RCRA Metals (mg/L)					
Antimony		<0.0021	<0.00028	<0.00028	0.00020 Q
Arsenic	0.0133	<0.0027	0.0021	0.0037	0.0011 A(0.00034)
Barium		0.047	0.2	0.27	0.036
Beryllium	0.00033	<0.00063	0.00024	**0.00049**	<0.000070
Cadmium		<0.00020	<0.00016 A(-0.00040)	0.00068	0.00017 Q
Chromium		0.0012 Q B(0.0011)	0.0077	0.026	0.000080 QA(0.00017)
Copper		0.0044 Q	0.0088	0.032	0.0021 A(-0.0003)
Iron		0.98	3.9	14	0.030 A(-0.024)
Lead		<0.003	0.0061	0.021	<0.00015
Manganese		0.044	0.057 E	0.32	0.014
Mercury		<0.000042	<0.000042	0.000057 Q	<0.000042
Nickel		0.0051 Q	0.006	0.018	0.0012
Selenium		<0.0012	0.0024 Q	0.0042 Q	<0.00064 A(0.00083)
Sliver		<0.00050	0.00099 N,*	<0.000090	<0.00010 A(0.00047)
Sodium		15	13	15	18
Thallium		<0.0014	0.0011 A(0.00031)	NA	<0.000093
Zinc		0.0068 Q	0.025 A(0.0023)	0.098	0.0037 Q
Poychlorinated Biphenyls (PCBs) (µg/L):					
Aroclor-1016		NA	NA	NA	NA
Aroclor-1221		NA	NA	NA	NA
Aroclor-1232		NA	NA	NA	NA
Aroclor-1242		NA	NA	NA	NA
Aroclor-1248		NA	NA	NA	NA
Aroclor-1254		NA	NA	NA	NA
Aroclor-1260		NA	NA	NA	NA
Total PCBs		NA	NA	NA	NA
General Chemistry Parameters (mg/L)					
Alkalinity		NA	NA	NA	NA
Ammonia		NA	NA	NA	NA
BOD		NA	NA	NA	NA
COD		NA	NA	NA	NA
Chloride		NA	NA	NA	NA
Cyanide		NA	NA	NA	NA
Sulfate		NA	NA	NA	NA
TDS		NA	NA	NA	NA
TSS		NA	NA	NA	NA
Hardness, Total		NA	NA	NA	NA
Bicarbonate Alkalinity		NA	NA	NA	NA
Carbonate Alkalinity		NA	NA	NA	NA
Conductance, specific (umhos/cm)		NA	NA	NA	NA
Ferrous Iron		NA	NA	NA	NA
Nitrogen, nitrate		NA	NA	NA	NA
Nitrogen, NO3 + NO2		NA	NA	NA	NA
pH, Laboratory (su)		NA	NA	NA	NA
TOC as NPOC - Filtered		NA	NA	NA	NA
Field Screening Measurements					
pH		7.8	7.41	7.47	7.46
Conductivity		631	690	753	628
Temperature		18.2	13.1	6.9	6.8
Dissolved Oxygen		8.24	7.08	7.29	6.99
Redox Potential		147	208	211	NA

SUMMARY OF CONTAMINATES DETECTED IN SURFACE WATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	Table 9 NR 105[(1)]	SG-01 (new location 2006)				SG-02 (new location 2006)			
		10/18/06	9/20/07	9/25/12	10/22/2013	10/18/06	9/20/07	9/25/12	10/22/2013
Volatile Organic Compounds (VOCs) (µg/L)									
Benzene	140	<0.41	<0.47	<0.5	0.33 J	<0.41	<4.7	<5	<0.24
t-Butylbenzene		<0.97	<0.34	<0.71	<0.36	<0.97	<3.4	<7.1	<0.36
Chloromethane			<1	<1.9	<0.81		<10	<19	<0.81
2-Chlorotoluene		<0.85	<0.49	<0.7	<0.21	<0.85	<4.9	<7	<0.21
1,2-Dichloroethane	217	<0.36	<0.45	<0.5	<0.41	<0.36	<4.5	<5	<0.41
1,1-Dichloroethane		<0.75	0.63 J	<0.98	<0.3	<0.75	<4.6	<9.8	<0.3
1,1-Dichloroethene		<0.57	<0.64	<0.6	<0.4	<0.57	<5.6	<6	<0.4
cis-1,2-Dichloroethene		4.0	51.0	102	31.1	1.2 Q	<6.4	101	9.7
trans-1,2-Dichloroethene		<0.89	<0.95	<0.79	<0.35	<0.89	97	<7.9	<0.35
Ethylbenzene		<0.54	<0.38	<0.78	<0.55	<0.54	<3.8	<7.8	<0.55
Isopropylbenzene		<0.59	<0.48	<0.92	<0.3	<0.59	<4.8	<9.2	<0.3
Methylene chloride	2,700	<0.43	<0.69	<1.1	<0.5	<0.43	<6.9	<11	<0.5
Naphthalene		<0.74	<1.8	<2.1	<1.7	<0.74	<18	<21	<1.7
n-Propylbenzene		<0.81	<0.38	<0.59	<0.25	<0.81	<3.8	<5.9	<0.25
Tetrachloroethene	46	<0.45	<0.52	<0.44	<0.33	<0.45	<5.2	<4.4	<0.33
Toluene		<0.67	<0.46	<0.53	<0.69	<0.67	<4.6	<5.3	<0.69
1,1,1-Trichloroethane		<0.90	<0.5	<0.85	<0.33	<0.90	<5	<8.5	<0.33
Trichloroethene	539	<0.48	1.33 J	1.78	0.40 J	<0.48	<4.4	<4.7	0.46 J
1,2,4-Trimethylbenzene		<0.97	<1.2	<0.8	<2.2	<0.97	<12	<8	<2.2
1,3,5-Trimethylbenzene		<0.83	<0.37	<0.74	<1.4	<0.83	<3.7	<7.4	<1.4
Total Trimethylbenzene		<0.97	<1.2	<0.8	<2.2	<0.97	<12	<8	<2.2
Vinyl Chloride	10	1.8	**11.3**	**32**	**18.6**	<0.18	**51**	**105**	**12.4**
Xylenes, m + p		<1.8	<0.67	<1.1	<0.69	<1.8	<6.7	<11	<0.69
Xylene, o		<0.83	<0.32	<0.8	<0.63	<0.83	<3.2	<8	<0.63
Total Xylenes		<1.8	<0.67	<1.1	<0.69	<1.8	<6.7	<11	<0.69
Styrene		<0.86	NA	NA	NA	<0.86	NA	NA	NA
Ethane		<10	NA	NA	NA	<10	NA	NA	NA
Ethene		<10	NA	NA	NA	<10	NA	NA	NA
Methane		<10	NA	NA	NA	<10	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons									
1-Methylnaphthalene		NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene		NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene		NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene		NA	NA	NA	NA	NA	NA	NA	NA
Anthracene		NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene		NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene		NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b)fluoranthene		NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene		NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene		NA	NA	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate		NA	NA	NA	NA	NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate		NA	NA	NA	NA	NA	NA	NA	NA
Chrysene		NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene		NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene		NA	NA	NA	NA	NA	NA	NA	NA
Fluorene		NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene		NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene		NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin		NA	NA	NA	NA	NA	NA	NA	NA
o-Cresol (2-Methylphenol)		NA	NA	NA	NA	NA	NA	NA	NA
p-Cresol (4-Methylphenol)		NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene		NA	NA	NA	NA	NA	NA	NA	NA
Pyrene		NA	NA	NA	NA	NA	NA	NA	NA

TABLE 3

SUMMARY OF CONTAMINATES DETECTED IN SURFACE WATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	Table 9 NR 105[1]	SG-01 (new location 2006)				SG-02 (new location 2006)			
		10/18/06	9/20/07	9/25/12	10/22/2013	10/18/06	9/20/07	9/25/12	10/22/2013
RCRA Metals (mg/L)									
Antimony		NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.0133	NA	NA	NA	NA	NA	NA	NA	NA
Barium		NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.00033	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium		NA	NA	NA	NA	NA	NA	NA	NA
Chromium		NA	NA	NA	NA	NA	NA	NA	NA
Copper		NA	NA	NA	NA	NA	NA	NA	NA
Iron		NA	NA	NA	NA	NA	NA	NA	NA
Lead		NA	NA	NA	NA	NA	NA	NA	NA
Manganese		NA	NA	NA	NA	NA	NA	NA	NA
Mercury		NA	NA	NA	NA	NA	NA	NA	NA
Nickel		NA	NA	NA	NA	NA	NA	NA	NA
Selenium		NA	NA	NA	NA	NA	NA	NA	NA
Sliver		NA	NA	NA	NA	NA	NA	NA	NA
Sodium		NA	NA	NA	NA	NA	NA	NA	NA
Thallium		NA	NA	NA	NA	NA	NA	NA	NA
Zinc		NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):									
Aroclor-1016		NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221		NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232		NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242		NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248		NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254		NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260		NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs		NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry Parameters (mg/L)									
Alkalinity		NA	NA	NA	NA	NA	NA	NA	NA
Ammonia		NA	NA	NA	NA	NA	NA	NA	NA
BOD		NA	NA	NA	NA	NA	NA	NA	NA
COD		NA	NA	NA	NA	NA	NA	NA	NA
Chloride		NA	NA	NA	NA	NA	NA	NA	NA
Cyanide		NA	NA	NA	NA	NA	NA	NA	NA
Sulfate		NA	NA	NA	NA	NA	NA	NA	NA
TDS		NA	NA	NA	NA	NA	NA	NA	NA
TSS		NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total		NA	NA	NA	NA	NA	NA	NA	NA
Bicarbonate Alkalinity		NA	NA	NA	NA	NA	NA	NA	NA
Carbonate Alkalinity		NA	NA	NA	NA	NA	NA	NA	NA
Conductance, specific (umhos/cm)		NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron		NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, nitrate		NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, NO3 + NO2		NA	NA	NA	NA	NA	NA	NA	NA
pH, Laboratory (su)		NA	NA	NA	NA	NA	NA	NA	NA
TOC as NPOC - Filtered		NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements									
pH		7.4	6.85	7.32	NA	7.94	6.6	7.21	NA
Conductivity		797.6	737.7	809	NA	796.2	745	805	NA
Temperature		9.7	17.5	15.03	NA	9.8	17	13.23	NA
Dissolved Oxygen		7.46	4.82	4.58	NA	8.58	3.54	4.05	NA
Redox Potential		147	203	-50.4	NA	160	203	-46.4	NA

SUMMARY OF CONTAMINATES DETECTED IN SURFACE WATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	Table 9 NR 105(1)	SG-03 (new location 2006)			
		10/18/06	9/20/2007	9/25/12	10/22/2013
Volatile Organic Compounds (VOCs) (µg/L)					
Benzene	140	<0.41	<0.47	<0.5	<0.24
t-Butylbenzene		<0.97	<0.34	<0.71	<0.36
Chloromethane			<1	<1.9	<0.81
2-Chlorotoluene		<0.85	<0.49	<0.7	<0.21
1,2-Dichloroethane	217	<0.36	<0.45	<0.5	<0.41
1,1-Dichloroethane		<0.75	<0.56	<0.98	<0.3
1,1-Dichloroethene		<0.57	<0.64	<0.6	<0.4
cis-1,2-Dichloroethene		<0.83	2.83	2.31 J	<0.38
trans-1,2-Dichloroethene		<0.89	<0.95	<0.79	<0.35
Ethylbenzene		<0.54	<0.38	<0.78	<0.55
Isopropylbenzene		<0.59	<0.48	<0.92	<0.3
Methylene chloride	2,700	<0.43	<0.69	<1.1	<0.5
Naphthalene		<0.74	<1.8	<2.1	<1.7
n-Propylbenzene		<0.81	<0.38	<0.59	<0.25
Tetrachloroethene	46	<0.45	<0.52	<0.44	<0.33
Toluene		<0.67	<0.46	<0.53	<0.69
1,1,1-Trichloroethane		<0.90	<0.5	<0.85	<0.33
Trichloroethene	539	<0.48	1.0 J	0.52 J	<0.33
1,2,4-Trimethylbenzene		<0.97	<1.2	<0.8	<2.2
1,3,5-Trimethylbenzene		<0.83	<0.37	<0.74	<1.4
Total Trimethylbenzene		<0.97	<1.2	<0.8	<2.2
Vinyl Chloride	10	<0.18	<0.2	<0.18	<0.18
Xylenes, m + p		<1.8	<0.7	<1.1	<0.69
Xylene, o		<0.83	<0.32	<0.8	<0.63
Total Xylenes		<1.8	<0.67	<1.1	<0.69
Styrene		<0.86	NA	NA	NA
Ethane		<10	NA	NA	NA
Ethene		<10	NA	NA	NA
Methane		<10	NA	NA	NA
SVOCs Polycyclic Aromatic Hydrocarbons					
1-Methylnaphthalene		NA	NA	NA	NA
2-Methylnaphthalene		NA	NA	NA	NA
Acenaphthene		NA	NA	NA	NA
Acenaphthylene		NA	NA	NA	NA
Anthracene		NA	NA	NA	NA
Benzo(a)anthracene		NA	NA	NA	NA
Benzo(a)pyrene		NA	NA	NA	NA
Benzo (b)fluoranthene		NA	NA	NA	NA
Benzo(ghi)perylene		NA	NA	NA	NA
Benzo(k)fluoranthene		NA	NA	NA	NA
Butyl benzyl phthalate		NA	NA	NA	NA
Bis (2-Ethylhexyl) Phthalate		NA	NA	NA	NA
Chrysene		NA	NA	NA	NA
Dibenzo(a,h)anthracene		NA	NA	NA	NA
Fluoranthene		NA	NA	NA	NA
Fluorene		NA	NA	NA	NA
Indeno(1,2,3-dc)pyrene		NA	NA	NA	NA
Naphthalene		NA	NA	NA	NA
N-Nitroso-Di-N-Propylamin		NA	NA	NA	NA
o-Cresol (2-Methylphenol)		NA	NA	NA	NA
p-Cresol (4-Methylphenol)		NA	NA	NA	NA
Phenanthrene		NA	NA	NA	NA
Pyrene		NA	NA	NA	NA

TABLE 3

SUMMARY OF CONTAMINATES DETECTED IN SURFACE WATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

Analyte	Table 9 NR 105[(1)]	SG-03 (new location 2006)			
		10/18/06	9/20/2007	9/25/12	10/22/2013
RCRA Metals (mg/L)					
Antimony		NA	NA	NA	NA
Arsenic	0.0133	NA	NA	NA	NA
Barium		NA	NA	NA	NA
Beryllium	0.00033	NA	NA	NA	NA
Cadmium		NA	NA	NA	NA
Chromium		NA	NA	NA	NA
Copper		NA	NA	NA	NA
Iron		NA	NA	NA	NA
Lead		NA	NA	NA	NA
Manganese		NA	NA	NA	NA
Mercury		NA	NA	NA	NA
Nickel		NA	NA	NA	NA
Selenium		NA	NA	NA	NA
Sliver		NA	NA	NA	NA
Sodium		NA	NA	NA	NA
Thallium		NA	NA	NA	NA
Zinc		NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):					
Aroclor-1016		NA	NA	NA	NA
Aroclor-1221		NA	NA	NA	NA
Aroclor-1232		NA	NA	NA	NA
Aroclor-1242		NA	NA	NA	NA
Aroclor-1248		NA	NA	NA	NA
Aroclor-1254		NA	NA	NA	NA
Aroclor-1260		NA	NA	NA	NA
Total PCBs		NA	NA	NA	NA
General Chemistry Parameters (mg/L)					
Alkalinity		NA	NA	NA	NA
Ammonia		NA	NA	NA	NA
BOD		NA	NA	NA	NA
COD		NA	NA	NA	NA
Chloride		NA	NA	NA	NA
Cyanide		NA	NA	NA	NA
Sulfate		NA	NA	NA	NA
TDS		NA	NA	NA	NA
TSS		NA	NA	NA	NA
Hardness, Total		NA	NA	NA	NA
Bicarbonate Alkalinity		NA	NA	NA	NA
Carbonate Alkalinity		NA	NA	NA	NA
Conductance, specific (umhos/cm)		NA	NA	NA	NA
Ferrous Iron		NA	NA	NA	NA
Nitrogen, nitrate		NA	NA	NA	NA
Nitrogen, NO3 + NO2		NA	NA	NA	NA
pH, Laboratory (su)		NA	NA	NA	NA
TOC as NPOC - Filtered		NA	NA	NA	NA
Field Screening Measurements					
pH		8.14	6.71	7.18	NA
Conductivity		798.3	709	828	NA
Temperature		9.7	18.4	13.21	NA
Dissolved Oxygen		8.4	4.04	5.22	NA
Redox Potential		114	200	-80.3	NA

SUMMARY OF CONTAMINATES DETECTED IN SURFACE WATER
FORMER GRAVEL PIT
TOWN OF NEWTON, WISCONSIN

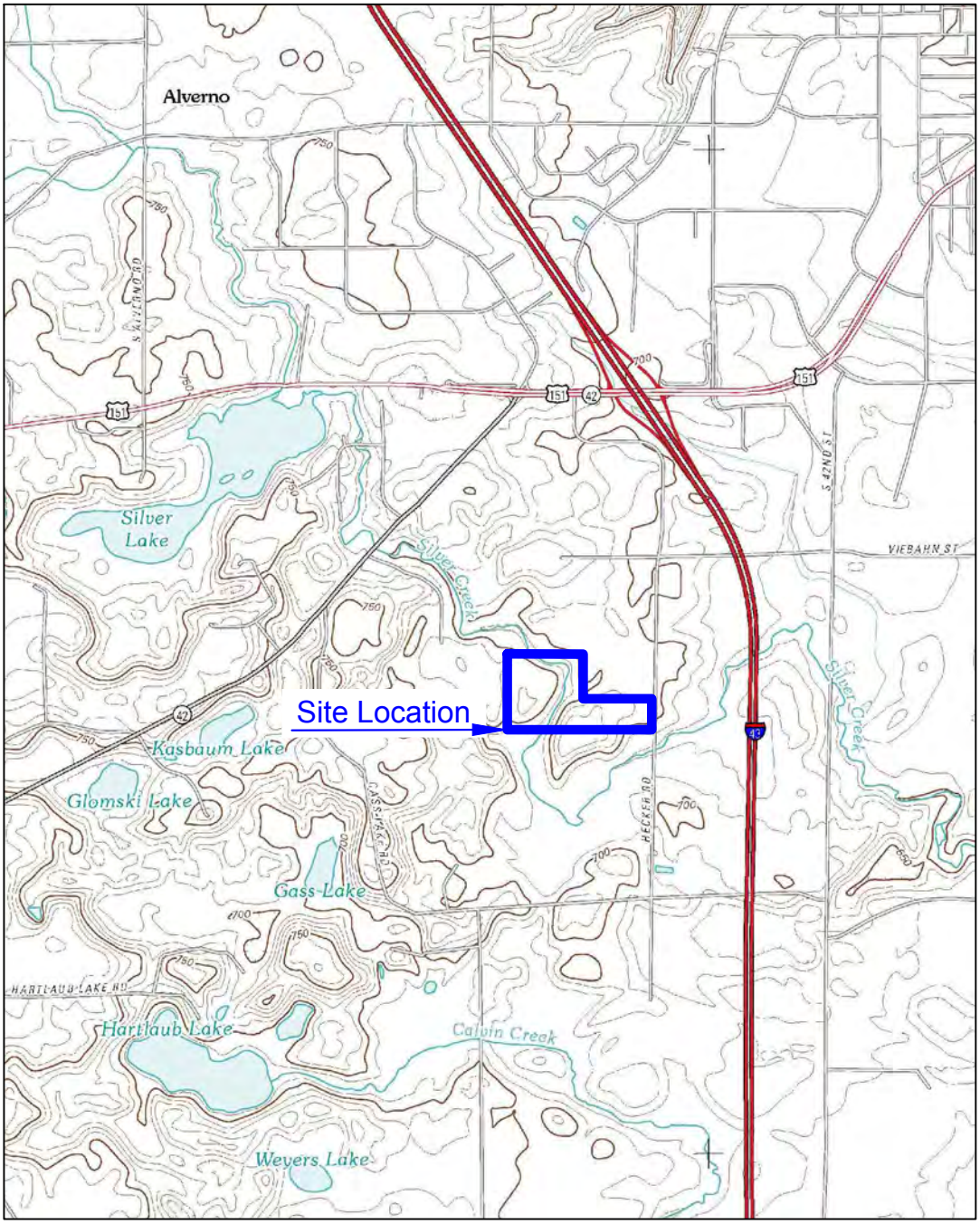
NOTES:

(1) WAC Chapter NR 105, Table 9 Human Cancer Criteria Standards for a non-public water supply that is a “warm water forage, limited forage and warm water sport fish community”.

NA - Not analyzed.
ND - Not detected.
NS - Not sampled.
J - Compound was detected at a concentration between the limit of detection (LOD) and the limit of quantitation (LOQ).
Q - Compound was detected at a concentration between the limit of detection (LOD) and the limit of quantitation (LOQ).
& - LCS recovery was outside of control limits.
H - Holding time exceeded by (n) days
D - The result is from a dilution analysis.
A - Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory LOD. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
ED - Elevated detection limit due to matric effects.
MS - Either the matrix spike or matrix spike duplicate was outside of the acceptable control limits. All other supporting QC was within the acceptable control limits.
E - Analyte concentraion exceeds calibration range (see Sample Narrative).
* - Duplicate analyses not within control limits.
B(x) - Analyte is detected in the method blank at "x" concentration. Method blank criteria is evaluated to the laboratory LOD. Additionally, method blank acceptance may be basedon project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
N - Spiked sample revocery not within control limits; post-digestion spike recovery accepted.
B - Analyte found in method blank.
OC - Elevated reporting limit due to analyte concentration.

Bold indicates a standard exceedance.

Figures:



SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2

1000 500 0 METERS 1000 2000

1 0.5 0 1

MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

Topographic Map courtesy of the United States Geological Survey

http://store.usgs.gov/b2c_usgs/usgs/maplocator/(ctype=areaDetails&xcm=r3standardpitrex_prd&carea=%24ROOT&layout=6_1_61_48&uiarea=2)/.do

Map Date: 2010

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FORMER NEWTON GRAVEL PIT

SITE LOCATION

Project Number:	Drawn By:	Date:	Figure No. 1
60311767	SAE	4/4/2014	

LEGEND:

- PROPERTY BOUNDARY
- PROPERTY BOUNDARY - CITY LIMITS
- ROAD
- CREEK
- WT-11 — MONITORING WELL
  RED = MEASURABLE FREE PRODUCT
  GRAY = ABANDONED
- WT-15 PZ-15A PZ-15B — MONITORING WELL NEST
  RED = MEASURABLE FREE PRODUCT
  GRAY = ABANDONED
- SG-01 — STAFF GAUGE
- HP-01 — HYDROPUNCH
- WP-02 — WELL POINT
- B-20 — SOIL BORING
- APPROXIMATE PLUME LOCATION

SILVER CREEK
B-16
HP-11
B-17
B-19
WP-08 ABANDONED
B-15
B-18
MINED & FILLED AREA
WP-05 ABANDONED
B-01 WT-01 PZ-01
B-4
WP-01
B-5
B-6
B-7
B-3 WT-03 PZ-03
(MINED AREA)
WESTERN SOURCE AREA
B-9
B-9A
B-10
B-11
WT-17
WT-14
B-12
B-13
B-2 WT-02 PZ-02
WT-19
WT-09
B-14
WT-10
WT-18
WT-02A
HP-02
GRAVEL PIT (MINED AREA)
B-8
B-20
WP-02
WT-13
HP-01
B-21
HP-10
WT-05 PZ-05A PZ-05B
WP-07
WP-04
HP-05
HP-09
WP-06
SG-03
PROPERTY / CITY LIMITS
WT-23
WT-12 PZ-12
HP-08
PROPERTY LIMITS
SG-02
WT-11
WT-16 PZ-16
WT-20
WT-21
SG-01
SILVER CREEK
WT-15 PZ-15A PZ-15B
WT-22
GRAVEL PIT ROAD

N

0' 100' 200' 400'
SCALE

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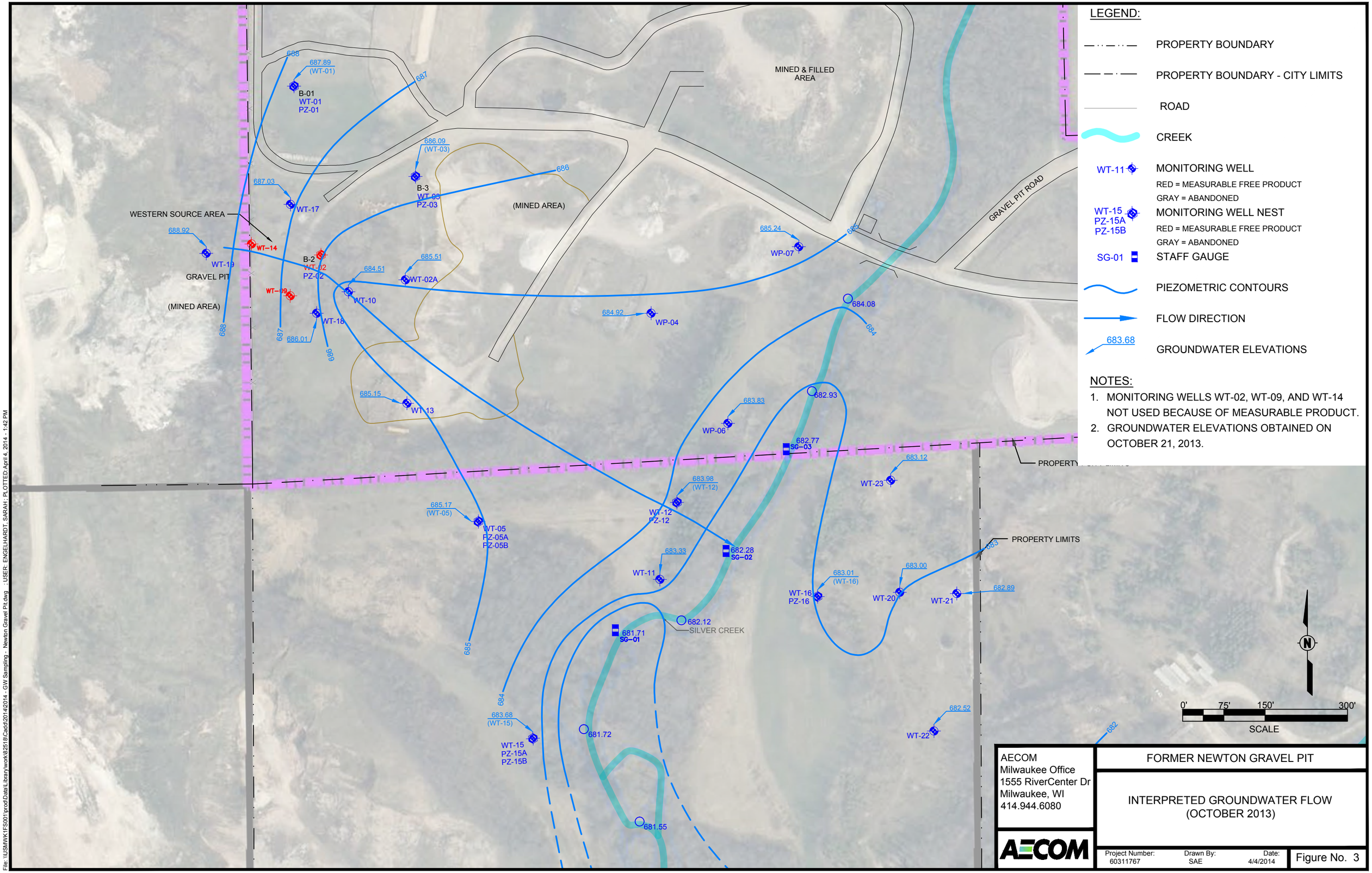
FORMER NEWTON GRAVEL PIT

SITE LAYOUT

Project Number:	Drawn By:	Date:	Figure No. 2
60311767	SAE	4/9/2014	

File: \\USMWK1FS001\prod\Data\Library\work\82518\Cadd\2014\2014 - GW Sampling - Newton Gravel Pit.dwg - USER: ENGELHARDT, SARAH - PLOTTED: April 9, 2014 - 9:39 AM



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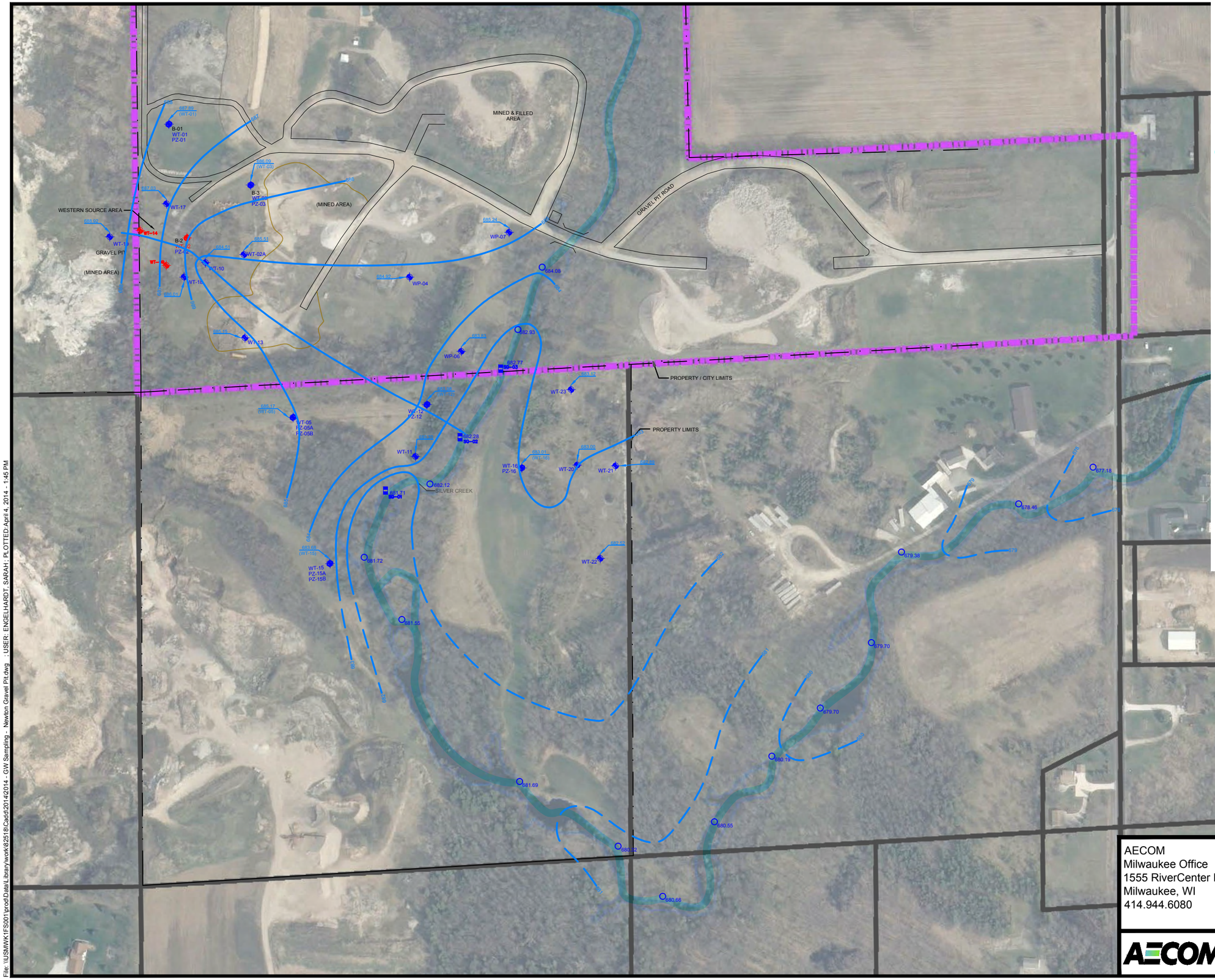
FORMER NEWTON GRAVEL PIT

INTERPRETED GROUNDWATER FLOW
(OCTOBER 2013)

Project Number:	Drawn By:	Date:	Figure No. 3
60311767	SAE	4/4/2014	

File: \\USMWK1FS001\prod\Data\Library\work\82518\Cadd\20142014 - GW Sampling - Newton Gravel Pit.dwg , USER: ENGELHARDT, SARAH : PLOTTED: April 4, 2014 - 1:42 PM



LEGEND:

- PROPERTY BOUNDARY
- PROPERTY BOUNDARY - CITY LIMITS
- ROAD
- CREEK
- WT-11 — MONITORING WELL
  - RED = MEASURABLE FREE PRODUCT
  - GRAY = ABANDONED
- WT-15 / PZ-15A / PZ-15B — MONITORING WELL NEST
  - RED = MEASURABLE FREE PRODUCT
  - GRAY = ABANDONED
- SG-01 — STAFF GAUGE
- PIEZOMETRIC CONTOURS
  - DASHED WHERE INFERRED
- FLOW DIRECTION
- 683.68 — GROUNDWATER ELEVATIONS
- 677.18 — CREEK ELEVATIONS

NOTES:

1. MONITORING WELLS WT-02, WT-09, AND WT-14 NOT USED BECAUSE OF MEASURABLE PRODUCT.
2. GROUNDWATER ELEVATIONS OBTAINED ON OCTOBER 21, 2013.

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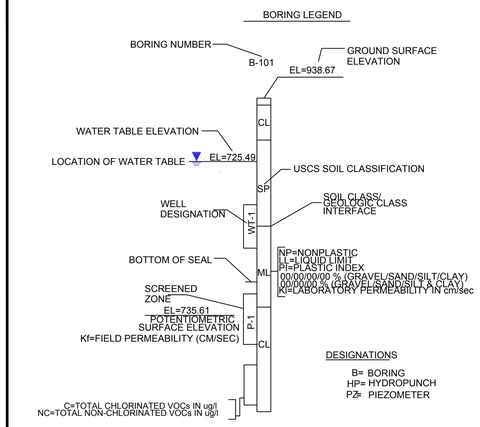
FORMER NEWTON GRAVEL PIT

INTERPRETED GROUNDWATER FLOW
(OCTOBER 2013)
(EXTENDED AREA)

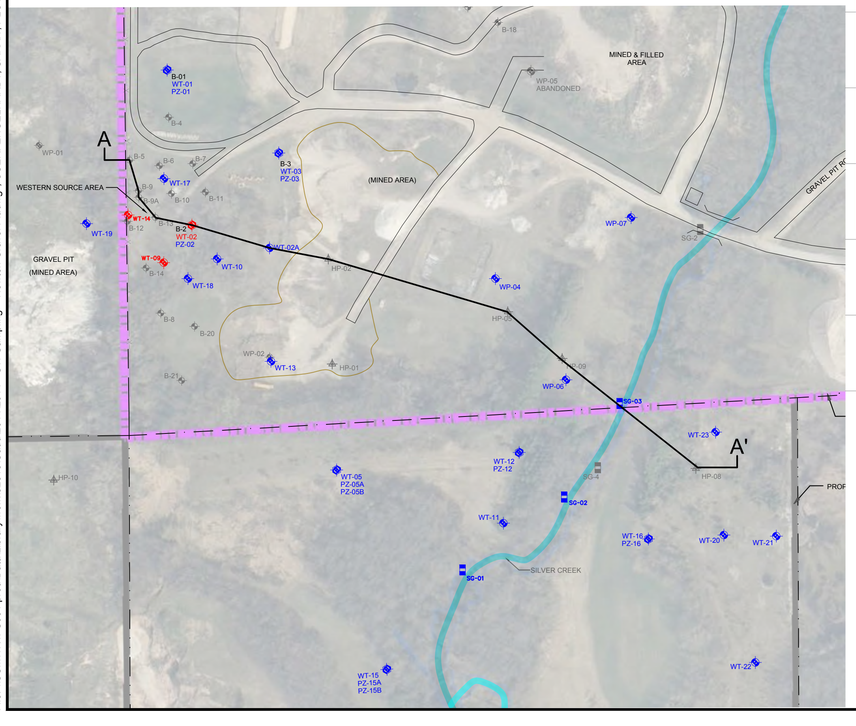
Project Number:	Drawn By:	Date:	Figure No. 4
60311767	SAE	4/4/2014	

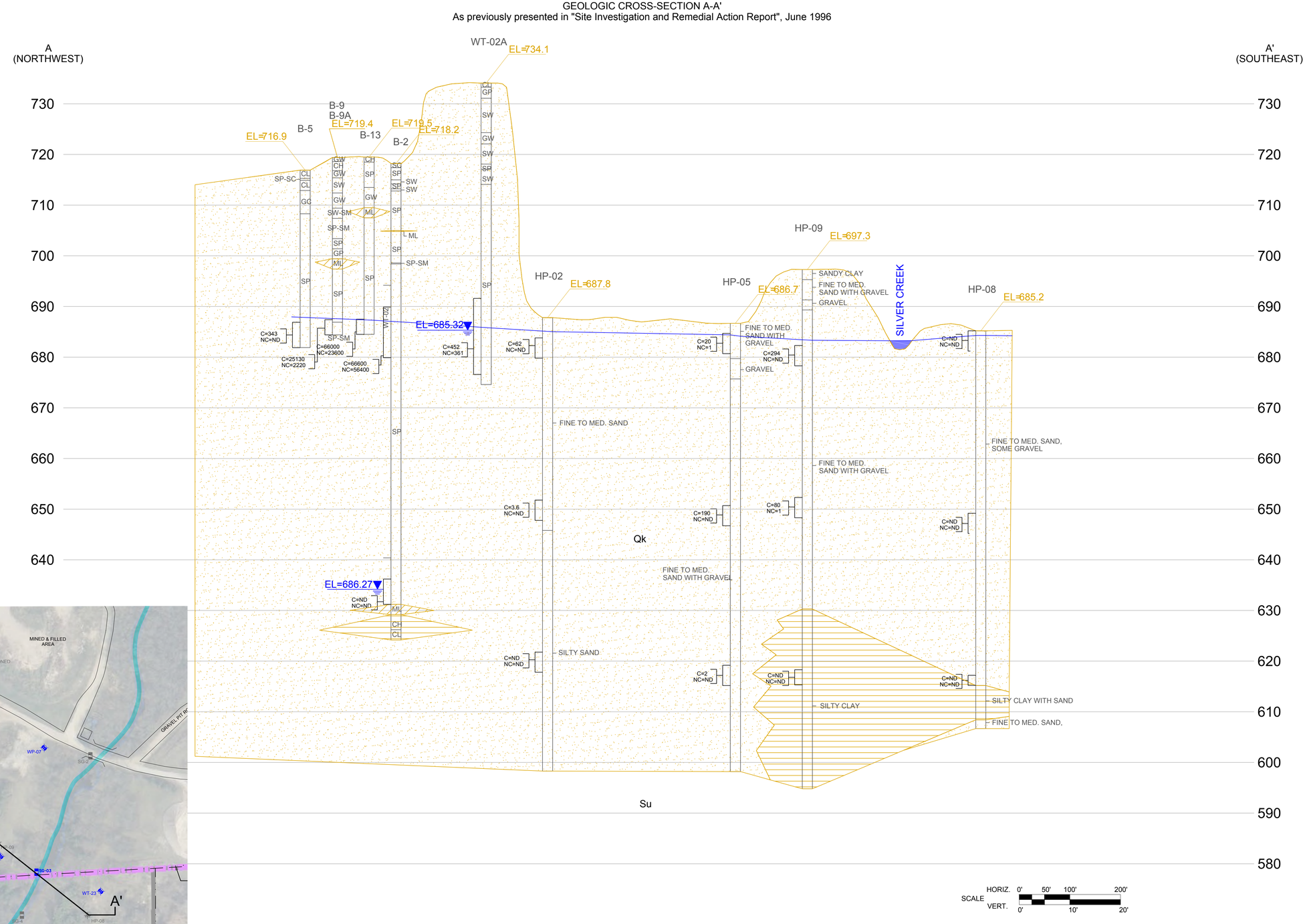
GEOLOGIC CROSS-SECTION A-A'
As previously presented in "Site Investigation and Remedial Action Report", June 1996



UNIFIED SOIL CLASSIFICATIONS (ASTM D2488-VISUAL MANUAL PROCEDURE)

GW	WELL GRADED GRAVELS & GRAVEL WITH SAND
GP	POORLY GRADED GRAVELS & GRAVEL WITH SAND
GC	CLAYEY GRAVELS, CLAYEY GRAVEL WITH SAND
SW	WELL GRADED SANDS & SAND WITH GRAVEL
SP	POORLY GRADED SANDS & SAND WITH GRAVEL
SW-SM	WELL GRADED SAND WITH SILT, SAND WITH SILT & GRAVEL
SP-SM	POORLY GRADED SAND WITH SILT, SAND WITH SILT & GRAVEL
SM	SILTY SANDS, SILTY SANDS WITH GRAVEL
SC	CLAYEY SANDS, CLAYEY SANDS WITH GRAVEL
CL	LEAN CLAY, GRAVELLY-SANDY LEAN CLAYS
ML	SILT, GRAVELLY-SANDY SILT





HORIZ. SCALE 0' 50' 100' 200'
VERT. 0' 10' 20'

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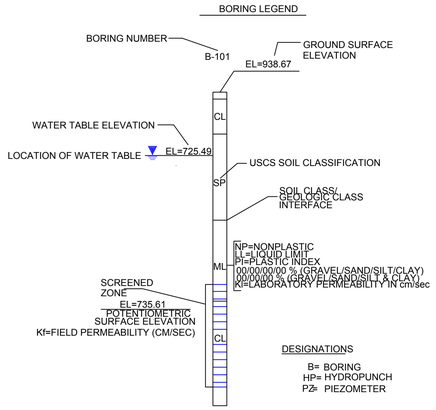
FORMER NEWTON GRAVEL PIT

CROSS SECTION A-A'

Project Number:	Drawn By:	Date:	Figure No. 5
60311767	SAE	5/1/2014	

BORING LEGEND



DESIGNATIONS

B= BORING
HP= HYDROPUNCH
PZ= PIEZOMETER

GEOLOGIC LEGEND

QUATERNARY

Qk KEWAUNEE FORMATION

PALEOZOIC

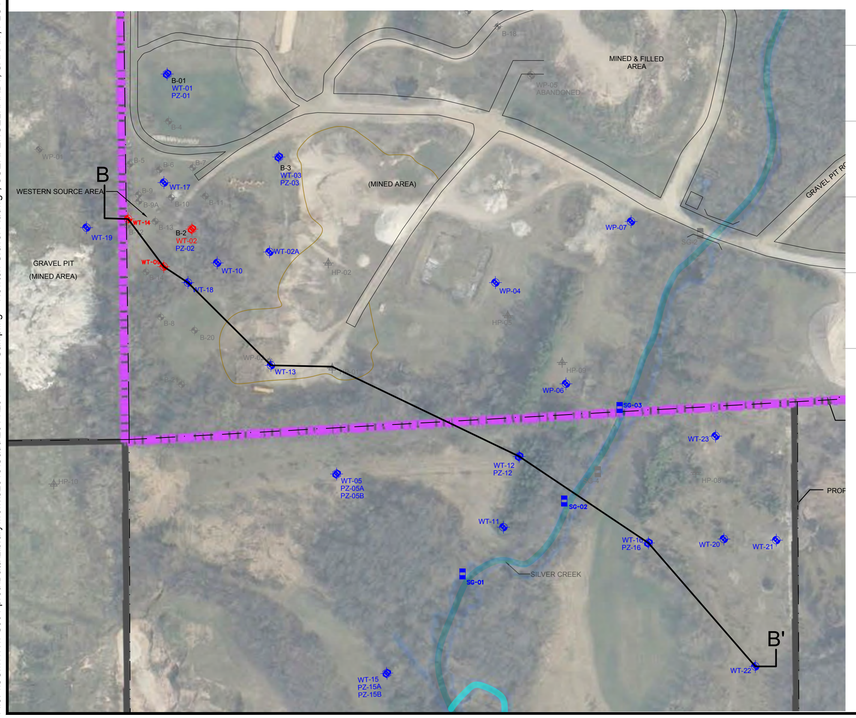
Su SILURIAN DOLOMITE

LEGEND

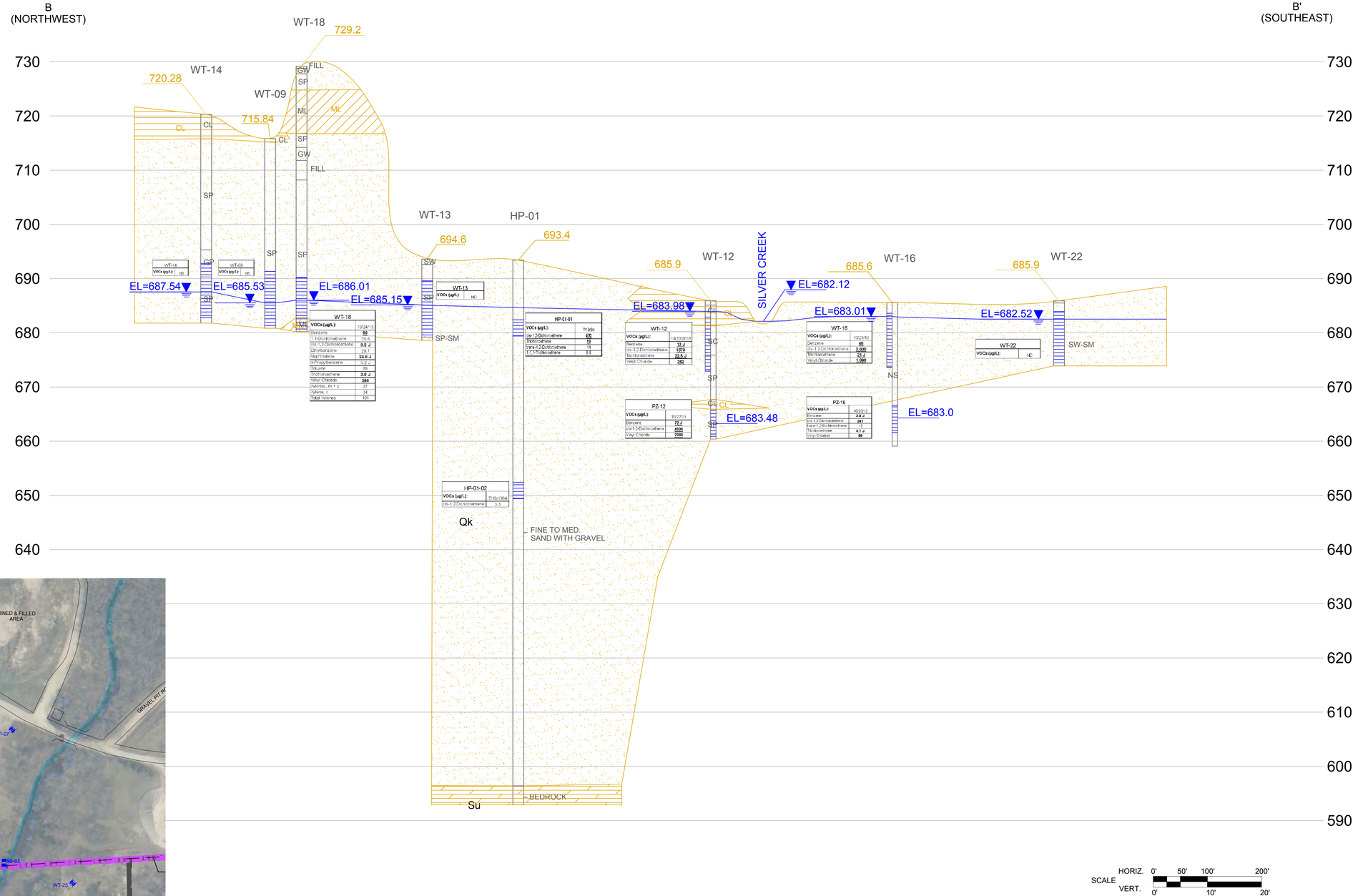
- GEOLOGIC FACIES CONTACT
- INFERRED GEOLOGIC FACIES CONTACT
- WATER TABLE (October 21, 2013)

UNIFIED SOIL CLASSIFICATIONS (ASTM D2488-VISUAL MANUAL PROCEDURE)

GW	WELL GRADED GRAVELS & GRAVEL WITH SAND
GP	POORLY GRADED GRAVELS & GRAVEL WITH SAND
GC	CLAYEY GRAVELS, CLAYEY GRAVEL WITH SAND
SW	WELL GRADED SANDS & SAND WITH GRAVEL
SP	POORLY GRADED SANDS & SAND WITH GRAVEL
SW-SM	WELL GRADED SAND WITH SILT, SAND WITH SILT & GRAVEL
SP-SM	POORLY GRADED SAND WITH SILT, SAND WITH SILT & GRAVEL
SM	SILTY SANDS, SILTY SANDS WITH GRAVEL
SC	CLAYEY SANDS, CLAYEY SANDS WITH GRAVEL
CL	LEAN CLAY, GRAVELLY-SANDY LEAN CLAYS
ML	SILT, GRAVELLY-SANDY SILT



GEOLOGIC CROSS-SECTION B-B'
October 2013



SCALE HORIZ. 0' 50' 100' 200'
VERT. 0' 10' 20'

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FORMER NEWTON GRAVEL PIT

CROSS SECTION B-B'

Project Number:	Drawn By:	Date:	Figure No. 6
60311767	SAE	5/1/2014	

BORING LEGEND

BORING NUMBER — B-101
GROUND SURFACE ELEVATION — EL=938.67
WATER TABLE ELEVATION — EL=725.49
LOCATION OF WATER TABLE
USCS SOIL CLASSIFICATION
SOIL CLASS/ GEOLOGIC CLASS INTERFACE
NP=NONPLASTIC
LL=LIQUID LIMIT
PI=PLASTIC INDEX
00/00/00/00 % (GRAVEL/SAND/SILT/CLAY)
00/00/00/0 % (GRAVEL/SAND/SILT & CLAY)
KI=LABORATORY PERMEABILITY IN cm/sec
SCREENED ZONE
EL=735.61 POTENTIOMETRIC SURFACE ELEVATION
Kf=FIELD PERMEABILITY (CM/SEC)

CL
SP
ML
CL

DESIGNATIONS

B= BORING
HP= HYDROPUNCH
PZ= PIEZOMETER

GEOLOGIC LEGEND

QUATERNARY

Qk KEWAUNEE FORMATION

PALEOZOIC

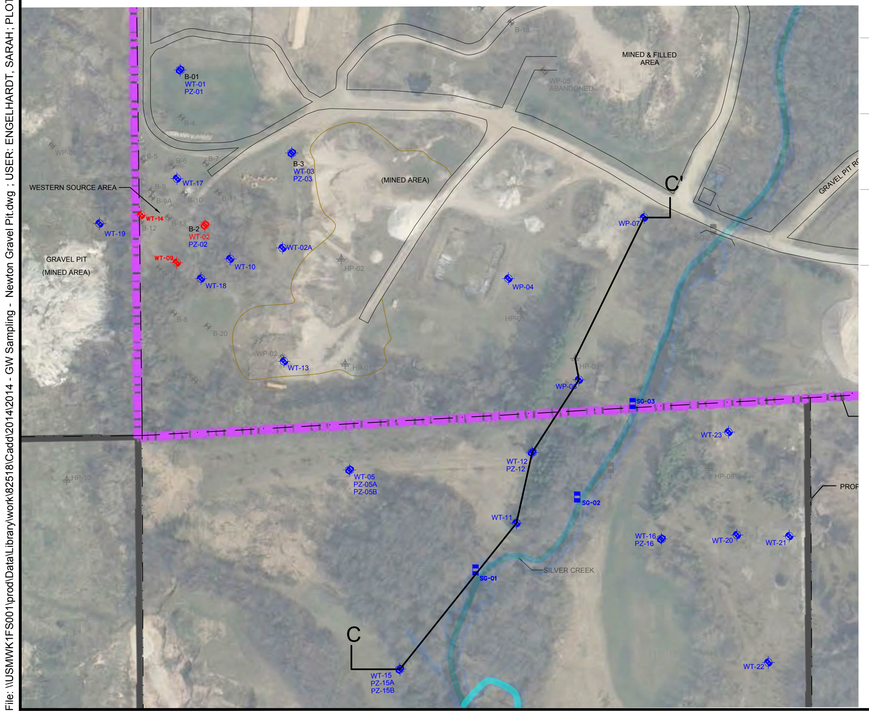
Su SILURIAN DOLOMITE

LEGEND

GEOLOGIC FACIES CONTACT
INFERRED GEOLOGIC FACIES CONTACT
WATER TABLE (October 21, 2013)

UNIFIED SOIL CLASSIFICATIONS (ASTM D2488-VISUAL MANUAL PROCEDURE)

GW	WELL GRADED GRAVELS & GRAVEL WITH SAND
GP	POORLY GRADED GRAVELS & GRAVEL WITH SAND
GC	CLAYEY GRAVELS, CLAYEY GRAVEL WITH SAND
SW	WELL GRADED SANDS & SAND WITH GRAVEL
SP	POORLY GRADED SANDS & SAND WITH GRAVEL
SW-SM	WELL GRADED SAND WITH SILT, SAND WITH SILT & GRAVEL
SP-SM	POORLY GRADED SAND WITH SILT, SAND WITH SILT & GRAVEL
SM	SILTY SANDS, SILTY SANDS WITH GRAVEL
SC	CLAYEY SANDS, CLAYEY SANDS WITH GRAVEL
CL	LEAN CLAY, GRAVELLY-SANDY LEAN CLAYS
ML	SILT, GRAVELLY-SANDY SILT



GEOLOGIC CROSS-SECTION C-C'

C (SOUTHWEST) — C' (NORTHEAST)

700
690
680
670
660
650
640
630
620
610
600
590

WT-15: 684.9; EL=683.68; WT-15 VOCs (µg/L): ND; NS; EL=683.85; PZ-15A VOCs (µg/L): ND; EL=683.94; PZ-15B VOCs (µg/L): ND

WT-11: 685.15; EL=683.33; WT-11 VOCs (µg/L): 10/22/2013; 1,1-Dichloroethene 4.6 J; cis-1,2-Dichloroethene 600; Trichloroethene 10.5; Vinyl Chloride 13.7

WT-12: 685.9; EL=683.98; EL=683.48; WT-06: 697.91; WP-06 VOCs (µg/L): 10/22/2013; cis-1,2-Dichloroethene 22.6; trans-1,2-Dichloroethene 0.36 J; 1,1,1-Trichloroethane 0.79 J; Trichloroethene 6.3; WT-12 VOCs (µg/L): 10/23/2013; Benzene 13 J; cis-1,2-Dichloroethene 1870; Trichloroethene 22.5 J; Vinyl Chloride 262; PZ-12 VOCs (µg/L): 10/2/2013; Benzene 72 J; cis-1,2-Dichloroethene 4500; Vinyl Chloride 2980

HP-09: 697.3; SANDY CLAY; FINE TO MED. SAND WITH GRAVEL; GRAVEL; EL=683.83; HP-09-01 VOCs (µg/L): 7/21/1994; cis-1,2-Dichloroethene 270; Trichloroethene 24

WP-07: 693.64; EL=685.24; WP-07 VOCs (µg/L): ND

FINE TO MED. SAND WITH GRAVEL

HP-09-02 VOCs (µg/L): 7/21/1994; Benzene 1; cis-1,2-Dichloroethene 61; Trichloroethene 16

HP-09-03 VOCs (µg/L): 7/21/1994: ND

SILTY CLAY

Qk

Su

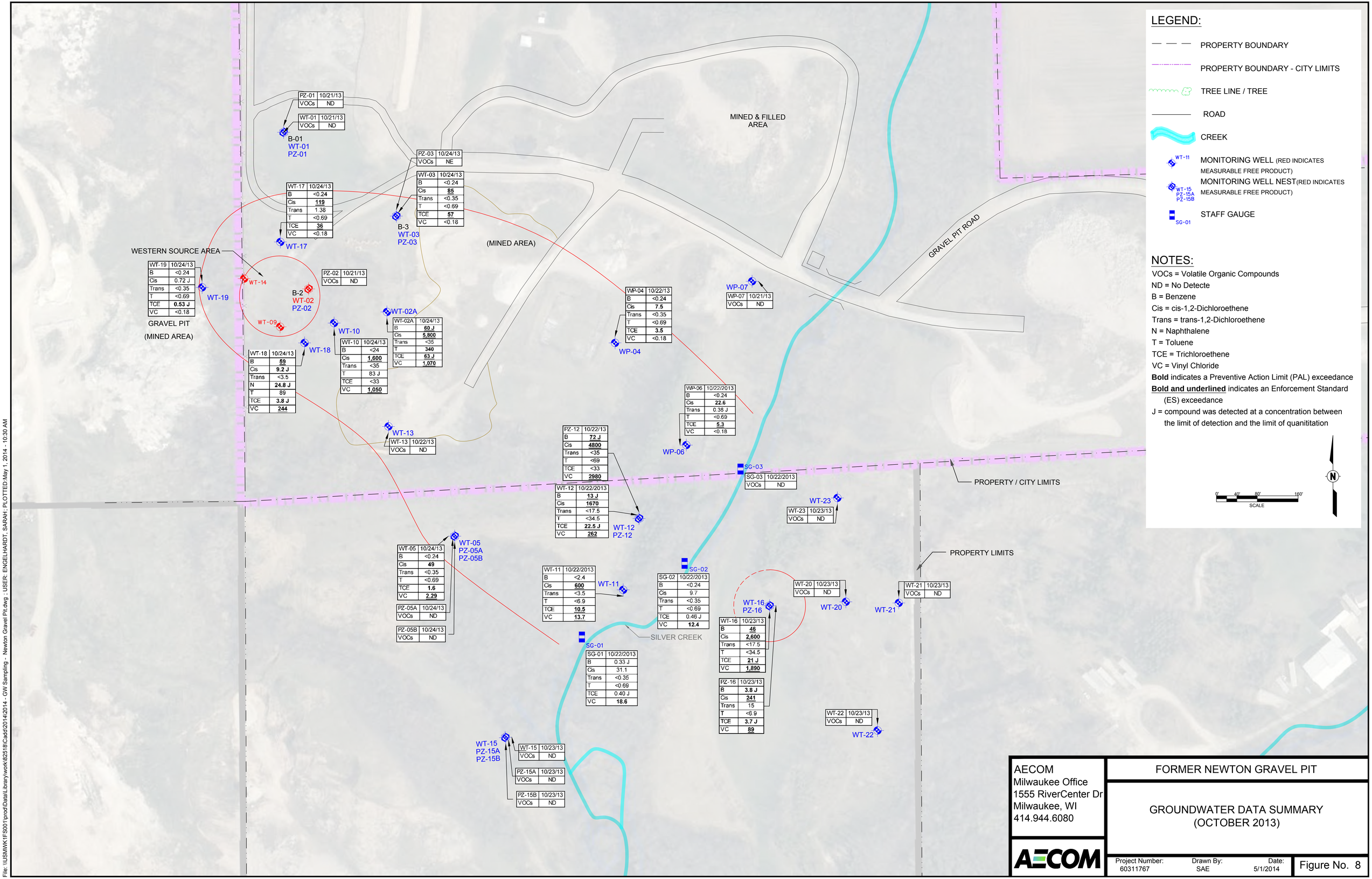
NS

SW
SC
SP
CL

HORIZ. SCALE 0' 50' 100' 200'
VERT. 0' 10' 20'

AECOM Milwaukee Office 1555 RiverCenter Dr Milwaukee, WI 414.944.6080	FORMER NEWTON GRAVEL PIT		
AECOM	CROSS SECTION C-C'		
Project Number: 60311767	Drawn By: SAE	Date: 5/1/2014	Figure No. 7

File: \\USMWK1FS001\prod\Data\Library\work\82516\Cadd\20142014 - GW Sampling - Newton Gravel Pit.dwg - USER: ENGELHARDT, SARAH - PLOTTED:May 1, 2014 - 10:31 AM



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AECOM
Milwaukee Office
1555 RiverCenter Dr
Milwaukee, WI
414.944.6080

FORMER NEWTON GRAVEL PIT

GROUNDWATER DATA SUMMARY (OCTOBER 2013)

Project Number:	Drawn By:	Date:	Figure No. 8
60311767	SAE	5/1/2014	

Attachment A:

PZ-12 Forms

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name: Former Town of Newton Gravel Pit	License/Permit/Monitoring Number:	Boring Number: PZ-12

Boring Drilled By: Name of crew chief (first, last) and Firm Fist Name: Tony Last Name: Kapugi Firm: On-Site Environmental Services	Date Drilling Started: 08 / 26 / 2013 (MM/ DD/ YY)	Date Drilling Completed: 08 / 26 / 2013 (MM/ DD/ YY)	Drilling Method: Geoprobe / HSA
WI Unique Well No. / DNR Well ID No. / Well Name: PZ-12	Final Static Water Level: Feet MSL	Surface Elevation: Feet MSL	Borehole Diameter: 8.25 inches
Local Grid Origin ☐ (Estimated: ☐) or Boring Location ☐ State Plane N, E S/C/N 1/4 of 1/4 of Section T N, R E/W	Lat ° ' " Long ° ' "	Local Grid Location (if applicable) Feet N ☐ S ☐ Feet E ☐ W ☐	
Facility ID	County: Manitowoc / County Code	Civil Town/City/or Village: City of Manitowoc	

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth in feet	Soil / Rock Description and Geological Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	Topsoil, brown (3/5 10YR), s. moist	TOPSOIL			0						
			1.0	d. brown (3/2 10YR), clayey silt (CL), moist, soft, med. plasticity	CL			0						
	60/60		2.0	d. gray (3/1 10YR), clayey silt (CL), moist, soft, med. plasticity, trace f-c sand	CL			0						
			3.0					0						
			4.0					0						
			5.0	tan (5/4 10YR), sandy clay, wet, poorly sorted, f-c grained, trace f. gravel	SC			0						
			6.0					0						
			7.0					0						
	48/60		8.0					0						
			9.0					0						
			10.0					0						
			11.0	tan (5/4 10YR), poorly graded sands (SP), f-c grained, wet, trace f. gravel	SP			0						
	60/60		12.0											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Kelly M. Wilson Firm: **AECOM**
1020 N. Broadway, Milwaukee WI 53202

This form is authorized by Chapters281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth in feet	Soil / Rock Description and Geological Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
	60/60		12.0 13.0 14.0 15.0	As Above	SP			0 0						
	60/60		15.0 16.0 17.0 18.0					0 0 0						
			18.0 19.0 20.0	d. gray (5/1 10YR), clay, stiff, s. moist, trace f. gravel, trace f-c sand	CL			0						
	52/60		20.0 21.0 22.0 23.0 24.0 25.0	tan, poorly sorted sand (SP), wet, trace f. gravel	SP			0 0 0						
			25.0 26.0 27.0 28.0 29.0 30.0 31.0 32.0	End of boring at 25.5' bgs Screened Interval: 20.0' - 25.0' bgs.										

State of Wisconsin
Department of Natural Resources

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☑ Other ☐

Facility/Project Name: Former Town of Newton Gravel Pit	Local Grid Location of Well: ft N S, ft E W	Well Name: PZ-12
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐	Wis. Unique Well No. / DNR Well Id No.
Facility ID	Lat. Long or St. Plane ft N ft E S/C/N	Date Well Installed: 08 / 26 / 2013 (m m / d d / yyyy)
Type of Well: PZ; Well Code: /	Section Location of Waste/Source: 1/4 of ___ of Sec. ___, T. ___ N, R ___ W ☐ E ☑	Well Installed By: Name (first, last) and Firm: Tony Kapugi, On-Site Environmental Services
Distance from Waste/Source ___ ft. Enf. Stds. Apply ☐	Location of Well relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient; d ☐ Downgradient n ☐ Not Known	Gov. Lot No.

A. Protective pipe, top elevation ___ ft. MSL
B. Well casing, top elevation ___ ft. MSL
C. Land surface elevation ___ ft. MSL
D. Surface seal, bottom ___ ft. MSL or ___ Ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☑ No

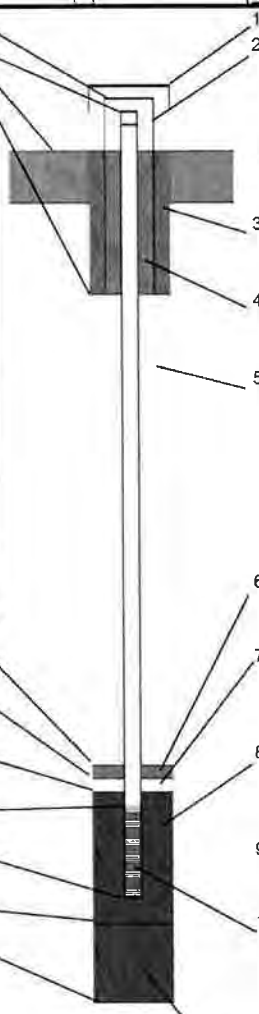
14 Drilling method used: Rotary ☐ 50; Hollow Stem Auger ☒ 41; Other ☐ ___

15 Drilling fluid used: Water ☐ 02; Air ☐ 01; Drilling Mud ☐ 03; None ☑ 99

16 Drilling additives used? ☐ Yes ☑ No
Describe N/A

17. Source of water (attach analysis, if required): N/A

E Bentonite seal, top	___ ft. MSL	0	ft.
F. Fine sand, top	___ ft. MSL	18.0	ft.
G. Filter Pack, top	___ ft. MSL	19.0	ft.
H. Screen joint, top	___ ft. MSL	20.0	ft.
I. Well Bottom	___ ft. MSL	25.0	ft.
J. Filter Pack, bottom	___ ft. MSL	25.5	ft.
K. Borehole, bottom	___ ft. MSL	25.5	ft.
L. Borehole, diameter	8.25	In.	
M. O.D. well casing	___	In.	
N. I.D. well casing	2.	In.	



1. Cap and lock? ☑ Yes ☑ No
2. Protective cover pipe:
a. Inside diameter: 12. In.
b. Length: 1. Ft
c. Material: Steel ☑ 04; Other ☐ ___
d. Additional Protection? ☐ Yes ☑ No
If yes, describe: ___
3. Surface seal: Bentonite ☐ 30; Concrete ☑ 01; Other ☐ ___
4 material between well casing and protective pipe: Bentonite ☑ 30; Other ☐ ___
5 Annular space seal: a. Granular/Chipped Bentonite ☑ 33
b. ___ Lbs/gal mud weight.. Bentonite-sand slurry ☐ 35
c. ___ Lbs/gal mud weight.. Bentonite slurry ☐ 31
d. ___ % Bentonite..... Bentonite-cement grout ☐ 50
e. 5 bags volume added for any of the above
f. How installed: Tremie ☐ 01; Tremie Pumped ☐ 02; Gravity ☑ 08
6. Bentonite Seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☑ 3/8 in. ☐ 1/2 in. Bentonite Chips ☑ 32
c. bag Other ☐ ___
7. Fine sand material: Manufacturer, product name & mesh size
a. ___ ☐ ___
b. Volume added 1 bag
8. Filter pack material: Manufacturer, product name & mesh size
a. ___ ☐ ___
b. Volume added 2 bags
9. Well casing: Flush threaded PVC schedule 40 ☑ 23; Flush threaded PVC schedule 80 ☐ 24; Other ☐ ___
10. Screen Material: PVC ☐ ___
a. screen type: Factory cut ☑ 11; Continuous slot ☐ 01; Other ☐ ___
b. Manufacturer monoflex
b. Slot size: 0.1 in.
c. slotted length: ___ ft
11. Backfill material (below filter pack): None ☑ 14; Other ☐ ___

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Lee M. Wilson
Firm: AECOM
1555 RiverCenter Drive, Suite 214, Milwaukee, Wisconsin, 53212

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. Note: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	County Name	Well Name
Former Town of Newton Gravel Pit	Manitowoc	PZ-12

Facility License, Permit or Monitoring Number	County Code	Wisconsin Unique Well Number	DNR Well Number

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed	☐	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only & surged	☒	51
pumped slowly	☐	50
Other	☐	

3. Time spent developing well: 50 min.

4. Depth of well (from top of well casing): 27.72 ft.

5. Inside diameter of well: 2.0 in.

6. Volume of water in filter pack and well casing: 3.83 gal.

7. Volume of water removed from well: 25.0 gal.

8. Volume of water added (if any): N/A gal.

9. Source of water added: N/A

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing) a.	4.25 ft.	ft.
Date b.	08/26/2013 mm/dd/yyyy	08/26/2013 mm/dd/yyyy
Time c.	1250 ☐ a.m. ☒ p.m.	1340 ☐ a.m. ☒ p.m.
12. Sediment in well bottom	— inches	— inches
13. Water clarity	Clear ☐ 10, S.Turbid ☒ 15	Clear ☒ 20, Turbid ☐ 25
	(Describe) light tan	(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	— mg/l	— mg/l
15. COD	— mg/l	— mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Lee Last Name: Wilson
Firm: AECOM

16. Additional comments on development:
Purged and surged well until water ran clear.

Name and Address of Facility Contact/Owner/Responsible Party
First Name: Last Name:
Facility/Firm: AECOM
Street:
City/State/Zip: Milwaukee WI

I hereby certify that the above information is correct and true to the best of my knowledge
Signature: Lee M. Wilson
Print Name: Lee Wilson
Firm: AECOM

NOTE: See instructions for more information including a list of county codes and well type codes

Attachment B:

Well Purging and Sample Collection Forms

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WT-01
Weather Conditions: Partly Cloudy, 40s
Project No.: 60135471
Sampling Method (circle one): Pumped, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: _____
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (31.31 - 26.59) x 0.16 = 0.77 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1010

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1015	27.12			5.54	0.700	10.11	CLEAR	N	97.2	6.94	
1018	27.12			5.76	0.693	10.18	CLEAR	N	93.0	6.69	
1021	27.12			5.85	0.689	10.13	CLEAR	N	94.9	6.57	
1023	27.12			5.95	0.685	9.98	CLEAR	N	95.6	6.18	
1026	27.12			5.90	0.683	9.93	CLEAR	N	98.5	6.01	
1029	27.12			5.99	0.683	9.93	CLEAR	N	99.2	5.90	
1032	27.12			6.04	0.685	10.25	CLEAR	N	99.4	5.70	
1035	27.12			6.10	0.692	10.55	CLEAR	N	98.8	5.63	
1038	27.12			6.15	0.696	10.67	CLEAR	N	101.2	5.52	
1041	27.12		~4gal.	6.15	0.697	10.74	CLEAR	N	98.1	5.58	
1045	27.12	Sample Readings		6.18	0.696	10.67	CLEAR	N	98.3	5.63	

Comments: VOCs
Sampled @ 1045

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lyle M. Wilson

Date: 10 / 21 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: PZ-01
Weather Conditions: Partly sunny, 40s
Project No.: 60135471
Sampling Method (circle one): (Pumped), Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: _____
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (92.74 - 27.11) x 0.16 = 10.7 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1100

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1105	27.32			7.19	0.450	10.06	GRAY	N	44.1	2.52	HIGH
1110	27.32			7.23	0.441	9.98	GRAY	N	31.8	1.49	HIGH
1115	27.32			7.26	0.445	9.85	GRAY	N	29.9	1.32	HIGH
1120	27.32			7.24	0.442	9.68	GRAY	N	29.0	1.19	HIGH
1125	27.32			7.30	0.452	10.78	LT GRAY	N	21.3	0.91	MED
1130	27.32			7.36	0.448	10.47	LT GRAY	N	16.7	0.71	LOW
1135	27.32			7.29	0.447	10.52	CLEAR	N	16.7	0.64	—
1138	27.32			7.31	0.447	10.51	CLEAR	N	15.1	0.61	—
			~5 gals.								
1140	27.32	Sample Readings		7.35	0.447	10.51	CLEAR	N	16.1	0.62	—

Comments: VOCs
Sampled @ 1140
MS/MSD collected
Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____
Signature: Lyn M. Wilson
Date: 10 / 21 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: P2 02
Weather Conditions: Partly Cloudy, 40s
Project No.: 60135471
Sampling Method (circle one): Pumped, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: _____
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (88.82 - 33.63) x 0.16 = 9.01 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1200

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1205	35.09			7.49	0.459	9.90	BLACK (SED)	N	55.0	4.24	HIGH
1210	34.67			7.76	0.457	10.22	"	N	6.3	1.36	HIGH
1215	35.67			7.79	0.459	11.01	"	N	7.2	0.95	MED
1220	35.68			7.75	0.460	10.95	"	N	15.6	0.86	MED
1225	35.68			7.63	0.457	10.72	CLEAR	N	29.2	0.73	—
1230	35.68			7.59	0.456	10.70	CLEAR	N	34.1	0.68	—
1235	35.68			7.57	0.455	10.66	CLEAR	N	36.6	0.67	—
1238	35.68			7.57	0.455	10.63	CLEAR	N	37.7	0.66	—
1241	35.68			7.56	0.454	10.45	CLEAR	N	38.6	0.65	—
1244	35.68		~4 5gals.	7.53	0.453	10.39	CLEAR	N	39.0	0.68	—
1245	35.68	Sample Readings		7.53	0.453	10.37	CLEAR	N	39.1	0.68	—

Comments: VOCs & PCBs
Sampled @ 1245

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Jay M. Wilson

Date: 10 / 21 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WP-07
Weather Conditions: Partly Cloudy, 40s
Project No.: 60135471
Sampling Method (circle one): (Pumped), Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: _____
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (13.53 - 11.50) x 0.16 = 0.33 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1305

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1308	Meter in Pump			7.09	0.613	12.03	GRAY	N	75.3	5.95	MED
1311	"			7.22	0.598	12.09	LT. GRAY	N	53.9	2.62	MED
1314	"			7.15	0.589	12.16	LT. GRAY	N	51.8	1.37	MED
1317	"			7.08	0.580	12.21	CLEAR	N	52.9	1.01	—
1320	"			7.04	0.577	12.30	CLEAR	N	54.3	0.87	—
1323	"			7.03	0.577	12.34	CLEAR	N	55.1	0.83	—
			~2 gals.								
1325	"	Sample Readings		7.03	0.576	12.35	CLEAR	N	55.3	0.82	—

Comments: VOCs
Sampled @ 1325

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lee M Wilson

Date: 10 / 21 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WT-13
Weather Conditions: Cloudy, 40s
Project No.: 60135471
Sampling Method (circle one): Pumped, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (16.37 - 11.62) x 0.16 = 0.78 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

0920

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
0923	12 12			7 54	0.386	11 60	s cloudy	N	82.0	7.52	LOW
0926	12 16			752	0 387	12 17	CLEAR	N	84.6	751	—
0929	12.23			7.43	0.389	12 44	CLEAR	N	87.7	7.43	—
0932	12.31			7 43	0. 394	12.57	CLEAR	N	89 5	7.29	—
0935	12.34			7.41	0 398	12 60	CLEAR	N	90.6	7. 26	—
0938	12 37			741	0. 398	12.64	CLEAR	N	90. 1	7 21	—
			~4 gals.								
0940	12 39	Sample Readings		741	0. 400	12 62	CLEAR	N	91.2	7.24	—

Comments: VOCs
Sampled @ 0940

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lyle M. Wilson

Date: 10 / 22 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WP-04
Weather Conditions: Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): Pumped, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (6.88 - 4.83) x 0.16 = 0.33 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

0955

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
0958	5.06			7.24	0.552	11.23	CLEAR	N	88.9	3.57	—
1001	5.06			7.25	0.553	11.30	CLEAR	N	84.5	2.21	—
1004	5.06			7.23	0.552	11.33	CLEAR	N	78.9	1.46	—
1007	5.06			7.23	0.551	11.39	CLEAR	N	71.7	1.23	—
1010	5.06			7.23	0.551	11.36	CLEAR	N	69.7	1.17	—
1013	5.06			7.23	0.550	11.39	CLEAR	N	66.8	1.16	—
			~2 gals.								
1015	5.06	Sample Readings		7.23	0.550	11.40	CLEAR	N	66.1	1.14	—

Comments: VOCs
Sampled @ 1015
DUP collected
Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____
Signature: Lyle M. Wilson
Date: 10 / 22 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WP-06
Weather Conditions: Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): Pumped, Bailed, Other:
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other:
Volume Calculation: (16.28 - 18.59) x 0.16 = 0.38 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.:
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1025

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1025	16.50			7.52	0.610	9.72	CLEAR	N	73.3	6.61	—
1031	16.50			7.44	0.619	10.27	CLEAR	N	77.3	2.01	—
1034	16.50			7.44	0.620	10.28	CLEAR	N	77.3	1.93	—
1037	16.50			7.36	0.623	10.38	CLEAR	N	81.8	1.73	—
1040	16.50			7.34	0.623	10.39	CLEAR	N	83.2	1.72	—
1043	16.50			7.31	0.624	10.37	CLEAR	N	84.2	1.67	—
1045	16.50	Sample Readings		7.30	0.624	10.34	CLEAR	N	84.6	1.64	—

Comments: VOCs
Sampled @ 1045

Field Blank Taken: No.: Time:

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.:

Signature: Lee M. Wilson

Date: 10 / 22 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: PZ-12.
Weather Conditions: Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): Pumped, Bailed, Other:
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: N/A
Volume Calculation: (27.79 - 3.91) x 0.16 = 3.9 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.:
(Gals./Well Vol. x 5 = Total Volume to be Removed)

2126 Keys

1057

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1100	4.02			7.34	0.639	10.18	white/ cloudy	N	83.3	9.97	MED
1103	4.03			7.33	0.639	10.18	"	N	86.2	3.72	MED
1106	4.03			7.29	0.638	10.18	"	N	87.2	1.53	MED
1109	4.03			7.25	0.637	10.16	gray	N	87.3	1.13	MED
1112	4.03			7.22	0.637	10.19	LT. Gray	N	87.7	0.88	LOW
1117	4.03			7.19	0.636	10.16	"	N	87.9	0.75	LOW
1122	4.03			7.18	0.635	10.13	CLEAR	N	88.0	0.69	—
			~4 gals.								
1125	4.03	Sample Readings		7.18	0.635	10.14	CLEAR	N	88.0	0.68	—

Comments: VOCs
Sampled @ 1125

Field Blank Taken: No.: Time:

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.:
Signature: Lyle M. Wilson
Date: 10 / 22 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WT-12
Weather Conditions: Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): Pumped, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: N/A
Volume Calculation: (15.26 - 4.21) x 0.16 = 1.8 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1128

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1131	4.45			7.26	0.615	11.63	CLEAR	N	88.3	0.72	—
1134	4.45			7.22	0.618	11.66	CLEAR	N	88.4	0.53	—
1137	4.45			7.20	0.618	11.63	CLEAR	N	88.3	0.51	—
1140	4.45			7.18	0.619	11.69	CLEAR	N	88.3	0.49	—
1143	4.45			7.18	0.620	11.70	CLEAR	N	88.2	0.47	—
1148	4.45			7.16	0.618	11.52	CLEAR	N	88.3	0.47	—
1153	4.45			7.15	0.617	11.49	CLEAR	N	88.2	0.47	—
1158	4.45			7.15	0.617	11.49	CLEAR	N	88.2	0.47	—
			~4 gals.								
~~1200~~ 1145	4.45	Sample Readings		7.15	0.617	11.51	CLEAR	N	88.4	0.46	—

Comments: VOCs
Sampled @ ~~1145~~ 1200

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Kyle M Wilson

Date: 10 / 22 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WT-11
Weather Conditions: Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): Pumped, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: N/A
Volume Calculation: (15.21 - 4.22) x 0.16 = 1.8 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1205

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1210	4.28			7.29	0.668	10.92	CLEAR	N	87.4	0.85	—
1215	4.29			7.26	0.666	10.96	CLEAR	N	87.8	0.68	—
1220	4.29			7.25	0.666	11.00	CLEAR	N	88.0	0.61	—
1225	4.29			7.23	0.664	11.00	CLEAR	N	88.0	0.54	—
1230	4.29			7.19	0.663	11.02	CLEAR	N	88.6	0.51	—
1235	4.29			7.19	0.663	11.10	CLEAR	N	88.3	0.47	—
1238	4.29			7.18	0.663	11.12	CLEAR	N	88.4	0.45	—
1240	4.29	Sample Readings		7.17	0.663	11.13	CLEAR	N	88.6	0.45	—

Comments: VOCs
Sampled @ 1240

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Kyle M Wilson

Date: 10 / 22 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WT-21
Weather Conditions: Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): ~~Pumped~~, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (14.22 - 5.41) x 0.16 = _____ gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

0934

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
0939	5.82			7.43	0.212	14.03	CLEAR	N	85.1	5.32	—
0944	5.82			7.40	0.208	14.12	CLEAR	N	87.4	5.31	—
0949	5.82			7.40	0.206	14.21	CLEAR	N	88.2	5.43	—
0954	5.82			7.40	0.205	14.22	CLEAR	N	88.7	5.52	—
0959	5.82			7.45	0.204	14.07	CLEAR	N	87.6	5.48	—
1002	5.82			7.40	0.202	14.07	CLEAR	N	89.4	5.49	—
			~4.5 gals.								
1005	5.82	Sample Readings		7.40	0.201	13.97	CLEAR	N	89.3	5.54	—

Comments: VOCs
Sampled @ 1005

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lee M. Wilson

Date: 10 / 23 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WT-20
Weather Conditions: Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): Pumped, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (14.33 - 4.21) x 0.16 = _____ gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1008

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1013	4.50			6.88	0.437	13.38	CLEAR	N	95.8	6.85	—
1018	4.50			6.86	0.439	13.38	CLEAR	N	95.0	2.75	—
1023	4.50			6.84	0.441	13.27	CLEAR	N	93.9	1.69	—
1028	4.50			6.85	0.441	13.24	CLEAR	N	93.2	1.66	—
1033	4.50			6.84	0.440	13.19	CLEAR	N	92.4	1.55	—
1036	4.50			6.81	0.440	13.20	CLEAR	N	92.6	1.51	—
1039	4.50			6.87	0.440	13.27	CLEAR	N	88.4	1.43	—
			~4 gals								
1040	4.50	Sample Readings		6.88	0.440	13.27	CLEAR	N	88.1	1.42	—

Comments: VOCs
Sampled @ 1040

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lyle M. Wilson

Date: 10 / 23 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: PZ-16
Weather Conditions: Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): (Pumped), Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (26.50 - 5.01) x 0.16 = 3.51 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1045

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
~~1050~~	5.14			7.12	0.541	10.23	CLEAR	N	57.4	2.40	—
1055	5.14			7.21	0.541	10.16	CLEAR	N	39.8	1.06	—
1100	5.14			7.28	0.540	10.15	CLEAR	N	34.3	0.87	—
1105	5.14			7.34	0.539	10.12	CLEAR	N	29.2	0.67	—
1110	5.14			7.42	0.538	10.02	CLEAR	N	25.1	0.55	—
1113	5.14			7.42	0.538	10.04	CLEAR	N	24.3	0.51	—
			~4 gals.								
1115	5.14	Sample Readings		7.43	0.538	10.00	CLEAR	N	24.0	0.50	—

Comments: VOCs
Sampled @ 1115

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lee M. Wilson

Date: 10 / 23 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: LOT-16
Weather Conditions: Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): (Pumped), Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (13.96 - 4.80) x 0.16 = _____ gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1120

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1125	4.83			7.52	0.806	11.33	CLEAR	N	48.7	1.08	—
1130	4.83			7.43	0.819	11.50	CLEAR	N	53.7	0.78	—
1135	4.83			7.40	0.816	11.59	CLEAR	N	56.2	0.74	—
1140	4.83			7.38	0.810	11.63	CLEAR	N	59.3	0.65	—
1145	4.83			7.35	0.804	11.60	CLEAR	N	61.7	0.57	—
1148	4.83			7.35	0.800	11.61	CLEAR	N	62.4	0.53	—
			~3.5 gals.								
1150	4.83	Sample Readings		7.34	0.798	11.59	CLEAR	N	62.8	0.50	—

Comments: VOCs
Sampled @ 1150

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lee M. Wilson

Date: 10 / 23 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WT - 23
Weather Conditions: Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): ~~Pumped~~, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (14.18 - 5.14) x 0.16 = _____ gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1155

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1200	5.50			7.70	0.420	12.94	CLEAR	N	75.1	5.34	—
1205	5.50			7.67	0.418	13.38	CLEAR	N	76.4	4.34	—
1210	5.50			7.60	0.416	13.61	CLEAR	N	78.5	4.09	—
1215	5.50			7.52	0.414	13.76	CLEAR	N	78.7	3.73	—
1220	5.50			7.51	0.413	13.80	CLEAR	N	79.4	3.59	—
1223	5.50			7.49	0.413	13.82	CLEAR	N	79.7	3.57	—
1226	5.50			7.47	0.413	13.82	CLEAR	N	80.4	3.57	—
1229	5.50			7.46	0.412	13.82	CLEAR	N	80.3	3.57	—
			~4 gals.								
1230	5.50	Sample Readings		7.46	0.411	13.83	CLEAR	N	80.2	3.68	—

Comments: VOCs
Sampled @ 1230

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lyle M. Wilson

Date: 10 / 23 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WT-22
Weather Conditions: Partly Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): ~~Pumped~~, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (14.04 - 5.42) x 0.16 = _____ gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1235

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1240	5.20			7.20	0.644	13.36	CLEAR	N	86.1	3.64	—
1245	5.20			7.21	0.649	13.35	CLEAR	N	85.2	3.30	—
1250	5.20			7.16	0.652	13.34	CLEAR	N	86.6	3.13	—
1255	5.20			7.19	0.664	13.29	CLEAR	N	84.7	2.86	—
1300	5.20			7.11	0.675	13.21	CLEAR	N	86.4	2.58	—
1305	5.20			7.13	0.683	13.12	CLEAR	N	85.3	2.22	—
1308	5.20			7.13	0.686	13.05	CLEAR	N	85.2	2.17	—
			~4 gals.								
1310	5.20	Sample Readings		7.13	0.687	13.07	CLEAR	N	85.2	2.16	—

Comments: Sampled @ 1310
VOCs

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lee M Wilson

Date: 10 / 23 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: P2-15A
Weather Conditions: Partly Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): ~~Pumped~~, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (- 2.67) x 0.16 = gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1320

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1325	3.11			6.97	0.777	10.19	CLEAR	N	94.2	4.80	—
1330	3.11			6.99	0.782	10.16	CLEAR	N	91.0	3.59	—
1335	3.11			7.00	0.785	10.09	CLEAR	N	91.0	3.17	—
1340	3.11			6.99	0.785	10.02	CLEAR	N	91.2	2.95	—
1343	3.11			6.98	0.785	10.01	CLEAR	N	92.0	2.90	—
			~35 gals.								
1345	3.11	Sample Readings		6.98	0.785	9.99	CLEAR	N	91.8	2.88	—

Comments: VOCs
Sampled @ 1345

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lee M. Wilson

Date: 10 / 23 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: P2-15B
Weather Conditions: Partly Cloudy
Project No.: 60135471
Sampling Method (circle one): Pumped, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (- 2.66) x 0.16 = gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1343

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1348	2.73			7.15	0.737	10.55	CLEAR	N	90.6	4.06	—
1353	2.73			7.11	0.741	10.64	CLEAR	N	91.1	2.59	—
1358	2.73			7.13	0.743	10.63	CLEAR	N	89.9	1.61	—
1403	2.73			7.10	0.745	10.61	CLEAR	N	90.1	1.40	—
1406	2.73			7.06	0.767	10.46	CLEAR	N	90.2	1.03	—
1409	2.73			7.04	0.777	10.43	CLEAR	N	90.5	0.99	—
			~3.5 gals.								
1410	2.73	Sample Readings		7.02	0.785	10.39	CLEAR	N	90.7	0.98	—

Comments: VOCs
Sampled @ 1410

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Kyle M. Wilson

Date: 10 / 23 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: P WT-15
Weather Conditions: Partly Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): ~~Pumped~~; Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (- 2.88) x 0.16 = gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1413

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1418	2.91			7.10	0.776	11.05	CLEAR	N	92.0	3.93	—
1423	2.91			7.08	0.778	11.10	CLEAR	N	91.8	3.09	—
1428	2.91			7.08	0.780	11.12	CLEAR	N	90.7	2.58	—
1433	2.91			7.06	0.782	11.05	CLEAR	N	90.7	2.41	—
1438	2.91			7.05	0.782	10.92	CLEAR	N	90.5	2.35	—
1441	2.91			7.03	0.782	10.86	CLEAR	N	91.3	2.35	—
1444	2.91			7.02	0.782	~~9.15~~ 10.84	CLEAR	N	91.4	2.37	—
			~3.5 gals.								
1445	2.91	Sample Readings		7.02	0.782	10.84	CLEAR	N	91.4	2.37	—

Comments: VOCs
Sampled @ 1445

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lyn M Wilson

Date: 10 / 23 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: PZ-03
Weather Conditions: Partly Cloudy, 40s
Project No.: 60135471
Sampling Method (circle one): (Pumped), Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: SS Submersible
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (99.63 - 32.55) x 0.16 = 10.95 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

10/21/13 1345 / 10/24/13 0850

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1350	34.87			7.29	~~0.5~~ 0.416	9.44	CLEAR/ S Cloudy	N	68.9	5.64	LOW
1355	34.87			7.34	0.418	9.32	"	N	55.4	2.87	LOW
Pump stops working ~~0855~~ ~~1400~~	37.51			~~5.61~~ ~~7.351~~	0.677	9.79	Gray, cloudy	N	95.4	2.66	MED
~~0900~~ ~~1405~~	39.72			6.00	0.671	10.04	"	N	83.7	1.40	MED
~~0905~~ ~~1410~~	40.61			6.28	0.669	10.16	Grayish/ clear	N	79.9	1.20	LOW
0910	40.61			6.46	0.669	10.23	CLEAR	N	80.6	1.02	—
0915	40.61			6.55	0.669	10.24	CLEAR	N	81.3	0.91	—
0918	40.61			6.63	0.669	10.29	CLEAR	N	81.2	0.85	—
			~4.5 gals.								
0920	40.61	Sample Readings		6.63	0.669	10.29	CLEAR	N	81.3	0.84	—

Comments: VOCs Sampled @ 0920

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lee M. Wilson

Date: 10 / 24 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: LOT-03
Weather Conditions: Sunny, Cloudy, 40s
Project No.: 60135471
Sampling Method (circle one): Pumped, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: SS Submersible
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (36.01 - 32.81) x 0.16 = 0.52 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

0930

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
0935	33.11			6.51	0.826	9.72	CLEAR	N	101.2	7.76	—
0940	33.11			6.51	0.824	9.93	CLEAR	N	102.6	7.48	—
0945	33.11			6.58	0.824	10.12	CLEAR	N	101.6	7.32	—
0950	33.11			6.60	0.818	10.30	CLEAR	N	102.4	7.27	—
0955	33.11			6.70	0.815	11.05	CLEAR	N	101.4	7.36	—
0958	33.11			6.74	0.818	11.32	CLEAR	N	100.8	7.31	—
			~3 gals								
1000	33.11	Sample Readings		6.78	0.818	11.40	CLEAR	N	99.6	7.23	—

Comments: VOCs
Sampled @ 1000

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Ty M. Wilson

Date: 10 / 24 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WT-18
Weather Conditions: 40s, Partly Cloudy
Project No.: 60135471
Sampling Method (circle one): (Pumped), Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: SS Submersible
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (51.73 - 45.71) x 0.16 = 0.98 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1015

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1020	46.46			6.90	1.240	10.65	Black	Y	45.9	3.78	HIGH
1025	46.81			7.19	1.269	11.08	"		10.7	1.15	HIGH
1030	47.15			7.21	1.233	10.98	CLEAR		0.6	0.84	—
1035	46.70			7.23	1.203	11.07	CLEAR		-3.2	0.67	—
1040	46.70			7.29	1.194	11.50	CLEAR		-6.6	0.60	—
1043	46.70			7.32	1.193	11.56	CLEAR		-9.2	0.55	—
1046	46.70			7.33	1.197	11.45	CLEAR		-9.3	0.55	—
1049	46.70			7.31	1.199	11.36	CLEAR		-8.9	0.55	—
			~4.5gals.								
1050	46.70	Sample Readings		7.31	1.200	11.30	CLEAR		-9.0	0.55	—

Comments: VOCs & PCBs
Sampled @ 1050

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Kyle M. Wilson

Date: 10 / 24 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WT-17
Weather Conditions: Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): (Pumped), Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: SS Submersible
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (38.83 - 33.14) x 0.16 = 0.93 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1105

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1110	33.60			7.09	0.754	10.24	Tan, Cloudy	N	72.6	6.70	HIGH
1115	33.60			6.96	0.775	10.48	"	N	78.9	5.68	MED
1120	33.60			6.86	0.782	10.57	LT TAN	N	83.8	5.41	LOW
1125	33.60			6.87	0.788	10.53	"	N	84.9	5.25	LOW
1130	33.60			6.83	0.793	10.61	"	N	87.3	5.10	LOW
1133	33.60			6.85	0.797	10.58	CLEAR	N	87.4	5.01	—
			~5½ gals.								
1135	33.60	Sample Readings		6.83	0.797	10.55	CLEAR	N	87.9	5.03	—

Comments: VOCs & PCBs
Sampled @ 1135
VOCs DUP collected
Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____
Signature: Lee M Wilson
Date: 10 / 24 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WT-19
Weather Conditions: Partly Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): ~~Pumped~~, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: ~~Peristaltic~~
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (21.26 - 15.85) x 0.16 = 0.88 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1135

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1140	16.08			6.91	0.786	10.51	CLEAR	N	89.1	4.66	—
1145	16.12			6.86	0.781	10.86	CLEAR	N	86.9	2.55	—
1150	16.16			6.85	0.784	10.91	CLEAR	N	85.3	1.04	—
1155	16.16			6.81	0.787	10.97	CLEAR	N	85.9	0.99	—
1158	16.16			6.80	0.789	11.01	CLEAR	N	85.7	1.02	—
			~2 gals.								
1200	16.16	Sample Readings		6.80	0.790	11.01	CLEAR	N	85.8	1.02	—

Comments: VOCs
Sampled @ 1200

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lu M. Wilson

Date: 10 / 24 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WT-02A
Weather Conditions: Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): (Pumped) Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: SS Submersible
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (59.97 - 51.25) x 0.16 = 1.42 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1205

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1210	51.69			6.65	10.49 ↔ 1967		LT TAN	N	93.9	6.43	LOW
1215	51.70			6.71	1.784	10.87	CLEAR	N	87.5	4.59	—
1220	51.70			6.74	1.706	10.85	CLEAR	N	81.6	3.43	—
1225	51.70			6.74	1.678	11.22	CLEAR	N	79.4	3.14	—
1228	51.70			6.74	1.679	11.31	CLEAR	N	77.6	3.15	—
1230	51.70	Sample Readings		6.75	1.679	11.29	CLEAR	N	77.3	3.15	—

Comments: VOCs & PCBs Sampled @ 1230

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lyle M. Wilson

Date: 10 / 24 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: WJT - 10
Weather Conditions: Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): Pumped, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: SS Submersible
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (48.20 - 44.81) x 0.16 = 0.55 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1245

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1250	42.65			7.34	1.175	10.47	DK Gray, cloudy	N	16.8	1.40	HIGH
1255	42.65			7.38	1.118	10.80	"	N	-0.1	0.64	HIGH
1300	42.65			7.43	1.099	10.91	GRAY, CLOUDY	N	-10.8	0.53	MED
1305	42.65			7.43	1.090	11.02	"	N	-17.0	0.47	MED
1310	42.65			7.48	1.079	11.53	LT GRAY	N	-26.2	0.44	LOW
1313	42.65			7.53	1.074	11.91	CLEAR	N	-35.2	0.40	—
1316	42.65			7.54	1.072	12.02	CLEAR	N	-37.4	0.40	—
1319	42.65			7.56	1.076	11.99	CLEAR	N	-37.7	0.38	—
			~3½ gals.								
1320	42.65	Sample Readings		7.55	1.076	12.01	CLEAR	N	-37.4	0.38	—

Comments: VOCs & PCBs
Sampled @ 1320
DUP collected (both VOCs & PCBs)
Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____
Signature: Lee M. Wilson
Date: 10 / 24 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: ~~MW-14B~~ P2-05B
Weather Conditions: Partly Cloudy, 40s
Project No.: 60135471
Sampling Method (circle one): ~~Pumped~~, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (~~20.34~~ 10.92 - 2.61) x 0.16 = ~~3.11~~ 1.33 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
(Gals./Well Vol. x 5 = Total Volume to be Removed)
9.52 Gals./Well Vol.: _____

1350

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1355	5.61			7.53	0.714	10.77	CLEAR	N	60.6	3.40	—
1400	5.50			7.47	0.716	10.65	CLEAR	N	63.2	2.43	—
1405	5.40			7.42	0.715	10.50	CLEAR	N	65.8	2.07	—
1410	5.40			7.35	0.714	10.52	CLEAR	N	69.0	1.87	—
1415	5.40			7.35	0.715	10.53	CLEAR	N	69.5	1.81	—
1418	5.40			7.37	0.716	10.46	CLEAR	N	68.7	1.80	—
1421	5.40			7.38	0.715	10.38	CLEAR	N	69.0	1.76	—
1424	5.40			7.38	0.715	10.34	CLEAR	N	68.9	1.75	—
			~4 gals.								
1425	5.40	Sample Readings		7.38	0.715	10.34	CLEAR	N	69.0	1.75	—

Comments: VOCs
Sampled @ 1425
MS/MSD collected
Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____
Signature: Lee M. Wilson
Date: 10 / 24 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: P2-05A
Weather Conditions: Partly Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): Pumped, Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (40.42 - 3.40) x 0.16 = 6.04 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1428

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1433	3.51			7.22	0.751	10.48	CLEAR	N	66.6	1.52	—
1438	3.51			7.21	0.753	10.42	CLEAR	N	61.0	0.68	—
1443	3.51			7.22	0.722	10.33	CLEAR	N	53.8	0.41	—
1448	3.51			7.19	0.761	10.23	CLEAR	N	53.5	0.35	—
1453	3.51			7.17	0.763	10.21	CLEAR	N	54.9	0.32	—
1458	3.51			7.15	0.762	10.24	CLEAR	N	55.9	0.30	—
1459	3.51			7.16	0.763	10.25	CLEAR	N	55.9	0.30	—
			~4.5 gals.								
1500	3.51	Sample Readings		7.16	10.25	0.763	CLEAR	N	55.9	0.30	—

Comments: VOCs
Sampled @ 1500

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____
Signature: Jill M. Wilson
Date: 10 / 24 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

AECOM

Well Purging and Sample Collection

Site: Former Newton Gravel Pit
Well No.: ~~PZ-05~~ LOT-05
Weather Conditions: Partly Sunny, 40s
Project No.: 60135471
Sampling Method (circle one): (Pumped), Bailed, Other: _____
Pump Type (circle one): Keck, Grundfos, Other: Peristaltic
Bailer Type (circle one): Disposable, PVC, Stainless Steel, Other: _____
Volume Calculation: (~~50.92~~ 26.99 - 2.81) x 0.16 = 2.96 gallons
(D.T.B. - D.T.W. x vol./ft. = Gals./Well Vol.)
Gals./Well Vol.: _____
(Gals./Well Vol. x 5 = Total Volume to be Removed)

1503

Time	Depth to Water (D.T.W.)	Depth to Bottom (D.T.B.)	Volume Removed (gal.)	pH	Cond (µS)	Temp. (°F)	Color	Odor Y/N	ORP (mV)	DO (ppm)	Turbidity
1506	3.01			7.16	0.850	11.07	CLEAR	N	63.3	1.01	—
1509	3.01			7.15	0.856	11.35	CLEAR	N	64.3	0.49	—
1512	3.01			7.10	0.857	11.50	CLEAR	N	66.7	0.35	—
1515	3.01			7.08	0.858	11.52	CLEAR	N	67.6	0.31	—
1518	3.01			7.05	0.858	11.51	CLEAR	N	68.8	0.29	—
1521	3.01			7.05	0.858	11.51	CLEAR	N	69.0	0.28	—
1524	3.01			7.05	0.858	11.50	CLEAR	N	69.3	0.27	—
			~5.5 gals.								
1525	3.01	Sample Readings		7.05	0.858	11.50	CLEAR	N	69.4	0.27	—

Comments: VOCs
Sampled @ 1525

Field Blank Taken: No.: _____ Time: _____

Inside Diameter	vol./ft
1"	0.04
1.25"	0.06
2"	0.16
4"	0.65

Well Duplicate No.: _____

Signature: Lee M. Wilson

Date: 10 / 24 / 2013

Location	HNu/PPM	LEL/%	O_2/%	H_2S/PPM	CO/PPM	Time

Attachment C:

Horizontal & Vertical Gradient Calculations

AECOM

CALCULATION SHEET

Client City of Manitowoc **Subject** Horiz. GW Grad. & Ave. Linear GW Velocity

Project Newton Gravel Pit

Prepared By JDM **Date** 04/04/14

Reviewed By dsh **Date** 4/28/14

Approved By **Date**

HORIZONTAL GROUNDWATER GRADIENT AND AVERAGE LINEAR GROUNDWATER VELOCITY

Objective

Calculate the horizontal groundwater gradient and average linear groundwater velocity within the poorly graded sandy outwash deposits at the Newton Gravel Pit.

Design Criteria and Assumptions

1. Piezometric elevations measured on October 21, 2013.
2. Horizontal groundwater gradient based on the interpreted groundwater flow map shown on Figure 3.
3. Geometric mean hydraulic conductivity (K) from in-situ field hydraulic conductivity tests on water table wells (reported in June 1996 Investigation Report) is 2.9 $x10^{-3}$ cm/sec., 7.1 ft/day.
4. Sandy outwash effective porosity (n_e) estimated as 0.25 (Freeze and Cherry, 1979).

Calculations

Horizontal Groundwater Gradient

$$I_h = \Delta h_h / \Delta l_h$$

Where:

I_h = Horizontal groundwater gradient

Δh_h = Difference in piezometric elevation between the 688-foot and 683-foot piezometric contour shown on Figure 3.

Δl_h = Length (distance) between the 688-foot and 683-foot piezometric contour along flowline for the west unit.

	Distance Along Flowline (feet)	Difference in Elevation (feet)	Horizontal Groundwater Gradient (feet/foot)
Flowline on Fig. 3	982	5	0.005

Client City of Manitowoc **Subject** Horiz. GW Grad. &
Project Newton Gravel Pit Ave. Linear GW Velocity **Prepared By** JDM **Date** 04/04/14
Reviewed By dsh **Date** 4/28/14
Approved By **Date**

Average Linear Groundwater Velocity

$$V = K I_h / n_e$$

Undifferentiated Lacustrine Unit beneath the west unit.

Where:

V	=	Average linear groundwater velocity
K	=	7.1 ft/day
I_h	=	0.005 ft/ft
n_e	=	0.25

Therefore, $V = 1.4 \times 10^{-1}$ ft/day

Conclusions

The calculated average horizontal groundwater gradient is 0.005 feet/foot.
The calculated average linear groundwater velocity is 1.4×10^{-1} ft/day or approximately 51 ft/yr.

References

Freeze, R.A. and J.A. Cherry, 1979. Groundwater. Prentice Hall, Inc. Englewood Cliffs, New Jersey, 604 p.

AECOM

CALCULATION SHEET

Client	City of Manitowoc	**Subject**	Vertical Groundwater Gradient		
Project	Newton Gravel Pit			**Prepared By**	JDM **Date** 04/04/14
				Reviewed By	dsh **Date** 4/28/14
				Approved By	**Date**

VERTICAL GROUNDWATER GRADIENT

Objective

Calculate the vertical groundwater gradient at piezometer nest locations.

Design Criteria and Assumptions

1. Piezometric elevations measured October 2013.

2. Vertical distance between two piezometers at a location is the difference between the screen elevations for each piezometer.

3. For piezometers in which the piezometric elevation occurs within the screened interval, the piezometric elevation is the screen elevation. For piezometers in which the piezometric elevation occurs above the screen interval, the midpoint elevation of the screen is the screen elevation.

Calculations

$$I_v = \Delta h_v / \left| \Delta L_v \right|$$

Where:

I_v	=	Vertical groundwater gradient
Δh_v	=	Difference in piezometric elevation between nested piezometers
ΔL_v	=	Difference in screen elevation between nested piezometers

Conclusions

Calculated vertical groundwater gradients:

AECOM

CALCULATION SHEET

Client City of Manitowoc **Subject** Vertical Groundwater Gradient

Project Newton Gravel Pit

Prepared By JDM **Date** 04/04/14

Reviewed By dsh **Date** 4/28/14

Approved By **Date**

October 2013

Piezometer	Piezometric Elevation (feet MSL)	Screen Elevation (feet MSL)	Vertical Groundwater Gradient (feet/foot)
WT-01	687.89	687.9	0.0016 down
PZ-01	687.79	624.7	
WT-03	686.09	686.1	0.0053 up
PZ-03	686.43	621.9	
WT-05	685.17	672.0	0.0339 down
PZ-05	684.42	649.9	
PZ-05	684.42	649.9	0.0463 up
PZ-05B	685.36	629.6	
WT-12	683.98	677.9	0.0331 down
PZ-12	683.48	662.8	
WT-15	683.68	683.7	0.0077 up
PZ-15A	683.85	661.6	
PZ-15A	683.85	661.6	0.0095 up
PZ-15B	683.94	652.1	
WT-16	683.01	683.0	0.0005 down
PZ-16	683.00	664.0	

NOTES:
Piezometric elevations based on measurements obtained 10/21/13.

Attachment D:

Laboratory Sample Results

Synergy Environmental Lab, INC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

LISA SMITH
AECOM
1555 N RIVER CENTER DRIVE
MILWAUKEE, WI 53212

Report Date *05-Nov-13*

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000A
Sample ID WT-01
Sample Matrix water
Sample Date 10/21/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000A
Sample ID WT-01
Sample Matrix water
Sample Date 10/21/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	88	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	98	REC %			1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	89	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000B
Sample ID PZ-01
Sample Matrix water
Sample Date 10/21/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	99	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	95	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	99	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000C
Sample ID PZ-02
Sample Matrix water
Sample Date 10/21/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PCB'S										
PCB-1016	< 0.15	ug/l	0.15	0.77	1.54	8082		11/1/2013	ESC	1
PCB-1221	< 0.11	ug/l	0.11	0.77	1.54	8082		11/1/2013	ESC	1
PCB-1232	< 0.065	ug/l	0.065	0.77	1.54	8082		11/1/2013	ESC	1
PCB-1242	< 0.072	ug/l	0.072	0.77	1.54	8082		11/1/2013	ESC	1
PCB-1248	< 0.13	ug/l	0.13	0.77	1.54	8082		11/1/2013	ESC	1
PCB-1254	< 0.072	ug/l	0.072	0.77	1.54	8082		11/1/2013	ESC	1
PCB-1260	< 0.18	ug/l	0.18	0.77	1.54	8082		11/1/2013	ESC	1
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000C
Sample ID PZ-02
Sample Matrix water
Sample Date 10/21/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	96	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	95	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000D
Sample ID WP-07
Sample Matrix water
Sample Date 10/21/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	97	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	98	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000E
Sample ID PZ-03
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	0.44 "J"	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	93	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	94	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	94	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000F
Sample ID WT-03
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	0.32 "J"	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	85	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	0.39 "J"	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	5.8	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	57	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	89	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	99	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	96	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	87	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000G
Sample ID WT-13
Sample Matrix water
Sample Date 10/22/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	93	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	97	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000H
Sample ID WP-04
Sample Matrix water
Sample Date 10/22/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	7.5	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	0.50 "J"	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	3.5	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	94	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	95	REC %			1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	101	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000I
Sample ID WP-04-DUP
Sample Matrix water
Sample Date 10/22/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	8.0	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	0.46 "J"	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	3.5	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	95	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	91	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	97	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000J
Sample ID WP-06
Sample Matrix water
Sample Date 10/22/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	22.6	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	0.38 "J"	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	0.79 "J"	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	5.3	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	99	REC %			1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	99	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	100	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	94	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000K
Sample ID PZ-12
Sample Matrix water
Sample Date 10/22/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	72 "J"	ug/l	24	77	100	8260B		10/31/2013	CJR	1
Bromobenzene	< 32	ug/l	32	100	100	8260B		10/31/2013	CJR	1
Bromodichloromethane	< 37	ug/l	37	120	100	8260B		10/31/2013	CJR	1
Bromoform	< 35	ug/l	35	110	100	8260B		10/31/2013	CJR	1
tert-Butylbenzene	< 36	ug/l	36	120	100	8260B		10/31/2013	CJR	1
sec-Butylbenzene	< 33	ug/l	33	100	100	8260B		10/31/2013	CJR	1
n-Butylbenzene	< 35	ug/l	35	110	100	8260B		10/31/2013	CJR	1
Carbon Tetrachloride	< 33	ug/l	33	110	100	8260B		10/31/2013	CJR	1
Chlorobenzene	< 24	ug/l	24	77	100	8260B		10/31/2013	CJR	1
Chloroethane	< 63	ug/l	63	200	100	8260B		10/31/2013	CJR	1
Chloroform	< 28	ug/l	28	88	100	8260B		10/31/2013	CJR	1
Chloromethane	< 81	ug/l	81	260	100	8260B		10/31/2013	CJR	1
2-Chlorotoluene	< 21	ug/l	21	66	100	8260B		10/31/2013	CJR	1
4-Chlorotoluene	< 21	ug/l	21	68	100	8260B		10/31/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 88	ug/l	88	280	100	8260B		10/31/2013	CJR	1
Dibromochloromethane	< 22	ug/l	22	70	100	8260B		10/31/2013	CJR	1
1,4-Dichlorobenzene	< 30	ug/l	30	96	100	8260B		10/31/2013	CJR	1
1,3-Dichlorobenzene	< 28	ug/l	28	89	100	8260B		10/31/2013	CJR	1
1,2-Dichlorobenzene	< 36	ug/l	36	120	100	8260B		10/31/2013	CJR	1
Dichlorodifluoromethane	< 44	ug/l	44	140	100	8260B		10/31/2013	CJR	1
1,2-Dichloroethane	< 41	ug/l	41	130	100	8260B		10/31/2013	CJR	1
1,1-Dichloroethane	< 30	ug/l	30	97	100	8260B		10/31/2013	CJR	1
1,1-Dichloroethene	< 40	ug/l	40	130	100	8260B		10/31/2013	CJR	1
cis-1,2-Dichloroethene	4800	ug/l	38	120	100	8260B		10/31/2013	CJR	1
trans-1,2-Dichloroethene	< 35	ug/l	35	110	100	8260B		10/31/2013	CJR	1
1,2-Dichloropropane	< 32	ug/l	32	100	100	8260B		10/31/2013	CJR	1
2,2-Dichloropropane	< 36	ug/l	36	120	100	8260B		10/31/2013	CJR	8
1,3-Dichloropropane	< 33	ug/l	33	100	100	8260B		10/31/2013	CJR	1
Di-isopropyl ether	< 23	ug/l	23	73	100	8260B		10/31/2013	CJR	1
EDB (1,2-Dibromoethane)	< 44	ug/l	44	140	100	8260B		10/31/2013	CJR	1
Ethylbenzene	< 55	ug/l	55	170	100	8260B		10/31/2013	CJR	1
Hexachlorobutadiene	< 150	ug/l	150	480	100	8260B		10/31/2013	CJR	1
Isopropylbenzene	< 30	ug/l	30	96	100	8260B		10/31/2013	CJR	1
p-Isopropyltoluene	< 31	ug/l	31	98	100	8260B		10/31/2013	CJR	1
Methylene chloride	< 50	ug/l	50	160	100	8260B		10/31/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 23	ug/l	23	74	100	8260B		10/31/2013	CJR	1
Naphthalene	< 170	ug/l	170	550	100	8260B		10/31/2013	CJR	1
n-Propylbenzene	< 25	ug/l	25	81	100	8260B		10/31/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 45	ug/l	45	140	100	8260B		10/31/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 33	ug/l	33	110	100	8260B		10/31/2013	CJR	1
Tetrachloroethene	< 33	ug/l	33	110	100	8260B		10/31/2013	CJR	1
Toluene	< 69	ug/l	69	220	100	8260B		10/31/2013	CJR	1
1,2,4-Trichlorobenzene	< 98	ug/l	98	310	100	8260B		10/31/2013	CJR	1
1,2,3-Trichlorobenzene	< 180	ug/l	180	580	100	8260B		10/31/2013	CJR	1
1,1,1-Trichloroethane	< 33	ug/l	33	100	100	8260B		10/31/2013	CJR	1
1,1,2-Trichloroethane	< 34	ug/l	34	110	100	8260B		10/31/2013	CJR	1
Trichloroethene (TCE)	< 33	ug/l	33	100	100	8260B		10/31/2013	CJR	1
Trichlorofluoromethane	< 71	ug/l	71	230	100	8260B		10/31/2013	CJR	1
1,2,4-Trimethylbenzene	< 220	ug/l	220	690	100	8260B		10/31/2013	CJR	1
1,3,5-Trimethylbenzene	< 140	ug/l	140	450	100	8260B		10/31/2013	CJR	1
Vinyl Chloride	2980	ug/l	18	57	100	8260B		10/31/2013	CJR	1
m&p-Xylene	< 69	ug/l	69	220	100	8260B		10/31/2013	CJR	1
o-Xylene	< 63	ug/l	63	200	100	8260B		10/31/2013	CJR	1
SUR - Toluene-d8	98	REC %			100	8260B		10/31/2013	CJR	1
SUR - Dibromofluoromethane	90	REC %			100	8260B		10/31/2013	CJR	1
SUR - 4-Bromofluorobenzene	91	REC %			100	8260B		10/31/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	91	REC %			100	8260B		10/31/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000L
Sample ID WT-12
Sample Matrix water
Sample Date 10/22/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	13 "J"	ug/l	12	38.5	50	8260B		10/29/2013	CJR	1
Bromobenzene	< 16	ug/l	16	50	50	8260B		10/29/2013	CJR	1
Bromodichloromethane	< 18.5	ug/l	18.5	60	50	8260B		10/29/2013	CJR	1
Bromoform	< 17.5	ug/l	17.5	55	50	8260B		10/29/2013	CJR	1
tert-Butylbenzene	< 18	ug/l	18	60	50	8260B		10/29/2013	CJR	1
sec-Butylbenzene	< 16.5	ug/l	16.5	50	50	8260B		10/29/2013	CJR	1
n-Butylbenzene	< 17.5	ug/l	17.5	55	50	8260B		10/29/2013	CJR	1
Carbon Tetrachloride	< 16.5	ug/l	16.5	55	50	8260B		10/29/2013	CJR	7
Chlorobenzene	< 12	ug/l	12	38.5	50	8260B		10/29/2013	CJR	1
Chloroethane	< 31.5	ug/l	31.5	100	50	8260B		10/29/2013	CJR	1
Chloroform	< 14	ug/l	14	44	50	8260B		10/29/2013	CJR	1
Chloromethane	< 40.5	ug/l	40.5	130	50	8260B		10/29/2013	CJR	1
2-Chlorotoluene	< 10.5	ug/l	10.5	33	50	8260B		10/29/2013	CJR	1
4-Chlorotoluene	< 10.5	ug/l	10.5	34	50	8260B		10/29/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 44	ug/l	44	140	50	8260B		10/29/2013	CJR	1
Dibromochloromethane	< 11	ug/l	11	35	50	8260B		10/29/2013	CJR	1
1,4-Dichlorobenzene	< 15	ug/l	15	48	50	8260B		10/29/2013	CJR	1
1,3-Dichlorobenzene	< 14	ug/l	14	44.5	50	8260B		10/29/2013	CJR	1
1,2-Dichlorobenzene	< 18	ug/l	18	60	50	8260B		10/29/2013	CJR	1
Dichlorodifluoromethane	< 22	ug/l	22	70	50	8260B		10/29/2013	CJR	1
1,2-Dichloroethane	< 20.5	ug/l	20.5	65	50	8260B		10/29/2013	CJR	1
1,1-Dichloroethane	< 15	ug/l	15	48.5	50	8260B		10/29/2013	CJR	1
1,1-Dichloroethene	< 20	ug/l	20	65	50	8260B		10/29/2013	CJR	1
cis-1,2-Dichloroethene	1670	ug/l	19	60	50	8260B		10/29/2013	CJR	1
trans-1,2-Dichloroethene	< 17.5	ug/l	17.5	55	50	8260B		10/29/2013	CJR	1
1,2-Dichloropropane	< 16	ug/l	16	50	50	8260B		10/29/2013	CJR	1
2,2-Dichloropropane	< 18	ug/l	18	60	50	8260B		10/29/2013	CJR	1
1,3-Dichloropropane	< 16.5	ug/l	16.5	50	50	8260B		10/29/2013	CJR	1
Di-isopropyl ether	< 11.5	ug/l	11.5	36.5	50	8260B		10/29/2013	CJR	1
EDB (1,2-Dibromoethane)	< 22	ug/l	22	70	50	8260B		10/29/2013	CJR	1
Ethylbenzene	< 27.5	ug/l	27.5	85	50	8260B		10/29/2013	CJR	1
Hexachlorobutadiene	< 75	ug/l	75	240	50	8260B		10/29/2013	CJR	1
Isopropylbenzene	< 15	ug/l	15	48	50	8260B		10/29/2013	CJR	1
p-Isopropyltoluene	< 15.5	ug/l	15.5	49	50	8260B		10/29/2013	CJR	1
Methylene chloride	< 25	ug/l	25	80	50	8260B		10/29/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 11.5	ug/l	11.5	37	50	8260B		10/29/2013	CJR	1
Naphthalene	< 85	ug/l	85	275	50	8260B		10/29/2013	CJR	1
n-Propylbenzene	< 12.5	ug/l	12.5	40.5	50	8260B		10/29/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 22.5	ug/l	22.5	70	50	8260B		10/29/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 16.5	ug/l	16.5	55	50	8260B		10/29/2013	CJR	1
Tetrachloroethene	< 16.5	ug/l	16.5	55	50	8260B		10/29/2013	CJR	1
Toluene	< 34.5	ug/l	34.5	110	50	8260B		10/29/2013	CJR	1
1,2,4-Trichlorobenzene	< 49	ug/l	49	155	50	8260B		10/29/2013	CJR	1
1,2,3-Trichlorobenzene	< 90	ug/l	90	290	50	8260B		10/29/2013	CJR	1
1,1,1-Trichloroethane	< 16.5	ug/l	16.5	50	50	8260B		10/29/2013	CJR	1
1,1,2-Trichloroethane	< 17	ug/l	17	55	50	8260B		10/29/2013	CJR	1
Trichloroethene (TCE)	22.5 "J"	ug/l	16.5	50	50	8260B		10/29/2013	CJR	1
Trichlorofluoromethane	< 35.5	ug/l	35.5	115	50	8260B		10/29/2013	CJR	1
1,2,4-Trimethylbenzene	< 110	ug/l	110	345	50	8260B		10/29/2013	CJR	1
1,3,5-Trimethylbenzene	< 70	ug/l	70	225	50	8260B		10/29/2013	CJR	1
Vinyl Chloride	262	ug/l	9	28.5	50	8260B		10/29/2013	CJR	1
m&p-Xylene	< 34.5	ug/l	34.5	110	50	8260B		10/29/2013	CJR	1
o-Xylene	< 31.5	ug/l	31.5	100	50	8260B		10/29/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	91	REC %			50	8260B		10/29/2013	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			50	8260B		10/29/2013	CJR	1
SUR - Dibromofluoromethane	90	REC %			50	8260B		10/29/2013	CJR	1
SUR - Toluene-d8	98	REC %			50	8260B		10/29/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000M
Sample ID WT-11
Sample Matrix water
Sample Date 10/22/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 2.4	ug/l	2.4	7.7	10	8260B		10/29/2013	CJR	1
Bromobenzene	< 3.2	ug/l	3.2	10	10	8260B		10/29/2013	CJR	1
Bromodichloromethane	< 3.7	ug/l	3.7	12	10	8260B		10/29/2013	CJR	1
Bromoform	< 3.5	ug/l	3.5	11	10	8260B		10/29/2013	CJR	1
tert-Butylbenzene	< 3.6	ug/l	3.6	12	10	8260B		10/29/2013	CJR	1
sec-Butylbenzene	< 3.3	ug/l	3.3	10	10	8260B		10/29/2013	CJR	1
n-Butylbenzene	< 3.5	ug/l	3.5	11	10	8260B		10/29/2013	CJR	1
Carbon Tetrachloride	< 3.3	ug/l	3.3	11	10	8260B		10/29/2013	CJR	7
Chlorobenzene	< 2.4	ug/l	2.4	7.7	10	8260B		10/29/2013	CJR	1
Chloroethane	< 6.3	ug/l	6.3	20	10	8260B		10/29/2013	CJR	1
Chloroform	< 2.8	ug/l	2.8	8.8	10	8260B		10/29/2013	CJR	1
Chloromethane	< 8.1	ug/l	8.1	26	10	8260B		10/29/2013	CJR	1
2-Chlorotoluene	< 2.1	ug/l	2.1	6.6	10	8260B		10/29/2013	CJR	1
4-Chlorotoluene	< 2.1	ug/l	2.1	6.8	10	8260B		10/29/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 8.8	ug/l	8.8	28	10	8260B		10/29/2013	CJR	1
Dibromochloromethane	< 2.2	ug/l	2.2	7	10	8260B		10/29/2013	CJR	1
1,4-Dichlorobenzene	< 3	ug/l	3	9.6	10	8260B		10/29/2013	CJR	1
1,3-Dichlorobenzene	< 2.8	ug/l	2.8	8.9	10	8260B		10/29/2013	CJR	1
1,2-Dichlorobenzene	< 3.6	ug/l	3.6	12	10	8260B		10/29/2013	CJR	1
Dichlorodifluoromethane	< 4.4	ug/l	4.4	14	10	8260B		10/29/2013	CJR	1
1,2-Dichloroethane	< 4.1	ug/l	4.1	13	10	8260B		10/29/2013	CJR	1
1,1-Dichloroethane	4.0 "J"	ug/l	3	9.7	10	8260B		10/29/2013	CJR	1
1,1-Dichloroethene	< 4	ug/l	4	13	10	8260B		10/29/2013	CJR	1
cis-1,2-Dichloroethene	600	ug/l	3.8	12	10	8260B		10/29/2013	CJR	1
trans-1,2-Dichloroethene	< 3.5	ug/l	3.5	11	10	8260B		10/29/2013	CJR	1
1,2-Dichloropropane	< 3.2	ug/l	3.2	10	10	8260B		10/29/2013	CJR	1
2,2-Dichloropropane	< 3.6	ug/l	3.6	12	10	8260B		10/29/2013	CJR	1
1,3-Dichloropropane	< 3.3	ug/l	3.3	10	10	8260B		10/29/2013	CJR	1
Di-isopropyl ether	< 2.3	ug/l	2.3	7.3	10	8260B		10/29/2013	CJR	1
EDB (1,2-Dibromoethane)	< 4.4	ug/l	4.4	14	10	8260B		10/29/2013	CJR	1
Ethylbenzene	< 5.5	ug/l	5.5	17	10	8260B		10/29/2013	CJR	1
Hexachlorobutadiene	< 15	ug/l	15	48	10	8260B		10/29/2013	CJR	1
Isopropylbenzene	< 3	ug/l	3	9.6	10	8260B		10/29/2013	CJR	1
p-Isopropyltoluene	< 3.1	ug/l	3.1	9.8	10	8260B		10/29/2013	CJR	1
Methylene chloride	< 5	ug/l	5	16	10	8260B		10/29/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 2.3	ug/l	2.3	7.4	10	8260B		10/29/2013	CJR	1
Naphthalene	< 17	ug/l	17	55	10	8260B		10/29/2013	CJR	1
n-Propylbenzene	< 2.5	ug/l	2.5	8.1	10	8260B		10/29/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 4.5	ug/l	4.5	14	10	8260B		10/29/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 3.3	ug/l	3.3	11	10	8260B		10/29/2013	CJR	1
Tetrachloroethene	< 3.3	ug/l	3.3	11	10	8260B		10/29/2013	CJR	1
Toluene	< 6.9	ug/l	6.9	22	10	8260B		10/29/2013	CJR	1
1,2,4-Trichlorobenzene	< 9.8	ug/l	9.8	31	10	8260B		10/29/2013	CJR	1
1,2,3-Trichlorobenzene	< 18	ug/l	18	58	10	8260B		10/29/2013	CJR	1
1,1,1-Trichloroethane	< 3.3	ug/l	3.3	10	10	8260B		10/29/2013	CJR	1
1,1,2-Trichloroethane	< 3.4	ug/l	3.4	11	10	8260B		10/29/2013	CJR	1
Trichloroethene (TCE)	10.5	ug/l	3.3	10	10	8260B		10/29/2013	CJR	1
Trichlorofluoromethane	< 7.1	ug/l	7.1	23	10	8260B		10/29/2013	CJR	1
1,2,4-Trimethylbenzene	< 22	ug/l	22	69	10	8260B		10/29/2013	CJR	1
1,3,5-Trimethylbenzene	< 14	ug/l	14	45	10	8260B		10/29/2013	CJR	1
Vinyl Chloride	13.7	ug/l	1.8	5.7	10	8260B		10/29/2013	CJR	1
m&p-Xylene	< 6.9	ug/l	6.9	22	10	8260B		10/29/2013	CJR	1
o-Xylene	< 6.3	ug/l	6.3	20	10	8260B		10/29/2013	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			10	8260B		10/29/2013	CJR	1
SUR - Dibromofluoromethane	96	REC %			10	8260B		10/29/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	101	REC %			10	8260B		10/29/2013	CJR	1
SUR - Toluene-d8	102	REC %			10	8260B		10/29/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000N
Sample ID SG-03
Sample Matrix water
Sample Date 10/22/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	92	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	92	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	97	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000O
Sample ID SG-02
Sample Matrix water
Sample Date 10/22/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	9.7	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	0.46 "J"	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	12.4	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	99	REC %			1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	96	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	95	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000P
Sample ID SG-01
Sample Matrix water
Sample Date 10/22/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	0.33 "J"	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	31.1	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	0.40 "J"	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	18.6	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	92	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	95	REC %			1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	90	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000Q
Sample ID WT-18
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PCB'S										
PCB-1016	< 0.12	ug/l	0.12	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1221	< 0.086	ug/l	0.086	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1232	< 0.050	ug/l	0.05	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1242	< 0.055	ug/l	0.055	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1248	< 0.10	ug/l	0.1	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1254	< 0.055	ug/l	0.055	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1260	< 0.14	ug/l	0.14	0.59	1.18	8082		11/1/2013	ESC	1
VOC's										
Benzene	59	ug/l	2.4	7.7	10	8260B		10/29/2013	CJR	1
Bromobenzene	< 3.2	ug/l	3.2	10	10	8260B		10/29/2013	CJR	1
Bromodichloromethane	< 3.7	ug/l	3.7	12	10	8260B		10/29/2013	CJR	1
Bromoform	< 3.5	ug/l	3.5	11	10	8260B		10/29/2013	CJR	1
tert-Butylbenzene	< 3.6	ug/l	3.6	12	10	8260B		10/29/2013	CJR	1
sec-Butylbenzene	< 3.3	ug/l	3.3	10	10	8260B		10/29/2013	CJR	1
n-Butylbenzene	< 3.5	ug/l	3.5	11	10	8260B		10/29/2013	CJR	1
Carbon Tetrachloride	< 3.3	ug/l	3.3	11	10	8260B		10/29/2013	CJR	7
Chlorobenzene	< 2.4	ug/l	2.4	7.7	10	8260B		10/29/2013	CJR	1
Chloroethane	< 6.3	ug/l	6.3	20	10	8260B		10/29/2013	CJR	1
Chloroform	< 2.8	ug/l	2.8	8.8	10	8260B		10/29/2013	CJR	1
Chloromethane	< 8.1	ug/l	8.1	26	10	8260B		10/29/2013	CJR	1
2-Chlorotoluene	< 2.1	ug/l	2.1	6.6	10	8260B		10/29/2013	CJR	1
4-Chlorotoluene	< 2.1	ug/l	2.1	6.8	10	8260B		10/29/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 8.8	ug/l	8.8	28	10	8260B		10/29/2013	CJR	1
Dibromochloromethane	< 2.2	ug/l	2.2	7	10	8260B		10/29/2013	CJR	1
1,4-Dichlorobenzene	< 3	ug/l	3	9.6	10	8260B		10/29/2013	CJR	1
1,3-Dichlorobenzene	< 2.8	ug/l	2.8	8.9	10	8260B		10/29/2013	CJR	1
1,2-Dichlorobenzene	< 3.6	ug/l	3.6	12	10	8260B		10/29/2013	CJR	1
Dichlorodifluoromethane	< 4.4	ug/l	4.4	14	10	8260B		10/29/2013	CJR	1
1,2-Dichloroethane	< 4.1	ug/l	4.1	13	10	8260B		10/29/2013	CJR	1
1,1-Dichloroethane	28.8	ug/l	3	9.7	10	8260B		10/29/2013	CJR	1
1,1-Dichloroethene	< 4	ug/l	4	13	10	8260B		10/29/2013	CJR	1
cis-1,2-Dichloroethene	9.2 "J"	ug/l	3.8	12	10	8260B		10/29/2013	CJR	1
trans-1,2-Dichloroethene	< 3.5	ug/l	3.5	11	10	8260B		10/29/2013	CJR	1
1,2-Dichloropropane	< 3.2	ug/l	3.2	10	10	8260B		10/29/2013	CJR	1
2,2-Dichloropropane	< 3.6	ug/l	3.6	12	10	8260B		10/29/2013	CJR	1
1,3-Dichloropropane	< 3.3	ug/l	3.3	10	10	8260B		10/29/2013	CJR	1
Di-isopropyl ether	< 2.3	ug/l	2.3	7.3	10	8260B		10/29/2013	CJR	1
EDB (1,2-Dibromoethane)	< 4.4	ug/l	4.4	14	10	8260B		10/29/2013	CJR	1
Ethylbenzene	29.7	ug/l	5.5	17	10	8260B		10/29/2013	CJR	1
Hexachlorobutadiene	< 15	ug/l	15	48	10	8260B		10/29/2013	CJR	1
Isopropylbenzene	< 3	ug/l	3	9.6	10	8260B		10/29/2013	CJR	1
p-Isopropyltoluene	< 3.1	ug/l	3.1	9.8	10	8260B		10/29/2013	CJR	1
Methylene chloride	< 5	ug/l	5	16	10	8260B		10/29/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 2.3	ug/l	2.3	7.4	10	8260B		10/29/2013	CJR	1
Naphthalene	24.8 "J"	ug/l	17	55	10	8260B		10/29/2013	CJR	1
n-Propylbenzene	3.2 "J"	ug/l	2.5	8.1	10	8260B		10/29/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 4.5	ug/l	4.5	14	10	8260B		10/29/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 3.3	ug/l	3.3	11	10	8260B		10/29/2013	CJR	1
Tetrachloroethene	< 3.3	ug/l	3.3	11	10	8260B		10/29/2013	CJR	1
Toluene	89	ug/l	6.9	22	10	8260B		10/29/2013	CJR	1
1,2,4-Trichlorobenzene	< 9.8	ug/l	9.8	31	10	8260B		10/29/2013	CJR	1
1,2,3-Trichlorobenzene	< 18	ug/l	18	58	10	8260B		10/29/2013	CJR	1
1,1,1-Trichloroethane	< 3.3	ug/l	3.3	10	10	8260B		10/29/2013	CJR	1
1,1,2-Trichloroethane	6.2 "J"	ug/l	3.4	11	10	8260B		10/29/2013	CJR	1
Trichloroethene (TCE)	3.8 "J"	ug/l	3.3	10	10	8260B		10/29/2013	CJR	1
Trichlorofluoromethane	< 7.1	ug/l	7.1	23	10	8260B		10/29/2013	CJR	1
1,2,4-Trimethylbenzene	< 22	ug/l	22	69	10	8260B		10/29/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000Q
Sample ID WT-18
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 14	ug/l	14	45	10	8260B		10/29/2013	CJR	1
Vinyl Chloride	244	ug/l	1.8	5.7	10	8260B		10/29/2013	CJR	1
m&p-Xylene	37	ug/l	6.9	22	10	8260B		10/29/2013	CJR	1
o-Xylene	34	ug/l	6.3	20	10	8260B		10/29/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	98	REC %			10	8260B		10/29/2013	CJR	1
SUR - 4-Bromofluorobenzene	96	REC %			10	8260B		10/29/2013	CJR	1
SUR - Dibromofluoromethane	92	REC %			10	8260B		10/29/2013	CJR	1
SUR - Toluene-d8	96	REC %			10	8260B		10/29/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000R
Sample ID WT-17
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PCB'S										
PCB-1016	< 0.12	ug/l	0.12	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1221	< 0.086	ug/l	0.086	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1232	< 0.050	ug/l	0.05	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1242	< 0.055	ug/l	0.055	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1248	< 0.010	ug/l	0.01	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1254	< 0.055	ug/l	0.055	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1260	< 0.14	ug/l	0.14	0.59	1.18	8082		11/1/2013	ESC	1
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	2.26	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	119	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	1.38	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	4.5	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	36	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000R
Sample ID WT-17
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	94	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	102	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	90	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	97	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000S
Sample ID WT-21
Sample Matrix water
Sample Date 10/23/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	90	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	98	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	92	REC %			1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	99	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000T
Sample ID WT-20
Sample Matrix water
Sample Date 10/23/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	7
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	92	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	96	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	95	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000U
Sample ID PZ-16
Sample Matrix water
Sample Date 10/23/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	3.8 "J"	ug/l	2.4	7.7	10	8260B		10/29/2013	CJR	1
Bromobenzene	< 3.2	ug/l	3.2	10	10	8260B		10/29/2013	CJR	1
Bromodichloromethane	< 3.7	ug/l	3.7	12	10	8260B		10/29/2013	CJR	1
Bromoform	< 3.5	ug/l	3.5	11	10	8260B		10/29/2013	CJR	1
tert-Butylbenzene	< 3.6	ug/l	3.6	12	10	8260B		10/29/2013	CJR	1
sec-Butylbenzene	< 3.3	ug/l	3.3	10	10	8260B		10/29/2013	CJR	1
n-Butylbenzene	< 3.5	ug/l	3.5	11	10	8260B		10/29/2013	CJR	1
Carbon Tetrachloride	< 3.3	ug/l	3.3	11	10	8260B		10/29/2013	CJR	1
Chlorobenzene	< 2.4	ug/l	2.4	7.7	10	8260B		10/29/2013	CJR	1
Chloroethane	< 6.3	ug/l	6.3	20	10	8260B		10/29/2013	CJR	1
Chloroform	< 2.8	ug/l	2.8	8.8	10	8260B		10/29/2013	CJR	1
Chloromethane	< 8.1	ug/l	8.1	26	10	8260B		10/29/2013	CJR	1
2-Chlorotoluene	< 2.1	ug/l	2.1	6.6	10	8260B		10/29/2013	CJR	1
4-Chlorotoluene	< 2.1	ug/l	2.1	6.8	10	8260B		10/29/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 8.8	ug/l	8.8	28	10	8260B		10/29/2013	CJR	1
Dibromochloromethane	< 2.2	ug/l	2.2	7	10	8260B		10/29/2013	CJR	1
1,4-Dichlorobenzene	< 3	ug/l	3	9.6	10	8260B		10/29/2013	CJR	1
1,3-Dichlorobenzene	< 2.8	ug/l	2.8	8.9	10	8260B		10/29/2013	CJR	1
1,2-Dichlorobenzene	< 3.6	ug/l	3.6	12	10	8260B		10/29/2013	CJR	1
Dichlorodifluoromethane	< 4.4	ug/l	4.4	14	10	8260B		10/29/2013	CJR	1
1,2-Dichloroethane	< 4.1	ug/l	4.1	13	10	8260B		10/29/2013	CJR	1
1,1-Dichloroethane	< 3	ug/l	3	9.7	10	8260B		10/29/2013	CJR	1
1,1-Dichloroethene	< 4	ug/l	4	13	10	8260B		10/29/2013	CJR	1
cis-1,2-Dichloroethene	241	ug/l	3.8	12	10	8260B		10/29/2013	CJR	1
trans-1,2-Dichloroethene	15	ug/l	3.5	11	10	8260B		10/29/2013	CJR	1
1,2-Dichloropropane	< 3.2	ug/l	3.2	10	10	8260B		10/29/2013	CJR	1
2,2-Dichloropropane	< 3.6	ug/l	3.6	12	10	8260B		10/29/2013	CJR	8
1,3-Dichloropropane	< 3.3	ug/l	3.3	10	10	8260B		10/29/2013	CJR	1
Di-isopropyl ether	< 2.3	ug/l	2.3	7.3	10	8260B		10/29/2013	CJR	1
EDB (1,2-Dibromoethane)	< 4.4	ug/l	4.4	14	10	8260B		10/29/2013	CJR	1
Ethylbenzene	< 5.5	ug/l	5.5	17	10	8260B		10/29/2013	CJR	1
Hexachlorobutadiene	< 15	ug/l	15	48	10	8260B		10/29/2013	CJR	1
Isopropylbenzene	< 3	ug/l	3	9.6	10	8260B		10/29/2013	CJR	1
p-Isopropyltoluene	< 3.1	ug/l	3.1	9.8	10	8260B		10/29/2013	CJR	1
Methylene chloride	< 5	ug/l	5	16	10	8260B		10/29/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 2.3	ug/l	2.3	7.4	10	8260B		10/29/2013	CJR	1
Naphthalene	< 17	ug/l	17	55	10	8260B		10/29/2013	CJR	1
n-Propylbenzene	< 2.5	ug/l	2.5	8.1	10	8260B		10/29/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 4.5	ug/l	4.5	14	10	8260B		10/29/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 3.3	ug/l	3.3	11	10	8260B		10/29/2013	CJR	1
Tetrachloroethene	< 3.3	ug/l	3.3	11	10	8260B		10/29/2013	CJR	1
Toluene	< 6.9	ug/l	6.9	22	10	8260B		10/29/2013	CJR	1
1,2,4-Trichlorobenzene	< 9.8	ug/l	9.8	31	10	8260B		10/29/2013	CJR	1
1,2,3-Trichlorobenzene	< 18	ug/l	18	58	10	8260B		10/29/2013	CJR	1
1,1,1-Trichloroethane	< 3.3	ug/l	3.3	10	10	8260B		10/29/2013	CJR	1
1,1,2-Trichloroethane	< 3.4	ug/l	3.4	11	10	8260B		10/29/2013	CJR	1
Trichloroethene (TCE)	3.7 "J"	ug/l	3.3	10	10	8260B		10/29/2013	CJR	1
Trichlorofluoromethane	< 7.1	ug/l	7.1	23	10	8260B		10/29/2013	CJR	1
1,2,4-Trimethylbenzene	< 22	ug/l	22	69	10	8260B		10/29/2013	CJR	1
1,3,5-Trimethylbenzene	< 14	ug/l	14	45	10	8260B		10/29/2013	CJR	1
Vinyl Chloride	89	ug/l	1.8	5.7	10	8260B		10/29/2013	CJR	1
m&p-Xylene	< 6.9	ug/l	6.9	22	10	8260B		10/29/2013	CJR	1
o-Xylene	< 6.3	ug/l	6.3	20	10	8260B		10/29/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			10	8260B		10/29/2013	CJR	1
SUR - 4-Bromofluorobenzene	92	REC %			10	8260B		10/29/2013	CJR	1
SUR - Dibromofluoromethane	88	REC %			10	8260B		10/29/2013	CJR	1
SUR - Toluene-d8	98	REC %			10	8260B		10/29/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000V
Sample ID WT-16
Sample Matrix water
Sample Date 10/23/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	46	ug/l	12	38.5	50	8260B		10/29/2013	CJR	1
Bromobenzene	< 16	ug/l	16	50	50	8260B		10/29/2013	CJR	1
Bromodichloromethane	< 18.5	ug/l	18.5	60	50	8260B		10/29/2013	CJR	1
Bromoform	< 17.5	ug/l	17.5	55	50	8260B		10/29/2013	CJR	1
tert-Butylbenzene	< 18	ug/l	18	60	50	8260B		10/29/2013	CJR	1
sec-Butylbenzene	< 16.5	ug/l	16.5	50	50	8260B		10/29/2013	CJR	1
n-Butylbenzene	< 17.5	ug/l	17.5	55	50	8260B		10/29/2013	CJR	1
Carbon Tetrachloride	< 16.5	ug/l	16.5	55	50	8260B		10/29/2013	CJR	1
Chlorobenzene	< 12	ug/l	12	38.5	50	8260B		10/29/2013	CJR	1
Chloroethane	< 31.5	ug/l	31.5	100	50	8260B		10/29/2013	CJR	1
Chloroform	< 14	ug/l	14	44	50	8260B		10/29/2013	CJR	1
Chloromethane	< 40.5	ug/l	40.5	130	50	8260B		10/29/2013	CJR	1
2-Chlorotoluene	< 10.5	ug/l	10.5	33	50	8260B		10/29/2013	CJR	1
4-Chlorotoluene	< 10.5	ug/l	10.5	34	50	8260B		10/29/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 44	ug/l	44	140	50	8260B		10/29/2013	CJR	1
Dibromochloromethane	< 11	ug/l	11	35	50	8260B		10/29/2013	CJR	1
1,4-Dichlorobenzene	< 15	ug/l	15	48	50	8260B		10/29/2013	CJR	1
1,3-Dichlorobenzene	< 14	ug/l	14	44.5	50	8260B		10/29/2013	CJR	1
1,2-Dichlorobenzene	< 18	ug/l	18	60	50	8260B		10/29/2013	CJR	1
Dichlorodifluoromethane	< 22	ug/l	22	70	50	8260B		10/29/2013	CJR	1
1,2-Dichloroethane	< 20.5	ug/l	20.5	65	50	8260B		10/29/2013	CJR	1
1,1-Dichloroethane	< 15	ug/l	15	48.5	50	8260B		10/29/2013	CJR	1
1,1-Dichloroethene	< 20	ug/l	20	65	50	8260B		10/29/2013	CJR	1
cis-1,2-Dichloroethene	2600	ug/l	19	60	50	8260B		10/29/2013	CJR	1
trans-1,2-Dichloroethene	< 17.5	ug/l	17.5	55	50	8260B		10/29/2013	CJR	1
1,2-Dichloropropane	< 16	ug/l	16	50	50	8260B		10/29/2013	CJR	1
2,2-Dichloropropane	< 18	ug/l	18	60	50	8260B		10/29/2013	CJR	8
1,3-Dichloropropane	< 16.5	ug/l	16.5	50	50	8260B		10/29/2013	CJR	1
Di-isopropyl ether	< 11.5	ug/l	11.5	36.5	50	8260B		10/29/2013	CJR	1
EDB (1,2-Dibromoethane)	< 22	ug/l	22	70	50	8260B		10/29/2013	CJR	1
Ethylbenzene	< 27.5	ug/l	27.5	85	50	8260B		10/29/2013	CJR	1
Hexachlorobutadiene	< 75	ug/l	75	240	50	8260B		10/29/2013	CJR	1
Isopropylbenzene	< 15	ug/l	15	48	50	8260B		10/29/2013	CJR	1
p-Isopropyltoluene	< 15.5	ug/l	15.5	49	50	8260B		10/29/2013	CJR	1
Methylene chloride	< 25	ug/l	25	80	50	8260B		10/29/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 11.5	ug/l	11.5	37	50	8260B		10/29/2013	CJR	1
Naphthalene	< 85	ug/l	85	275	50	8260B		10/29/2013	CJR	1
n-Propylbenzene	< 12.5	ug/l	12.5	40.5	50	8260B		10/29/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 22.5	ug/l	22.5	70	50	8260B		10/29/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 16.5	ug/l	16.5	55	50	8260B		10/29/2013	CJR	1
Tetrachloroethene	< 16.5	ug/l	16.5	55	50	8260B		10/29/2013	CJR	1
Toluene	< 34.5	ug/l	34.5	110	50	8260B		10/29/2013	CJR	1
1,2,4-Trichlorobenzene	< 49	ug/l	49	155	50	8260B		10/29/2013	CJR	1
1,2,3-Trichlorobenzene	< 90	ug/l	90	290	50	8260B		10/29/2013	CJR	1
1,1,1-Trichloroethane	< 16.5	ug/l	16.5	50	50	8260B		10/29/2013	CJR	1
1,1,2-Trichloroethane	< 17	ug/l	17	55	50	8260B		10/29/2013	CJR	1
Trichloroethene (TCE)	21 "J"	ug/l	16.5	50	50	8260B		10/29/2013	CJR	1
Trichlorofluoromethane	< 35.5	ug/l	35.5	115	50	8260B		10/29/2013	CJR	1
1,2,4-Trimethylbenzene	< 110	ug/l	110	345	50	8260B		10/29/2013	CJR	1
1,3,5-Trimethylbenzene	< 70	ug/l	70	225	50	8260B		10/29/2013	CJR	1
Vinyl Chloride	1890	ug/l	9	28.5	50	8260B		10/29/2013	CJR	1
m&p-Xylene	< 34.5	ug/l	34.5	110	50	8260B		10/29/2013	CJR	1
o-Xylene	< 31.5	ug/l	31.5	100	50	8260B		10/29/2013	CJR	1
SUR - Toluene-d8	95	REC %			50	8260B		10/29/2013	CJR	1
SUR - Dibromofluoromethane	91	REC %			50	8260B		10/29/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	94	REC %			50	8260B		10/29/2013	CJR	1
SUR - 4-Bromofluorobenzene	93	REC %			50	8260B		10/29/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000W
Sample ID WT-23
Sample Matrix water
Sample Date 10/23/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	92	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	94	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	93	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	97	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000X
Sample ID WT-22
Sample Matrix water
Sample Date 10/23/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	91	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	95	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	93	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000Y
Sample ID PZ-15A
Sample Matrix water
Sample Date 10/23/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	93	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	93	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	91	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 5026000Z
Sample ID PZ-15B
Sample Matrix water
Sample Date 10/23/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	94	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	92	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	90	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	95	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 526000AA
Sample ID WT-15
Sample Matrix water
Sample Date 10/23/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	92	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	94	REC %			1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	90	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 526000BB
Sample ID WT-17-DUP
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/29/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/29/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/29/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/29/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/29/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/29/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/29/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/29/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/29/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/29/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/29/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/29/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/29/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/29/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/29/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/29/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/29/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/29/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/29/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/29/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/29/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/29/2013	CJR	1
1,1-Dichloroethene	0.69 "J"	ug/l	0.4	1.3	1	8260B		10/29/2013	CJR	1
cis-1,2-Dichloroethene	112	ug/l	0.38	1.2	1	8260B		10/29/2013	CJR	1
trans-1,2-Dichloroethene	0.80 "J"	ug/l	0.35	1.1	1	8260B		10/29/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/29/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/29/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/29/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/29/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/29/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/29/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/29/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/29/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/29/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/29/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/29/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/29/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/29/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/29/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/29/2013	CJR	1
Tetrachloroethene	0.43 "J"	ug/l	0.33	1.1	1	8260B		10/29/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/29/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/29/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/29/2013	CJR	1
1,1,1-Trichloroethane	3.5	ug/l	0.33	1	1	8260B		10/29/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/29/2013	CJR	1
Trichloroethene (TCE)	35	ug/l	0.33	1	1	8260B		10/29/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/29/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/29/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/29/2013	CJR	1
Vinyl Chloride	0.32 "J"	ug/l	0.18	0.57	1	8260B		10/29/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/29/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/29/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	93	REC %			1	8260B		10/29/2013	CJR	1
SUR - 4-Bromofluorobenzene	92	REC %			1	8260B		10/29/2013	CJR	1
SUR - Dibromofluoromethane	89	REC %			1	8260B		10/29/2013	CJR	1
SUR - Toluene-d8	98	REC %			1	8260B		10/29/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 526000CC
Sample ID WT-19
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	0.72 "J"	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	0.53 "J"	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	91	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	92	REC %			1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	92	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 526000DD
Sample ID WT-02A
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PCB'S										
PCB-1016	< 0.12	ug/l	0.12	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1221	< 0.086	ug/l	0.086	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1232	< 0.050	ug/l	0.05	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1242	< 0.055	ug/l	0.055	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1248	< 0.10	ug/l	0.1	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1254	< 0.055	ug/l	0.055	0.59	1.18	8082		11/1/2013	ESC	1
PCB-1260	< 0.14	ug/l	0.14	0.59	1.18	8082		11/1/2013	ESC	1
VOC's										
Benzene	60 "J"	ug/l	24	77	100	8260B		10/29/2013	CJR	1
Bromobenzene	< 32	ug/l	32	100	100	8260B		10/29/2013	CJR	1
Bromodichloromethane	< 37	ug/l	37	120	100	8260B		10/29/2013	CJR	1
Bromoform	< 35	ug/l	35	110	100	8260B		10/29/2013	CJR	1
tert-Butylbenzene	< 36	ug/l	36	120	100	8260B		10/29/2013	CJR	1
sec-Butylbenzene	< 33	ug/l	33	100	100	8260B		10/29/2013	CJR	1
n-Butylbenzene	< 35	ug/l	35	110	100	8260B		10/29/2013	CJR	1
Carbon Tetrachloride	< 33	ug/l	33	110	100	8260B		10/29/2013	CJR	1
Chlorobenzene	< 24	ug/l	24	77	100	8260B		10/29/2013	CJR	1
Chloroethane	< 63	ug/l	63	200	100	8260B		10/29/2013	CJR	1
Chloroform	< 28	ug/l	28	88	100	8260B		10/29/2013	CJR	1
Chloromethane	< 81	ug/l	81	260	100	8260B		10/29/2013	CJR	1
2-Chlorotoluene	< 21	ug/l	21	66	100	8260B		10/29/2013	CJR	1
4-Chlorotoluene	< 21	ug/l	21	68	100	8260B		10/29/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 88	ug/l	88	280	100	8260B		10/29/2013	CJR	1
Dibromochloromethane	< 22	ug/l	22	70	100	8260B		10/29/2013	CJR	1
1,4-Dichlorobenzene	< 30	ug/l	30	96	100	8260B		10/29/2013	CJR	1
1,3-Dichlorobenzene	< 28	ug/l	28	89	100	8260B		10/29/2013	CJR	1
1,2-Dichlorobenzene	< 36	ug/l	36	120	100	8260B		10/29/2013	CJR	1
Dichlorodifluoromethane	< 44	ug/l	44	140	100	8260B		10/29/2013	CJR	1
1,2-Dichloroethane	< 41	ug/l	41	130	100	8260B		10/29/2013	CJR	1
1,1-Dichloroethane	< 30	ug/l	30	97	100	8260B		10/29/2013	CJR	1
1,1-Dichloroethene	< 40	ug/l	40	130	100	8260B		10/29/2013	CJR	1
cis-1,2-Dichloroethene	5800	ug/l	38	120	100	8260B		10/29/2013	CJR	1
trans-1,2-Dichloroethene	< 35	ug/l	35	110	100	8260B		10/29/2013	CJR	1
1,2-Dichloropropane	< 32	ug/l	32	100	100	8260B		10/29/2013	CJR	1
2,2-Dichloropropane	< 36	ug/l	36	120	100	8260B		10/29/2013	CJR	8
1,3-Dichloropropane	< 33	ug/l	33	100	100	8260B		10/29/2013	CJR	1
Di-isopropyl ether	< 23	ug/l	23	73	100	8260B		10/29/2013	CJR	1
EDB (1,2-Dibromoethane)	< 44	ug/l	44	140	100	8260B		10/29/2013	CJR	1
Ethylbenzene	66 "J"	ug/l	55	170	100	8260B		10/29/2013	CJR	1
Hexachlorobutadiene	< 150	ug/l	150	480	100	8260B		10/29/2013	CJR	1
Isopropylbenzene	< 30	ug/l	30	96	100	8260B		10/29/2013	CJR	1
p-Isopropyltoluene	< 31	ug/l	31	98	100	8260B		10/29/2013	CJR	1
Methylene chloride	< 50	ug/l	50	160	100	8260B		10/29/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 23	ug/l	23	74	100	8260B		10/29/2013	CJR	1
Naphthalene	< 170	ug/l	170	550	100	8260B		10/29/2013	CJR	1
n-Propylbenzene	< 25	ug/l	25	81	100	8260B		10/29/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 45	ug/l	45	140	100	8260B		10/29/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 33	ug/l	33	110	100	8260B		10/29/2013	CJR	1
Tetrachloroethene	< 33	ug/l	33	110	100	8260B		10/29/2013	CJR	1
Toluene	340	ug/l	69	220	100	8260B		10/29/2013	CJR	1
1,2,4-Trichlorobenzene	< 98	ug/l	98	310	100	8260B		10/29/2013	CJR	1
1,2,3-Trichlorobenzene	< 180	ug/l	180	580	100	8260B		10/29/2013	CJR	1
1,1,1-Trichloroethane	39 "J"	ug/l	33	100	100	8260B		10/29/2013	CJR	1
1,1,2-Trichloroethane	< 34	ug/l	34	110	100	8260B		10/29/2013	CJR	1
Trichloroethene (TCE)	63 "J"	ug/l	33	100	100	8260B		10/29/2013	CJR	1
Trichlorofluoromethane	< 71	ug/l	71	230	100	8260B		10/29/2013	CJR	1
1,2,4-Trimethylbenzene	< 220	ug/l	220	690	100	8260B		10/29/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 526000DD
Sample ID WT-02A
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 140	ug/l	140	450	100	8260B		10/29/2013	CJR	1
Vinyl Chloride	1070	ug/l	18	57	100	8260B		10/29/2013	CJR	1
m&p-Xylene	180 "J"	ug/l	69	220	100	8260B		10/29/2013	CJR	1
o-Xylene	100 "J"	ug/l	63	200	100	8260B		10/29/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	93	REC %			100	8260B		10/29/2013	CJR	1
SUR - Toluene-d8	99	REC %			100	8260B		10/29/2013	CJR	1
SUR - 4-Bromofluorobenzene	92	REC %			100	8260B		10/29/2013	CJR	1
SUR - Dibromofluoromethane	92	REC %			100	8260B		10/29/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 526000EE
Sample ID WT-10
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PCB'S										
PCB-1016	< 0.11	ug/l	0.11	0.56	1.11	8082		11/1/2013	ESC	1
PCB-1221	< 0.081	ug/l	0.081	0.56	1.11	8082		11/1/2013	ESC	1
PCB-1232	< 0.047	ug/l	0.047	0.56	1.11	8082		11/1/2013	ESC	1
PCB-1242	< 0.052	ug/l	0.052	0.56	1.11	8082		11/1/2013	ESC	1
PCB-1248	< 0.095	ug/l	0.095	0.56	1.11	8082		11/1/2013	ESC	1
PCB-1254	< 0.052	ug/l	0.052	0.56	1.11	8082		11/1/2013	ESC	1
PCB-1260	< 0.13	ug/l	0.13	0.56	1.11	8082		11/1/2013	ESC	1
VOC's										
Benzene	< 24	ug/l	24	77	100	8260B		10/29/2013	CJR	1
Bromobenzene	< 32	ug/l	32	100	100	8260B		10/29/2013	CJR	1
Bromodichloromethane	< 37	ug/l	37	120	100	8260B		10/29/2013	CJR	1
Bromoform	< 35	ug/l	35	110	100	8260B		10/29/2013	CJR	1
tert-Butylbenzene	< 36	ug/l	36	120	100	8260B		10/29/2013	CJR	1
sec-Butylbenzene	< 33	ug/l	33	100	100	8260B		10/29/2013	CJR	1
n-Butylbenzene	< 35	ug/l	35	110	100	8260B		10/29/2013	CJR	1
Carbon Tetrachloride	< 33	ug/l	33	110	100	8260B		10/29/2013	CJR	1
Chlorobenzene	< 24	ug/l	24	77	100	8260B		10/29/2013	CJR	1
Chloroethane	< 63	ug/l	63	200	100	8260B		10/29/2013	CJR	1
Chloroform	< 28	ug/l	28	88	100	8260B		10/29/2013	CJR	1
Chloromethane	< 81	ug/l	81	260	100	8260B		10/29/2013	CJR	1
2-Chlorotoluene	< 21	ug/l	21	66	100	8260B		10/29/2013	CJR	1
4-Chlorotoluene	< 21	ug/l	21	68	100	8260B		10/29/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 88	ug/l	88	280	100	8260B		10/29/2013	CJR	1
Dibromochloromethane	< 22	ug/l	22	70	100	8260B		10/29/2013	CJR	1
1,4-Dichlorobenzene	< 30	ug/l	30	96	100	8260B		10/29/2013	CJR	1
1,3-Dichlorobenzene	< 28	ug/l	28	89	100	8260B		10/29/2013	CJR	1
1,2-Dichlorobenzene	< 36	ug/l	36	120	100	8260B		10/29/2013	CJR	1
Dichlorodifluoromethane	< 44	ug/l	44	140	100	8260B		10/29/2013	CJR	1
1,2-Dichloroethane	< 41	ug/l	41	130	100	8260B		10/29/2013	CJR	1
1,1-Dichloroethane	< 30	ug/l	30	97	100	8260B		10/29/2013	CJR	1
1,1-Dichloroethene	< 40	ug/l	40	130	100	8260B		10/29/2013	CJR	1
cis-1,2-Dichloroethene	1600	ug/l	38	120	100	8260B		10/29/2013	CJR	1
trans-1,2-Dichloroethene	< 35	ug/l	35	110	100	8260B		10/29/2013	CJR	1
1,2-Dichloropropane	< 32	ug/l	32	100	100	8260B		10/29/2013	CJR	1
2,2-Dichloropropane	< 36	ug/l	36	120	100	8260B		10/29/2013	CJR	8
1,3-Dichloropropane	< 33	ug/l	33	100	100	8260B		10/29/2013	CJR	1
Di-isopropyl ether	< 23	ug/l	23	73	100	8260B		10/29/2013	CJR	1
EDB (1,2-Dibromoethane)	< 44	ug/l	44	140	100	8260B		10/29/2013	CJR	1
Ethylbenzene	< 55	ug/l	55	170	100	8260B		10/29/2013	CJR	1
Hexachlorobutadiene	< 150	ug/l	150	480	100	8260B		10/29/2013	CJR	1
Isopropylbenzene	< 30	ug/l	30	96	100	8260B		10/29/2013	CJR	1
p-Isopropyltoluene	< 31	ug/l	31	98	100	8260B		10/29/2013	CJR	1
Methylene chloride	< 50	ug/l	50	160	100	8260B		10/29/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 23	ug/l	23	74	100	8260B		10/29/2013	CJR	1
Naphthalene	< 170	ug/l	170	550	100	8260B		10/29/2013	CJR	1
n-Propylbenzene	< 25	ug/l	25	81	100	8260B		10/29/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 45	ug/l	45	140	100	8260B		10/29/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 33	ug/l	33	110	100	8260B		10/29/2013	CJR	1
Tetrachloroethene	< 33	ug/l	33	110	100	8260B		10/29/2013	CJR	1
Toluene	83 "J"	ug/l	69	220	100	8260B		10/29/2013	CJR	1
1,2,4-Trichlorobenzene	< 98	ug/l	98	310	100	8260B		10/29/2013	CJR	1
1,2,3-Trichlorobenzene	< 180	ug/l	180	580	100	8260B		10/29/2013	CJR	1
1,1,1-Trichloroethane	< 33	ug/l	33	100	100	8260B		10/29/2013	CJR	1
1,1,2-Trichloroethane	< 34	ug/l	34	110	100	8260B		10/29/2013	CJR	1
Trichloroethene (TCE)	< 33	ug/l	33	100	100	8260B		10/29/2013	CJR	1
Trichlorofluoromethane	< 71	ug/l	71	230	100	8260B		10/29/2013	CJR	1
1,2,4-Trimethylbenzene	< 220	ug/l	220	690	100	8260B		10/29/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 526000EE
Sample ID WT-10
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 140	ug/l	140	450	100	8260B		10/29/2013	CJR	1
Vinyl Chloride	1050	ug/l	18	57	100	8260B		10/29/2013	CJR	1
m&p-Xylene	< 69	ug/l	69	220	100	8260B		10/29/2013	CJR	1
o-Xylene	< 63	ug/l	63	200	100	8260B		10/29/2013	CJR	1
SUR - Toluene-d8	97	REC %			100	8260B		10/29/2013	CJR	1
SUR - Dibromofluoromethane	91	REC %			100	8260B		10/29/2013	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			100	8260B		10/29/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	93	REC %			100	8260B		10/29/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 526000FF
Sample ID EQUIP BLANK
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	92	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	94	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	95	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 526000GG
Sample ID WT-10-DUP
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PCB'S										
PCB-1016	< 0.11	ug/l	0.11	0.56	1.11	8082		11/1/2013	ESC	1
PCB-1221	< 0.081	ug/l	0.081	0.56	1.11	8082		11/1/2013	ESC	1
PCB-1232	< 0.047	ug/l	0.047	0.56	1.11	8082		11/1/2013	ESC	1
PCB-1242	< 0.052	ug/l	0.052	0.56	1.11	8082		11/1/2013	ESC	1
PCB-1248	< 0.095	ug/l	0.095	0.56	1.11	8082		11/1/2013	ESC	1
PCB-1254	< 0.052	ug/l	0.052	0.56	1.11	8082		11/1/2013	ESC	1
PCB-1260	< 0.13	ug/l	0.13	0.56	1.11	8082		11/1/2013	ESC	1
VOC's										
Benzene	< 24	ug/l	24	77	100	8260B		10/29/2013	CJR	1
Bromobenzene	< 32	ug/l	32	100	100	8260B		10/29/2013	CJR	1
Bromodichloromethane	< 37	ug/l	37	120	100	8260B		10/29/2013	CJR	1
Bromoform	< 35	ug/l	35	110	100	8260B		10/29/2013	CJR	1
tert-Butylbenzene	< 36	ug/l	36	120	100	8260B		10/29/2013	CJR	1
sec-Butylbenzene	< 33	ug/l	33	100	100	8260B		10/29/2013	CJR	1
n-Butylbenzene	< 35	ug/l	35	110	100	8260B		10/29/2013	CJR	1
Carbon Tetrachloride	< 33	ug/l	33	110	100	8260B		10/29/2013	CJR	1
Chlorobenzene	< 24	ug/l	24	77	100	8260B		10/29/2013	CJR	1
Chloroethane	< 63	ug/l	63	200	100	8260B		10/29/2013	CJR	1
Chloroform	< 28	ug/l	28	88	100	8260B		10/29/2013	CJR	1
Chloromethane	< 81	ug/l	81	260	100	8260B		10/29/2013	CJR	1
2-Chlorotoluene	< 21	ug/l	21	66	100	8260B		10/29/2013	CJR	1
4-Chlorotoluene	< 21	ug/l	21	68	100	8260B		10/29/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 88	ug/l	88	280	100	8260B		10/29/2013	CJR	1
Dibromochloromethane	< 22	ug/l	22	70	100	8260B		10/29/2013	CJR	1
1,4-Dichlorobenzene	< 30	ug/l	30	96	100	8260B		10/29/2013	CJR	1
1,3-Dichlorobenzene	< 28	ug/l	28	89	100	8260B		10/29/2013	CJR	1
1,2-Dichlorobenzene	< 36	ug/l	36	120	100	8260B		10/29/2013	CJR	1
Dichlorodifluoromethane	< 44	ug/l	44	140	100	8260B		10/29/2013	CJR	1
1,2-Dichloroethane	< 41	ug/l	41	130	100	8260B		10/29/2013	CJR	1
1,1-Dichloroethane	< 30	ug/l	30	97	100	8260B		10/29/2013	CJR	1
1,1-Dichloroethene	< 40	ug/l	40	130	100	8260B		10/29/2013	CJR	1
cis-1,2-Dichloroethene	1560	ug/l	38	120	100	8260B		10/29/2013	CJR	1
trans-1,2-Dichloroethene	< 35	ug/l	35	110	100	8260B		10/29/2013	CJR	1
1,2-Dichloropropane	< 32	ug/l	32	100	100	8260B		10/29/2013	CJR	1
2,2-Dichloropropane	< 36	ug/l	36	120	100	8260B		10/29/2013	CJR	8
1,3-Dichloropropane	< 33	ug/l	33	100	100	8260B		10/29/2013	CJR	1
Di-isopropyl ether	< 23	ug/l	23	73	100	8260B		10/29/2013	CJR	1
EDB (1,2-Dibromoethane)	< 44	ug/l	44	140	100	8260B		10/29/2013	CJR	1
Ethylbenzene	< 55	ug/l	55	170	100	8260B		10/29/2013	CJR	1
Hexachlorobutadiene	< 150	ug/l	150	480	100	8260B		10/29/2013	CJR	1
Isopropylbenzene	< 30	ug/l	30	96	100	8260B		10/29/2013	CJR	1
p-Isopropyltoluene	< 31	ug/l	31	98	100	8260B		10/29/2013	CJR	1
Methylene chloride	< 50	ug/l	50	160	100	8260B		10/29/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 23	ug/l	23	74	100	8260B		10/29/2013	CJR	1
Naphthalene	< 170	ug/l	170	550	100	8260B		10/29/2013	CJR	1
n-Propylbenzene	< 25	ug/l	25	81	100	8260B		10/29/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 45	ug/l	45	140	100	8260B		10/29/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 33	ug/l	33	110	100	8260B		10/29/2013	CJR	1
Tetrachloroethene	< 33	ug/l	33	110	100	8260B		10/29/2013	CJR	1
Toluene	78 "J"	ug/l	69	220	100	8260B		10/29/2013	CJR	1
1,2,4-Trichlorobenzene	< 98	ug/l	98	310	100	8260B		10/29/2013	CJR	1
1,2,3-Trichlorobenzene	< 180	ug/l	180	580	100	8260B		10/29/2013	CJR	1
1,1,1-Trichloroethane	< 33	ug/l	33	100	100	8260B		10/29/2013	CJR	1
1,1,2-Trichloroethane	< 34	ug/l	34	110	100	8260B		10/29/2013	CJR	1
Trichloroethene (TCE)	< 33	ug/l	33	100	100	8260B		10/29/2013	CJR	1
Trichlorofluoromethane	< 71	ug/l	71	230	100	8260B		10/29/2013	CJR	1
1,2,4-Trimethylbenzene	< 220	ug/l	220	690	100	8260B		10/29/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 526000GG
Sample ID WT-10-DUP
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 140	ug/l	140	450	100	8260B		10/29/2013	CJR	1
Vinyl Chloride	1050	ug/l	18	57	100	8260B		10/29/2013	CJR	1
m&p-Xylene	< 69	ug/l	69	220	100	8260B		10/29/2013	CJR	1
o-Xylene	< 63	ug/l	63	200	100	8260B		10/29/2013	CJR	1
SUR - Toluene-d8	97	REC %			100	8260B		10/29/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	90	REC %			100	8260B		10/29/2013	CJR	1
SUR - 4-Bromofluorobenzene	94	REC %			100	8260B		10/29/2013	CJR	1
SUR - Dibromofluoromethane	91	REC %			100	8260B		10/29/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 526000HH
Sample ID PZ-05A
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	1.1 "J"	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	92	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	90	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	92	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	97	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 526000II
Sample ID PZ-05B
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	1.13 "J"	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	97	REC %			1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	94	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	92	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	91	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 526000JJ
Sample ID WT-05
Sample Matrix water
Sample Date 10/24/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	< 0.37	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	< 0.28	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	49	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	1.6	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	2.29	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	94	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	93	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	89	REC %			1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	95	REC %			1	8260B		10/28/2013	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E26000
Project # 60135471

Lab Code 526000KK
Sample ID TRIP BLANK
Sample Matrix water
Sample Date 10/21/2013

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
Bromodichloromethane	1.19 "J"	ug/l	0.37	1.2	1	8260B		10/28/2013	CJR	1
Bromoform	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
tert-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
sec-Butylbenzene	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
n-Butylbenzene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
Carbon Tetrachloride	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Chlorobenzene	< 0.24	ug/l	0.24	0.77	1	8260B		10/28/2013	CJR	1
Chloroethane	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
Chloroform	1.69	ug/l	0.28	0.88	1	8260B		10/28/2013	CJR	1
Chloromethane	< 0.81	ug/l	0.81	2.6	1	8260B		10/28/2013	CJR	1
2-Chlorotoluene	< 0.21	ug/l	0.21	0.66	1	8260B		10/28/2013	CJR	1
4-Chlorotoluene	< 0.21	ug/l	0.21	0.68	1	8260B		10/28/2013	CJR	1
1,2-Dibromo-3-chloropropane	< 0.88	ug/l	0.88	2.8	1	8260B		10/28/2013	CJR	1
Dibromochloromethane	0.70	ug/l	0.22	0.7	1	8260B		10/28/2013	CJR	1
1,4-Dichlorobenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.89	1	8260B		10/28/2013	CJR	1
1,2-Dichlorobenzene	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	1
Dichlorodifluoromethane	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
1,2-Dichloroethane	< 0.41	ug/l	0.41	1.3	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		10/28/2013	CJR	1
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.3	1	8260B		10/28/2013	CJR	1
cis-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.2	1	8260B		10/28/2013	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.1	1	8260B		10/28/2013	CJR	1
1,2-Dichloropropane	< 0.32	ug/l	0.32	1	1	8260B		10/28/2013	CJR	1
2,2-Dichloropropane	< 0.36	ug/l	0.36	1.2	1	8260B		10/28/2013	CJR	8
1,3-Dichloropropane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Di-isopropyl ether	< 0.23	ug/l	0.23	0.73	1	8260B		10/28/2013	CJR	1
EDB (1,2-Dibromoethane)	< 0.44	ug/l	0.44	1.4	1	8260B		10/28/2013	CJR	1
Ethylbenzene	< 0.55	ug/l	0.55	1.7	1	8260B		10/28/2013	CJR	1
Hexachlorobutadiene	< 1.5	ug/l	1.5	4.8	1	8260B		10/28/2013	CJR	1
Isopropylbenzene	< 0.3	ug/l	0.3	0.96	1	8260B		10/28/2013	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	0.98	1	8260B		10/28/2013	CJR	1
Methylene chloride	< 0.5	ug/l	0.5	1.6	1	8260B		10/28/2013	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.23	ug/l	0.23	0.74	1	8260B		10/28/2013	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.5	1	8260B		10/28/2013	CJR	1
n-Propylbenzene	< 0.25	ug/l	0.25	0.81	1	8260B		10/28/2013	CJR	1
1,1,2,2-Tetrachloroethane	< 0.45	ug/l	0.45	1.4	1	8260B		10/28/2013	CJR	1
1,1,1,2-Tetrachloroethane	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Tetrachloroethene	< 0.33	ug/l	0.33	1.1	1	8260B		10/28/2013	CJR	1
Toluene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
1,2,4-Trichlorobenzene	< 0.98	ug/l	0.98	3.1	1	8260B		10/28/2013	CJR	1
1,2,3-Trichlorobenzene	< 1.8	ug/l	1.8	5.8	1	8260B		10/28/2013	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
1,1,2-Trichloroethane	< 0.34	ug/l	0.34	1.1	1	8260B		10/28/2013	CJR	1
Trichloroethene (TCE)	< 0.33	ug/l	0.33	1	1	8260B		10/28/2013	CJR	1
Trichlorofluoromethane	< 0.71	ug/l	0.71	2.3	1	8260B		10/28/2013	CJR	1
1,2,4-Trimethylbenzene	< 2.2	ug/l	2.2	6.9	1	8260B		10/28/2013	CJR	1
1,3,5-Trimethylbenzene	< 1.4	ug/l	1.4	4.5	1	8260B		10/28/2013	CJR	1
Vinyl Chloride	< 0.18	ug/l	0.18	0.57	1	8260B		10/28/2013	CJR	1
m&p-Xylene	< 0.69	ug/l	0.69	2.2	1	8260B		10/28/2013	CJR	1
o-Xylene	< 0.63	ug/l	0.63	2	1	8260B		10/28/2013	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		10/28/2013	CJR	1
SUR - 1,2-Dichloroethane-d4	95	REC %			1	8260B		10/28/2013	CJR	1
SUR - 4-Bromofluorobenzene	94	REC %			1	8260B		10/28/2013	CJR	1
SUR - Dibromofluoromethane	89	REC %			1	8260B		10/28/2013	CJR	1

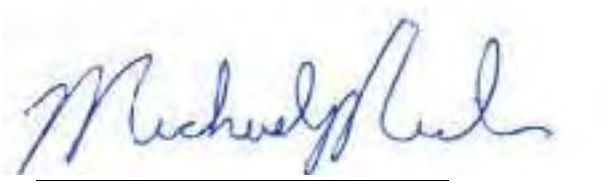
"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

Code	*Comment*
1	Laboratory QC within limits.
7	The LCS not within established limits.
8	Closing calibration standard not within established limits.

ESC denotes sub contract lab - Certification #998093910

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature



CHAIN OF CUSTODY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # Nº 26569

Page 1 of 4

Sample Handling Request
___ Rush Analysis Date Required ___
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #

Account No. : **Quote No.:**

Project #: 60135471

Sampler: (signature) Kyle M. Wilson

Project (Name / Location): Former Newton Gravel Pit, Manitowoc, WI

Reports To: Lisa Smith	Invoice To: Dave Henderson
Company AECOM	Company AECOM
Address 4135 Technology Parkway	Address 1555 N. RiverCenter Dr. Ste. 214
City State Zip Sheboygan, WI	City State Zip Milwaukee, WI 53212
Phone	Phone 414 944 6080
FAX	FAX 414 944 6081

Analysis Requested / **Other Analysis**

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PVOC (EPA 8021)	PVOC - NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PCBs	PID/FID
5026000A	WT-01	10/21/13	1045		X	N	3	GW	HCl												X			
B	PZ-01	10/21/13	1140		X	N	3	GW	HCl												X			
C	PZ-02	10/21/13	1245		X	N	4	GW	HCl/NONE												X			
D	WP-01	10/21/13	1325		X	N	3	GW	HCl												X		X	
E	PZ-03	10/24/13	0920		X	N	3	GW	HCl												X			
F	WT-03	10/21/13	1000		X	N	3	GW	HCl												X			
	~~FW-3121~~	~~10/22/13~~	~~0820~~		~~X~~	~~N~~	~~3~~	~~GW~~	~~HCl~~												X	FW		
	~~FW-3220~~	10/22/13	0845		X	N	3	GW	HCl												X	FD		
G	WT-13	10/24/13	0940		X	N	3	GW	HCl												X			
H	WP-04	10/22/13	1015		X	N	3	GW	HCl												X			

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

GW = groundwater
Analysis Per Contract

Note Excess volume of PZ-01 for MS/MSD analysis.

Sample Integrity - To be completed by receiving lab.

Method of Shipment: Dunham

Temp. of Temp. Blank ___ °C On Ice: X

Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
Kyle M. Wilson	0930	10/25/13			

Received in Laboratory By: [signature] Time: 10:00 Date: 10/26/13

CHAIN OF CUSTODY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # Nº 26568

Page 2 of 4

Sample Handling Request
___ Rush Analysis Date Required ___
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #

Account No. : | Quote No.:

Project #: 60135471

Sampler: (signature) Lyle M. Wilson

Project (Name / Location): Former Newton Gravel Pit, Manitowoc, WI

Reports To: Lisa Smith	Invoice To: Dave Henderseth
Company AECOM	Company AECOM
Address 4135 Technology Parkway	Address 1555 N. River Center Dr. Ste 214
City State Zip Sheboygan, WI	City State Zip Milwaukee, WI 53212
Phone	Phone 414 944 6086
FAX	FAX 414 944 6081

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PCBs	PID/FID
502600OI	WP-04-DUP	10/22/13	1015		X	N	3	GW	HCl												X			
J	WP-06	10/22/13	1045		X	N	3	GW	HCl												X			
K	PZ-12	10/22/13	1125		X	N	3	GW	HCl												X			
L	WT-12	10/22/13	~~1145~~ 1200		X	N	3	GW	HCl												X			
M	WT-11	10/22/13	1240		X	N	3	GW	HCl												X			
N	SG-03	10/22/13	1300		X	N	3	GW	HCl												X			
O	SG-02	10/22/13	1305		X	N	3	GW	HCl												X			
P	SG-01	10/22/13	1315		X	N	3	GW	HCl												X			
Q	WT-18	10/24/13	1050		X	N	4	GW	HCl/NONE												X	X		
R	WT-17	10/24/13	1135		X	N	4	GW	HCl/NONE												X	X		

Analysis Requested | Other Analysis

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

GW= groundwater

Analysis Per Contract

Sample Integrity - To be completed by receiving lab.

Method of Shipment: Dunham

Temp. of Temp. Blank ___ °C On Ice: ✓

Cooler seal intact upon receipt: ✓ Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
Lyle M. Wilson	0930	10/25/13			

Received in Laboratory By: [signature] Time: 10:00 Date: 10/26/13

CHAIN OF CUSTODY RECORD

Synergy
Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # № 26178

Page 3 of 4

Sample Handling Request
____ Rush Analysis Date Required ____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #

Account No.: Quote No.:

Project #: 60135471

Sampler: (signature) Lee M Wilson

Project (Name / Location): Former Newton Gravel Pit / Manitowoc, WI

Reports To: Lisa Smith	Invoice To: Dave Henderson
Company AECOM	Company AECOM
Address 4135 Technology Parkway	Address 1555 N. RiverCenter Dr. Ste 214
City State Zip Sheboygan, WI	City State Zip Milwaukee, WI
Phone	Phone 414 944 6080
FAX	FAX 414 944 6081

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/ FID
502600 S	WT-21	10/23/13	1005		X	N	3	GW	HCl												X		
T	WT-20	10/23/13	1040		X	N	3	GW	HCl												X		
U	PZ-16	10/23/13	1115		X	N	3	GW	HCl												X		
V	WT-16	10/23/13	1150		X	N	3	GW	HCl												X		
W	WT-23	10/23/13	1230		X	N	3	GW	HCl												X		
X	WT-22	10/23/13	1310		X	N	3	GW	HCl												X		
Y	PZ-15A	10/23/13	1345		X	N	3	GW	HCl												X		
Z	PZ-15B	10/23/13	1430		X	N	3	GW	HCl												X		
AA	WT-15	10/23/13	1445		X	N	3	GW	HCl												X		
BB	WT-17-DUP	10/24/13	1135		X	N	3	GW	HCl												X		

Analysis Requested — Other Analysis

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

GW = groundwater
Analysis Per Contract

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Driven
Temp. of Temp. Blank ___ °C On Ice: ✓
Cooler seal intact upon receipt: ✓ Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
Lee M. Wilson	0930	10/25/13			

Received in Laboratory By: [signature] Time: 1000 Date: 10/26/13

CHAIN OF CUSTODY RECORD

Synergy Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # № 23183

Page 4 of 4

Sample Handling Request
___ Rush Analysis Date Required ___
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #

Account No. : | **Quote No.:**

Project #: 60435471

Sampler: (signature) Lyle M. Wilson

Project (Name / Location): Former Newton Gravel Pit, Manitowoc, WI

Reports To: Lisa Smith	Invoice To: Dave Henderson
Company AECOM	Company AECOM
Address 4135 Technology Parkway	Address 1555 N. RiverCenter Dr. Ste. 214
City State Zip Sheboygan, WI	City State Zip Milwaukee, WI 53212
Phone	Phone 414.944.6080
FAX	FAX 414.944.6081

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation
526000 CC	WT-19	10/24/13	1200		X	N	3	GW	HCl
DD	WT-02A	10/24/13	1230		X	N	4	GW	HCl/NONE
EE	WT-10D	10/24/13	1325		X	N	4	GW	HCl/NONE
FF	Equip Blank	10/24/13	1330		X	N	3	W	HCl
GG	WT-10D-DUP	10/24/13	1325		X	N	4	GW	HCl/NONE
HH	PZ-05A	10/24/13	1500		X	N	3	GW	HCl
II	PZ-05B	10/24/13	1425		X	N	3	GW	HCl
JJ	WT-05	10/24/13	1525		X	N	3	GW	HCl
KK	TRIP BLANK	10/24/13	0745		X	N	3	W	HCl

Analysis Requested

DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	IRON	LEAD	NITRATE / NITRITE	PAH (EPA 8270)	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	VOC DW (EPA 524.2)	VOC (EPA 8260)	8-RCRA METALS	PCBs
										X		
										X	X	
										X	X	
										X		
										X		
										X	X	
										X		
										X		
										X		
										X		

Other Analysis

PID/FID

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

GW = groundwater
Analysis Per Contract

Note: Excess volume of PZ-05B for MS/MSD analysis

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Dunham
Temp. of Temp. Blank. ___ °C On Ice: ✓
Cooler seal intact upon receipt: ✓ Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
Lyle M. Wilson	0930	10/25/13			

Received in Laboratory By: [signature] Time: 10:00 Date: 10/26/13