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MEMORANDUM

27 February 2014
File No. 36492-028

TO: New York State Department of Environmental Conservation
Keith Gronwald

FROM: Haley & Aldrich of New York
Douglas Allen

SUBJECT: Off-Site Supplemental Remedial Investigation Data Summary
RG&E East Station Former Manufactured Gas Plant (MGP) Site
Rochester, New York

Rochester Gas & Electric Corporation (RG&E) retained Haley & Aldrich of New York (Haley & Aldrich) to complete an off-site Supplemental Remedial Investigation (SRI) of the former East Station Manufactured Gas Plant Site (MGP Site) located in Rochester, New York. The off-site SRI is a continuation of on-going remedial investigations (RI) of the Site with the primary focus of assessing Manufactured Gas Plant (MGP)-related impacts to the adjoining property to the north, owned by Bausch & Lomb (B&L). The off-site SRI was completed in accordance with the Off-Site Supplemental Remedial Investigation (SRI) Work Plan dated 21 June 2012 and approved by the New York State Department of Environmental Conservation (NYSDEC) in a letter dated 24 July 2012.

This memorandum serves as a Data Summary, summarizing field observations and analytical results from the SRI activities conducted from October through December 2013, as well as an evaluation to determine if the SRI objectives were met. A comprehensive summary and interpretation of the work performed and data collected will be provided in a Remedial Investigation Report (RIR) at the completion of the investigations.

Brief Background

RI activities conducted on-Site during 2010 through 2012 identified MGP-related impacts along the northern RG&E property line necessitating the need to investigate the adjoining B&L Property. In September 2013 RG&E and B&L executed an access agreement and RG&E initiated field work in October 2013.

The B&L Property is approximately 7.8 acres and is currently vacant and free of buildings with the exception of concrete floor slabs and a few sub-slab vaults and basement areas from former manufacturing buildings that were located on the western half of the parcel. We understand from discussions with B&L that the property was used to manufacture glass and optical equipment. The buildings were razed in the 1980's and RG&E understands from B&L that demolition was limited to above-grade improvements. The majority of the B&L Property is gently graded with a raised, uneven

area of soil piles in the southeast portion of the property and a steep embankment and retaining wall (in the range of four to six feet high) in the western portion of the property along the Genesee River. The Former MGP Site and B&L Property are generally separated by a chain link fence and locking gates.

To assess MGP impacts to the off-site B&L property the following objectives were developed as described in the Off-Site SRI Work Plan:

- Delineate the nature and extent (horizontal and vertical) of MGP-related impacts from non-aqueous phase liquid (NAPL), total cyanide, metals and organic compounds to B&L Property overburden soils and groundwater;

- Delineate the nature and extent (horizontal and vertical) of MGP-related NAPL in B&L Property bedrock and MGP-related total cyanide, metals and organic compound impacts to bedrock groundwater; and,

- Update the on-site conceptual site model to include the off-site distribution (if any) of NAPL in bedrock and MGP residuals in soil and groundwater.

To fulfill the overall off-site objectives, the following media-specific objectives were developed for overburden:

- Delineate the distribution of MGP residuals in overburden soils and groundwater on the B&L Property; and,

- Determine the top of bedrock elevation beneath the B&L Property and understand the top of bedrock topography.

Likewise, the following media-specific objectives were developed for bedrock:

- Investigate the depth and off-site horizontal extent of transmissive features that were observed in bedrock corings completed at the Former MGP Site;

- Delineate the off-site horizontal and vertical extent of NAPL in bedrock; and,

- Investigate off-site bedrock groundwater quality and vertical gradients.

A summary of the off-site SRI field activities completed to date is described below.

Overburden Investigation

Overburden soil borings were completed on 2 through 17 October 2013. The completed soil boring and monitoring well locations are shown on Figure 1. Field observations and monitoring well construction details are summarized on Tables I and II, respectively. Soil boring logs and monitoring well installation reports are provided in Appendix A.

Key points and observations from the soil boring program include the following:

- Fourteen primary soil boring locations (SB-12-01 through SB-12-14) and the overburden portion of bedrock coring location BR-12-03 were completed in accordance with the Off-Site SRI Work Plan. The primary soil boring depths ranged from 11 to 34 feet below ground surface;

- Contingent locations SB-12-15 and SB-12-16, and the overburden portion of contingent bedrock coring location BR-12-05, were completed to further evaluate the distribution of possible MGP residual material observed in the southeastern portion of the B&L Property;

- Supplemental location SB-12-17 was completed to the north of SB-12-09 to evaluate the horizontal extent of possible petroleum-impacted soil. Location SB-12-17A was advanced next to SB-12-17 for purposes of collecting a soil sample for laboratory analysis;

- Overburden material typically consists of varying thicknesses of fill material overlying sandy alluvial deposits. The overburden thickness ranged from 8.5 feet at SB-12-06 located to the east of the former foundation slab to 34.0 feet at SB-12-06 located in the southeastern corner of the B&L Property;

- Apparent MGP residual material including naphthalene-like odor, sheen, and/or oil-like material (OLM) blebs (discontinuous droplets of NAPL) were observed in overburden soil in the southeastern portion of the B&L property (soil boring locations SB-12-05, SB-12-06, SB-12-08, and the overburden portion of bedrock coring location BR-12-02). The apparent MGP residual material was typically observed in the overburden soils directly above weathered bedrock at these four soil boring locations, consistent with the distribution of MGP residual material observed in the northeastern corner of the MGP Site;

- Naphthalene-like odor and/or staining was noted at soil boring locations SB-12-07 and SB-12-15, to the west and northwest (respectively) of the sheen and OLM bleb area described above;

- In the central portion of the Site, petroleum-like odor and/or sheen was observed at soil boring locations SB-12-02, SB-12-03, SB-12-09, SB-12-10, SB-12-16, and the overburden portion of contingent bedrock coring location BR-12-05. The petroleum-like odor and/or sheen was typically observed at depths near the apparent water table and appeared to be unrelated to the MGP residual material described above; and,

- Petroleum-like NAPL was observed at soil boring location SB-12-17 from 8 to 12 feet below ground surface. The soil boring was terminated at 12 feet below ground surface to avoid downward mobilization of the NAPL. Sample SB-12-17A was advance to collect an analytical soil sample from this area.

Twenty-four soil samples were collected for laboratory analysis for Target Compound List (TCL) Volatile Organic Compounds (VOCs), TCL Semi-Volatile Organic Compounds (SVOCs), Target Analyte List (TAL) metals, and cyanide. Two soil samples were collected for TCL SVOCs and hydrocarbon identification analysis (Method 310.13). Analytical results are summarized on Table III

and displayed on Figure 2. Analytical results were compared to Part 375 Restricted Commercial Soil Cleanup Objectives (SCOs).

Key points of the soil analytical results include the following:

- VOCs were detected in 18 of the 24 soil samples submitted for laboratory analysis. The concentration of VOCs did not exceed Restricted Commercial SCOs;

- SVOCs (including PAHs) were detected in 23 of the 26 soil samples submitted for laboratory analysis. The concentration of SVOCs exceeded the Restricted Commercial SCOs in four samples;

- Metals were detected in each of the 24 samples submitted for laboratory analysis. The concentration of metals exceeded the Restricted Commercial SCOs in three samples;

- Cyanide was detected in nine of the 24 soil samples submitted for laboratory analysis. The concentration of cyanide did not exceed the Restricted Commercial SCO; and,

- The hydrocarbon identification analysis completed on a sample collected from SB-12-17A, where apparent petroleum-like NAPL was noted in the field, closely resembled degraded or weathered diesel fuel. Analysis completed on a soil sample collected from BR-12-02, where apparent MGP residual material was noted in the field, indicated an unidentified mixture of hydrocarbons.

Bedrock Investigation

Bedrock coring activities were completed on 10 October through 5 November 2013 and downhole geophysical logging was completed on 6 and 7 November 2013. The three completed bedrock coring locations (BR-12-01 through BR-12-03) are shown on Figure 1. Field observations made during coring and bedrock monitoring well construction details are summarized on Tables IV and V, respectively. Bedrock coring logs and monitoring well installation reports are provided in Appendix B and downhole geophysical logs are provided in Appendix C.

Key observations from the off-site bedrock coring program include the following:

- Weathered Rochester Shale or Irondequoit Limestone is present directly beneath the overburden;

- The top of bedrock surface (Figure 3) is approximately 23 feet higher in the southeastern portion of the B&L Property compared to the northern portion of the site, and approximately 10 to 17 feet higher than bedrock encountered in soil borings adjacent to the Genesee River. The top of bedrock slopes gently to the west and north in the western and northern portion of the B&L Property. An apparent bedrock low is present in the southwestern portion of the B&L property;

- Bedrock units were observed to be generally competent, slightly weathered to fresh (with the exception of highly weathered bedrock near the bedrock/overburden interface). The competent bedrock units encountered at each of the three coring locations included:

- Irondequoit Limestone;
- Williamson Shale;
- Lower Sodus Shale;
- Reynales Limestone;
- Maplewood Shale;
- Kodak Sandstone;
- Grimsby Sandstone; and,
- Queenston Shale.

- Apparent MGP residuals (odors, stains, sheen, or NAPL) were observed at discrete depths at each of the three bedrock coring locations. The apparent MGP residuals appear to be limited to discrete near-horizontal joints or bedding planes as has been observed elsewhere beneath the MGP Site. A north to south bedrock cross-section is provided as Figure 4; and,

- Apparent MGP residuals were not observed (visual or olfactory) at the bottom of the Grimsby Sandstone or top portion of the Queenston Shale.

The physical bedrock features (bedding planes and joints), the distribution of apparent MGP residuals observed during coring (as observed on the core, in return drilling water), and downhole geophysical logging results were used to guide the bedrock monitoring well screen depths. Wells were installed in the following intervals:

- Four bedrock zones with apparent MGP residuals observed during drilling:

  - The Irondequoit Limestone (BR-12-02I);
  - The Reynales Limestone (BR-12-01R);
  - The Maplewood Shale (BR-12-01M, -02M, and -03M); and,
  - The Grimsby Sandstone (BR-12-01G and -03G).

- Bedrock monitoring well BR-12-01Q was installed in the Queenston Shale to confirm the absence of accumulating MGP residuals.

Groundwater Elevation Monitoring and Sampling

The B&L Property and MGP Site overburden and bedrock monitoring well groundwater elevations and NAPL thickness (if present) were measured on 2 December 2013 prior to groundwater sampling. Elevation and NAPL thickness monitoring results are summarized on Table VI and indicated the following:

- Overburden groundwater flows east to west beneath the B&L Property, towards the Genesee River (Figure 5). The depth to overburden groundwater measured in B&L Property monitoring wells ranged from 4.61 feet below ground surface at SW-12-04 to 16.64 feet below ground surface at SW-12-06;

- Bedrock groundwater elevations at nested locations (Figure 6) are generally equivalent, with slight upward gradients present at the DW-12-01 and DW-12-03 clusters. The groundwater elevation at shallow bedrock well DW-12-02I (installed in fractured Irondequoit Limestone below the overburden/bedrock interface) is comparable with the overburden groundwater elevation, and a downward gradient is present at the DW-12-02 cluster;

- Trace (less than measurable but detectable with the field instrument) dense non-aqueous phase liquid (DNAPL) was measured at the bottom of overburden monitoring well SW-12-06 and bedrock monitoring well SB-12-02I. Both wells are located in the southeast portion of the B&L Property; and,

- Approximately 0.1 foot of DNAPL was measured at the bottom of bedrock well DW-12-01R (Reynales Limestone).

Groundwater samples were collected from six overburden wells and seven bedrock wells on 5 through 10 December 2013. Groundwater samples were submitted for laboratory analysis for TCL VOCs, TCL SVOCs, TAL metals, and total cyanide. Note that bedrock monitoring well DW-12-01R was not sampled due to the presence of NAPL in the well. Analytical results are summarized on Table VII and displayed on Figure 7. Results are compared to NYSDEC Technical and Operations Guidance Series (TOGs) 1.1.1 Class GA Water Quality Standards.

Key points of the B&L Property overburden groundwater analytical results include the following:

- VOCs were detected in each of the six groundwater samples collected from overburden monitoring wells. The concentration of VOCs exceeded Class GA Water Quality Standards in four of the overburden groundwater samples;

- SVOCs (including PAHs) were detected in five of the six overburden groundwater samples collected. The concentration of SVOCs exceeded the Class GA Water Quality Standards in four of the overburden groundwater samples;

- Metals were detected at concentrations exceeding the Class GA Water Quality Standards in each of the six overburden groundwater samples collected; and,

- Total cyanide was detected in each of the six overburden groundwater samples. The concentration of total cyanide exceeded the Class GA Water Quality Standard in five of the overburden groundwater samples.

Key points of the B&L Property bedrock groundwater analytical results include the following:

- VOCs were detected at concentrations exceeding Class GA Water Quality Standards in groundwater collected from each of the seven bedrock wells. Note that acetone was detected above the Class GA Water Quality Standard at two locations and chloroform was detected above the Class GA Water Quality Standard at one location. Acetone and chloroform are common laboratory contaminants and are not likely related to site groundwater conditions;

- SVOCs were detected at concentrations exceeding Class GA Water Quality Standards in groundwater collected from each of the seven bedrock wells;

- Metals were detected at concentrations exceeding the Class GA Water Quality Standards in groundwater collected from each of the seven bedrock wells; and,

- Total cyanide was detected in groundwater collected from each of the seven bedrock wells. The concentration of total cyanide exceeded the Class GA Water Quality Standard in groundwater samples collected from three of the seven bedrock wells.

Summary of Work Performed

Based on the field observations and analytical results of the off-site SRI, the following preliminary conceptual site model elements have been developed:

- Overburden material typically consists of fill (with portions including ash-like material, clinker-like material, glass, etc.) overlying alluvial deposits, and highly weathered bedrock;

- Overburden groundwater flows approximately east to west beneath the southern and central portions of the B&L Property;

- MGP residual material in overburden appears to be present in the southeastern portion of the B&L Property, contiguous with MGP residual material observed in the northeastern corner of the MGP Site;

- Metals in soil not typically observed in MGP residual material (barium and cadmium) were detected at one soil boring location (SB-12-12) immediately west of the former manufacturing building floor slab;

- Apparent petroleum-related impacts appear to be present in the overburden to the west and northwest of the MGP-related impacts. The apparent petroleum impacts, based on field observations, did not appear to extend into bedrock;

- Apparent MGP residual material, including sheen and OLM, were observed in bedrock beneath the B&L Property. The MGP residual material was observed in joints and bedding plane partings at stratigraphic depths consistent with the distribution observed beneath the MGP Site; and,

- Bedrock groundwater is impacted by VOCs and PAHs at concentration exceeding groundwater quality standards.

Assessment of Work Plan Objectives

Based on an assessment of the Work Plan objectives relative to the outcome of the off-site SRI described in this memorandum, the MGP Site remedial investigation observations and results conducted

on the RG&E property and the adjoining Genesee River sediment, RG&E has the following recommendations for additional work on the B&L Property to fulfill the Work Plan and overall RI objectives:

- Additional borings and overburden monitoring wells in the southeastern portion of the B&L Property to better define the horizontal extent of apparent MGP residual material and petroleum in overburden soil, highly weathered bedrock and overburden groundwater; and

- Additional borings along the Genesee River to further characterize the overburden along the river, with a focus on the area adjacent to the sheen and OLM observed in sediments near the west central portion of the B&L property (as noted in the Remedial Investigation for Sediments Data Summary memorandum submitted to NYSDEC on 30 January 2014).

RG&E will prepare a separate work plan for additional off-site investigations to address these additional information needs subject to concurrence with NYSDEC. Please do not hesitate to contact Steve Mullin at RG&E (585.771.4556) with any questions or concerns relative to the completed field work.

Attachments:

Table I: Off-Site Soil Boring and Overburden Monitoring Well Locations, Rationale, and Observations Summary
Table II: Off-Site Overburden Monitoring Well Construction Summary
Table III: Off-Site Soil Analytical Results
Table IV: Off-Site Bedrock Coring and Bedrock Monitoring Well Locations, Rationale, and Observations Summary
Table V: Bedrock Monitoring Well Construction Summary
Table VI: Groundwater Elevation Monitoring Results
Table VII: Off-Site Groundwater Analytical Results

Figure 1: Off-Site Overburden and Bedrock Exploration Locations
Figure 2: Off-Site Soil Analytical Results
Figure 3: Top of Bedrock Elevation Contours
Figure 4: Bedrock Cross-Section
Figure 5: Overburden Groundwater Elevation Contour Plan – December 2013
Figure 6: Bedrock Groundwater Elevation Posting Map – December 2013
Figure 7: Off-Site Groundwater Analytical Results

Appendix A: Off-Site Soil Boring Logs and Overburden Well Installation Reports
Appendix B: Off-Site Bedrock Coring Logs and Bedrock Well Installation Reports
Appendix C: Downhole Geophysical Logs

TABLE I
Off-Site Soil Boring and Overburden Monitoring Well Locations, Rationale, and Observations Summary
East Station Former MGP
Rochester, New York

Boring ID Well ID	General Off-Site Location	Rationale	Actual Exploration Depth and Description (ft bgs)	MGP Residuals Observations	Other Observations	Analytical Sample Depths (ft bgs)	Well Completions (Screen Interval, ft bgs)
SB-12-01 SW-12-01	South of former B&L foundation slab and north of B&L/RG&E property boundary	Investigate off-site soil and groundwater conditions relative to MGP residuals adjacent to the B&L and RG&E property boundary	Topsoil from ground surface to 0.5 ft bgs, fill material from 0.5 to 12.5 ft bgs, alluvial deposits from 12.5 to 18.5 ft bgs, weathered bedrock from 18.5 to 20.8 ft bgs. Refusal at 20.8 ft on probable top of bedrock.	None	None	17.0 - 18.5	Overburden Monitoring Well (8.5 - 18.5)
SB-12-02			Concrete floor slab from ground surface to 0.2 ft bgs, fill material from 0.2 to 13.5 ft bgs, organic soil from 13.5 to 17.5 ft bgs, alluvial deposit from 17.5 to 22.0 ft bgs, weathered bedrock from 22.0 to 23.0 ft bgs. Refusal at 23.0 ft on probable top of bedrock.	None	Slight petroleum-like odor from 8.0 to 17.0 ft bgs. Sheen observed at 12 ft bgs	12.0 - 13.5	--
SB-12-03			Concrete floor slab from ground surface to 0.2 ft bgs, fill material from 0.2 to 9.0 ft bgs, alluvial deposits from 9.0 to 14.0 ft bgs, weathered bedrock from 17.0 to 19.2 ft bgs. Refusal at 19.2 ft bgs on probable top of bedrock.	None	Moderate petroleum-like odor with solvent-like odor from 9.0 to 14.0 ft bgs. Slight petroleum-like odor from 14.0 to 17.0 ft bgs	9.0 - 10.5	--
SB-12-04 SW-12-04	Southeastern portion of B&L property north of B&L/RG&E property boundary, and north of former MGP purification area	Investigate off-site soil and groundwater conditions relative to MGP residuals adjacent to the B&L and RG&E property boundary and evaluate the northern extent of MPG residuals (if present) observed in the former on-site purification area	Asphalt surface and fill from ground surface to 9.0 ft bgs, Alluvial deposit from 9.0 to 11.3 ft bgs, weathered bedrock from 11.3 to 16.0 ft bgs. Refusal at 16.0 on probable top of bedrock.	None	Slight petroleum-like odor from 11.3 to 14.0 ft bgs	9.5. - 11.0 12.0 - 13.5	Overburden Monitoring Well (4.0 - 14.0)
SB-12-05 SW-12-05			Fill material from ground surface to 12.1 ft bgs, possible fill material with coke breeze-like material from 12.1 to 18.0 ft bgs, weathered bedrock from 18 to 24 ft bgs. Refusal at 24.0 ft bgs on probable top of bedrock.	Possible coke breeze fill with naphthalene-like odor from 12.1 to 18.0 ft bgs. Sheen and OLM bleb noted at top of bedrock at 18.0 ft bgs. Slight naphthalene-like odor from 18.0 to 21.5 ft bgs, with a seam of strong naphthalene-like odor from 21.0 to 21.1 ft bgs.	Slight petroleum-like odor from 8.0 to 12.1 ft bgs in fill material below observed water table	13.0 - 14.5 20.0 - 21.5	Overburden Monitoring Well (12.0 - 22.0)
SB-12-06 SW-12-06			Fill material from ground surface to 20.5 ft bgs, alluvial deposit from 20.5 to 32.0 ft bgs, weathered bedrock from 32.0 0to 34.0 ft bgs. Refusal at 34.0 ft bgs on probable top of bedrock.	Naphthalene-like odor, staining, and sheen observed from 24.3 to 32.0 ft bgs.	Moderate petroleum-like odor from 12. 0 to 13.7 ft bgs. Slight petroleum-like odor from 13.7 to 20.5 ft bgs	12.0 - 13.5 20.5 - 22.0 30.0 - 31.5	Overburden Monitoring Well (22.0 - 32.0)
SB-12-07			Fill material from ground surface to 12.9 ft bgs, alluvial deposit from 12.0 to 16.5 ft bgs, weathered bedrock from 16.5 to 24.5 ft bgs. Refusal at 24.5 ft bgs on probable top of bedrock.	Naphthalene-like odor and staining observed from 12.9 to 16.5 ft bgs. Minor staining observed from 16.5 to 24.5 ft bgs.	None	12.9 - 14.4	--
SB-12-08			Fill material from ground surface to 12.0 ft bgs, alluvial deposit from 12.0 to 24.0 ft bgs, weathered bedrock from 24.0 to 27.7 ft bgs. Refusal at 27.7 ft bgs on probable top of bedrock.	Sheen, moderate naphthalene-like odor and staining observed from 17.0 to 24.0 ft bgs. Slight odor and staining observed from 24.0 to 27.7 ft bgs.	None	20.0 - 21.5	--
SB-12-09	Within former B&L foundation slab or access road area	Investigate off-site soil and groundwater conditions relative to MGP residuals in the central portion of the B&L property	Topsoil from ground surface to 1.0 ft bgs, fill material from 1.0 to 10.9 ft bgs, weathered bedrock in tip of sampler. Refusal at 11.0 ft bgs on probable top of bedrock.	None	Petroleum-like odor, sheen, and staining from 8.0 to 10.9 ft bgs	8.0 - 10.0	--
SB-12-10 SW-12-10			Concrete from ground surface to 0.3 ft bgs, fill material from 0.3 to 9.5 ft bgs, weathered bedrock from 9.5 to 18.5 ft bgs. Refusal at 18.5 ft bgs on probable top of bedrock.	None	Strong petroleum-like odor with staining from 6.4 to 9.5 ft bgs	8.0 - 9.5	Overburden Monitoring Well (4.5 - 9.5)
SB-12-11	West of former B&L foundation slab and along Genesee River bank	Investigate off-site soil conditions relative to MGP residuals adjacent to the Genesee River	Fill material from ground surface to 12.7 ft bgs, weathered bedrock from 12.7 to 22.5 ft bgs. Refusal at 22.5 ft bgs on probable top of bedrock.	None	Black layer with slight burned odor from 10.6 to 10.7 ft bgs	8.0 - 10.0	--
SB-12-12			Topsoil from ground surface to 0.3 ft bgs, fill material from 0.3 to 12.8 ft bgs, alluvial deposit from 12.8 to 17.4 ft bgs, weathered bedrock from 17.4 to 24.0 ft bgs. Refusal at 24.0 ft bgs on probable top of bedrock.	None	None	7.5 - 9.0 17.5 - 19.0	--

TABLE I
Off-Site Soil Boring and Overburden Monitoring Well Locations, Rationale, and Observations Summary
East Station Former MGP
Rochester, New York

Boring ID Well ID	General Off-Site Location	Rationale	Actual Exploration Depth and Description (ft bgs)	MGP Residuals Observations	Other Observations	Analytical Sample Depths (ft bgs)	Well Completions (Screen Interval, ft bgs)
SB-12-13 SW-12-13	Within former B&L foundation slab or access road area	Investigate off-site soil and groundwater conditions relative to MGP residuals in the central portion of the B&L property	Concrete and asphalt from ground surface to 0.6 ft bgs, fill material from 0.6 to 4.3 ft bgs, alluvial deposit from 4.3 to 10.2 ft bgs, clay or highly decomposed bedrock from 10.2 to 20.3 ft bgs, weathered bedrock from 20.3 to 22.3 ft bgs. Refusal at 22.3 ft bgs on probable top of bedrock.	None	Slight petroleum-like odor from 10.2 to 20.3 ft bgs	12 - 14	Overburden Monitoring Well (5.0 - 15.0)
SB-12-14	West of former B&L foundation slab and along Genesee River bank	Investigate off-site soil conditions relative to MGP residuals adjacent to the Genesee River	Asphalt from ground surface to 0.1 ft bgs, fill material from 0.1 to 7.5 ft bgs (void noted from 0.9 to 1.6 ft bgs), alluvial deposit from 7.5 to 21.9 ft bgs, weathered bedrock from 21.9 to 24.3 ft bgs. Refusal at 24.3 on probable top of bedrock.	None	None	8.1 - 9.6	--
SB-12-15 (Contingent)	Southeastern portion of B&L property along margin of B&L soil pile	Investigate the northwestern extent of apparent MGP-related impacts observed in the southeast corner of the B&L property and northeast corner of the Former MGP Site	Soils on poly liner from ground surface to 3.2 ft bgs, fill material from 3.2 to 23.0 ft bgs, clay layer from 23.0 to 28.0 ft bgs, alluvial deposit from 28.0 to 30.7 ft bgs, weathered bedrock from 30.7 to 31.2 ft bgs. Refusal at 31.2 ft bgs on probable top of bedrock.	Slight acrid odor from 28.0 to 30.7 ft bgs.	None	16 - 18 28 - 30	--
SB-12-16 (Contingent)	Northern and northeastern portions of B&L property, north of planned off-site soil boring locations (see above)	Contingent locations if MGP residuals are observed in soil borings SB-12-08, SB-12-09, SB-12-13, or SB-12-14. The contingent locations will be completed as needed to delineate the horizontal extent of MGP residuals	Asphalt from ground surface to 0.2 ft bgs, fill material from 0.2 to 1.8 ft bgs, alluvial deposit from 1.8 to 6.5 ft bgs, weathered bedrock from 6.5 to 8.5 ft bgs. Refusal at 8.5 ft bgs on probable top of bedrock.	None	Slight petroleum-like odor from 6.5 to 8.5 ft bgs	5.5 - 7.0	--
SB-12-17 & SB-12-17A (Supplemental)	Within former B&L access road area east of the former B&L foundation slab	Investigate the northwestern extent of apparent MGP-related impacts observed in the southeast corner of the B&L property and northeast corner of the Former MGP Site	Asphalt from ground surface to 0.3 ft bgs, fill material from 0.3 to termination depth of 12.0 ft bgs. Boring terminated at 12.0 ft bgs due to encountered petroleum-like NAPL. Boring SB-12-17A advanced next to SB-12-17 to collect a soil sample for hydrocarbon analysis.	None	Strong petroleum-like odor, staining, and NAPL observed from 8.0 to 12.0 ft bgs	10 - 11 (SB-12-17A)	--
BR-12-03 (Overburden)	Northern corner of B&L property	Investigation off-site bedrock conditions along far northern property boundary, soil conditions documented prior to installing steel casing	Fill material from ground surface to 16.5 ft bgs, alluvial deposit from 16.5 to 23.5 ft bgs, clay layer from 23.5 to 23.9 ft bgs, weathered bedrock from 23.9 to 24.2 ft bgs. Refusal at 24.2 ft bgs on probable top of bedrock.	None	None	21 - 23.5	Nested Bedrock Monitoring Wells
BR-12-05 (Overburden)	East of former B&L foundation slab in the eastern-central portion of the B&L property	Investigate the northern extent of apparent MGP-related impacts observed in the southeast corner of the B&L property and northeast corner of the Former MGP Site	Topsoil from ground surface to 0.5 ft bgs, fill material from 0.5 to 1.9 ft bgs, alluvial deposit from 1.9 to 11.0 ft bgs, weathered bedrock from 11.0 to 11.5 ft bgs. Refusal at 11.5 ft bgs on probable top of bedrock.	None	Slight petroleum-like odor from 11.0 to 11.5 ft bgs	9.5 - 11.0	--

Notes & Abbreviations:
--: Monitoring well not installed
ft bgs: feet below ground surface; note that all depths are approximate
OLM: Oil-like material
TLM: Tar-like material
1. "SB" indicates soil boring identification. "SW" indicates shallow (overburden) monitoring well identification.

TABLE II
Off-Site Overburden Monitoring Well Construction Summary
East Station Former MGP
Rochester, New York

Well ID	General Off-Site Location	Ground Surface Elevation (ft AMSL)	Top of PVC Elevation[See Note 1] (ft AMSL)	Refusal Depth (ft AMSL)	Screen Depth (ft bgs) Top - Bottom	Screen Elevation (ft AMSL) Top - Bottom
SW-12-01	South of former B&L foundation slab and north of B&L/RG&E property boundary	399.6	402.12	20.8	8.5 - 18.5	391.1 - 381.1
SW-12-04	Southeastern portion of B&L property north of B&L/RG&E property boundary, and north of former MGP purification area	405.7	405.27	16.0	4.0 - 14.0	401.7 - 391.7
SW-12-05		414.6	416.95	24.0	12.0 - 22.0	402.6 - 392.6
SW-12-06		421.3	423.79	34.0	22.0 - 32.0	399.3 - 389.3
SW-12-10	Within former B&L foundation slab or access road area	401.4	404.06	18.5	4.5 - 9.5	396.9 - 391.9
SW-12-13		401.6	404.52	22.3	5.0 - 15.0	396.6 - 386.6

Notes & Abbreviations
SW: Shallow (overburden) well designation
ft AMSL: feet above mean sea level (NYS Barge Canal Datum)
ft bgs: feet below ground surface
1. Top of PVC reference elevations measured from northern side of PVC riser.

TABLE III
Off-Site Soil Analytical Results
East Station Former MGP
Rochester, New York

Location	NYSDEC	BR-12-03	BR-12-05	DW-12-02I	SB-12-01	SB-12-02	SB-12-03	SB-12-04	SB-12-04	SB-12-05	SB-12-05
Sample Date	Restricted Use	10/14/2013	10/09/2013	11/06/2013	10/07/2013	10/08/2013	10/08/2013	10/08/2013	10/08/2013	10/09/2013	10/09/2013
Sample Type	Soil Cleanup	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Objective for	21 - 23.5 (ft)	9.5 - 11 (ft)	30 - 31 (ft)	17 - 18.5 (ft)	12 - 13.5 (ft)	9 - 10.5 (ft)	12 - 13.5 (ft)	9.5 - 11 (ft)	13 - 14.5 (ft)	20 - 21.5 (ft)
Sample Name	Commercial	4552-101413-1030	4542-100913-1500	SB-12-02I	4542-100713-1525	4542-100813-1010	4542-100813-1135	4542-100813-1335	4542-100813-1525	4542-100913-0950	4542-100913-1020
Inorganic Compounds (mg/kg)											
Aluminum	-	8600	5890 J	-	5450 J	2310 J	6550 J	4200 J	7760 J	5640 J	3840 J
Antimony	-	< 21.5	< 19.1 J	-	< 18.6 J	< 20.9 J	< 19.1 J	< 22.4 J	< 20.1 J	< 17.3 J	< 18.8 J
Arsenic	16	5.1	4.9 J	-	15.4	**21.3** [A]	3.5	10.9	11.8	6.3 J	13.1 J
Barium	400	47.1	25.5	-	60.4	121	29.2	31.9	43	17.3	36.1
Beryllium	590	0.52	0.32	-	0.48	0.14 J	0.36	0.44	0.5	0.29	0.38
Cadmium	9.3	0.09 J	0.043 J	-	0.051 J	0.15 J	0.079 J	< 0.3	0.074 J	0.062 J	0.049 J
Calcium	-	30700	1680	-	59600	35500	1400	121000	1330	991	117000
Chromium	-	10.3	8.5	-	8	4.6	8.5	6.3	10.7	7.9	5.8
Cobalt	-	8	6.3	-	11.2	2.1	6.3	7.8	8.4	6.4	11.6
Copper	270	16.3	10.9	-	24	17	8.8	25.1	16.4	10.8	7.7
Cyanide	27	< 1.2	0.92 J	-	0.67 J	< 1.3	0.62 J	< 1.4	1.1 J	1.4	< 1.2
Iron	-	14900	13700	-	21800	6270	14500	19300	22900	14100	10400
Lead	1000	12.8	8.6	-	17.3	514	10.3	9	16.5	8.9	14.9
Magnesium	-	5960	2130	-	15600	3350	1850	34200	2280	2160	14500
Manganese	10000	284	125	-	876	353	175	473	209	160	362
Mercury	2.8	< 0.027	0.012 J	-	0.013 J	0.46 J	0.025 J	< 0.027 J	0.017 J	< 0.025 J	< 0.022 J
Nickel	310	18.1	16.1	-	21.3	5 J	13.4	12.3	19.6	14.4	15
Potassium	-	1620	731	-	1730	348	688	2070	678	384	1980
Selenium	1500	< 5.7	0.91 J	-	0.93 J	1.5 J	< 5.1	0.96 J	< 5.4	< 4.6	0.5 J
Silver	1500	< 0.72	< 0.64	-	< 0.62	< 0.7	< 0.64	< 0.75	< 0.67	< 0.58	< 0.63
Sodium	-	366	88.5 J	-	801	1020	130 J	741	344	320	485
Thallium	-	< 8.6	< 7.6	-	< 7.4	< 8.4	< 7.6	< 9	< 8	< 6.9	< 7.5
Vanadium	-	13.2	10.5	-	12	7.9	11.1	8.4	14	9.2	6.9
Zinc	10000	46.8	47.4	-	41.2	146	39.5	19.2	55.1	38.5	126
Semi-Volatile Organic Compounds (ug/kg)											
2,2'-oxybis(1-Chloropropane)	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
2,4,5-Trichlorophenol	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
2,4,6-Trichlorophenol	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
2,4-Dichlorophenol	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
2,4-Dimethylphenol	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
2,4-Dinitrophenol	-	< 430	< 400	< 400	< 460	< 420	< 410	< 490	< 430	< 410	< 3800
2,4-Dinitrotoluene	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
2,6-Dinitrotoluene	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
2-Chloronaphthalene	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
2-Chlorophenol	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
2-Methylnaphthalene	-	< 220	< 210	< 210	< 230	< 220	430	< 250	8.2 J	14 J	3100
2-Methylphenol	500000	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
2-Nitroaniline	-	< 430	< 400	< 400	< 460	< 420	< 410	< 490	< 430	< 410	< 3800
2-Nitrophenol	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
3,3'-Dichlorobenzidine	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
3-Nitroaniline	-	< 430	< 400	< 400	< 460	< 420	< 410	< 490	< 430	< 410	< 3800
4,6-Dinitro-2-methylphenol	-	< 430	< 400	< 400	< 460	< 420	< 410	< 490	< 430	< 410	< 3800
4-Bromophenyl phenyl ether	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
4-Chloro-3-methylphenol	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
4-Chloroaniline	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
4-Chlorophenyl phenyl ether	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
4-Methylphenol	500000	< 430	< 400	< 400	< 460	< 420	< 410	< 490	< 430	< 410	< 3800
4-Nitroaniline	-	< 430	< 400	< 400	< 460	< 420	< 410	< 490	< 430	< 410	< 3800
4-Nitrophenol	-	< 430	< 400	< 400	< 460	< 420	< 410	< 490	< 430	< 410	< 3800
Acenaphthene	500000	< 220	< 210	350	5.7 J	660	45 J	140 J	720	280	7700
Acenaphthylene	500000	< 220	< 210	480	< 230	< 220	< 210	< 250	32 J	< 210	1200 J
Acetophenone	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Anthracene	500000	6.5 J	< 210	220	< 230	53 J	< 210	14 J	33 J	210	4500
Atrazine	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Benzaldehyde	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Benzo(a)anthracene	5600	< 220	< 210	1800	< 230	420	< 210	< 250	< 220	< 210	4500

TABLE III
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East Station Former MGP
Rochester, New York

Location	NYSDEC	BR-12-03	BR-12-05	DW-12-02I	SB-12-01	SB-12-02	SB-12-03	SB-12-04	SB-12-04	SB-12-05	SB-12-05
Sample Date	Restricted Use	10/14/2013	10/09/2013	11/06/2013	10/07/2013	10/08/2013	10/08/2013	10/08/2013	10/08/2013	10/09/2013	10/09/2013
Sample Type	Soil Cleanup	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Objective for	21 - 23.5 (ft)	9.5 - 11 (ft)	30 - 31 (ft)	17 - 18.5 (ft)	12 - 13.5 (ft)	9 - 10.5 (ft)	12 - 13.5 (ft)	9.5 - 11 (ft)	13 - 14.5 (ft)	20 - 21.5 (ft)
Sample Name	Commercial	4552-101413-1030	4542-100913-1500	SB-12-02I	4542-100713-1525	4542-100813-1010	4542-100813-1135	4542-100813-1335	4542-100813-1525	4542-100913-0950	4542-100913-1020
Benzo(a)pyrene	1000	< 220 J	< 210	**1400** [A]	11 J	300	15 J	< 250	50 J	6.1 J	**3900** [A]
Benzo(b)fluoranthene	5600	< 220 J	8.9 J	1400	15 J	420	20 J	18 J	63 J	< 210	2900
Benzo(g,h,i)perylene	500000	< 220 J	< 210 J	250	< 230 J	150 J	< 210 J	< 250 J	43 J	8 J	2100
Benzo(k)fluoranthene	56000	< 220 J	11 J	390	17 J	170 J	21 J	21 J	38 J	8.6 J	980 J
Biphenyl	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	24 J	13 J	1000 J
bis(2-Chloroethoxy)methane	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
bis(2-Chloroethyl)ether	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
bis(2-Ethylhexyl)phthalate	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Butyl benzylphthalate	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Caprolactam	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Carbazole	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	22 J	< 2000
Chrysene	56000	< 220	5.4 J	1700	13 J	390	14 J	< 250	33 J	< 210	3800
Dibenz(a,h)anthracene	560	< 220 J	< 210	< 210	< 230	35 J	< 210	< 250	13 J	< 210	400 J
Dibenzofuran	350000	< 220	< 210	< 210	< 230	< 220	11 J	< 250	< 220	23 J	< 2000
Diethyl phthalate	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Dimethyl phthalate	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Di-n-butylphthalate	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Di-n-octyl phthalate	-	< 220 J	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Fluoranthene	500000	25 J	< 210	4500	< 230	1600	< 210	< 250	19 J	67 J	7900
Fluorene	500000	< 220	< 210	660	< 230	< 220	17 J	55 J	120 J	210	2500
Hexachlorobenzene	6000	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Hexachlorobutadiene	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Hexachlorocyclopentadiene	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Hexachloroethane	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Indeno(1,2,3-cd)pyrene	5600	< 220 J	6 J	200 J	< 230	130 J	< 210	< 250	36 J	9.1 J	1300 J
Isophorone	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Naphthalene	500000	< 220	< 210	< 210	< 230	< 220	41 J	< 250	40 J	180 J	2400
Nitrobenzene	69000	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
N-Nitrosodi-n-propylamine	-	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
N-Nitrosodiphenylamine	-	< 220	< 210	330	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Pentachlorophenol	6700	< 430	< 400	< 400	< 460	< 420	< 410	< 490	< 430	< 410	< 3800
Phenanthrene	500000	17 J	< 210	81 J	< 230	110 J	14 J	64 J	26 J	930	15000
Phenol	500000	< 220	< 210	< 210	< 230	< 220	< 210	< 250	< 220	< 210	< 2000
Pyrene	500000	< 220	< 210	5700	< 230	1100	< 210	8.6 J	18 J	46 J	14000
Total Petroleum Hydrocarbons (mg/kg)											
Gasoline	-	-	-	< 8.1	-	-	-	-	-	-	-
Kerosene	-	-	-	< 20	-	-	-	-	-	-	-
Motor Oil	-	-	-	< 40	-	-	-	-	-	-	-
PHC as #2 Fuel Oils C10-C23 #2 Diesel, #2 Fuel Oil	-	-	-	< 20	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C28) DRO	-	-	-	75	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C12-C24) Fuel Oil #4	-	-	-	< 20	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons - Fuel Oil #6	-	-	-	< 20	-	-	-	-	-	-	-
Unknown Petroleum Hydrocarbon (Diesel Range)	-	-	-	75	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/kg)											
1,1,1-Trichloroethane	500000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
1,1,2,2-Tetrachloroethane	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
1,1,2-Trichloroethane	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
1,1-Dichloroethane	240000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
1,1-Dichloroethene	500000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
1,2,4-Trichlorobenzene	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
1,2-Dibromo-3-chloropropane (DBCP)	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
1,2-Dibromoethane (Ethylene Dibromide)	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
1,2-Dichlorobenzene	500000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
1,2-Dichloroethane	30000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
1,2-Dichloroethene (total)	-	5.4 J	< 12 J	-	< 14 J	< 250 J	< 12 J	< 15 J	< 13 J	< 110 J	< 110 J
1,2-Dichloropropane	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J

TABLE III
Off-Site Soil Analytical Results
East Station Former MGP
Rochester, New York

Location	NYSDEC	BR-12-03	BR-12-05	DW-12-02I	SB-12-01	SB-12-02	SB-12-03	SB-12-04	SB-12-04	SB-12-05	SB-12-05
Sample Date	Restricted Use	10/14/2013	10/09/2013	11/06/2013	10/07/2013	10/08/2013	10/08/2013	10/08/2013	10/08/2013	10/09/2013	10/09/2013
Sample Type	Soil Cleanup	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Objective for	21 - 23.5 (ft)	9.5 - 11 (ft)	30 - 31 (ft)	17 - 18.5 (ft)	12 - 13.5 (ft)	9 - 10.5 (ft)	12 - 13.5 (ft)	9.5 - 11 (ft)	13 - 14.5 (ft)	20 - 21.5 (ft)
Sample Name	Commercial	4552-101413-1030	4542-100913-1500	SB-12-02I	4542-100713-1525	4542-100813-1010	4542-100813-1135	4542-100813-1335	4542-100813-1525	4542-100913-0950	4542-100913-1020
1,3-Dichlorobenzene	280000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
1,4-Dichlorobenzene	130000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
2-Butanone (Methyl Ethyl Ketone)	500000	< 33 J	< 30 J	-	< 35 J	< 630 J	< 31 J	< 37 J	< 33 J	< 270 J	< 280 J
2-Hexanone	-	< 33 J	< 30 J	-	< 35 J	< 630 J	< 31 J	< 37 J	< 33 J	< 270 J	< 280 J
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	< 33 J	< 30 J	-	< 35 J	< 630 J	< 31 J	< 37 J	< 33 J	< 270 J	< 280 J
Acetone	500000	< 33 J	< 30 J	-	< 35 J	< 630 J	72 J	28 J	34 J	< 270 J	< 280 J
Benzene	44000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	6.3 J	11 J	44 J	< 56 J
Bromodichloromethane	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Bromoform	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Bromomethane (Methyl Bromide)	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Carbon disulfide	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Carbon tetrachloride	22000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Chlorobenzene	500000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Chloroethane	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Chloroform (Trichloromethane)	350000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Chloromethane (Methyl Chloride)	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
cis-1,2-Dichloroethene	500000	5.4 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
cis-1,3-Dichloropropene	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Cyclohexane	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Dibromochloromethane	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Dichlorodifluoromethane (CFC-12)	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Ethylbenzene	390000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	140 J	560 J
Isopropylbenzene	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	4.4 J	< 7.4 J	2.7 J	17 J	93 J
Methyl acetate	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Methyl cyclohexane	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	780 J
Methyl Tert Butyl Ether	500000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Methylene chloride	500000	< 6.6 J	< 6.1 J	-	< 6.9 J	87 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Styrene	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Tetrachloroethene	150000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Toluene	500000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
trans-1,2-Dichloroethene	500000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
trans-1,3-Dichloropropene	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Trichloroethene	200000	< 6.6 J	7.7 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Trichlorofluoromethane (CFC-11)	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Trifluorotrichloroethane (Freon 113)	-	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Vinyl chloride	13000	< 6.6 J	< 6.1 J	-	< 6.9 J	< 130 J	< 6.1 J	< 7.4 J	< 6.6 J	< 54 J	< 56 J
Xylene (total)	500000	< 13 J	< 12 J	-	< 14 J	< 250 J	< 12 J	< 15 J	< 13 J	12 J	590 J

Notes:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Restricted Use Soil Cleanup Objective for Commercial (NYSDEC, Table 375-6.8(b), December 2006)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
3. Results in **bold** exceed applicable criteria.
4. Sample type codes: N - Normal

TABLE III
Off-Site Soil Analytical Results
East Station Former MGP
Rochester, New York

Location	NYSDEC	SB-12-06	SB-12-06	SB-12-06	SB-12-07	SB-12-08	SB-12-09	SB-12-10	SB-12-11	SB-12-12	SB-12-12
Sample Date	Restricted Use	10/07/2013	10/07/2013	10/07/2013	10/04/2013	10/04/2013	10/03/2013	10/04/2013	10/03/2013	10/02/2013	10/02/2013
Sample Type	Soil Cleanup	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Objective for	12 - 13.5 (ft)	20.5 - 22 (ft)	30 - 31.5 (ft)	12.9 - 14.4 (ft)	20 - 21.5 (ft)	8 - 10 (ft)	8 - 9.5 (ft)	8 - 10 (ft)	17.5 - 19 (ft)	7.5 - 9 (ft)
Sample Name	Commercial	4542-100713-1140	4542-100713-1145	4542-100713-1150	4542-100413-1425	4542-100413-1300	4542-100313-1455	4542-100413-0920	4542-100313-1345	4542-100213-1430	4542-100213-1500
Inorganic Compounds (mg/kg)											
Aluminum	-	3990 J	4400 J	4900 J	7850 J	5700 J	7110 J	10500 J	3450 J	4700 J	4020 J
Antimony	-	< 18.5 J	< 16.8 J	< 17 J	< 19.9 J	< 20.9 J	< 19.1 J	< 19.6 J	< 16.8 J	< 20.1 J	175 J
Arsenic	16	5.5	3.1	7.5	11.8	6.8	3.4	**16.7** [A]	1.7 J	9.2	**103** [A]
Barium	400	41.5	15	20.7	56.8	34.4	58.4	73.6	29.9	47.6	**8330** [A]
Beryllium	590	0.33	0.28	0.33	0.47	0.33	0.38	1	0.22	0.39	0.24
Cadmium	9.3	0.11 J	0.08 J	0.062 J	0.13 J	0.13 J	0.11 J	0.95	0.061 J	0.088 J	**38.3** [A]
Calcium	-	59200	1490	23900	1360 J	2010 J	2300 J	2860 J	31100 J	118000 J	11200 J
Chromium	-	5.7	6.2	6.9	8.2	8.1	9.1	10.8	5.6	6.9	8.8
Cobalt	-	3.8	5.9	6.4	5.4	7.9	6.7	18.5	3.2	8.5	1.8
Copper	270	29.8	12	13.6	5.7	10.9	10.2	68.6	7.3 J	40 J	33.1 J
Cyanide	27	2.1	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.3	8.1	< 1.2	< 1.1
Iron	-	11300	12700	13600	13700 J	16000 J	14400 J	25400 J	7180 J	15000 J	5100 J
Lead	1000	108	10.6	12.5	8.5 J	7.9 J	13.1 J	32.5 J	3.7 J	21.8 J	**7460 J** [A]
Magnesium	-	23200	1890	13600	1680	3390	2410	2090	8010	18600	2140
Manganese	10000	313	177	275	153 J	177 J	122 J	257 J	204 J	630 J	127 J
Mercury	2.8	0.12 J	< 0.025 J	0.013 J	0.025 J	< 0.028	0.013 J	0.039	0.074	< 0.03	0.11
Nickel	310	11.7	14.1	16.8	9.5	20.2	14.8	26.4	6.6	15.6	19.9
Potassium	-	1360	659	1160	688 J	897 J	941 J	1010 J	775 J	2160 J	839 J
Selenium	1500	0.9 J	< 4.5	< 4.5	< 5.3 J	< 5.6 J	< 5.1 J	< 5.2 J	< 4.5 J	0.72 J	1.1 J
Silver	1500	< 0.62	< 0.56	< 0.57	< 0.66	< 0.7	< 0.64	< 0.65	< 0.56	< 0.67	1
Sodium	-	176	158	306	467	540	248	52.6 J	89 J	313	201
Thallium	-	< 7.4	< 6.7	< 6.8	< 8	< 8.3	< 7.6	< 7.8	< 6.7	< 8	< 7.2
Vanadium	-	8.8	9.2	9.7	11.4	10.4	11.1	13.4	8.3	9.4	7.5
Zinc	10000	39	41.1	57.4	36.8	76.3	41.4	191	15.2	38	1410
Semi-Volatile Organic Compounds (ug/kg)											
2,2'-oxybis(1-Chloropropane)	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
2,4,5-Trichlorophenol	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
2,4,6-Trichlorophenol	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
2,4-Dichlorophenol	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
2,4-Dimethylphenol	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
2,4-Dinitrophenol	-	< 2000 J	< 410	< 420	< 400	< 4100	< 420	< 2100	< 360	< 440	< 350
2,4-Dinitrotoluene	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
2,6-Dinitrotoluene	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
2-Chloronaphthalene	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
2-Chlorophenol	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
2-Methylnaphthalene	-	140 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	42 J
2-Methylphenol	500000	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
2-Nitroaniline	-	< 2000 J	< 410	< 420	< 400	< 4100	< 420	< 2100	< 360	< 440	< 350
2-Nitrophenol	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
3,3'-Dichlorobenzidine	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
3-Nitroaniline	-	< 2000 J	< 410	< 420	< 400	< 4100	< 420	< 2100	< 360	< 440	< 350
4,6-Dinitro-2-methylphenol	-	< 2000 J	< 410	< 420	< 400	< 4100	< 420	< 2100	< 360	< 440	< 350
4-Bromophenyl phenyl ether	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
4-Chloro-3-methylphenol	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
4-Chloroaniline	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
4-Chlorophenyl phenyl ether	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
4-Methylphenol	500000	< 2000 J	< 410	< 420	< 400	< 4100	< 420	< 2100	< 360	< 440	< 350
4-Nitroaniline	-	< 2000 J	< 410	< 420	< 400	< 4100	< 420	< 2100	< 360	< 440	< 350
4-Nitrophenol	-	< 2000 J	< 410	< 420	< 400 J	< 4100 J	< 420 J	< 2100 J	< 360 J	< 440 J	< 350 J
Acenaphthene	500000	240 J	< 210	160 J	180 J	2400	260	< 1100	< 190	< 230	20 J
Acenaphthylene	500000	420 J	< 210	170 J	< 210	2000 J	< 210	< 1100	< 190	< 230	61 J
Acetophenone	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Anthracene	500000	850 J	43 J	130 J	38 J	1400 J	61 J	< 1100	< 190	< 230	120 J
Atrazine	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Benzaldehyde	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Benzo(a)anthracene	5600	5300 J	< 210	570	< 210	5100	< 210	150 J	< 190	37 J	550

TABLE III
Off-Site Soil Analytical Results
East Station Former MGP
Rochester, New York

Location	NYSDEC	SB-12-06	SB-12-06	SB-12-06	SB-12-07	SB-12-08	SB-12-09	SB-12-10	SB-12-11	SB-12-12	SB-12-12
Sample Date	Restricted Use	10/07/2013	10/07/2013	10/07/2013	10/04/2013	10/04/2013	10/03/2013	10/04/2013	10/03/2013	10/02/2013	10/02/2013
Sample Type	Soil Cleanup	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Objective for	12 - 13.5 (ft)	20.5 - 22 (ft)	30 - 31.5 (ft)	12.9 - 14.4 (ft)	20 - 21.5 (ft)	8 - 10 (ft)	8 - 9.5 (ft)	8 - 10 (ft)	17.5 - 19 (ft)	7.5 - 9 (ft)
Sample Name	Commercial	4542-100713-1140	4542-100713-1145	4542-100713-1150	4542-100413-1425	4542-100413-1300	4542-100313-1455	4542-100413-0920	4542-100313-1345	4542-100213-1430	4542-100213-1500
Benzo(a)pyrene	1000	**5800 J [A]**	9.2 J	340	17 J	**4700 [A]**	18 J	130 J	< 190	28 J	520
Benzo(b)fluoranthene	5600	**7500 J [A]**	14 J	260	19 J	2800	26 J	150 J	< 190	38 J	700
Benzo(g,h,i)perylene	500000	5000 J	< 210 J	110 J	< 210	3000	< 210	< 1100	< 190	< 230	350
Benzo(k)fluoranthene	56000	2600 J	11 J	160 J	19 J	1700 J	20 J	85 J	< 190	< 230	310
Biphenyl	-	< 1000 J	< 210	< 220	< 210	< 2100	26 J	< 1100	< 190	< 230	< 180
bis(2-Chloroethoxy)methane	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
bis(2-Chloroethyl)ether	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
bis(2-Ethylhexyl)phthalate	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Butyl benzylphthalate	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Caprolactam	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Carbazole	-	240 J	< 210	< 220	34 J	< 2100	17 J	< 1100	< 190	< 230	38 J
Chrysene	56000	5300 J	11 J	550	< 210	4400	< 210	180 J	< 190	< 230	640
Dibenz(a,h)anthracene	560	**1100 J [A]**	< 210	< 220	< 210	**780 J [A]**	< 210	< 1100	< 190	< 230	100 J
Dibenzofuran	350000	170 J	< 210	< 220	23 J	< 2100	< 210	< 1100	< 190	< 230	34 J
Diethyl phthalate	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Dimethyl phthalate	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Di-n-butylphthalate	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Di-n-octyl phthalate	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Fluoranthene	500000	6800 J	20 J	2700	< 210	11000	130 J	300 J	< 190	40 J	970
Fluorene	500000	280 J	< 210	380	220	6100	83 J	< 1100	< 190	< 230	40 J
Hexachlorobenzene	6000	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Hexachlorobutadiene	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Hexachlorocyclopentadiene	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Hexachloroethane	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Indeno(1,2,3-cd)pyrene	5600	4300 J	9.4 J	83 J	< 210	1800 J	< 210	65 J	< 190	< 230	290
Isophorone	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Naphthalene	500000	340 J	< 210	< 220	< 210	< 2100	110 J	< 1100	< 190	< 230	31 J
Nitrobenzene	69000	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
N-Nitrosodi-n-propylamine	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
N-Nitrosodiphenylamine	-	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Pentachlorophenol	6700	< 2000 J	< 410	< 420	< 400 J	< 4100 J	< 420 J	< 2100 J	< 360 J	< 440 J	< 350 J
Phenanthrene	500000	2400 J	< 210	79 J	19 J	290 J	230	470 J	< 190	15 J	670
Phenol	500000	< 1000 J	< 210	< 220	< 210	< 2100	< 210	< 1100	< 190	< 230	< 180
Pyrene	500000	6700 J	18 J	3600	< 210	19000	110 J	260 J	< 190	41 J	860
Total Petroleum Hydrocarbons (mg/kg)											
Gasoline	-	-	-	-	-	-	-	-	-	-	-
Kerosene	-	-	-	-	-	-	-	-	-	-	-
Motor Oil	-	-	-	-	-	-	-	-	-	-	-
PHC as #2 Fuel Oils C10-C23 #2 Diesel, #2 Fuel Oil	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C10-C28) DRO	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (C12-C24) Fuel Oil #4	-	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons - Fuel Oil #6	-	-	-	-	-	-	-	-	-	-	-
Unknown Petroleum Hydrocarbon (Diesel Range)	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (ug/kg)											
1,1,1-Trichloroethane	500000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
1,1,2,2-Tetrachloroethane	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
1,1,2-Trichloroethane	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
1,1-Dichloroethane	240000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
1,1-Dichloroethene	500000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
1,2,4-Trichlorobenzene	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
1,2-Dibromo-3-chloropropane (DBCP)	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
1,2-Dibromoethane (Ethylene Dibromide)	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
1,2-Dichlorobenzene	500000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
1,2-Dichloroethane	30000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
1,2-Dichloroethene (total)	-	< 12 J	< 13 J	< 13 J	< 59 J	< 250 J	< 64 J	< 1000 J	< 11 J	< 13 J	< 11 J
1,2-Dichloropropane	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J

TABLE III
Off-Site Soil Analytical Results
East Station Former MGP
Rochester, New York

Location	NYSDEC	SB-12-06	SB-12-06	SB-12-06	SB-12-07	SB-12-08	SB-12-09	SB-12-10	SB-12-11	SB-12-12	SB-12-12
Sample Date	Restricted Use	10/07/2013	10/07/2013	10/07/2013	10/04/2013	10/04/2013	10/03/2013	10/04/2013	10/03/2013	10/02/2013	10/02/2013
Sample Type	Soil Cleanup	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Objective for	12 - 13.5 (ft)	20.5 - 22 (ft)	30 - 31.5 (ft)	12.9 - 14.4 (ft)	20 - 21.5 (ft)	8 - 10 (ft)	8 - 9.5 (ft)	8 - 10 (ft)	17.5 - 19 (ft)	7.5 - 9 (ft)
Sample Name	Commercial	4542-100713-1140	4542-100713-1145	4542-100713-1150	4542-100413-1425	4542-100413-1300	4542-100313-1455	4542-100413-0920	4542-100313-1345	4542-100213-1430	4542-100213-1500
1,3-Dichlorobenzene	280000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
1,4-Dichlorobenzene	130000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
2-Butanone (Methyl Ethyl Ketone)	500000	< 30 J	< 31 J	< 32 J	< 150 J	< 630 J	< 160 J	< 2600 J	< 28 J	< 33 J	< 27 J
2-Hexanone	-	< 30 J	< 31 J	< 32 J	< 150 J	< 630 J	< 160 J	< 2600 J	< 28 J	< 33 J	< 27 J
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	< 30 J	< 31 J	< 32 J	< 150 J	< 630 J	< 160 J	< 2600 J	< 28 J	< 33 J	< 27 J
Acetone	500000	27 J	23 J	< 32 J	44 J	< 630 J	59 J	< 2600 J	< 28 J	< 33 J	< 27 J
Benzene	44000	< 6 J	< 6.3 J	< 6.4 J	83 J	86 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Bromodichloromethane	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Bromoform	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Bromomethane (Methyl Bromide)	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Carbon disulfide	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Carbon tetrachloride	22000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Chlorobenzene	500000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Chloroethane	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Chloroform (Trichloromethane)	350000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Chloromethane (Methyl Chloride)	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
cis-1,2-Dichloroethene	500000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	1.5 J	< 5.4 J
cis-1,3-Dichloropropene	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Cyclohexane	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Dibromochloromethane	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Dichlorodifluoromethane (CFC-12)	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Ethylbenzene	390000	< 6 J	< 6.3 J	< 6.4 J	2.4 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Isopropylbenzene	-	< 6 J	< 6.3 J	< 6.4 J	27 J	< 130 J	12 J	380 J	< 5.5 J	< 6.6 J	< 5.4 J
Methyl acetate	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Methyl cyclohexane	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	7.9 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Methyl Tert Butyl Ether	500000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Methylene chloride	500000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Styrene	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Tetrachloroethene	150000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Toluene	500000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
trans-1,2-Dichloroethene	500000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
trans-1,3-Dichloropropene	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Trichloroethene	200000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Trichlorofluoromethane (CFC-11)	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Trifluorotrichloroethane (Freon 113)	-	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Vinyl chloride	13000	< 6 J	< 6.3 J	< 6.4 J	< 29 J	< 130 J	< 32 J	< 510 J	< 5.5 J	< 6.6 J	< 5.4 J
Xylene (total)	500000	< 12 J	< 13 J	< 13 J	< 59 J	< 250 J	< 64 J	< 1000 J	< 11 J	< 13 J	< 11 J

Notes:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Restricted Use Soil Cleanup Objective for Commercial (NYSDEC, Table 375-6.8(b), December 2006)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
3. Results in **bold** exceed applicable criteria.
4. Sample type codes: N - Normal

TABLE III
Off-Site Soil Analytical Results
East Station Former MGP
Rochester, New York

Location	NYSDEC	SB-12-13	SB-12-14	SB-12-16	SB-12-20A	SB-12-20A	SB-12-21A
Sample Date	Restricted Use	10/03/2013	10/02/2013	10/09/2013	10/17/2013	10/17/2013	11/07/2013
Sample Type	Soil Cleanup	N	N	N	N	N	N
Sample Depth (bgs)	Objective for	12 - 14 (ft)	8.1 - 9.6 (ft)	5.5 - 7 (ft)	16 - 18 (ft)	28 - 30 (ft)	11 - 12 (ft)
Sample Name	Commercial	4542-100313-1015	4542-100213-1200	4542-100913-1405	4552-101713-1130	4552-101713-1150	SB-12-21A
Inorganic Compounds (mg/kg)							
Aluminum	-	5580 J	5500 J	5900 J	4780	3140	-
Antimony	-	< 19.4 J	< 16.5 J	< 18.6 J	< 19.8	< 17.5	-
Arsenic	16	1.2 J	3.2	6.1 J	9.6	4.3	-
Barium	400	42.1	27.7	23.5	43.6	23.6	-
Beryllium	590	0.52	0.33	0.33	0.45	0.25	-
Cadmium	9.3	0.065 J	0.067 J	0.037 J	< 0.26	0.05 J	-
Calcium	-	119000 J	29400 J	2460	8360	64800	-
Chromium	-	8.5	6.6	8.2	8.4	5.1	-
Cobalt	-	4.7	4	6.4	8	4.5	-
Copper	270	12.9 J	12.3 J	10.9	14.6	11.2	-
Cyanide	27	< 1.3	< 1.1	< 1.2	0.97 J	0.95 J	-
Iron	-	17400 J	10100 J	14900	18400	9880	-
Lead	1000	1.3 J	12 J	8.7	24.2	11.7	-
Magnesium	-	21300	8160	2080	5720	35400	-
Manganese	10000	627 J	335 J	146	341	480	-
Mercury	2.8	< 0.033	< 0.026	< 0.027 J	< 0.028	< 0.022	-
Nickel	310	14.7	9.3	15.1	19.9	10	-
Potassium	-	2220 J	1320 J	684	1720	1510	-
Selenium	1500	0.83 J	< 4.4 J	< 5	< 5.3	< 4.7	-
Silver	1500	< 0.65	< 0.55	< 0.62	< 0.66	< 0.58	-
Sodium	-	417	102 J	207	164 J	275	-
Thallium	-	< 7.8	< 6.6	< 7.5	< 7.9	< 7	-
Vanadium	-	11.3	10.4	11.3	13	6.6	-
Zinc	10000	21.9	20.2	40.4	83.9	40.1	-
Semi-Volatile Organic Compounds (ug/kg)							
2,2'-oxybis(1-Chloropropane)	-	< 220	< 190	< 230	< 240	< 200	< 240
2,4,5-Trichlorophenol	-	< 220	< 190	< 230	< 240	< 200	< 240
2,4,6-Trichlorophenol	-	< 220	< 190	< 230	< 240	< 200	< 240
2,4-Dichlorophenol	-	< 220	< 190	< 230	< 240	< 200	< 240
2,4-Dimethylphenol	-	< 220	< 190	< 230	< 240	< 200	< 240
2,4-Dinitrophenol	-	< 430	< 370	< 440	< 460	< 380	< 460
2,4-Dinitrotoluene	-	< 220	< 190	< 230	< 240	< 200	< 240
2,6-Dinitrotoluene	-	< 220	< 190	< 230	< 240	< 200	< 240
2-Chloronaphthalene	-	< 220	< 190	< 230	< 240	< 200	< 240
2-Chlorophenol	-	< 220	< 190	< 230	< 240	< 200	< 240
2-Methylnaphthalene	-	< 220	< 190	< 230	< 240	6 J	< 240
2-Methylphenol	500000	< 220	< 190	< 230	< 240	< 200	< 240
2-Nitroaniline	-	< 430	< 370	< 440	< 460	< 380	< 460
2-Nitrophenol	-	< 220	< 190	< 230	< 240	< 200	< 240
3,3'-Dichlorobenzidine	-	< 220	< 190	< 230	< 240	< 200	< 240
3-Nitroaniline	-	< 430	< 370	< 440	< 460	< 380	< 460
4,6-Dinitro-2-methylphenol	-	< 430	< 370	< 440	< 460	< 380	< 460
4-Bromophenyl phenyl ether	-	< 220	< 190	< 230	< 240	< 200	< 240
4-Chloro-3-methylphenol	-	< 220	< 190	< 230	< 240	< 200	< 240
4-Chloroaniline	-	< 220	< 190	< 230	< 240	< 200	< 240
4-Chlorophenyl phenyl ether	-	< 220	< 190	< 230	< 240	< 200	< 240
4-Methylphenol	500000	< 430	< 370	< 440	< 460	< 380	< 460
4-Nitroaniline	-	< 430	< 370	< 440	< 460	< 380	< 460
4-Nitrophenol	-	< 430 J	< 370 J	< 440	< 460	< 380	< 460
Acenaphthene	500000	< 220	< 190	< 230	120 J	250	160 J
Acenaphthylene	500000	< 220	< 190	< 230	< 240	75 J	< 240
Acetophenone	-	< 220	< 190	< 230	< 240	< 200	< 240
Anthracene	500000	< 220	< 190	< 230	< 240	79 J	65 J
Atrazine	-	< 220	< 190	< 230	< 240	< 200	< 240
Benzaldehyde	-	< 220	< 190	< 230	< 240	< 200	< 240
Benzo(a)anthracene	5600	< 220	< 190	< 230	< 240	< 200	130 J

TABLE III
Off-Site Soil Analytical Results
East Station Former MGP
Rochester, New York

Location	NYSDEC	SB-12-13	SB-12-14	SB-12-16	SB-12-20A	SB-12-20A	SB-12-21A
Sample Date	Restricted Use	10/03/2013	10/02/2013	10/09/2013	10/17/2013	10/17/2013	11/07/2013
Sample Type	Soil Cleanup	N	N	N	N	N	N
Sample Depth (bgs)	Objective for	12 - 14 (ft)	8.1 - 9.6 (ft)	5.5 - 7 (ft)	16 - 18 (ft)	28 - 30 (ft)	11 - 12 (ft)
Sample Name	Commercial	4542-100313-1015	4542-100213-1200	4542-100913-1405	4552-101713-1130	4552-101713-1150	SB-12-21A
Benzo(a)pyrene	1000	< 220	< 190	10 J	< 240	< 200	99 J
Benzo(b)fluoranthene	5600	< 220	9.1 J	11 J	< 240	< 200	180 J
Benzo(g,h,i)perylene	500000	< 220	< 190	< 230 J	< 240	< 200	30 J
Benzo(k)fluoranthene	56000	< 220	< 190	13 J	< 240	< 200	57 J
Biphenyl	-	< 220	< 190	< 230	< 240	< 200	< 240
bis(2-Chloroethoxy)methane	-	< 220	< 190	< 230	< 240	< 200	< 240
bis(2-Chloroethyl)ether	-	< 220	< 190	< 230	< 240	< 200	< 240
bis(2-Ethylhexyl)phthalate	-	< 220	< 190	< 230	< 240	2700	< 240
Butyl benzylphthalate	-	< 220	< 190	< 230	< 240	< 200	< 240
Caprolactam	-	< 220	< 190	< 230	< 240	< 200	< 240
Carbazole	-	< 220	< 190	< 230	< 240	< 200	28 J
Chrysene	56000	< 220	< 190	8.1 J	< 240	< 200	100 J
Dibenz(a,h)anthracene	560	< 220	< 190	< 230	< 240	< 200	< 240
Dibenzofuran	350000	< 220	< 190	< 230	< 240	34 J	< 240
Diethyl phthalate	-	< 220	< 190	< 230	< 240	< 200	< 240
Dimethyl phthalate	-	< 220	< 190	< 230	< 240	< 200	< 240
Di-n-butylphthalate	-	< 220	< 190	< 230	< 240	< 200	< 240
Di-n-octyl phthalate	-	< 220	< 190	< 230	58 J	< 200	< 240
Fluoranthene	500000	< 220	< 190	< 230	< 240	180 J	340
Fluorene	500000	< 220	< 190	< 230	< 240	140 J	33 J
Hexachlorobenzene	6000	< 220	< 190	< 230	< 240	< 200	< 240
Hexachlorobutadiene	-	< 220	< 190	< 230	< 240	< 200	< 240
Hexachlorocyclopentadiene	-	< 220	< 190	< 230	< 240	< 200	< 240
Hexachloroethane	-	< 220	< 190	< 230	< 240	< 200	< 240
Indeno(1,2,3-cd)pyrene	5600	< 220	< 190	12 J	< 240	< 200	30 J
Isophorone	-	< 220	< 190	< 230	< 240	< 200	< 240
Naphthalene	500000	< 220	< 190	< 230	< 240	< 200	< 240
Nitrobenzene	69000	< 220	< 190	< 230	< 240	< 200	< 240
N-Nitrosodi-n-propylamine	-	< 220	< 190	< 230	< 240	< 200	< 240
N-Nitrosodiphenylamine	-	< 220	< 190	< 230	< 240	< 200	< 240
Pentachlorophenol	6700	< 430 J	120 J	< 440	< 460	< 380	< 460
Phenanthrene	500000	< 220	< 190	< 230	< 240	52 J	220 J
Phenol	500000	< 220	< 190	< 230	< 240	< 200	< 240
Pyrene	500000	< 220	< 190	< 230	< 240	260	220 J
Total Petroleum Hydrocarbons (mg/kg)							
Gasoline	-	-	-	-	-	-	< 19
Kerosene	-	-	-	-	-	-	< 46
Motor Oil	-	-	-	-	-	-	< 93
PHC as #2 Fuel Oils C10-C23 #2 Diesel, #2 Fuel Oil	-	-	-	-	-	-	69
Total Petroleum Hydrocarbons (C10-C28) DRO	-	-	-	-	-	-	69
Total Petroleum Hydrocarbons (C12-C24) Fuel Oil #4	-	-	-	-	-	-	< 46
Total Petroleum Hydrocarbons - Fuel Oil #6	-	-	-	-	-	-	< 46
Unknown Petroleum Hydrocarbon (Diesel Range)	-	-	-	-	-	-	< 46
Volatile Organic Compounds (ug/kg)							
1,1,1-Trichloroethane	500000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
1,1,2,2-Tetrachloroethane	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
1,1,2-Trichloroethane	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
1,1-Dichloroethane	240000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
1,1-Dichloroethene	500000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
1,2,4-Trichlorobenzene	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
1,2-Dibromo-3-chloropropane (DBCP)	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
1,2-Dibromoethane (Ethylene Dibromide)	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
1,2-Dichlorobenzene	500000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
1,2-Dichloroethane	30000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
1,2-Dichloroethene (total)	-	< 13 J	< 11 J	< 14 J	< 14	< 12	-
1,2-Dichloropropane	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-

TABLE III
Off-Site Soil Analytical Results
East Station Former MGP
Rochester, New York

Location	NYSDEC	SB-12-13	SB-12-14	SB-12-16	SB-12-20A	SB-12-20A	SB-12-21A
Sample Date	Restricted Use	10/03/2013	10/02/2013	10/09/2013	10/17/2013	10/17/2013	11/07/2013
Sample Type	Soil Cleanup	N	N	N	N	N	N
Sample Depth (bgs)	Objective for	12 - 14 (ft)	8.1 - 9.6 (ft)	5.5 - 7 (ft)	16 - 18 (ft)	28 - 30 (ft)	11 - 12 (ft)
Sample Name	Commercial	4542-100313-1015	4542-100213-1200	4542-100913-1405	4552-101713-1130	4552-101713-1150	SB-12-21A
1,3-Dichlorobenzene	280000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
1,4-Dichlorobenzene	130000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
2-Butanone (Methyl Ethyl Ketone)	500000	< 33 J	< 29 J	< 34 J	< 35	< 29	-
2-Hexanone	-	< 33 J	< 29 J	< 34 J	< 35	< 29	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	< 33 J	< 29 J	< 34 J	< 35	< 29	-
Acetone	500000	< 33 J	< 29 J	< 34 J	22 J	< 29	-
Benzene	44000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	2.2 J	-
Bromodichloromethane	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Bromoform	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Bromomethane (Methyl Bromide)	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Carbon disulfide	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Carbon tetrachloride	22000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Chlorobenzene	500000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Chloroethane	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Chloroform (Trichloromethane)	350000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Chloromethane (Methyl Chloride)	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
cis-1,2-Dichloroethene	500000	< 6.5 J	2 J	< 6.8 J	< 7.1	< 5.8	-
cis-1,3-Dichloropropene	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Cyclohexane	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Dibromochloromethane	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Dichlorodifluoromethane (CFC-12)	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Ethylbenzene	390000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Isopropylbenzene	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Methyl acetate	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Methyl cyclohexane	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Methyl Tert Butyl Ether	500000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Methylene chloride	500000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Styrene	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Tetrachloroethene	150000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Toluene	500000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
trans-1,2-Dichloroethene	500000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
trans-1,3-Dichloropropene	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Trichloroethene	200000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Trichlorofluoromethane (CFC-11)	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Trifluorotrichloroethane (Freon 113)	-	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Vinyl chloride	13000	< 6.5 J	< 5.7 J	< 6.8 J	< 7.1	< 5.8	-
Xylene (total)	500000	< 13 J	< 11 J	< 14 J	< 14	< 12	-

Notes:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Restricted Use Soil Cleanup Objective for Commercial (NYSDEC, Table 375-6.8(b), December 2006)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
3. Results in **bold** exceed applicable criteria.
4. Sample type codes: N - Normal

TABLE IV
Off-Site Bedrock Coring and Bedrock Monitoring Well Locations, Rationale, and Observations Summary
East Station Former MGP
Rochester, New York

Boring ID	Associated Overburden Boring ID	General Off-Site Location	Rationale	Maximum Exploration Depth and Description (ft bgs)	MGP Residuals Observations	Well Completions
BR-12-01 DW-12-01	SB-12-10	Within former B&L foundation slab approximately 140 feet north of B&L/RG&E property boundary	Investigate off-site bedrock conditions north of on-site bedrock coring locations BR-10-02 and BR-10-03	162ft (approx. 17.1 ft in Queenston Shale)	62.5 to 66.5 ft: OLM, sheen and naphthalene-like odor (Reynales Limestone) 70.0 - 71.0 ft, 75.0 - 77.0 ft, 82.0 - 84.0 ft: Trace sheen and naphthalene-like odor (Maplewood Shale) 136.1 ft: Trace sheen noted on outside of core and weathered joint (Grimsby Sandstone)	Nested: Reynales Maplewood Nested: Grimsby Queenston
BR-12-02 DW-12-02	SB-12-06	Southeastern portion of B&L property north of B&L/RG&E property boundary	Investigate off-site bedrock conditions north of on-site bedrock coring locations BR-10-01 and BR-10-02	178 ft (approx. 14.7 ft in Queenston Shale)	33.8 - 34.4 ft: Slight acrid odor (Irondequoit Limestone) 35.0 - 35.7: Sheen and acrid odor (Irondequoit Limestone) 36.6 - 37.3 ft, 40.0 - 40.2 ft: OLM/sheen, strong acrid odor (Irondequoit Limestone) 40.5 ft: OLM noted in wash water with strong naphthalene-like odor (Irondequoit Limestone) 108.0 - 113.0 ft: Trace sheen observed in wash water (Maplewood Shale)	Irondequoit Maplewood
BR-12-03 DW-12-03	Soil sampling completed	Northern corner of B&L property	Investigate off-site bedrock conditions along far northern property boundary	144 ft (approx. 10.3 ft in Queenston Shale)	74.1 to 74.2 ft: Slight MGP odor (Maplewood Shale) 94.4 to 97.4 ft: Single OLM bleb, sheen, and naphthalene-like odor (Grimsby Sandstone) 101.4 ft, 101.6 - 103.5 ft, 104.8 to 105.0 ft: Weathered joints with sheen and naphthalene-like odor (Grimsby Sandstone) *Note: Trace sheen was observed on Grimsby Sandstone core samples retrieved below 105, however it is likely related to the weathered zones noted above for Grimsby Sandstone as the extent of sheen decreased with depth and less fracture weathering was observed.*	Nested: Maplewood Grimsby

Notes & Abbreviations:
ft bgs: feet below ground surface; note that all depths are approximate
BR: Bedrock coring location identification
DW: Deep (bedrock) monitoring well identification
NAPL: Non-aqueous phase liquid product
OLM: Oil-like material
TLM: Tar-like material

TABLE V
Bedrock Monitoring Well Construction Summary
East Station Former MGP
Rochester, New York

Boring ID	General Off-Site Location	Ground Surface Elevation (ft AMSL)	Top of Bedrock Surface		Total Corehole Depth		Bedrock Casing Diameter & Depth (in., ft bgs)	Monitoring Well ID	Top of PVC Elevation [See Note 1] (ft AMSL)	Screen Depth (ft bgs)	Screen Elevation (ft AMSL)	Bedrock Zone
			ft bgs	ft AMSL	ft bgs	ft AMSL				Top - Bottom	Top - Bottom	
BR-12-01 DW-12-01	Within former B&L foundation slab approximately 140 feet north of B&L/RG&E property boundary	401.3	9.5	391.8	87.5	313.8	8" - 20 6" - 92	BR-12-01R	401.87	57 - 67	344.3 - 334.3	Zone 1 - Reynales
								BR-12-01M	401.87	74 - 84	327.3 - 317.3	Zone 2 - Maplewood
		401.3	9.5	391.8	162.0	239.3	8" - 22.4	BR-12-01G	403.42	120.2 - 130.2	281.1 - 271.1	Zone 3 - Grimsby
								BR-12-01Q	403.15	148 - 158	253.3 - 243.3	Zone 4 - Queenston
BR-12-02 DW-12-02	Southeastern portion of B&L property north of B&L/RG&E property boundary	421.0	32.0	389.0	44.0	377.0	None - Shallow Bedrock	BR-12-02I	423.54	35 - 42	386.0 - 379.0	Zone 0 - Irondequoit
		421.1	32.0	389.1	178.0	243.1	8" - 49.9	BR-12-02M	422.82	90 - 105	331.1 - 316.1	Zone 2 - Maplewood
BR-12-03 DW-12-03	Northern corner of B&L property	399.2	23.9	375.3	144.0	255.2	8" - 26	BR-12-03M	400.81	65 - 75	334.2 - 324.2	Zone 2 - Maplewood
								BR-12-03G	400.81	90 - 105	309.2 - 294.2	Zone 3 - Grimsby

Notes & Abbreviations
BR: Bedrock coring designation
DW: Deep (bedrock) well designation
ft AMSL: feet above mean sea level (NYS Barge Canal Datum)
ft bgs: feet below ground surface
1. Top of PVC reference elevations measured from northern side of PVC riser.

TABLE VI
Groundwater Elevation Monitoring Results
East Station Former MGP
Rochester, New York

Monitoring Well ID	Reference Elevation	September 2011				December 2011				February 2013				December 2013			
		Depth to Groundwater (ft bgs)	Groundwater Elevation (ft AMSL)	LNAPL Thickness (ft)	DNAPL Thickness (ft)	Depth to Groundwater (ft bgs)	Groundwater Elevation (ft AMSL)	LNAPL Thickness (ft)	DNAPL Thickness (ft)	Depth to Groundwater (ft bgs)	Groundwater Elevation (ft AMSL)	LNAPL Thickness (ft)	DNAPL Thickness (ft)	Depth to Groundwater (ft bgs)	Groundwater Elevation (ft AMSL)	LNAPL Thickness (ft)	DNAPL Thickness (ft)
Overburden Recovery Wells																	
RW-1	412.71	17.21	395.50	np	np	nc	nc	nc	nc	nc	nc	nc	nc	16.51	396.20	np	np
RW-2	412.51	16.93	395.58	np	np	nc	nc	nc	nc	nc	nc	nc	nc	16.23	396.28	np	np
RW-3	412.35	16.75	395.60	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
RW-4	411.97	16.42	395.55	np	np	15.23	396.74	np	np	14.15	397.82	np	np	nc	nc	nc	nc
RW-5	411.86	16.30	395.56	0.07	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
RW-6	410.17	14.53	395.64	np	np	13.38	396.79	np	np	nc	nc	nc	nc	nc	nc	nc	nc
RW-7	410.25	14.59	395.66	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
RW-8	407.69	11.96	395.73	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
RW-9	406.90	11.20	395.70	np	np	nc	nc	nc	nc	nc	nc	nc	nc	10.50	396.40	np	np
RW-10	405.53	9.84	395.69	np	np	nc	nc	nc	nc	7.60	397.93	np	np	9.13	396.40	np	np
RW-11	404.19	8.49	395.70	np	np	7.35	396.84	np	np	nc	nc	nc	nc	nc	nc	nc	nc
RW-12	403.60	7.91	395.69	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
RW-13	404.64	9.38	395.26	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
RW-14	401.72	6.52	395.20	np	np	nc	nc	nc	nc	nc	nc	nc	nc	5.51	396.21	np	np
RW-15	401.86	6.69	395.17	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
RW-16	402.08	6.88	395.20	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
RW-17	402.02	6.92	395.10	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
RW-18	402.49	7.33	395.16	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
RW-19	402.43	7.27	395.16	np	np	nc	nc	nc	nc	nc	nc	nc	nc	6.26	396.17	np	np
RW-20	406.02	10.82	395.20	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
RW-21	403.25	7.71	395.54	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
RW-22	403.64	8.19	395.45	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
RW-23	413.72	14.92	398.80	np	np	nc	nc	nc	nc	nc	nc	nc	nc	14.67	399.05	np	np
Overburden Monitoring Wells																	
MW-2R	401.62	11.81	389.81	np	np	nc	nc	nc	nc	nc	nc	nc	nc	10.17	391.45	nc	nc
MW-4R	403.25	11.67	391.58	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
MW-6	421.24	12.21	409.03	np	np	11.36	409.88	np	np	10.52	410.72	np	np	12.41	408.83	np	np
MW-7	428.82	18.92	409.90	np	np	18.02	410.80	np	np	17.06	411.76	np	np	19.01	409.81	np	np
PZ-01R	411.08	19.61	391.47	np	np	19.81	391.27	np	np	18.56	392.52	np	np	nc	nc	nc	nc
PZ-1	414.62	13.56	401.06	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
PZ-5	421.37	23.24	398.13	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
PZ-11	402.15	7.76	394.39	np	np	nc	nc	nc	nc	nc	nc	nc	nc	6.83	395.32	np	np
PZ-12	416.70	10.04	406.66	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
PZ-13	420.52	11.75	408.77	np	np	nc	nc	nc	nc	nc	nc	nc	nc	11.86	408.66	np	np
PZ-14	421.86	6.46	415.40	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
SW-4	415.98	9.79	406.19	np	np	nc	nc	nc	nc	8.91	407.07	np	np	9.86	406.12	np	np
SW-5	439.09	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
TPMW-1	419.06	17.98	401.08	np	np	nc	nc	nc	nc	nc	nc	nc	nc	18.05	401.01	np	np
TPMW-2	414.79	15.62	399.17	np	np	13.80	400.99	np	np	nc	nc	nc	nc	15.50	399.29	np	np
SW-10-01	402.55	8.22	394.33	np	np	nc	nc	nc	nc	nc	nc	nc	nc	7.40	395.15	np	np
SW-10-02	415.61	11.62	403.99	np	np	10.51	405.10	np	np	7.15	408.46	np	np	11.33	404.28	np	np
SW-10-06	420.92	12.02	408.90	np	np	nc	nc	nc	nc	nc	nc	nc	nc	12.11	408.81	np	np
SW-10-07	420.35	12.72	407.63	np	np	12.50	407.85	np	np	12.17	408.18	np	np	12.71	407.64	np	np
SW-10-08	422.72	13.08	409.64	np	np	nc	nc	nc	nc	nc	nc	nc	nc	13.17	409.55	np	np
SW-10-09	418.80	20.31	398.49	np	Trace	nc	nc	nc	nc	19.42	399.38	np	np	20.47	398.33	np	np
SW-10-10	417.32	18.91	398.41	np	np	18.20	399.12	np	np	24.25	393.07	np	np	19.04	398.28	np	np
SW-10-12	403.85	13.61	390.24	np	np	13.26	390.59	np	np	11.67	392.18	np	np	12.03	391.82	np	np
SW-10-14	405.11	15.21	389.90	np	2.70	nc	nc	np	2.60	nc	nc	np	1.54	13.54	391.57	np	0.95
SW-10-15	414.02	19.55	394.47	np	np	nc	nc	nc	nc	nc	nc	nc	nc	18.94	395.08	np	np
SW-10-16	400.80	10.96	389.84	np	np	10.40	390.40	np	np	8.57	392.23	np	np	9.16	391.64	np	np
SW-10-21	423.15	15.05	408.10	np	np	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
SW-12-01	402.12	--	--	--	--	--	--	--	--	--	--	--	--	10.43	391.69	np	np
SW-12-04	405.27	--	--	--	--	--	--	--	--	--	--	--	--	4.61	400.66	np	np
SW-12-05	416.95	--	--	--	--	--	--	--	--	--	--	--	--	11.76	405.19	np	np
SW-12-06	423.79	--	--	--	--	--	--	--	--	--	--	--	--	16.64	407.15	np	Trace
SW-12-10	404.06	--	--	--	--	--	--	--	--	--	--	--	--	9.64	394.42	np	np
SW-12-13	404.52	--	--	--	--	--	--	--	--	--	--	--	--	11.25	393.27	np	np
SW-12-20	417.20	--	--	--	--	--	--	--	--	18.29	398.91	np	Trace	19.28	397.92	np	np
SW-12-21	429.62	--	--	--	--	--	--	--	--	16.11	413.51	np	np	19.66	409.96	np	np

TABLE VI
Groundwater Elevation Monitoring Results
East Station Former MGP
Rochester, New York

Monitoring Well ID	Reference Elevation	September 2011				December 2011				February 2013				December 2013			
		Depth to Groundwater (ft bgs)	Groundwater Elevation (ft AMSL)	LNAPL Thickness (ft)	DNAPL Thickness (ft)	Depth to Groundwater (ft bgs)	Groundwater Elevation (ft AMSL)	LNAPL Thickness (ft)	DNAPL Thickness (ft)	Depth to Groundwater (ft bgs)	Groundwater Elevation (ft AMSL)	LNAPL Thickness (ft)	DNAPL Thickness (ft)	Depth to Groundwater (ft bgs)	Groundwater Elevation (ft AMSL)	LNAPL Thickness (ft)	DNAPL Thickness (ft)
Bedrock Monitoring Wells																	
DW-1R	401.04	nc	nc	nc	nc	11.10	389.94	np	np	9.29	391.75	np	np	9.58	391.46	np	np
DW-3R	407.42	nc	nc	nc	nc	15.53	391.89	np	0.48	14.17	393.25	np	0.73	nc	nc	np	0.45
MW-3DR	401.02	nc	nc	nc	nc	11.07	389.95	np	np	9.36	391.66	np	np	9.56	391.46	np	np
MW-5R	410.50	nc	nc	nc	nc	16.65	393.85	np	0.32	nc	nc	np	0.40	nc	nc	np	0.3
MW-6D	421.16	nc	nc	nc	nc	15.42	405.74	np	np	14.76	406.40	np	np	16.15	405.01	np	np
MW-8DR	411.63	nc	nc	nc	nc	18.32	393.31	np	np	17.10	394.53	np	np	17.69	393.94	np	np
DW-5	438.75	nc	nc	nc	nc	34.83	403.92	np	np	34.63	404.12	np	np	34.97	403.78	np	np
DW-10-01R	419.57	--	--	--	--	32.30	387.27	np	np	30.10	389.47	np	np	30.00	389.57	np	np
DW-10-01M	419.57	--	--	--	--	30.19	389.38	np	np	29.10	390.47	np	np	29.01	390.56	np	np
DW-10-01G	419.55	--	--	--	--	32.58	386.97	np	np	30.28	389.27	np	np	30.12	389.43	np	np
DW-10-02G	407.35	--	--	--	--	18.64	388.71	np	np	16.82	390.53	np	np	16.63	390.72	np	np
DW-10-02Q	407.36	--	--	--	--	18.45	388.91	np	np	16.70	390.66	np	np	16.50	390.86	np	np
DW-10-03R	399.89	--	--	--	--	10.02	389.87	np	np	8.24	391.65	np	np	8.29	391.60	np	np
DW-10-03M	399.95	--	--	--	--	10.13	389.82	np	np	8.44	391.51	np	np	8.42	391.53	np	np
DW-10-03G	399.86	--	--	--	--	11.37	388.49	np	np	8.80	391.06	np	np	8.55	391.31	np	np
DW-10-04R	411.10	--	--	--	--	21.83	389.27	np	0.4	19.35	391.75	np	1.74	19.28	391.82	np	1.4
DW-10-04M	411.13	--	--	--	--	21.50	389.63	np	np	19.32	391.81	np	np	19.37	391.76	np	np
DW-10-04G	411.08	--	--	--	--	21.54	389.54	np	np	19.28	391.80	np	np	19.14	391.94	np	np
DW-10-05G	420.42	--	--	--	--	33.30	387.12	np	np	31.62	388.80	np	np	31.42	389.00	np	np
DW-10-06G	425.25	--	--	--	--	50.91	374.34	np	np	49.47	375.78	np	np	48.97	376.28	np	np
DW-10-06Q	425.31	--	--	--	--	51.31	374.00	np	np	50.02	375.29	np	np	49.48	375.83	np	np
DW-10-07M	416.13	--	--	--	--	24.65	391.48	np	1.45	23.68	392.45	np	1.45	23.80	392.33	np	2.0
DW-10-07G	416.09	--	--	--	--	26.00	390.09	np	np	24.25	391.84	np	np	24.08	392.01	np	np
DW-10-08R	428.45	--	--	--	--	37.69	390.76	np	np	36.35	392.10	np	np	36.48	391.97	np	np
DW-10-08M	428.50	--	--	--	--	37.70	390.80	np	np	36.58	391.92	np	np	36.60	391.90	np	np
DW-10-08G	428.52	--	--	--	--	103.97	324.55	np	np	42.43	386.09	np	np	43.23	385.29	np	np
DW-10-09M	439.22	--	--	--	--	57.26	381.96	np	np	53.93	385.29	np	np	53.70	385.52	np	np
DW-10-09G	439.33	--	--	--	--	51.70	387.63	np	np	47.73	391.60	np	np	46.75	392.58	np	np
DW-12-01R	401.87	--	--	--	--	--	--	--	--	--	--	--	--	10.16	391.71	np	0.1
DW-12-01M	401.87	--	--	--	--	--	--	--	--	--	--	--	--	10.10	391.77	np	np
DW-12-01G	403.42	--	--	--	--	--	--	--	--	--	--	--	--	11.97	391.45	np	np
DW-12-01Q	403.15	--	--	--	--	--	--	--	--	--	--	--	--	11.41	391.74	np	np
DW-12-02I	423.54	--	--	--	--	--	--	--	--	--	--	--	--	18.57	404.97	np	Trace
DW-12-02M	422.82	--	--	--	--	--	--	--	--	--	--	--	--	31.31	391.51	np	np
DW-12-03M	400.81	--	--	--	--	--	--	--	--	--	--	--	--	9.21	391.60	np	np
DW-12-03G	400.81	--	--	--	--	--	--	--	--	--	--	--	--	9.19	391.62	np	np
DW-12-06R	407.64	--	--	--	--	--	--	--	--	15.87	391.77	np	np	16.02	391.62	np	np
DW-12-06M	407.64	--	--	--	--	--	--	--	--	16.01	391.63	np	np	15.88	391.76	np	np
DW-12-07I	428.15	--	--	--	--	--	--	--	--	26.82	401.33	np	np	27.95	400.20	np	np
DW-12-07R	428.15	--	--	--	--	--	--	--	--	33.01	395.14	np	np	33.58	394.57	np	np
DW-12-08R	416.12	--	--	--	--	--	--	--	--	21.9	394.22	Sheen	np	22.57	393.55	np	np
DW-12-09R	415.22	--	--	--	--	--	--	--	--	23.31	391.91	np	2.75	23.30	391.92	np	0.7
DW-12-09M	415.20	--	--	--	--	--	--	--	--	23.63	391.57	np	np	23.49	391.71	np	np

Abbreviations
"--": Well not yet installed
"nc": Not collected
"np": Not present
ft AMSL: feet above mean sea level (NYS Barge Canal Datum)
ft bgs: feet below ground surface
LNAPL: Light non-aqueous phase liquid
DNAPL: Dense non-aqueous phase liquid

Notes:
1. Top of PVC reference elevations measured from northern side of PVC riser.
2. September 2011 depth to water measurements completed on 13 and 14 September 2011.
3. December 2011 depth to water measurements completed on 2 and 5 December 2011.
4. February 2013 depth to water measurements completed on 4 February 2013.
5. December 2013 depth to water measurements completed on 2 December 2013.

TABLE VII
Off-Site Groundwater Analytical Results
East Station Former MGP
Rochester, New York

Location	NYSDEC TOGS 1.1.1	DW-12-01G	DW-12-01M	DW-12-01Q	DW-12-02I	DW-12-02I	DW-12-02M	DW-12-03G	DW-12-03M	DW-12-06M	DW-12-06R
Sample Date	Class GA Water	12/06/2013	12/06/2013	12/05/2013	12/09/2013	12/09/2013	12/09/2013	12/10/2013	12/10/2013	12/10/2013	12/10/2013
Sample Type	Quality Standards	N	N	N	N	FD	N	N	N	N	N
Sample Name		4527-120613-1145	4527-120613-1345	4552-120513-1600	4527-120913-1025	4527-120913-0001	4552-120913-1100	4552-121013-1015	4527-121013-1045	4552-121013-1445	4527-121013-1425
Inorganic Compounds (mg/L)											
Aluminum	-	1.3	0.21	3.5	1.7	1.1	0.51	2.3	2.4	2.4	0.65
Antimony	0.003	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Arsenic	0.025	**0.17** [A]	0.012	< 0.25	**0.043** [A]	**0.031** [A]	< 0.01	0.0073 J	0.023	**0.035** [A]	0.013
Barium	1	**2.8** [A]	**1.7** [A]	**5.1** [A]	0.27	0.37	0.23	**1.1** [A]	0.28	0.23	**1.1** [A]
Beryllium	0.003	< 0.002	< 0.002	< 0.01	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Cadmium	0.005	0.0047	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	0.00083 J	< 0.001	< 0.001	< 0.001
Calcium	-	5520	131	18700	50.5	49.7	378	1770	46.3	40.9	124
Chromium	0.05	0.017 J	0.0017 J	0.0075 J	0.0031 J	0.0022 J	**0.29** [A]	0.007	0.036	0.0063	0.003 J
Cobalt	-	< 0.02	< 0.004	< 0.1	0.0014 J	0.00099 J	0.00083 J	0.00087 J	0.00078 J	0.00076 J	< 0.004
Copper	0.2	0.016 J	0.014	0.029 J	0.0066 J	0.0043 J	0.013	0.0094 J	0.0066 J	0.0058 J	0.0047 J
Cyanide	0.2	0.0055 J	**0.21 J** [A]	0.05 J	**1.9 J** [A]	**3.4 J** [A]	**0.87** [A]	0.035	0.064	**0.42** [A]	0.18
Iron	0.3	**1.6** [A]	**1.3** [A]	**76** [A]	**2.8** [A]	**3.3** [A]	**0.65** [A]	**4.9** [A]	**1.1** [A]	**2.1** [A]	**4.3** [A]
Lead	0.025	< 0.025	< 0.005	< 0.13	0.0033 J	0.0032 J	0.0036 J	0.0047 J	0.0049 J	0.0048 J	0.0038 J
Magnesium	35	**583** [A]	**48.7** [A]	**1930** [A]	**44.2** [A]	**48.3** [A]	0.2	**230** [A]	2.3	17	**74.4** [A]
Manganese	0.3	**1.9** [A]	0.12	**18.8** [A]	0.087	0.1	0.017	**0.45** [A]	0.021	0.15	0.11
Mercury	0.0007	< 0.0002	< 0.0002	< 0.0002	< 0.0002 J	< 0.0002 J	< 0.0002 J	< 0.0002 J	< 0.0002 J	< 0.0002 J	< 0.0002 J
Nickel	0.1	0.01 J	0.0021 J	< 0.25	0.0059 J	0.0041 J	0.0013 J	0.0033 J	0.003 J	0.0031 J	0.0027 J
Potassium	-	491	30	979	28.4	31.5	279	173	50.4	29.2	10.3
Selenium	0.01	**0.15** [A]	< 0.015	< 0.075	< 0.015	< 0.015	**0.021** [A]	< 0.015	< 0.015	< 0.015	< 0.015
Silver	0.05	< 0.015	< 0.003	< 0.015	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
Sodium	20	**22200** [A]	**318** [A]	**66500** [A]	**641** [A]	**664** [A]	**946** [A]	**6190** [A]	**729** [A]	**765** [A]	**486** [A]
Thallium	0.0005	< 0.1	< 0.02	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Vanadium	-	< 0.025	< 0.005	< 0.025	0.0029 J	0.0016 J	0.013	0.0071	0.038	< 0.005	< 0.005
Zinc	2	0.013 J	0.0088 J	0.14	< 0.017	< 0.018	< 0.01	< 0.016	< 0.01	< 0.012	< 0.01
Semi-Volatile Organic Compounds (ug/L)											
2,2'-oxybis(1-Chloropropane)	-	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
2,4,5-Trichlorophenol	-	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
2,4,6-Trichlorophenol	-	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
2,4-Dichlorophenol	5	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
2,4-Dimethylphenol	50	**74 J** [A]	30	4.9	< 270	< 510	< 23	**110 J** [A]	< 260	**120 J** [A]	< 2500
2,4-Dinitrophenol	10	< 9.6	< 10	< 8	< 530	< 1000	< 46	< 480	< 510	< 500	< 5000
2,4-Dinitrotoluene	5	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
2,6-Dinitrotoluene	5	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
2-Chloronaphthalene	10	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
2-Chlorophenol	-	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
2-Methylnaphthalene	-	34 J	< 1300 J	27 J	< 270 J	< 510 J	< 23 J	< 240 J	< 260 J	380 J	< 2500 J
2-Methylphenol	-	52	7.1	2.5 J	< 270	< 510	< 23	33 J	< 260	66 J	< 2500
2-Nitroaniline	5	< 9.6	< 10	< 8	< 530	< 1000	< 46	< 480	< 510	< 500	< 5000
2-Nitrophenol	-	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
3,3'-Dichlorobenzidine	5	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
3-Nitroaniline	5	< 9.6	< 10	< 8	< 530	< 1000	< 46	< 480	< 510	< 500	< 5000
4,6-Dinitro-2-methylphenol	-	< 9.6	< 10	< 8	< 530	< 1000	< 46	< 480	< 510	< 500	< 5000
4-Bromophenyl phenyl ether	-	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
4-Chloro-3-methylphenol	-	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
4-Chloroaniline	5	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
4-Chlorophenyl phenyl ether	-	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
4-Methylphenol	-	46	4.9 J	3.2 J	< 530	< 1000	< 46	21 J	< 510	< 500	< 5000
4-Nitroaniline	5	< 9.6	< 10	< 8	< 530	< 1000	< 46	< 480	< 510	< 500	< 5000
4-Nitrophenol	-	< 9.6	< 10	< 8	< 530	< 1000	< 46	< 480	< 510	< 500	< 5000
Acenaphthene	20	1.2 J	**47** [A]	1 J	**52 J** [A]	< 510	< 23	< 240	< 260	**62 J** [A]	< 2500
Acenaphthylene	-	30	< 5.1	15	38 J	69 J	5.1 J	94 J	100 J	78 J	< 2500
Acetophenone	-	12	< 5.1	2.4 J	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Anthracene	50	1.3 J	1.6 J	2.3 J	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Atrazine	7.5	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Benzaldehyde	-	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500

TABLE VII
Off-Site Groundwater Analytical Results
East Station Former MGP
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Location	NYSDEC TOGS 1.1.1	DW-12-01G	DW-12-01M	DW-12-01Q	DW-12-02I	DW-12-02I	DW-12-02M	DW-12-03G	DW-12-03M	DW-12-06M	DW-12-06R
Sample Date	Class GA Water	12/06/2013	12/06/2013	12/05/2013	12/09/2013	12/09/2013	12/09/2013	12/10/2013	12/10/2013	12/10/2013	12/10/2013
Sample Type	Quality Standards	N	N	N	N	FD	N	N	N	N	N
Sample Name		4527-120613-1145	4527-120613-1345	4552-120513-1600	4527-120913-1025	4527-120913-0001	4552-120913-1100	4552-121013-1015	4527-121013-1045	4552-121013-1445	4527-121013-1425
Benzo(a)anthracene	0.002	**0.49 J** [A]	< 5.1	**1.2 J** [A]	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Benzo(a)pyrene	0	< 4.8	< 5.1	0.83 J	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Benzo(b)fluoranthene	0.002	< 4.8	< 5.1	**0.66 J** [A]	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Benzo(g,h,i)perylene	-	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Benzo(k)fluoranthene	0.002	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Biphenyl	5	3.7 J	**13** [A]	2.4 J	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
bis(2-Chloroethoxy)methane	5	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
bis(2-Chloroethyl)ether	1	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
bis(2-Ethylhexyl)phthalate	5	3.7 J	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Butyl benzylphthalate	50	< 4.8	1 J	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Caprolactam	-	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Carbazole	-	5.3	8.8	0.91 J	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Chrysene	0.002	**0.42 J** [A]	< 5.1	**1 J** [A]	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Dibenz(a,h)anthracene	-	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Dibenzofuran	-	0.67 J	1.8 J	0.52 J	< 530	< 1000	< 46	< 480	< 510	< 500	< 5000
Diethyl phthalate	50	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Dimethyl phthalate	50	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Di-n-butylphthalate	50	0.35 J	0.41 J	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Di-n-octyl phthalate	50	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Fluoranthene	50	0.84 J	0.61 J	2 J	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Fluorene	50	3.3 J	10	3.7 J	38 J	< 510	< 23	< 240	< 260	25 J	< 2500
Hexachlorobenzene	0.04	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Hexachlorobutadiene	0.5	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Hexachlorocyclopentadiene	5	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Hexachloroethane	5	< 4.8	< 5.1	< 4	< 270 J	< 510 J	< 23 J	< 240 J	< 260 J	< 250 J	< 2500 J
Indeno(1,2,3-cd)pyrene	0.002	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Isophorone	50	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Naphthalene	10	**1200** [A]	**4800** [A]	**370** [A]	**5200** [A]	**5800** [A]	**120** [A]	**3800** [A]	**4000** [A]	**5400** [A]	**12000** [A]
Nitrobenzene	0.4	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
N-Nitrosodi-n-propylamine	-	< 4.8	< 5.1	< 4	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
N-Nitrosodiphenylamine	50	< 4.8 J	< 5.1 J	< 4 J	< 270 J	< 510 J	< 23 J	< 240 J	< 260 J	< 250 J	< 2500 J
Pentachlorophenol	1	< 9.6 J	< 10 J	< 8 J	< 530	< 1000	< 46	< 480	< 510	< 500	< 5000
Phenanthrene	50	4.8	9	9	45 J	< 510	< 23	< 240	< 260	< 250	< 2500
Phenol	1	**21** [A]	**17** [A]	**2 J** [A]	< 270	< 510	< 23	< 240	< 260	**36 J** [A]	< 2500
Pyrene	50	1.1 J	0.78 J	3.1 J	< 270	< 510	< 23	< 240	< 260	< 250	< 2500
Volatile Organic Compounds (ug/L)											
1,1,1-Trichloroethane	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
1,1,2,2-Tetrachloroethane	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
1,1,2-Trichloroethane	1	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
1,1-Dichloroethane	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
1,1-Dichloroethene	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
1,2,4-Trichlorobenzene	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
1,2-Dibromo-3-chloropropane (DBCP)	0.04	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
1,2-Dibromoethane (Ethylene Dibromide)	0.0006	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
1,2-Dichlorobenzene	3	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
1,2-Dichloroethane	0.6	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
1,2-Dichloropropane	1	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
1,3-Dichlorobenzene	3	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
1,4-Dichlorobenzene	3	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
2-Butanone (Methyl Ethyl Ketone)	50	< 1000	< 500	6.1 J	< 20	< 20	1.9 J	< 1000	< 400	< 800	< 200
2-Hexanone	50	< 500	< 250	< 5	< 10	< 10	< 5	< 500	< 200	< 400	< 100
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	< 500	< 250	< 5	< 10	< 10	< 5	< 500	< 200	< 400	< 100
Acetone	50	< 1000	< 500	**110** [A]	< 20	6.3 J	**66** [A]	< 1000	< 400	< 800	< 200
Benzene	1	**16000 J** [A]	**8500 J** [A]	**940 J** [A]	**2100** [A]	**1900** [A]	**680** [A]	**31000** [A]	**19000** [A]	**19000** [A]	**5900** [A]
Bromodichloromethane	50	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Bromoform	50	< 100 J	< 50 J	< 1 J	< 2	< 2	< 1	< 100	< 40	< 80	< 20

TABLE VII
Off-Site Groundwater Analytical Results
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Location	NYSDEC TOGS 1.1.1	DW-12-01G	DW-12-01M	DW-12-01Q	DW-12-02I	DW-12-02I	DW-12-02M	DW-12-03G	DW-12-03M	DW-12-06M	DW-12-06R
Sample Date	Class GA Water	12/06/2013	12/06/2013	12/05/2013	12/09/2013	12/09/2013	12/09/2013	12/10/2013	12/10/2013	12/10/2013	12/10/2013
Sample Type	Quality Standards	N	N	N	N	FD	N	N	N	N	N
Sample Name		4527-120613-1145	4527-120613-1345	4552-120513-1600	4527-120913-1025	4527-120913-0001	4552-120913-1100	4552-121013-1015	4527-121013-1045	4552-121013-1445	4527-121013-1425
Bromomethane (Methyl Bromide)	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Carbon disulfide	60	< 100	< 50	< 1	6.9	1.8 J	< 1	< 100	< 40	< 80	< 20
Carbon tetrachloride	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Chlorobenzene	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Chloroethane	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Chloroform (Trichloromethane)	7	< 100	< 50	1.4	2.5	2.2	6.2	< 100	**17 J [A]**	< 80	< 20
Chloromethane (Methyl Chloride)	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
cis-1,2-Dichloroethene	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
cis-1,3-Dichloropropene	0.4	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Cyclohexane	-	< 100	< 50	< 1	38 J	22 J	< 1	< 100	< 40	< 80	< 20
Dibromochloromethane	50	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Dichlorodifluoromethane (CFC-12)	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Ethylbenzene	5	**93 J [A]**	**2400 [A]**	**15 [A]**	**620 J [A]**	**410 J [A]**	**8.1 [A]**	**460 [A]**	**860 [A]**	**1100 [A]**	**3500 [A]**
Isopropylbenzene	5	< 100	**50 [A]**	< 1	**28 J [A]**	**16 J [A]**	< 1	< 100	< 40	< 80	**100 [A]**
Methyl acetate	-	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Methyl cyclohexane	-	< 100	< 50	< 1	50 J	20 J	< 1	< 100	< 40	< 80	< 20
Methyl Tert Butyl Ether	-	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Methylene chloride	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Styrene	5	**820 [A]**	< 50	**93 [A]**	< 2	< 2	**37 [A]**	**3400 [A]**	**2900 [A]**	< 80	< 20
Tetrachloroethene	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Toluene	5	**4600 J [A]**	**740 J [A]**	**410 J [A]**	**260 J [A]**	**170 J [A]**	**210 [A]**	**14000 [A]**	**9200 [A]**	**5700 [A]**	**180 [A]**
trans-1,2-Dichloroethene	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
trans-1,3-Dichloropropene	0.4	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Trichloroethene	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Trichlorofluoromethane (CFC-11)	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Trifluorotrichloroethane (Freon 113)	5	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Vinyl chloride	2	< 100	< 50	< 1	< 2	< 2	< 1	< 100	< 40	< 80	< 20
Xylene (total)	5	**620 [A]**	**2500 [A]**	**100 [A]**	**1300 J [A]**	**800 J [A]**	**42 [A]**	**2900 [A]**	**2900 [A]**	**2200 [A]**	**3600 [A]**

Notes:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than TOGS Water Quality Standards, Table 1, Class GA (June 1998).
2. <: Result is below indicated reporting limit.
   J: Estimated result.
3. Results in **bold** exceed criteria.
4. Sample type codes: N - Normal, FD - Field Duplicate

TABLE VII
Off-Site Groundwater Analytical Results
East Station Former MGP
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Location	NYSDEC TOGS 1.1.1	DW-12-07I	DW-12-07R	DW-12-08R	DW-12-09M	SW-12-01	SW-12-04	SW-12-05	SW-12-06	SW-12-10	SW-12-13
Sample Date	Class GA Water	12/11/2013	12/11/2013	12/11/2013	12/10/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/06/2013	12/06/2013
Sample Type	Quality Standards	N	N	N	N	N	N	N	N	N	N
Sample Name		4527-121113-1310	4552-121113-1310	4552-121113-1040	4527-121013-1650	4527-120913-1500	4552-120913-1500	4552-120913-1300	4527-120913-1300	4552-120613-1200	4527-120613-1530
Inorganic Compounds (mg/L)											
Aluminum	-	< 0.2	0.35	1.4	0.24	2.5	0.35	0.16 J	0.78	0.89	0.57
Antimony	0.003	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Arsenic	0.025	< 0.01	< 0.01	0.0059 J	0.012	0.019	**0.045** [A]	**0.27** [A]	0.013	0.01	0.0092 J
Barium	1	0.067	0.013	**3.1** [A]	0.43	0.22	0.24	0.15	0.19	0.093	0.23
Beryllium	0.003	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Cadmium	0.005	0.00052 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0011	< 0.001
Calcium	-	543	< 9.9	175	257	156	153	157	216	284	131
Chromium	0.05	0.002 J	0.0012 J	0.0043	< 0.004	0.0067	0.0022 J	0.0047	0.0027 J	0.0048	0.0048
Cobalt	-	0.00067 J	< 0.004	0.00069 J	< 0.004	0.0024 J	0.00068 J	0.00073 J	< 0.004	0.0017 J	0.0012 J
Copper	0.2	0.0021 J	0.0045 J	0.0043 J	0.0037 J	0.0097 J	0.0023 J	0.0021 J	0.0042 J	0.0083 J	0.0027 J
Cyanide	0.2	**0.74** [A]	0.076	0.062	0.12	**0.32** [A]	**0.47** [A]	**0.98** [A]	**0.29** [A]	0.14 J	**0.41** [A]
Iron	0.3	**0.67** [A]	**0.79** [A]	**3.5** [A]	**4** [A]	**12.7** [A]	**6.6** [A]	**3.8** [A]	**5.1** [A]	**24.6** [A]	**6.2** [A]
Lead	0.025	0.0041 J	< 0.005	< 0.005	< 0.005	0.0085	< 0.005	< 0.005	0.0049 J	< 0.005	< 0.005
Magnesium	35	**178** [A]	< 1.8	**89.3** [A]	**111** [A]	**73** [A]	**64** [A]	**72** [A]	**102** [A]	**55.2** [A]	**76.1** [A]
Manganese	0.3	0.058	0.015	0.099	0.13	**0.93** [A]	**2.4** [A]	**0.64** [A]	**0.67** [A]	**3.7** [A]	**0.68** [A]
Mercury	0.0007	< 0.0002 J	< 0.0002 J	< 0.0002 J	< 0.0002 J	< 0.0002 J	< 0.0002 J	< 0.0002 J	< 0.0002 J	< 0.0002	< 0.0002 J
Nickel	0.1	< 0.01	0.0015 J	0.0061 J	0.0021 J	0.014	0.0018 J	0.0025 J	0.0016 J	0.0093 J	0.0039 J
Potassium	-	50.2	18.7	24.8	24.6	15.6	11	13.2	14	4.8	8.6
Selenium	0.01	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
Silver	0.05	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
Sodium	20	**259** [A]	**810** [A]	**688** [A]	**448** [A]	**1020** [A]	**725** [A]	**549** [A]	**698** [A]	**35.7** [A]	**390** [A]
Thallium	0.0005	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Vanadium	-	< 0.005	0.0019 J	0.002 J	< 0.005	0.0044 J	< 0.005	0.0024 J	< 0.005	0.0022 J	< 0.005
Zinc	2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.017	< 0.01	< 0.01	< 0.01	0.12	< 0.01
Semi-Volatile Organic Compounds (ug/L)											
2,2'-oxybis(1-Chloropropane)	-	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
2,4,5-Trichlorophenol	-	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7	< 4.9
2,4,6-Trichlorophenol	-	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7	< 4.9
2,4-Dichlorophenol	5	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7	< 4.9
2,4-Dimethylphenol	50	23 J	**90 J** [A]	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7	< 4.9
2,4-Dinitrophenol	10	< 200	< 500	< 490	< 2000	< 11	< 47	< 190	< 10	< 9.5	< 9.9
2,4-Dinitrotoluene	5	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
2,6-Dinitrotoluene	5	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
2-Chloronaphthalene	10	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
2-Chlorophenol	-	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7	< 4.9
2-Methylnaphthalene	-	< 99 J	< 250 J	< 250 J	< 1000 J	< 5.3 J	< 23 J	< 96 J	9.5 J	< 4.7 J	< 4.9 J
2-Methylphenol	-	< 99	120 J	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7	< 4.9
2-Nitroaniline	5	< 200	< 500	< 490	< 2000	< 11	< 47	< 190	< 10	< 9.5 J	< 9.9
2-Nitrophenol	-	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7	< 4.9
3,3'-Dichlorobenzidine	5	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
3-Nitroaniline	5	< 200	< 500	< 490	< 2000	< 11	< 47	< 190	< 10	< 9.5 J	< 9.9
4,6-Dinitro-2-methylphenol	-	< 200	< 500	< 490	< 2000	< 11	< 47	< 190	< 10	< 9.5	< 9.9
4-Bromophenyl phenyl ether	-	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
4-Chloro-3-methylphenol	-	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7	< 4.9
4-Chloroaniline	5	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
4-Chlorophenyl phenyl ether	-	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
4-Methylphenol	-	< 200	32 J	< 490	< 2000	< 11	< 47	< 190	< 10	< 9.5	< 9.9
4-Nitroaniline	5	< 200	< 500	< 490	< 2000	< 11	< 47	< 190	< 10	< 9.5 J	< 9.9
4-Nitrophenol	-	< 200	< 500	< 490	< 2000	< 11	< 47	< 190	< 10	< 9.5	< 9.9
Acenaphthene	20	**150** [A]	< 250	**69 J** [A]	< 1000	< 5.3	**81** [A]	**100** [A]	4.8 J	0.75 J	7.8
Acenaphthylene	-	32 J	66 J	< 250	< 1000	< 5.3	2.8 J	< 96	7.5	< 4.7 J	< 4.9
Acetophenone	-	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Anthracene	50	9.2 J	< 250	< 250	< 1000	< 5.3	< 23	< 96	3.9 J	< 4.7 J	< 4.9
Atrazine	7.5	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Benzaldehyde	-	22 J	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9

TABLE VII
Off-Site Groundwater Analytical Results
East Station Former MGP
Rochester, New York

Location	NYSDEC TOGS 1.1.1	DW-12-07I	DW-12-07R	DW-12-08R	DW-12-09M	SW-12-01	SW-12-04	SW-12-05	SW-12-06	SW-12-10	SW-12-13
Sample Date	Class GA Water	12/11/2013	12/11/2013	12/11/2013	12/10/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/06/2013	12/06/2013
Sample Type	Quality Standards	N	N	N	N	N	N	N	N	N	N
Sample Name		4527-121113-1310	4552-121113-1310	4552-121113-1040	4527-121013-1650	4527-120913-1500	4552-120913-1500	4552-120913-1300	4527-120913-1300	4552-120613-1200	4527-120613-1530
Benzo(a)anthracene	0.002	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	**1.3 J** [A]	< 4.7 J	< 4.9
Benzo(a)pyrene	0	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	0.78 J	< 4.7 J	< 4.9
Benzo(b)fluoranthene	0.002	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Benzo(g,h,i)perylene	-	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Benzo(k)fluoranthene	0.002	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Biphenyl	5	**46 J** [A]	< 250	< 250	< 1000	< 5.3	< 23	< 96	2 J	< 4.7	< 4.9
bis(2-Chloroethoxy)methane	5	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
bis(2-Chloroethyl)ether	1	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
bis(2-Ethylhexyl)phthalate	5	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Butyl benzylphthalate	50	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Caprolactam	-	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Carbazole	-	76 J	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Chrysene	0.002	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	**1.2 J** [A]	< 4.7 J	< 4.9
Dibenz(a,h)anthracene	-	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Dibenzofuran	-	14 J	< 500	< 490	< 2000	< 11	< 47	< 190	0.86 J	0.67 J	< 9.9
Diethyl phthalate	50	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Dimethyl phthalate	50	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Di-n-butylphthalate	50	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	0.33 J	< 4.7 J	< 4.9
Di-n-octyl phthalate	50	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Fluoranthene	50	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	7.8	< 4.7 J	< 4.9
Fluorene	50	43 J	< 250	< 250	< 1000	< 5.3	4.9 J	28 J	9.2	< 4.7 J	< 4.9
Hexachlorobenzene	0.04	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Hexachlorobutadiene	0.5	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Hexachlorocyclopentadiene	5	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Hexachloroethane	5	< 99 J	< 250 J	< 250 J	< 1000 J	< 5.3 J	< 23 J	< 96 J	< 5.1 J	< 4.7 J	< 4.9 J
Indeno(1,2,3-cd)pyrene	0.002	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Isophorone	50	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
Naphthalene	10	**1300** [A]	**2900** [A]	**4800** [A]	**8600** [A]	< 5.3	8 J	**540** [A]	**25** [A]	< 4.7 J	**12** [A]
Nitrobenzene	0.4	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
N-Nitrosodi-n-propylamine	-	< 99	< 250	< 250	< 1000	< 5.3	< 23	< 96	< 5.1	< 4.7 J	< 4.9
N-Nitrosodiphenylamine	50	< 99 J	< 250 J	< 250 J	< 1000 J	< 5.3 J	< 23 J	< 96 J	< 5.1 J	< 4.7 J	< 4.9 J
Pentachlorophenol	1	< 200	< 500	< 490	< 2000	< 11	< 47	< 190	< 10	< 9.5 J	< 9.9
Phenanthrene	50	**52 J** [A]	< 250	< 250	< 1000	< 5.3	< 23	35 J	21	< 4.7 J	< 4.9
Phenol	1	< 99	**54 J** [A]	< 250	< 1000	< 5.3	< 23	**19 J** [A]	< 5.1	< 4.7	< 4.9
Pyrene	50	< 99	< 250	< 250	< 1000	< 5.3	< 23	7.2 J	11	< 4.7 J	< 4.9
Volatile Organic Compounds (ug/L)											
1,1,1-Trichloroethane	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
1,1,2-Trichloroethane	1	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
1,1-Dichloroethane	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
1,1-Dichloroethene	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
1,2,4-Trichlorobenzene	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane (DBCP)	0.04	< 10	< 2	**18** [A]	< 2	< 2	< 1	< 10	< 1	< 1	< 1
1,2-Dibromoethane (Ethylene Dibromide)	0.0006	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
1,2-Dichlorobenzene	3	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
1,2-Dichloroethane	0.6	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
1,2-Dichloropropane	1	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
1,3-Dichlorobenzene	3	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
1,4-Dichlorobenzene	3	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
2-Butanone (Methyl Ethyl Ketone)	50	< 100	< 20	< 100	< 20	< 20	< 10	< 100	< 10	< 10	< 10
2-Hexanone	50	< 50	< 10	< 50	< 10	< 10	< 5	< 50	< 5	< 5	< 5
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	< 50	< 10	< 50	< 10	< 10	< 5	< 50	< 5	< 5	< 5
Acetone	50	< 100	< 20	< 100	14 J	< 20	< 10	< 100	< 10	3.6 J	< 10
Benzene	1	**23000** [A]	**3600** [A]	**1000** [A]	**3900** [A]	**91** [A]	0.52 J	**840** [A]	**8.6** [A]	0.44 J	**2.4** [A]
Bromodichloromethane	50	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Bromoform	50	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1 J	< 1

TABLE VII
Off-Site Groundwater Analytical Results
East Station Former MGP
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Location	NYSDEC TOGS 1.1.1	DW-12-07I	DW-12-07R	DW-12-08R	DW-12-09M	SW-12-01	SW-12-04	SW-12-05	SW-12-06	SW-12-10	SW-12-13
Sample Date	Class GA Water	12/11/2013	12/11/2013	12/11/2013	12/10/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/06/2013	12/06/2013
Sample Type	Quality Standards	N	N	N	N	N	N	N	N	N	N
Sample Name		4527-121113-1310	4552-121113-1310	4552-121113-1040	4527-121013-1650	4527-120913-1500	4552-120913-1500	4552-120913-1300	4527-120913-1300	4552-120613-1200	4527-120613-1530
Bromomethane (Methyl Bromide)	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Carbon disulfide	60	< 10	7.8	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Carbon tetrachloride	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Chlorobenzene	5	< 10	< 2	< 10	4.3	< 2	< 1	< 10	< 1	< 1	< 1
Chloroethane	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Chloroform (Trichloromethane)	7	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Chloromethane (Methyl Chloride)	5	**22** [A]	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
cis-1,2-Dichloroethene	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	0.9 J	< 1	< 1
cis-1,3-Dichloropropene	0.4	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Cyclohexane	-	< 10	34	< 10	2.1	14	< 1	65	< 1	< 1	< 1
Dibromochloromethane	50	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Dichlorodifluoromethane (CFC-12)	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Ethylbenzene	5	**710** [A]	**2100** [A]	**1300** [A]	**3300** [A]	< 2	< 1	**470** [A]	0.85 J	< 1	1.7
Isopropylbenzene	5	< 10	**70** [A]	**58** [A]	**71** [A]	5	< 1	**34** [A]	< 1	0.83 J	< 1
Methyl acetate	-	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Methyl cyclohexane	-	< 10	37	3.8 J	1.4 J	< 2	< 1	< 10	0.5 J	< 1	< 1
Methyl Tert Butyl Ether	-	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Methylene chloride	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Styrene	5	< 10	< 2	**21** [A]	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Tetrachloroethene	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Toluene	5	**7100** [A]	**130** [A]	**260** [A]	**240** [A]	< 2	< 1	< 10	1.2	< 1 J	< 1
trans-1,2-Dichloroethene	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
trans-1,3-Dichloropropene	0.4	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Trichloroethene	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Trichlorofluoromethane (CFC-11)	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Trifluorotrichloroethane (Freon 113)	5	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Vinyl chloride	2	< 10	< 2	< 10	< 2	< 2	< 1	< 10	< 1	< 1	< 1
Xylene (total)	5	**1000** [A]	**1100** [A]	**1100** [A]	**2900** [A]	2.2 J	< 2	**88** [A]	2.7	< 2	1.1 J

Notes:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than TOGS Water Quality Standards, Table 1, Class GA (June 1998).
2. <: Result is below indicated reporting limit.
   J: Estimated result.
3. Results in **bold** exceed criteria.
4. Sample type codes: N - Normal, FD - Field Duplicate

TABLE VII
Off-Site Groundwater Analytical Results
East Station Former MGP
Rochester, New York

Location	NYSDEC TOGS 1.1.1	SW-12-20	SW-12-21
Sample Date	Class GA Water	12/11/2013	12/09/2013
Sample Type	Quality Standards	N	N
Sample Name		4527-121113-1005	4552-120913-1700
Inorganic Compounds (mg/L)			
Aluminum	-	0.54	0.23
Antimony	0.003	< 0.02	< 0.02
Arsenic	0.025	< 0.01	0.011
Barium	1	0.47	0.12
Beryllium	0.003	< 0.002	< 0.002
Cadmium	0.005	< 0.001	0.00099 J
Calcium	-	171	96.2
Chromium	0.05	0.0019 J	0.0037 J
Cobalt	-	< 0.004	0.0058
Copper	0.2	0.0029 J	0.023
Cyanide	0.2	0.074	0.011
Iron	0.3	**1.3** [A]	**1.4** [A]
Lead	0.025	< 0.005	0.01
Magnesium	35	**74** [A]	**41.9** [A]
Manganese	0.3	0.22	0.3
Mercury	0.0007	< 0.0002 J	< 0.0002 J
Nickel	0.1	0.0086 J	0.018
Potassium	-	11.1	23.2
Selenium	0.01	< 0.015	< 0.015
Silver	0.05	< 0.003	< 0.003
Sodium	20	**872** [A]	**902** [A]
Thallium	0.0005	< 0.02	< 0.02
Vanadium	-	< 0.005	0.0043 J
Zinc	2	< 0.01	0.048
Semi-Volatile Organic Compounds (ug/L)			
2,2'-oxybis(1-Chloropropane)	-	< 4.8	< 4.9
2,4,5-Trichlorophenol	-	< 4.8	< 4.9
2,4,6-Trichlorophenol	-	< 4.8	< 4.9
2,4-Dichlorophenol	5	< 4.8	< 4.9
2,4-Dimethylphenol	50	< 4.8	< 4.9
2,4-Dinitrophenol	10	< 9.7	< 9.8
2,4-Dinitrotoluene	5	< 4.8	< 4.9
2,6-Dinitrotoluene	5	< 4.8	< 4.9
2-Chloronaphthalene	10	< 4.8	< 4.9
2-Chlorophenol	-	< 4.8	< 4.9
2-Methylnaphthalene	-	< 4.8 J	< 4.9 J
2-Methylphenol	-	< 4.8	< 4.9
2-Nitroaniline	5	< 9.7	< 9.8
2-Nitrophenol	-	< 4.8	< 4.9
3,3'-Dichlorobenzidine	5	< 4.8	< 4.9
3-Nitroaniline	5	< 9.7	< 9.8
4,6-Dinitro-2-methylphenol	-	< 9.7	< 9.8
4-Bromophenyl phenyl ether	-	< 4.8	< 4.9
4-Chloro-3-methylphenol	-	< 4.8	< 4.9
4-Chloroaniline	5	< 4.8	< 4.9
4-Chlorophenyl phenyl ether	-	< 4.8	< 4.9
4-Methylphenol	-	< 9.7	< 9.8
4-Nitroaniline	5	< 9.7	< 9.8
4-Nitrophenol	-	< 9.7	< 9.8
Acenaphthene	20	**110** [A]	< 4.9
Acenaphthylene	-	1.4 J	< 4.9
Acetophenone	-	< 4.8	< 4.9
Anthracene	50	4.4 J	< 4.9
Atrazine	7.5	< 4.8	< 4.9
Benzaldehyde	-	< 4.8	< 4.9

TABLE VII
Off-Site Groundwater Analytical Results
East Station Former MGP
Rochester, New York

Location	NYSDEC TOGS 1.1.1	SW-12-20	SW-12-21
Sample Date	Class GA Water	12/11/2013	12/09/2013
Sample Type	Quality Standards	N	N
Sample Name		4527-121113-1005	4552-120913-1700
Benzo(a)anthracene	0.002	**0.93 J [A]**	**0.38 J [A]**
Benzo(a)pyrene	0	0.52 J	< 4.9
Benzo(b)fluoranthene	0.002	< 4.8	< 4.9
Benzo(g,h,i)perylene	-	< 4.8	< 4.9
Benzo(k)fluoranthene	0.002	< 4.8	< 4.9
Biphenyl	5	**6 [A]**	< 4.9
bis(2-Chloroethoxy)methane	5	< 4.8	< 4.9
bis(2-Chloroethyl)ether	1	< 4.8	< 4.9
bis(2-Ethylhexyl)phthalate	5	< 4.8	**21 [A]**
Butyl benzylphthalate	50	< 4.8	< 4.9
Caprolactam	-	< 4.8	< 4.9
Carbazole	-	2.5 J	< 4.9
Chrysene	0.002	**0.7 J [A]**	**0.4 J [A]**
Dibenz(a,h)anthracene	-	< 4.8	< 4.9
Dibenzofuran	-	2.4 J	< 9.8
Diethyl phthalate	50	< 4.8	< 4.9
Dimethyl phthalate	50	< 4.8	< 4.9
Di-n-butylphthalate	50	< 4.8	0.38 J
Di-n-octyl phthalate	50	< 4.8	< 4.9
Fluoranthene	50	3.2 J	0.7 J
Fluorene	50	14	< 4.9
Hexachlorobenzene	0.04	< 4.8	< 4.9
Hexachlorobutadiene	0.5	< 4.8	< 4.9
Hexachlorocyclopentadiene	5	< 4.8	< 4.9
Hexachloroethane	5	< 4.8 J	< 4.9 J
Indeno(1,2,3-cd)pyrene	0.002	< 4.8	< 4.9
Isophorone	50	< 4.8	< 4.9
Naphthalene	10	**32 [A]**	< 4.9
Nitrobenzene	0.4	< 4.8	< 4.9
N-Nitrosodi-n-propylamine	-	< 4.8	< 4.9
N-Nitrosodiphenylamine	50	< 4.8 J	< 4.9 J
Pentachlorophenol	1	< 9.7	< 9.8
Phenanthrene	50	20	< 4.9
Phenol	1	< 4.8	< 4.9
Pyrene	50	4.1 J	0.87 J
Volatile Organic Compounds (ug/L)			
1,1,1-Trichloroethane	5	< 2	< 1
1,1,2,2-Tetrachloroethane	5	< 2	< 1
1,1,2-Trichloroethane	1	< 2	< 1
1,1-Dichloroethane	5	< 2	< 1
1,1-Dichloroethene	5	< 2	< 1
1,2,4-Trichlorobenzene	5	< 2	< 1
1,2-Dibromo-3-chloropropane (DBCP)	0.04	< 2	< 1
1,2-Dibromoethane (Ethylene Dibromide)	0.0006	< 2	< 1
1,2-Dichlorobenzene	3	< 2	< 1
1,2-Dichloroethane	0.6	< 2	< 1
1,2-Dichloropropane	1	< 2	< 1
1,3-Dichlorobenzene	3	< 2	< 1
1,4-Dichlorobenzene	3	< 2	< 1
2-Butanone (Methyl Ethyl Ketone)	50	< 20	< 10
2-Hexanone	50	< 10	< 5
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	< 10	< 5
Acetone	50	< 20	< 10
Benzene	1	**140 [A]**	< 1
Bromodichloromethane	50	< 2	< 1
Bromoform	50	< 2	< 1

TABLE VII
Off-Site Groundwater Analytical Results
East Station Former MGP
Rochester, New York

Location Sample Date Sample Type Sample Name	NYSDEC TOGS 1.1.1 Class GA Water Quality Standards	SW-12-20 12/11/2013 N 4527-121113-1005	SW-12-21 12/09/2013 N 4552-120913-1700
Bromomethane (Methyl Bromide)	5	< 2	< 1
Carbon disulfide	60	< 2	< 1
Carbon tetrachloride	5	< 2	< 1
Chlorobenzene	5	< 2	< 1
Chloroethane	5	< 2	< 1
Chloroform (Trichloromethane)	7	< 2	< 1
Chloromethane (Methyl Chloride)	5	< 2	< 1
cis-1,2-Dichloroethene	5	< 2	< 1
cis-1,3-Dichloropropene	0.4	< 2	< 1
Cyclohexane	-	< 2	< 1
Dibromochloromethane	50	< 2	< 1
Dichlorodifluoromethane (CFC-12)	5	< 2	< 1
Ethylbenzene	5	**16** [A]	< 1
Isopropylbenzene	5	**12** [A]	< 1
Methyl acetate	-	< 2	< 1
Methyl cyclohexane	-	1 J	< 1
Methyl Tert Butyl Ether	-	< 2	< 1
Methylene chloride	5	< 2	< 1
Styrene	5	< 2	< 1
Tetrachloroethene	5	< 2	< 1
Toluene	5	1.2 J	< 1
trans-1,2-Dichloroethene	5	< 2	< 1
trans-1,3-Dichloropropene	0.4	< 2	< 1
Trichloroethene	5	< 2	< 1
Trichlorofluoromethane (CFC-11)	5	< 2	< 1
Trifluorotrichloroethane (Freon 113)	5	< 2	< 1
Vinyl chloride	2	< 2	< 1
Xylene (total)	5	< 4	< 2

Notes:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than TOGS Water Quality Standards, Table 1, Class GA (June 1998).
2. <: Result is below indicated reporting limit.
   J: Estimated result.
3. Results in **bold** exceed criteria.
4. Sample type codes: N - Normal, FD - Field Duplicate

LEGEND:

- SOIL BORING LOCATION
  SB = SOIL BORING
- SOIL BORING/OVERBURDEN MONITORING WELL LOCATION
  SW = SHALLOW (OVERBURDEN) WELL
- BEDROCK MONITORING WELL LOCATION
  BR = BEDROCK CORING, DW = DEEP (BEDROCK) WELL

N
W
E
S

0 80 160
SCALE IN FEET

HALEY & ALDRICH

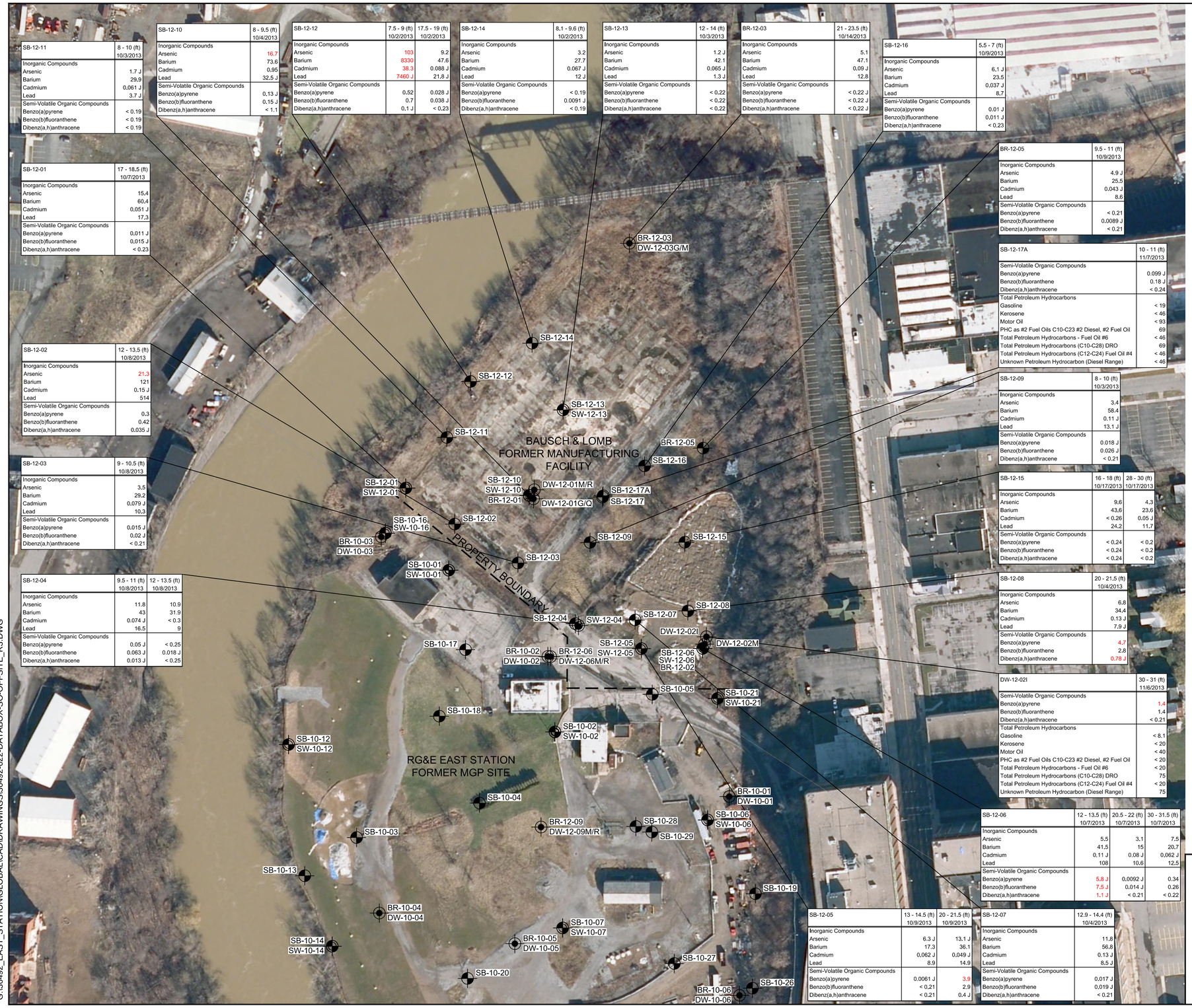
RG&E EAST STATION FORMER MGP SITE
ROCHESTER, NEW YORK

OFF-SITE OVERBURDEN AND BEDROCK EXPLORATION LOCATIONS

SCALE: AS SHOWN
FEBRUARY 2014

FIGURE 1

G:\36492_EAST_STATION\GLOBAL\CAD\DRAWINGS\36492-022-LOCATION-PLAN_R1.DWG



SB-12-11	8 - 10 (ft) 10/3/2013
Inorganic Compounds	
Arsenic	1.7 J
Barium	29.9
Cadmium	0.061 J
Lead	3.7 J
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	< 0.19
Benzo(b)fluoranthene	< 0.19
Dibenz(a,h)anthracene	< 0.19

SB-12-10	8 - 9.5 (ft) 10/4/2013
Inorganic Compounds	
Arsenic	16.7
Barium	73.6
Cadmium	0.95
Lead	32.5 J
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	0.13 J
Benzo(b)fluoranthene	0.15 J
Dibenz(a,h)anthracene	< 1.1

SB-12-12	7.5 - 9 (ft) 10/2/2013	17.5 - 19 (ft) 10/2/2013
Inorganic Compounds		
Arsenic	103	9.2
Barium	8330	47.6
Cadmium	38.3	0.088 J
Lead	7460 J	21.8 J
Semi-Volatile Organic Compounds		
Benzo(a)pyrene	0.52	0.028 J
Benzo(b)fluoranthene	0.7	0.038 J
Dibenz(a,h)anthracene	0.1 J	< 0.23

SB-12-14	8.1 - 9.6 (ft) 10/2/2013
Inorganic Compounds	
Arsenic	3.2
Barium	27.7
Cadmium	0.067 J
Lead	12 J
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	< 0.19
Benzo(b)fluoranthene	0.0091 J
Dibenz(a,h)anthracene	< 0.19

SB-12-13	12 - 14 (ft) 10/3/2013
Inorganic Compounds	
Arsenic	1.2 J
Barium	42.1
Cadmium	0.065 J
Lead	1.3 J
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	< 0.22
Benzo(b)fluoranthene	< 0.22
Dibenz(a,h)anthracene	< 0.22

BR-12-03	21 - 23.5 (ft) 10/14/2013
Inorganic Compounds	
Arsenic	5.1
Barium	47.1
Cadmium	0.09 J
Lead	12.8
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	< 0.22 J
Benzo(b)fluoranthene	< 0.22 J
Dibenz(a,h)anthracene	< 0.22 J

SB-12-16	5.5 - 7 (ft) 10/9/2013
Inorganic Compounds	
Arsenic	6.1 J
Barium	23.5
Cadmium	0.037 J
Lead	8.7
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	0.01 J
Benzo(b)fluoranthene	0.011 J
Dibenz(a,h)anthracene	< 0.23

SB-12-01	17 - 18.5 (ft) 10/7/2013
Inorganic Compounds	
Arsenic	15.4
Barium	60.4
Cadmium	0.051 J
Lead	17.3
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	0.011 J
Benzo(b)fluoranthene	0.015 J
Dibenz(a,h)anthracene	< 0.23

SB-12-02	12 - 13.5 (ft) 10/8/2013
Inorganic Compounds	
Arsenic	21.3
Barium	121
Cadmium	0.15 J
Lead	514
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	0.3
Benzo(b)fluoranthene	0.42
Dibenz(a,h)anthracene	0.035 J

SB-12-03	9 - 10.5 (ft) 10/8/2013
Inorganic Compounds	
Arsenic	3.5
Barium	29.2
Cadmium	0.079 J
Lead	10.3
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	0.015 J
Benzo(b)fluoranthene	0.02 J
Dibenz(a,h)anthracene	< 0.21

SB-12-04	9.5 - 11 (ft) 10/8/2013	12 - 13.5 (ft) 10/8/2013
Inorganic Compounds		
Arsenic	11.8	10.9
Barium	43	31.9
Cadmium	0.074 J	< 0.3
Lead	16.5	9
Semi-Volatile Organic Compounds		
Benzo(a)pyrene	0.05 J	< 0.25
Benzo(b)fluoranthene	0.063 J	0.018 J
Dibenz(a,h)anthracene	0.013 J	< 0.25

BR-12-05	9.5 - 11 (ft) 10/9/2013
Inorganic Compounds	
Arsenic	4.9 J
Barium	25.5
Cadmium	0.043 J
Lead	8.6
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	< 0.21
Benzo(b)fluoranthene	0.0089 J
Dibenz(a,h)anthracene	< 0.21

SB-12-17A	10 - 11 (ft) 11/7/2013
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	0.099 J
Benzo(b)fluoranthene	0.18 J
Dibenz(a,h)anthracene	< 0.24
Total Petroleum Hydrocarbons	
Gasoline	< 19
Kerosene	< 46
Motor Oil	< 93
PHC as #2 Fuel Oils C10-C23 #2 Diesel, #2 Fuel Oil	69
Total Petroleum Hydrocarbons - Fuel Oil #6	< 46
Total Petroleum Hydrocarbons (C10-C28) DRO	69
Total Petroleum Hydrocarbons (C12-C24) Fuel Oil #4	< 46
Unknown Petroleum Hydrocarbon (Diesel Range)	< 46

SB-12-09	8 - 10 (ft) 10/3/2013
Inorganic Compounds	
Arsenic	3.4
Barium	58.4
Cadmium	0.11 J
Lead	13.1 J
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	0.018 J
Benzo(b)fluoranthene	0.026 J
Dibenz(a,h)anthracene	< 0.21

SB-12-15	16 - 18 (ft) 10/17/2013	28 - 30 (ft) 10/17/2013
Inorganic Compounds		
Arsenic	9.6	4.3
Barium	43.6	23.6
Cadmium	< 0.26	0.05 J
Lead	24.2	11.7
Semi-Volatile Organic Compounds		
Benzo(a)pyrene	< 0.24	< 0.2
Benzo(b)fluoranthene	< 0.24	< 0.2
Dibenz(a,h)anthracene	< 0.24	< 0.2

SB-12-08	20 - 21.5 (ft) 10/4/2013
Inorganic Compounds	
Arsenic	6.8
Barium	34.4
Cadmium	0.13 J
Lead	7.9 J
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	4.7
Benzo(b)fluoranthene	2.8
Dibenz(a,h)anthracene	0.78 J

DW-12-02I	30 - 31 (ft) 11/6/2013
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	1.4
Benzo(b)fluoranthene	1.4
Dibenz(a,h)anthracene	< 0.21
Total Petroleum Hydrocarbons	
Gasoline	< 8.1
Kerosene	< 20
Motor Oil	< 40
PHC as #2 Fuel Oils C10-C23 #2 Diesel, #2 Fuel Oil	< 20
Total Petroleum Hydrocarbons - Fuel Oil #6	< 20
Total Petroleum Hydrocarbons (C10-C28) DRO	75
Total Petroleum Hydrocarbons (C12-C24) Fuel Oil #4	< 20
Unknown Petroleum Hydrocarbon (Diesel Range)	75

SB-12-06	12 - 13.5 (ft) 10/7/2013	20.5 - 22 (ft) 10/7/2013	30 - 31.5 (ft) 10/7/2013
Inorganic Compounds			
Arsenic	5.5	3.1	7.5
Barium	41.5	15	20.7
Cadmium	0.11 J	0.08 J	0.062 J
Lead	108	10.6	12.5
Semi-Volatile Organic Compounds			
Benzo(a)pyrene	5.8 J	0.0092 J	0.34
Benzo(b)fluoranthene	7.5 J	0.014 J	0.26
Dibenz(a,h)anthracene	1.1 J	< 0.21	< 0.22

SB-12-05	13 - 14.5 (ft) 10/9/2013	20 - 21.5 (ft) 10/9/2013
Inorganic Compounds		
Arsenic	6.3 J	13.1 J
Barium	17.3	36.1
Cadmium	0.062 J	0.049 J
Lead	8.9	14.9
Semi-Volatile Organic Compounds		
Benzo(a)pyrene	0.0061 J	3.9
Benzo(b)fluoranthene	< 0.21	2.9
Dibenz(a,h)anthracene	< 0.21	0.4 J

SB-12-07	12.9 - 14.4 (ft) 10/4/2013
Inorganic Compounds	
Arsenic	11.8
Barium	56.8
Cadmium	0.13 J
Lead	8.5 J
Semi-Volatile Organic Compounds	
Benzo(a)pyrene	0.017 J
Benzo(b)fluoranthene	0.019 J
Dibenz(a,h)anthracene	< 0.21

LEGEND:

SOIL BORING LOCATION
SB = SOIL BORING

SOIL BORING/OVERBURDEN MONITORING WELL LOCATION
SW = SHALLOW (OVERBURDEN) WELL

BEDROCK MONITORING WELL LOCATION
BR = BEDROCK CORING, DW = DEEP (BEDROCK) WELL

NOTES:

1. DATABOX UNITS ARE MG/KG.
2. CHEMICALS SHOWN ARE THOSE THAT EXCEED CRITERIA IN ONE OR MORE SAMPLES SHOWN. HYDROCARBON FINGERPRINT RESULTS ARE SHOWN FOR DW-12-02I AND SB-12-17A. SEE SUMMARY TABLE FOR ALL RESULTS.
3. RESULTS WERE SCREENED AGAINST NYSDEC RESTRICTED USE SOIL CLEANUP OBJECTIVE FOR COMMERCIAL. EXCEEDANCES ARE SHOWN IN RED.
4. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT

	NYSDEC Restricted Use Soil Cleanup Objective for Commercial
Inorganic Compounds (mg/kg)	
Arsenic	16
Barium	400
Cadmium	9.3
Lead	1000
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)pyrene	1
Benzo(b)fluoranthene	5.6
Dibenz(a,h)anthracene	0.56

N
W
E
S

0 80 160 240 320
SCALE IN FEET

HALEY & ALDRICH

RG&E EAST STATION FORMER MGP SITE
ROCHESTER, NEW YORK

OFF-SITE SOIL ANALYTICAL RESULTS

SCALE: AS SHOWN
FEBRUARY 2014

FIGURE 2

G:\36492_EAST_STATION\GLOBAL\CAD\DRAWINGS\36492-022-DATABOX-SO-OFFSITE_R3.DWG

G:\36492_EAST_STATION\GLOBAL\CAD\DRAWINGS\36492-022-CONTOURS-TOR-2013_R2.DWG

LEGEND:

- SOIL BORING LOCATION
- TARGOST LOCATION
- BEDROCK BORING LOCATION
- TOP OF BEDROCK ELEVATION CONTOUR LINE
- BEDROCK CROSS-SECTION A - A'

NOTES:

1. CONTOURS CREATED WITH ARCGIS SPATIAL ANALYST SPLINE METHOD. ACTUAL ELEVATIONS BETWEEN LOCATIONS MAY VARY.

N W E S

0 120 240

SCALE IN FEET

HALEY & ALDRICH

EAST STATION FORMER MGP
ROCHESTER, NEW YORK

TOP OF BEDROCK ELEVATION CONTOURS

SCALE: AS SHOWN
FEBRUARY 2013

FIGURE 3

A

A'

ELEVATION IN FEET

440
425
410
395
380
365
350
335
320
305
290
275
260
245
230

BR-12-03
ELEV. 399.2
OFFSET

BR-12-01
ELEV. 401.3

BR-10-03
ELEV.398.95

BR-12-02
ELEV. 421.0
OFFSET
ELEV. 406.7

BR-12-06

BR-10-02
ELEV. 406.54

BR-10-01
ELEV. 418.48

BR-12-09
ELEV. 413.9

ELEV. 409.35
OFFSET

BR-10-04

BR-10-05
ELEV. 419.01

BR-10-06
ELEV. 424.59

BR-10-09
ELEV. 438.71

BR-10-08
ELEV. 426.8

BR-12-07

BR-10-07
ELEV. 427.13

BR-12-08
ELEV. 414.90
ELEV. 414.4

OVERBURDEN

ROCHESTER SHALE

IRONDEQUOIT LIMESTONE

WILLIAMSON SHALE

LOWER SODUS SHALE

REYNALES LIMESTONE

MAPLEWOOD SHALE

KODAK SANDSTONE

GRIMSBY SANDSTONE

QUEENSTON SHALE

LEGEND:

POTENTIAL MGP-IMPACTED ZONE

- ODOR
- SHEEN
- MINOR NAPL OBSERVED
- NAPL OBSERVED

WELL SCREEN

NOTES:

1. BEDROCK BORINGS COMPLETED BY HALEY & ALDRICH OF NEW YORK.
2. BEDROCK FORMATION TRANSITIONS (DASHED LINES) ARE APPROXIMATE.
3. OFF-SITE BEDROCK CORING LOCATIONS COMPLETED IN OCTOBER AND NOVEMBER 2013 ARE HIGHLIGHTED IN BLUE.
4. CROSS-SECTION LOCATION IS SHOWN ON FIGURE 3.

HORIZ. 0 60 120 180
VERT. 0 15 30 45
SCALE IN FEET

HALEY & ALDRICH

RG&E EAST STATION FORMER MGP SITE
ROCHESTER, NEW YORK

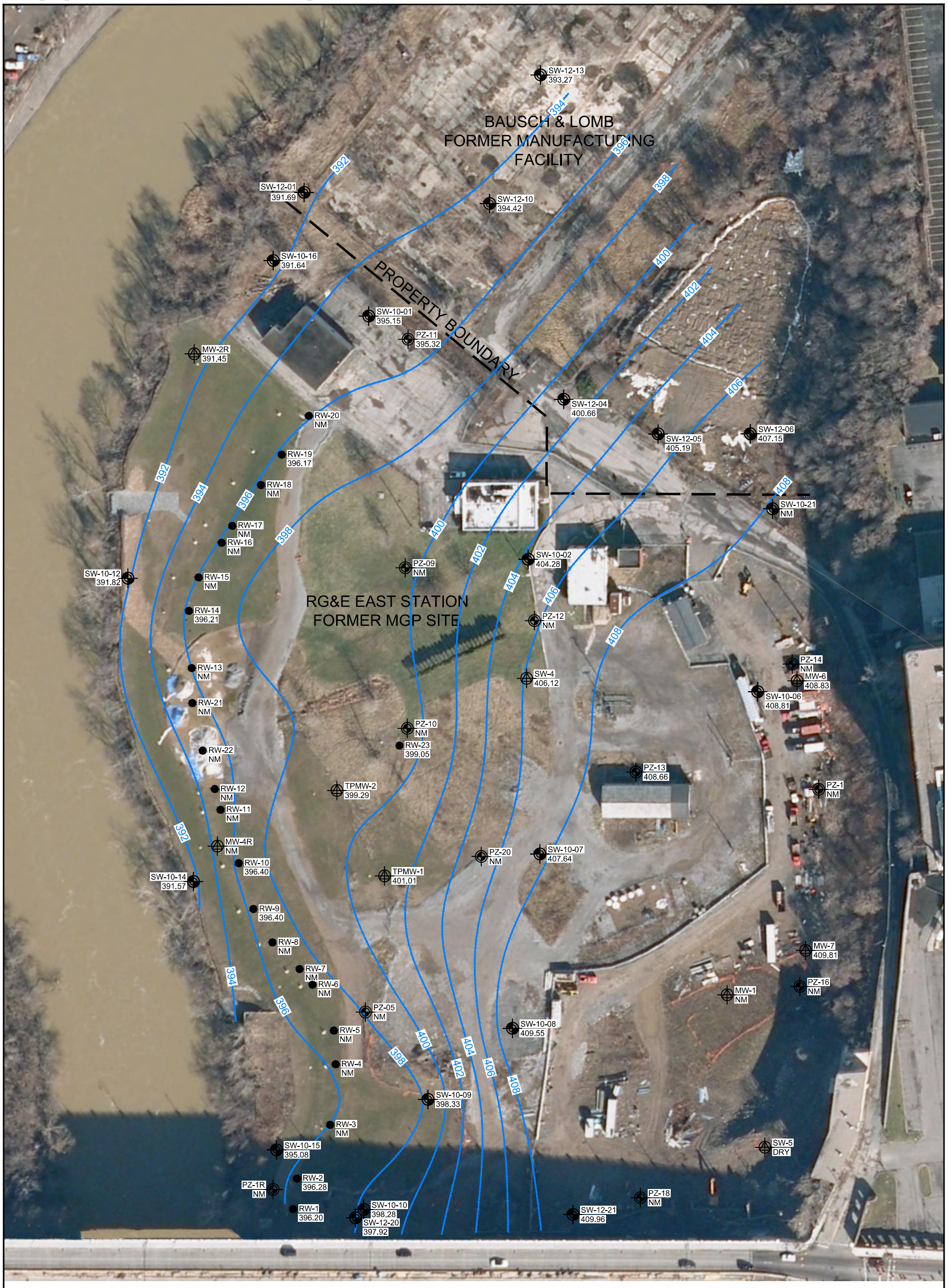
BEDROCK CROSS-SECTION A - A'

SCALE: AS SHOWN
FEBRUARY 2013

FIGURE 4

\\MANICOMMON\36492_EAST_STATION\GLOBAL\CAD\DRAWINGS\36492-034-0032-BEDR XSEC [2013-1107].DWG

G:\36492_EAST_STATION\GLOBAL\CAD\DRAWINGS\36492-022-CONTOURS-2013_R3.DWG



LEGEND:

- EXISTING OVERBURDEN GROUNDWATER MONITORING WELL
- EXISTING PIEZOMETER LOCATION
- EXISTING NAPL RECOVERY/MONITORING WELL
- OVERBURDEN MONITORING WELL LOCATION (2011)
- OVERBURDEN GROUNDWATER ELEVATION CONTOUR LINE

NOTES:

1. DEPTH TO WATER MEASURED BY HALEY & ALDRICH OF NEW YORK ON 2 DECEMBER 2013..
2. PIEZOMETERS PZ-1, PZ-05, AND PZ-14 NOT USED FOR CREATING CONTOURS.
3. CONTOURS CREATED WITH ARCGIS SPATIAL ANALYST SPLINE METHOD. ACTUAL GROUNDWATER ELEVATIONS BETWEEN WELL LOCATIONS MAY VARY.
4. NM: NOT MEASURED.

N W E S

0 100 200

SCALE IN FEET

HALEY & ALDRICH

EAST STATION FORMER MGP
ROCHESTER, NEW YORK

OVERBURDEN GROUNDWATER ELEVATION CONTOUR PLAN DECEMBER 2013

SCALE: AS SHOWN
FEBRUARY 2013

FIGURE 5

G:\36492_EAST_STATION\GLOBAL\CAD\DRAWINGS\36492-022-CONTOURS-2013_R3.DWG

LEGEND:

BEDROCK GROUNDWATER MONITORING WELL

NOTES:

1. DEPTH TO WATER MEASURED BY HALEY & ALDRICH OF NEW YORK ON 2 DECEMBER 2013.
2. NM: NOT MEASURED.

N W E S

0 100 200

SCALE IN FEET

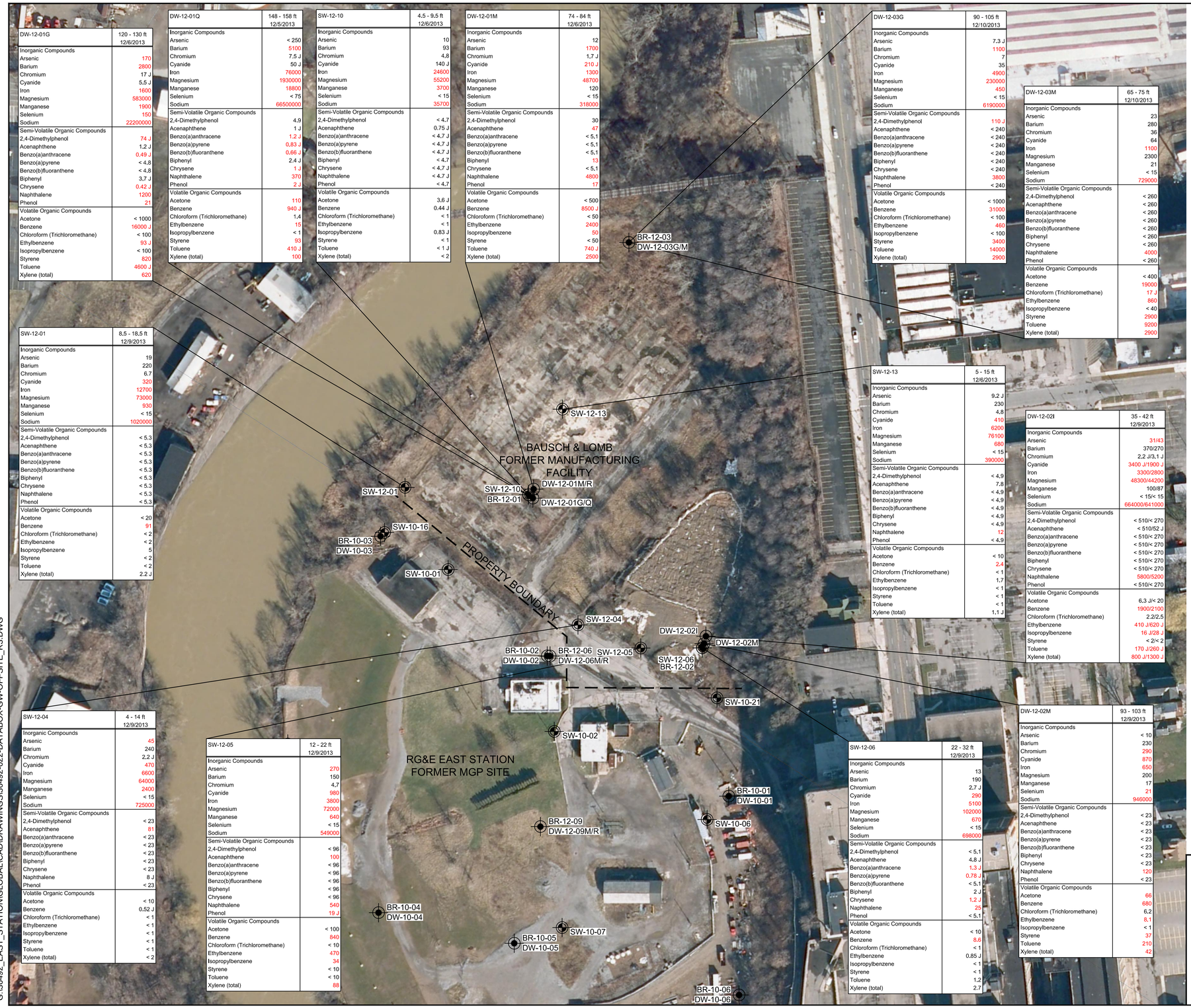
HALEY & ALDRICH

EAST STATION FORMER MGP
ROCHESTER, NEW YORK

BEDROCK GROUNDWATER ELEVATION POSTING MAP DECEMBER 2013

SCALE: AS SHOWN
FEBRUARY 2013

FIGURE 6



DW-12-01G	120 - 130 ft 12/6/2013
Inorganic Compounds	
Arsenic	170
Barium	2800
Chromium	17 J
Cyanide	5.5 J
Iron	1600
Magnesium	583000
Manganese	1900
Selenium	150
Sodium	22200000
Semi-Volatile Organic Compounds	
2,4-Dimethylphenol	74 J
Acenaphthene	1.2 J
Benzo(a)anthracene	0.49 J
Benzo(a)pyrene	< 4.8
Benzo(b)fluoranthene	< 4.8
Biphenyl	3.7 J
Chrysene	0.42 J
Naphthalene	1200
Phenol	21
Volatile Organic Compounds	
Acetone	< 1000
Benzene	16000 J
Chloroform (Trichloromethane)	< 100
Ethylbenzene	93 J
Isopropylbenzene	< 100
Styrene	820
Toluene	4600 J
Xylene (total)	620

DW-12-01Q	148 - 158 ft 12/5/2013
Inorganic Compounds	
Arsenic	< 250
Barium	5100
Chromium	7.5 J
Cyanide	50 J
Iron	76000
Magnesium	1930000
Manganese	1880
Selenium	< 75
Sodium	66500000
Semi-Volatile Organic Compounds	
2,4-Dimethylphenol	4.9
Acenaphthene	1 J
Benzo(a)anthracene	1.2 J
Benzo(a)pyrene	0.83 J
Benzo(b)fluoranthene	0.66 J
Biphenyl	2.4 J
Chrysene	1 J
Naphthalene	370
Phenol	2 J
Volatile Organic Compounds	
Acetone	110
Benzene	940 J
Chloroform (Trichloromethane)	1.4
Ethylbenzene	15
Isopropylbenzene	< 1
Styrene	93
Toluene	410 J
Xylene (total)	100

SW-12-10	4.5 - 9.5 ft 12/6/2013
Inorganic Compounds	
Arsenic	10
Barium	93
Chromium	4.8
Cyanide	140 J
Iron	24600
Magnesium	55200
Manganese	3700
Selenium	< 15
Sodium	35700
Semi-Volatile Organic Compounds	
2,4-Dimethylphenol	< 4.7
Acenaphthene	0.75 J
Benzo(a)anthracene	< 4.7 J
Benzo(a)pyrene	< 4.7 J
Benzo(b)fluoranthene	< 4.7 J
Biphenyl	< 4.7
Chrysene	< 4.7 J
Naphthalene	< 4.7 J
Phenol	< 4.7
Volatile Organic Compounds	
Acetone	3.6 J
Benzene	0.44 J
Chloroform (Trichloromethane)	< 1
Ethylbenzene	< 1
Isopropylbenzene	0.83 J
Styrene	< 1
Toluene	< 1 J
Xylene (total)	< 2

DW-12-01M	74 - 84 ft 12/6/2013
Inorganic Compounds	
Arsenic	12
Barium	1700
Chromium	1.7 J
Cyanide	210 J
Iron	1300
Magnesium	48700
Manganese	120
Selenium	< 15
Sodium	318000
Semi-Volatile Organic Compounds	
2,4-Dimethylphenol	30
Acenaphthene	47
Benzo(a)anthracene	< 5.1
Benzo(a)pyrene	< 5.1
Benzo(b)fluoranthene	< 5.1
Biphenyl	13
Chrysene	< 5.1
Naphthalene	4800
Phenol	17
Volatile Organic Compounds	
Acetone	< 500
Benzene	8500 J
Chloroform (Trichloromethane)	< 50
Ethylbenzene	2400
Isopropylbenzene	50
Styrene	< 50
Toluene	740 J
Xylene (total)	2500

DW-12-03G	90 - 105 ft 12/10/2013
Inorganic Compounds	
Arsenic	7.3 J
Barium	1100
Chromium	7
Cyanide	35
Iron	4900
Magnesium	230000
Manganese	450
Selenium	< 15
Sodium	6190000
Semi-Volatile Organic Compounds	
2,4-Dimethylphenol	110 J
Acenaphthene	< 240
Benzo(a)anthracene	< 240
Benzo(a)pyrene	< 240
Benzo(b)fluoranthene	< 240
Biphenyl	< 240
Chrysene	< 240
Naphthalene	3800
Phenol	< 240
Volatile Organic Compounds	
Acetone	< 1000
Benzene	31000
Chloroform (Trichloromethane)	< 100
Ethylbenzene	460
Isopropylbenzene	< 100
Styrene	3400
Toluene	14000
Xylene (total)	2900

DW-12-03M	65 - 75 ft 12/10/2013
Inorganic Compounds	
Arsenic	23
Barium	280
Chromium	36
Cyanide	64
Iron	1100
Magnesium	2300
Manganese	21
Selenium	< 15
Sodium	729000
Semi-Volatile Organic Compounds	
2,4-Dimethylphenol	< 260
Acenaphthene	< 260
Benzo(a)anthracene	< 260
Benzo(a)pyrene	< 260
Benzo(b)fluoranthene	< 260
Biphenyl	< 260
Chrysene	< 260
Naphthalene	4000
Phenol	< 260
Volatile Organic Compounds	
Acetone	< 400
Benzene	19000
Chloroform (Trichloromethane)	17 J
Ethylbenzene	860
Isopropylbenzene	< 40
Styrene	2900
Toluene	9200
Xylene (total)	2900

SW-12-01	8,5 - 18,5 ft 12/9/2013
Inorganic Compounds	
Arsenic	19
Barium	220
Chromium	6.7
Cyanide	320
Iron	12700
Magnesium	73000
Manganese	930
Selenium	< 15
Sodium	1020000
Semi-Volatile Organic Compounds	
2,4-Dimethylphenol	< 5.3
Acenaphthene	< 5.3
Benzo(a)anthracene	< 5.3
Benzo(a)pyrene	< 5.3
Benzo(b)fluoranthene	< 5.3
Biphenyl	< 5.3
Chrysene	< 5.3
Naphthalene	< 5.3
Phenol	< 5.3
Volatile Organic Compounds	
Acetone	< 20
Benzene	91
Chloroform (Trichloromethane)	< 2
Ethylbenzene	< 2
Isopropylbenzene	5
Styrene	< 2
Toluene	< 2
Xylene (total)	2.2 J

SW-12-13	5 - 15 ft 12/6/2013
Inorganic Compounds	
Arsenic	9.2 J
Barium	230
Chromium	4.8
Cyanide	410
Iron	6200
Magnesium	76100
Manganese	680
Selenium	< 15
Sodium	390000
Semi-Volatile Organic Compounds	
2,4-Dimethylphenol	< 4.9
Acenaphthene	7.8
Benzo(a)anthracene	< 4.9
Benzo(a)pyrene	< 4.9
Benzo(b)fluoranthene	< 4.9
Biphenyl	< 4.9
Chrysene	< 4.9
Naphthalene	12
Phenol	< 4.9
Volatile Organic Compounds	
Acetone	< 10
Benzene	2.4
Chloroform (Trichloromethane)	< 1
Ethylbenzene	1.7
Isopropylbenzene	< 1
Styrene	< 1
Toluene	< 1
Xylene (total)	1.1 J

DW-12-02I	35 - 42 ft 12/9/2013
Inorganic Compounds	
Arsenic	31/43
Barium	370/270
Chromium	2.2 J/3.1 J
Cyanide	3400 J/1900 J
Iron	3300/2800
Magnesium	48300/44200
Manganese	100/87
Selenium	< 15/< 15
Sodium	664000/641000
Semi-Volatile Organic Compounds	
2,4-Dimethylphenol	< 510/< 270
Acenaphthene	< 510/52 J
Benzo(a)anthracene	< 510/< 270
Benzo(a)pyrene	< 510/< 270
Benzo(b)fluoranthene	< 510/< 270
Biphenyl	< 510/< 270
Chrysene	< 510/< 270
Naphthalene	5800/5200
Phenol	< 510/< 270
Volatile Organic Compounds	
Acetone	6.3 J/< 20
Benzene	1900/2100
Chloroform (Trichloromethane)	2.2/2.5
Ethylbenzene	410 J/620 J
Isopropylbenzene	16 J/28 J
Styrene	< 2/< 2
Toluene	170 J/260 J
Xylene (total)	800 J/1300 J

SW-12-04	4 - 14 ft 12/9/2013
Inorganic Compounds	
Arsenic	45
Barium	240
Chromium	2.2 J
Cyanide	470
Iron	6600
Magnesium	64000
Manganese	2400
Selenium	< 15
Sodium	725000
Semi-Volatile Organic Compounds	
2,4-Dimethylphenol	< 23
Acenaphthene	81
Benzo(a)anthracene	< 23
Benzo(a)pyrene	< 23
Benzo(b)fluoranthene	< 23
Biphenyl	< 23
Chrysene	< 23
Naphthalene	8 J
Phenol	< 23
Volatile Organic Compounds	
Acetone	< 10
Benzene	0.52 J
Chloroform (Trichloromethane)	< 1
Ethylbenzene	< 1
Isopropylbenzene	< 1
Styrene	< 1
Toluene	< 1
Xylene (total)	< 2

SW-12-05	12 - 22 ft 12/9/2013
Inorganic Compounds	
Arsenic	270
Barium	150
Chromium	4.7
Cyanide	980
Iron	3800
Magnesium	72000
Manganese	640
Selenium	< 15
Sodium	549000
Semi-Volatile Organic Compounds	
2,4-Dimethylphenol	< 96
Acenaphthene	100
Benzo(a)anthracene	< 96
Benzo(a)pyrene	< 96
Benzo(b)fluoranthene	< 96
Biphenyl	< 96
Chrysene	< 96
Naphthalene	540
Phenol	19 J
Volatile Organic Compounds	
Acetone	< 100
Benzene	840
Chloroform (Trichloromethane)	< 10
Ethylbenzene	470
Isopropylbenzene	34
Styrene	< 10
Toluene	< 10
Xylene (total)	88

SW-12-06	22 - 32 ft 12/9/2013
Inorganic Compounds	
Arsenic	13
Barium	190
Chromium	2.7 J
Cyanide	280
Iron	5100
Magnesium	102000
Manganese	670
Selenium	< 15
Sodium	698000
Semi-Volatile Organic Compounds	
2,4-Dimethylphenol	< 5.1
Acenaphthene	4.8 J
Benzo(a)anthracene	1.3 J
Benzo(a)pyrene	0.78 J
Benzo(b)fluoranthene	< 5.1
Biphenyl	2 J
Chrysene	1.2 J
Naphthalene	25
Phenol	< 5.1
Volatile Organic Compounds	
Acetone	< 10
Benzene	8.6
Chloroform (Trichloromethane)	< 1
Ethylbenzene	0.85 J
Isopropylbenzene	< 1
Styrene	< 1
Toluene	1.2
Xylene (total)	2.7

DW-12-02M	93 - 103 ft 12/9/2013
Inorganic Compounds	
Arsenic	< 10
Barium	230
Chromium	290
Cyanide	870
Iron	650
Magnesium	200
Manganese	17
Selenium	21
Sodium	946000
Semi-Volatile Organic Compounds	
2,4-Dimethylphenol	< 23
Acenaphthene	< 23
Benzo(a)anthracene	< 23
Benzo(a)pyrene	< 23
Benzo(b)fluoranthene	< 23
Biphenyl	< 23
Chrysene	< 23
Naphthalene	120
Phenol	< 23
Volatile Organic Compounds	
Acetone	66
Benzene	680
Chloroform (Trichloromethane)	6.2
Ethylbenzene	8.1
Isopropylbenzene	< 1
Styrene	37
Toluene	210
Xylene (total)	42

LEGEND:

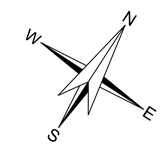
SOIL BORING/OVERBURDEN MONITORING WELL LOCATION
SW = SHALLOW (OVERBURDEN) WELL

BEDROCK MONITORING WELL LOCATION
BR = BEDROCK CORING, DW = DEEP (BEDROCK) WELL

NOTES:

1. DATABOX UNITS ARE UG/L.
2. CHEMICALS SHOWN ARE THOSE THAT EXCEED CRITERIA IN ONE OR MORE SAMPLES SHOWN. SEE SUMMARY TABLE FOR ALL RESULTS.
3. RESULTS WERE SCREENED AGAINST DIVISION OF WATER TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES FOR WATER CLASS GA (TABLE 1, JUNE 1998). EXCEEDANCES ARE SHOWN IN RED.
4. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
   /: INDICATES A FIELD DUPLICATE

	NYSDEC TOGS 1.1.1 Class GA Water Quality Standards
Inorganic Compounds (ug/L)	
Arsenic	25
Barium	1000
Chromium	50
Cyanide	200
Iron	300
Magnesium	35000
Manganese	300
Selenium	10
Sodium	20000
Semi-Volatile Organic Compounds (ug/L)	
2,4-Dimethylphenol	50
Acenaphthene	20
Benzo(a)anthracene	0.002
Benzo(a)pyrene	0
Benzo(b)fluoranthene	0.002
Biphenyl	5
Chrysene	0.002
Naphthalene	10
Phenol	1
Volatile Organic Compounds (ug/L)	
Acetone	50
Benzene	1
Chloroform (Trichloromethane)	7
Ethylbenzene	5
Isopropylbenzene	5
Styrene	5
Toluene	5
Xylene (total)	5



0 80 160 240 320
SCALE IN FEET

HALEY & ALDRICH

RG&E EAST STATION FORMER MGP SITE
ROCHESTER, NEW YORK

OFF-SITE GROUNDWATER ANALYTICAL RESULTS

SCALE: AS SHOWN
FEBRUARY 2014

FIGURE 7

G:\136492_EAST_STATION\GLOBAL\CAD\DRAWINGS\136492-022-DATABOX-GW-OFFSITE_R3.DWG

APPENDIX A

Off-Site Soil Boring Logs and Overburden Well Installation Reports

HALEY & ALDRICH

TEST BORING REPORT

Boring No. BR-12-03

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	--	Rig Make & Model: BK-81 Truck Mount
Inside Diameter (in.)	4 1/4	1 5/8	--	Bit Type: Cutting Head
Hammer Weight (lb)	-	140	-	Drill Mud: None
Hammer Fall (in.)	-	30	-	Casing: Spun
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 2
Start October 14, 2013
Finish October 14, 2013
Driller K. Busch
H&A Rep. Keller/Nostrant
Elevation 399.2
Datum NYS Barge Canal
Location See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0		G1 41	0.0 4.0	ND	ML		Brown sandy SILT with gravel (ML), mps 20 mm, no odor, dry, trace clay, concrete fragments from 3.8 - 4.0 ft -FILL- Advanced through obstruction (suspected concrete) to 4.5 ft.	5	10	5	10	15	55
5		G2 6	4.5 7.0	ND			Gray-brown-red CONCRETE FRAGMENTS with brick, mps 30 mm, no odor, moist, trace to little gray ash-like material (ALM), coke-like material, wood, glass -FILL- Observed refusal at 7.0 ft. Advance augers through obstruction to 8.0 ft.						
10		G3 2	8.0 12.0	ND	GP		Gray-brown poorly graded GRAVEL with silt (GP), mps 30 mm, no odor, wet Note: Poor recovery, large aggregate lodged in shoe of sampler. -FILL-						
15		G4 23	12.0 16.0	ND ND	ML		Gray-brown sandy SILT (ML), mps 15 mm, no odor, moist Black-white-tan mottled ALM, mps 10 mm, no odor, wet, trace to little clinker-like material -FILL-		5	15	10	10	60
20		G5 26	16.0 20.0	ND	SP	382.7 16.5	Gray-brown poorly graded SAND (SP), mps 1 mm, weakly laminated, slight organic odor, wet				5	90	5

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 24.2
Rock Cored (ft) 119.8
Samples 7G, 24C

Boring No. BR-12-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. BR-12-03
File No. 36492-022
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
20		G6 43	20.0 24.0	ND	SP-SM	379.2 20.0	Gray-brown poorly graded SAND with silt (SP-SM), mps < 1 mm, light brown silt interbeds, slight organic odor, wet						
						375.7 23.5	Gray-brown lean CLAY with sand, mps 3 mm, slight organic odor, moist				10	5	85
		G7 2	24.0 24.2	ND		375.3 23.9 375.0 24.2	Gray-brown moderately weathered SHALE, mps 20 mm, no odor, moist -WEATHERED BEDROCK- SEE CORE BORING REPORT FOR ROCK DETAILS						
25													
30													
35													
40													
45													

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. BR-12-03

HALEY & ALDRICH

TEST BORING REPORT

Boring No. BR-12-05

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

File No. 36492-022
Sheet No. 1 of 1
Start October 9, 2013
Finish
Driller K. Busch
H&A Rep. Keller/Nostrant
Elevation 403.3
Datum NYS Barge Canal
Location See Plan Moved ~8 ft east (toward slope)

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type				Rig Make & Model:
Inside Diameter (in.)				Bit Type:
				Drill Mud:
Hammer Weight (lb)			-	Casing:
Hammer Fall (in.)			-	Hoist/Hammer:
				PID Make & Model: MiniRAE 3000

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0	54	G1 45	0.0 4.0	0.6		402.8	-TOPSOIL-						
				0.2	SM	0.5	Dark brown silty SAND (SM), mps 10 mm, no odor, moist with concrete fragments, brick particles and ash-like material.	0	5	10	25	40	20
				0.1			-FILL-						
				0.2		401.4							
						1.9							
				0.2									
	22	G2 4	4.0 8.0		SP-SM		Brown to light brown poorly graded SAND with silt (SP-SM), mps 0.7 mm, no odor, moist to 8.4 ft, wet below 8.4 ft	0	0	0	35	55	10
5							-ALLUVIAL DEPOSITS-						
				0.0									
	81	G3 42	8.0 11.5	0.0									
				0.0									
10						392.3	TOP OF BEDROCK 11.0 FT						
				0.0		11.0 391.8	Highly to completely weathered SHALE. Slight petroleum-like odor.						
						11.5	BOTTOM OF EXPLORATION 11.5 FT						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/9/2013	14:45	0.00	N/A	11.5	8.4

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 11.5
Rock Cored (ft) 0
Samples 3G

Boring No. BR-12-05

Field Tests:

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-01

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel
Type	HSA	G	--
Inside Diameter (in.)	4	1 3/4	--
Hammer Weight (lb)	-	-	-
Hammer Fall (in.)	-	-	-

Drilling Equipment and Procedures

Rig Make & Model: Brainard Kilman BK81-HD Truck
Bit Type: Cutting Head
Drill Mud: None
Casing: HSA Spin 20.5 ft.
Hoist/Hammer: Automatic Hammer
PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 2
Start October 7, 2013
Finish October 8, 2013
Driller K. Busch
H&A Rep. D. Keller
Elevation 399.6
Datum NYS Barge Canal
Location See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Well Diagram	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0		G1 25	0.0 4.0	0.0	SM		399.1 0.5	Black silty SAND (SM), mps 5 mm, no odor, moist with glass particles, cinders	0	5	10	35	35	15
				0.0				-FILL-						
		G2 24	4.0 8.0	0.0	SM		395.6 4.0	Yellow-brown silty SAND (SM), mps 26 mm, no odor, moist, brick fragment at 5.9 ft	5	5	5	15	40	30
5				0.0										
				0.0										
		G3 0	8.0 12.0					Attempted sample from 8.0 to 10.0 ft. No recovery						
10														
		G4 13	12.0 16.0	0.0			387.1	Note: Gray gravel layer at 12.0 ft.						
				0.0	CL		12.5	Mottled yellow-brown and gray-brown lean CLAY with sand (CL), mps 0.1 mm, no odor, moist, occasional silt partings	0	0	0	0	15	85
								-ALLUVIAL DEPOSITS-						
15				0.0										
		G5 35	16.0 20.0	0.0				Jar sample 16.5 to 17.0 ft.						
				0.0										
							381.1	TOP OF BEDROCK 18.5 FT						
				0.0			18.5	Moderately weathered SHALE						
20								-WEATHERED BEDROCK-						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/7/2013	15:00	0.0	12.0	16.0	10.0
10/8/2013	08:15	16.5	20.5	20.5	15.3

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 20.8
Rock Cored (ft) 0
Samples 6G

Boring No. SB-12-01

Field Tests:

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-01
File No. 36492-022
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Well Diagram	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
20		G6 8	20.0 20.8				378.8 20.8	BOTTOM OF EXPLORATION 20.8 FT Refusal on probable competent bedrock See also "Observation Well Installation Report" SW-12-01 (Well installed 10/8)						

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-12-01

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-02

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	--	Rig Make & Model: Brainard Kilman BK81-HD Truck
Inside Diameter (in.)	-	1 3/4	--	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: N/A
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 2
Start October 8, 2013
Finish October 8, 2013
Driller K. Busch
H&A Rep. D. Keller
Elevation 400.0
Datum NYS Barge Canal
Location See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0		G1 16	0.0 4.0	0.0 0.0	SM	399.8 0.2	-CONCRETE-	0	5	5	25	45	20
							Red-brown silty SAND (SM), mps 18 mm, no odor, moist (except wet from 4.2 - 5.0 ft)						
	57	G2 32	4.0 8.0	0.0 0.0 0.0			-FILL-						
						392.0							
5	72	G3 30	8.0 12.0	0.0 0.1 35.7	SM	8.0	Red-brown silty SAND (SM), mps 18 mm, slight petroleum-like odor, wet from 10.0 ft, black staining with brick fragments and wood	0	5	5	25	45	20
	38	G4 23	12.0 16.0	86.8 sheen			Sheen on water starting at 12.0 ft						
10				92.1 4.7	OL/ OH	386.5 13.5	Black sandy ORGANIC SOIL (OL/OH), mps 50 mm, strong organic odor, slight petroleum-like odor	5	0	5	10	30	50
	24	G5 19	16.0 20.0	5.1 2.9			-ORGANIC DEPOSIT-						
15					SC	382.5 17.5	Gray-brown clayey SAND (SC), mps 1 mm, no odor, wet	0	0	0	15	55	30
							-ALLUVIAL DEPOSITS-						
20													

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/8/2013	09:45	0.0	N/A	12.0	10.0

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 23.0
Rock Cored (ft) 0
Samples 6G

Boring No. SB-12-02

Field Tests:
Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-02
File No. 36492-022
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
20	80	G6 16	20.0 23.0	4.4 1.1		378.0 22.0 377.0 23.0	TOP OF BEDROCK 22.0 FT Highly to moderately weathered SHALE -WEATHERED BEDROCK- BOTTOM OF EXPLORATION 23.0 FT Refusal on probable competent bedrock. Borehole backfilled with bentonite.						

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-12-02

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-03

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	--	Rig Make & Model: Brainard Kilman BK81-HD Truck
Inside Diameter (in.)	-	1 3/4	--	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 1
Start October 8, 2013
Finish October 8, 2013
Driller K. Busch
H&A Rep. D. Keller
Elevation 401.1
Datum NYS Barge Canal
Location See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0	95	G1 18	0.0 4.0	0.0 0.0	SM	400.9 0.2	-CONCRETE-	5	5	5	25	40	20
							Brown silty SAND (SM), mps 50 mm, no odor, moist, with brick fragments						
5	13	G2 3	4.0 8.0	0.0			-FILL-						
	8	G3 30	8.0 12.0	0.0 137.0		392.1 9.0							
10				1.0	SM		Gray silty SAND (SM), mps 0.6 mm, moderate petroleum-like odor mixed with sweet odor* that dissipated within 30 seconds to very slight, wet	0	0	0	30	50	20
	37	G4 22	12.0 16.0	1.0			-ALLUVIAL DEPOSITS-						
						387.1 14.0	TOP OF BEDROCK 14.0 FT						
15	183	G5 26	16.0 19.2				Highly weathered SHALE, fractured, slight petroleum-like odor						
						384.1 17.0	Highly to completely weathered shale, no odor						
						381.9 19.2	BOTTOM OF EXPLORATION 19.2 FT						
							Refusal on probable competent bedrock Borehole backfilled with bentonite *possible chlorinated solvent						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/8/2013	11:15	0.0	N/A	16	12*

*possible slightly higher

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft)	19.2
Rock Cored (ft)	0
Samples	5G

Boring No. SB-12-03

Field Tests:

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-04

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel
Type	HSA	G	--
Inside Diameter (in.)	4	1 3/4	--
Hammer Weight (lb)	-	-	-
Hammer Fall (in.)	-	-	-

Drilling Equipment and Procedures

Rig Make & Model: Brainard Kilman BK81-HD Truck
Bit Type: Cutting Head
Drill Mud: None
Casing: HSA Spin 16.0 ft.
Hoist/Hammer: Automatic Hammer
PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 1
Start October 8, 2013
Finish October 8, 2013
Driller K. Busch
H&A Rep. D. Keller
Elevation 405.3
Datum NYS Barge Canal
Location See Plan - moved 6 ft east of proposed location

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Well Diagram	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0	55	G1 30	0.0 4.0	0.0 0.0 0.0	SM		404.8 0.5	-ASPHALT- Dark brown to black silty SAND (SM), mps 4 mm, no odor, moist with trace cinders	0	0	15	30	40	15
							403.6 1.7	-FILL-						
5	22	G2 26	4.0 8.0	0.0 0.0 0.0	SM			Brown silty SAND (SM), mps 1 mm, no odor, wet from 4.9 to 5.9 ft, then moist Jar sample 5.2 - 5.7 ft.	0	0	0	30	55	15
	15	G3 0	8.0 12.0	0.0				Attempted to sample from 8.0 to 12.0 ft, no recovery (see below)						
10					SC-SM		396.3 9.0	Mottled yellow-brown and gray-brown interbedded layers of clayey SAND and silty sand (SC-SM), mps 15 mm, no odor, wet, dark brown coarse sand layer at top and bottom of deposit -ALLUVIAL DEPOSITS- TOP OF BEDROCK 11.3 FT	0	5	5	20	40	30
	69	G4 31	12.0 16.0	0.0	CL		394.0 11.3	Mottled yellow-brown gray-brown and black lean CLAY (CL), mps < 0.075, very slight petroleum-like odor, wet	0	0	0	0	0	100
				0.0 0.0			391.3 14.0	-COMPLETELY WEATHERED BEDROCK- Highly to completely weathered SHALE, moist						
15								Jar sample 15.0 - 15.5 ft.						
							389.3 16.0	BOTTOM OF EXPLORATION 16.0 FT Refusal on probable competent bedrock See also "Observation Well Installation Report" for SW-12-04 Note: Moved 2 ft west of current location and obtained sample from 8.0 - 12.0 ft. Same number of blows (15) R=38 inches.						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/8/2013	13:40	0.25	12.0	16.0	11.2

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 16.0
Rock Cored (ft) 0
Samples 4G

Boring No. SB-12-04

Field Tests:
Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-05

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	--	Rig Make & Model: Brainard Kilman BK81-HD Truck
Inside Diameter (in.)	4	1 3/4	--	Bit Type: Cutting Head
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: HSA Spin 24.0 ft.
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 2
Start October 9, 2013
Finish October 9, 2013
Driller K. Busch
H&A Rep. D. Keller
Elevation 403.3
Datum NYS Barge Canal
Location See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Well Diagram	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0	44	G1	0.0	0.0			403.1	-TOPSOIL-						
	29		4.0	0.0			0.2							
				0.0	SM		402.7	-BRICK-	5	5	5	30	35	20
							0.6	Brown silty SAND (SM), mps 22 mm, no odor, moist with trace root fibers, occasional cinder layers						
	37	G2	4.0	0.0				-FILL-						
5	25		8.0	0.1			397.8							
				0.0	SP		5.5	Yellow-brown poorly graded SAND (SP), mps 60 mm, no odor above water table; slight petroleum-like odor below water table, moist to 9.0 ft then wet	5	5	5	30	50	5
				0.0										
	30	G3	8.0	0.2				-FILL-						
10	6		12.0											
	61	G4	12.0	0.2	SM		391.2							
	37		16.0	12.8			12.1	Dark gray to black silty SAND (SM), mps 1 mm, moderate naphthalene-like odor, wet	0	0	0	30	50	20
				1.2				No sheen from 12.0 - 16.0 ft.						
15				3.7				-POSSIBLE COKE BREEZE-						
	73	G5	16.0											
	13		20.0											
				49.9				Note: Sheen, TLM bleb just above bedrock						
							385.3	TOP OF BEDROCK 18.0 FT						
				8.3	CL		18.0	Mottled yellow-brown gray-brown and black lean CLAY (CL), mps 50 mm, slight naphthalene-like odor, moist	5	0	0	0	0	95
				36.3				-COMPLETELY WEATHERED BEDROCK-						
20														

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/9/2013	09:15	0.0	8.0	12.0	8.0

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 24.0
Rock Cored (ft) 0
Samples 6G

Boring No. SB-12-05

Field Tests:

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-05
File No. 36492-022
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Well Diagram	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
20	123	G6	20.0	69.9										
	25		22.1	17.3			381.8	Note: Coarse sand seam 21.0 - 21.1 ft with strong naphthalene-like odor and sheen						
							21.5	Highly to completely weathered SHALE, no odor						
								-WEATHERED BEDROCK-						
								Note: Advanced borehole with augers to 24.0, no sampling to install sump						
							379.3							
							24.0	BOTTOM OF EXPLORATION 24.0 FT						
								Refusal on probable competent bedrock						
								See also "Observation Well Installation Report" for SW-12-05						

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-12-05

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-06

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	--	Rig Make & Model: Brainard Kilman BK81-HD Truck
Inside Diameter (in.)	4	1 3/4	--	Bit Type: Cutting Head
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: HSA Spin 34.0 ft.
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 2
Start October 7, 2013
Finish October 7, 2013
Driller K. Busch
H&A Rep. D. Keller
Elevation 421.3
Datum NYS Barge Canal
Location See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Well Diagram	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0		G1 28	0.0 - 4.0	0.0	SM			Brown silty SAND (SM), mps 30 mm, no odor, moist, with brick layer from 4.0 to 4.2 ft and ash-/cinder-like layer from 4.2 to 5.5 ft	5	5	10	25	40	15
				0.0				-FILL-						
				0.0										
		G2 21	4.0 - 8.0	0.0										
5				0.0										
				0.0										
		G3 36	8.0 - 12.0	0.0										
				0.0	SM		412.2 9.1	Brown silty SAND (SM), mps 3 mm, no odor, moist	0	0	5	30	45	20
10				0.0										
				0.0			409.3							
		G4 35	12.0 - 16.0	21.1	SM		12.0	Gray silty SAND (SM), mps 3 mm, moderate petroleum-like odor, wet Note: appears to be perched water.	0	0	5	30	45	20
				1.7										
				5.7	CL		407.6 13.7	Mottled yellow-brown gray-brown and black lean CLAY (CL), mps 15 mm, slight petroleum-like odor, moist						
15				27.5				-REWORKED WEATHERED BEDROCK/FILL-						
		G5 9	16.0 - 20.0	9.5										
20														

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/7/2013	09:45	0.0	20.0	24.0	20.5

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 34.0
Rock Cored (ft) 0
Samples 9G

Boring No. SB-12-06

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-06
File No. 36492-022
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Well Diagram	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
20		G6 48	20.0 24.0	0.3 0.1 0.0 0.0 0.0	SM		400.8 20.5	Dark gray silty SAND (SM), mps 1 mm, no odor, wet -ALLUVIAL DEPOSITS-	0	0	0	35	45	20
		G7 17	24.0 28.0	5.8 10.7 0.6	SM		397.0 24.3	Black silty SAND (SM), mps 1 mm, slight naphthalene-like odor, wet, with sheen, heavily stained, occasional layers with coarse sand	0	0	10	30	40	20
25		G8 42	28.0 32.0	3.7 0.3 0.2	SM			Black silty SAND (SM), mps 1 mm, slight naphthalene-like odor, wet, with sheen, heavily stained, occasional layers with coarse sand -ALLUVIAL DEPOSITS-	0	0	10	30	40	20
30		G9 8	32.0 33.7	0.0			389.3 32.0	TOP OF BEDROCK 32.0 FT Completely to highly weathered SHALE -WEATHERED BEDROCK-						
							387.3 34.0	BOTTOM OF EXPLORATION 34.0 FT						

Notes:
1. Sampler refusal at 33.7 ft on probable competent bedrock.

2. Advanced borehole with augers to 34.0 ft without sampling to allow for sump/silt trap installation in the well.

3. See also "Observation Well Installation Report" SW-12-06

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-12-06

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-07

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	--	Rig Make & Model: Brainard Kilman BK81-HD Truck
Inside Diameter (in.)	-	1 3/4	--	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: N/A
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 2
Start October 4, 2013
Finish October 4, 2013
Driller K. Busch
H&A Rep. D. Keller
Elevation 414.8
Datum NYS Barge Canal
Location See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0		G1 22	0.0 4.0	0.0	SM		Dark brown to brown silty SAND (SM), mps 35 mm, no odor, moist with brick particles, concrete fragments, occasional cinder-like layers	5	5	10	25	35	20
		G2 23	4.0 8.0	0.0			-FILL-						
5				0.0									
				0.0									
		G3 22	8.0 12.0	0.0									
				0.6									
10													
		G4 38	12.0 16.0	0.0		401.9							
				12.5	SM	12.9	Black silty SAND (SM), mps 0.8 mm, moderate naphthalene-like odor, wet from 13.0 ft, moderately stained	0	0	0	30	50	20
				0.6									
15				1.7			-ALLUVIAL DEPOSITS-						
							TOP OF BEDROCK 16.5 FT						
		G5 11	16.0 20.0	0.0		398.3 16.5	Highly to completely weathered SHALE, some black streaks in rock, no odor						
				0.0			-WEATHERED BEDROCK-						
20													

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/4/2013	14:15	0.0	N/A	16.0	13.0

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 24.5
Rock Cored (ft) 0
Samples 7G

Boring No. SB-12-07

Field Tests:

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-07
File No. 36492-022
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
20		G6 10	20.0 24.0										
		G7 6	24.0 24.5	0.0		390.3 24.5	BOTTOM OF EXPLORATION 24.5 FT Refusal on probable competent bedrock Borehole backfilled with bentonite						

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-12-07

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-08

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	--	Rig Make & Model:
Inside Diameter (in.)	-	1 3/4	--	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: N/A
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No.	36492-022
Sheet No.	1 of 2
Start	October 4, 2013
Finish	October 4, 2013
Driller	K. Busch
H&A Rep.	D. Keller
Elevation	418.4
Datum	NYS Barge Canal
Location	See Plan - 14 ft south

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0		G1 23	0.0 4.0	0.0	SM		Brown silty SAND (SM), mps 25 mm, no odor, moist with brick particles, occasional cinder-like layers	5	5	15	25	35	15
				0.0									
		G2 25	4.0 8.0	0.0			-FILL-						
5				0.0									
		G3 15	8.0 12.0	0.0									
10				0.0			Jar of cinder-like material collected						
		G4 17	12.0 16.0	0.0	SM	406.4 12.0	Gray-brown silty SAND (SM), mps 0.5 mm, no odor, wet 12.0 - 12.6 ft, moist 12.6 - 16.0 ft, occasional clayey layers	0	0	0	15	50	35
				0.0									
15							-ALLUVIAL DEPOSITS-						
		G5 21	16.0 20.0	0.0			Color change to black with moderate naphthalene-like odor						
					SP-SM	401.4 17.0	Black poorly graded SAND with silt (SP-SM), mps 4 mm, moderate naphthalene-like odor, wet, heavily stained with sheen	0	0	20	40	30	10
20													

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/4/2013	12:45	0.0	N/A	20.0	16.0

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft)	27.7
Rock Cored (ft)	0
Samples	7G

Boring No. SB-12-08

Field Tests:

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-08
File No. 36492-022
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
20		G6 28	20.0 24.0	2.4 10.0 30.1		394.4	TOP OF BEDROCK 24.0						
25		G7 15	24.0 27.7	21.8		24.0	Moderately weathered highly fractured SHALE, stained, slight naphthalene-like odor. -WEATHERED BEDROCK-						
						390.7 27.7	BOTTOM OF EXPLORATION 27.7 FT Refusal on probable competent bedrock. Borehole backfilled with bentonite.						

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-12-08

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-09

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	--	Rig Make & Model: Brainard Kilman BK81-HD Truck
Inside Diameter (in.)	-	1 3/4	--	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: N/A
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 1
Start October 3, 2013
Finish October 3, 2013
Driller K. Busch
H&A Rep. D. Keller
Elevation 402.8
Datum NYS Barge Canal
Location See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0		G1 39	0.0 4.0	1.4		401.8	-TOPSOIL-						
				1.3	SM	1.0	Brown silty SAND (SM), mps 25 mm, no odor, moist	5	5	5	15	45	25
				0.7			-FILL-						
5		G2 3	4.0 8.0	1.5									
		G3 24	8.0 11.0	107.1	SM	394.8 8.0	Dark gray to black silty SAND (SM), mps 3 mm, strong petroleum-like odor (same as SB-12-10) wet, heavy staining. Sheen on water before emptying tube	0	0	5	5	50	40
				7.4			-PROBABLE FILL-						
10							TOP OF BEDROCK 10.9 FT						
						391.9 10.9	Note: Weathered bedrock in tip of sample						
						391.8 11.0	BOTTOM OF EXPLORATION 11.0 FT						
							Refusal on probable competent bedrock.						
							Borehole backfilled with bentonite.						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/3/2013	14:40	0.0	N/A	11.0	8.0

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 11.0
Rock Cored (ft) 0
Samples 3G

Boring No. SB-12-09

Field Tests:

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-10

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	--	Rig Make & Model: Brainard Kilman BK81-HD Truck
Inside Diameter (in.)	4	1 3/4	--	Bit Type: Cutting Head
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: HSA Spin 16.0 ft.
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 1
Start October 4, 2013
Finish October 4, 2013
Driller K. Busch
H&A Rep. D. Keller
Elevation 401.4
Datum NYS Barge Canal
Location See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Well Diagram	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0		G1 27	0.0 - 4.0	0.0	SC		401.1 / 0.3	-CONCRETE- / Brown clayey SAND with gravel (SC), mps 30 mm, no odor, moist with brick particles	5	10	10	15	40	20
				0.0				-FILL-						
		G2 31	4.0 - 8.0	0.0			396.9							
5				0.0	SP		4.5	Brown poorly graded SAND (SP), mps 0.7 mm, no odor, moist to 5.9 ft, then wet, trace root fibers	0	0	0	60	35	5
				104.5										
							395.0	-PROBABLE FILL-						
				193.4	SP		6.4	Gray to black poorly graded SAND (SP), mps 0.7 mm, strong petroleum-like odor, wet, heavy staining, no sheen in sample	0	0	0	60	35	5
		G3 25	8.0 - 12.0											
				313.7			391.9	TOP OF BEDROCK 9.5 FT						
10				7.9			9.5	Moderately to highly weathered SHALE						
				55.3				-WEATHERED BEDROCK-						
		G4 16	12.0 - 16.0	4.0				Fractured rock zone from 12.0 - 14.4 ft						
				4.3				Bottom of fractured zone unclear due to poor recovery						
15														
		G5 26	16.0 - 18.5	0.7				Highly to completely weathered SHALE						
				0.0			382.9							
							18.5	BOTTOM OF EXPLORATION 18.5 FT						
								Refusal on probable competent bedrock.						
								See also "Observation Well Installation Report" SW-12-10						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/4/2013	08:45	0.0	4.0	8.0	5.9

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 18.5
Rock Cored (ft) 0
Samples 5G

Boring No. SB-12-10

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-11

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	--	Rig Make & Model: Brainard Kilman BK81-HD Truck
Inside Diameter (in.)	-	1 3/4	--	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: N/A
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 2
Start October 3, 2013
Finish October 3, 2013
Driller K. Busch
H&A Rep. D. Keller
Elevation 401.4
Datum NYS Barge Canal
Location See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0	no jar	G1 24	0.0 4.0	1.5	SM		Brown silty SAND (SM), mps 17 mm, no odor, moist to 8.5 ft, then wet, occasional brick layers, black layer at 10.6 - 10.7 ft with slight burned odor	0	5	5	15	50	25
				11.0			-FILL-						
	jar	G2 36	4.0 8.0	4.1									
5				2.8									
				5.5									
	jar *	G3 29	8.0 12.0	4.1									
				6.0									
10				0.0									
							* of "burned" layer						
	jar **	G4 28	12.0 16.0			388.7 12.7	TOP OF BEDROCK 12.7 FT						
				3.9			Moderately to completely weathered SHALE						
				1.5			-WEATHERED BEDROCK-						
15													
	jar **	G5 24	16.0 20.0	0.3									
				0.2									
							** combine jar of weathered bedrock from G4 and G5						
20													

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/3/2013	12:45	0.0	N/A	12.0	8.5

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 22.5
Rock Cored (ft) 0
Samples 6G

Boring No. SB-12-11

Field Tests:

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-11
File No. 36492-022
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
20		G6 0	20.0 22.5										
						378.9 22.5	BOTTOM OF EXPLORATION 22.5 FT Refusal on probable competent bedrock. Borehole backfilled with bentonite.						

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-12-11

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-12

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	None	G	--	Rig Make & Model:
Inside Diameter (in.)	-	1 3/4	--	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: N/A
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No.	36492-022
Sheet No.	1 of 2
Start	October 2, 2013
Finish	October 2, 2013
Driller	K. Busch
H&A Rep.	D. Keller
Elevation	401.4
Datum	NYS Barge Canal
Location	See Plan - moved west of proposed location

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0		G1 30	0.0 4.0		SM	401.1 0.3	-TOPSOIL-						
							Light brown silty SAND (SM), mps 25 mm, no odor, dry	5	5	5	25	35	25
						399.9 1.5	-SUBSOIL-						
		G2 18	4.0 8.0		SM		Dark brown silty SAND (SM), mps 50 mm, no odor, dry to 9.0 ft, frequent glass layers, trace concrete fragments	5	5	15	20	35	20
5				0.0			-FILL-						
		G3 12	8.0 12.0				Note: Augered a second hole to get better recovery from 7.0 - 11.0 ft for sample at water table.						
10				0.0									
		G4 12	12.0 16.0		SW	388.6 12.8	Brown well graded SAND (SW), mps 30 mm, no odor, wet, 10% glass particles	5	5	25	35	25	5
15				0.0			-FLUVIAL DEPOSITS-						
		G5 32	16.0 20.0			384.0							
				0.0	SM	17.4	Gray-brown changing to yellow-brown silty SAND (SM), mps 22 mm, no odor, wet, trace clay, wood at 18.2 ft	5	5	5	15	30	40
20													

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/2/2013	13:40	0.0	-	19.0	9.0

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft)	24.0
Rock Cored (ft)	0
Samples	6G

Boring No. SB-12-12

Field Tests:

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-12
File No. 36492-022
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
20		G6 38	20.0 24.0										
						377.4	TOP OF BEDROCK 24.0 FT						
						24.0	BOTTOM OF EXPLORATION 24.0 FT						
							Refusal on probable bedrock.						
							Grouted upon completion.						

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-12-12

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-13

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel
Type	HSA	G	--
Inside Diameter (in.)	4	1 3/4	--
Hammer Weight (lb)	-	-	-
Hammer Fall (in.)	-	-	-

Drilling Equipment and Procedures

Rig Make & Model: Brainard Kilman BK81-HD Truck
Bit Type: Cutting Head
Drill Mud: None
Casing: HSA Spin 20.0 ft.
Hoist/Hammer: Automatic Hammer
PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 2
Start October 3, 2013
Finish October 3, 2013
Driller K. Busch
H&A Rep. D. Keller
Elevation 401.6
Datum NYS Barge Canal
Location See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Well Diagram	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0		G1 24	0.0 4.0	0.0	CL		401.3 0.3 401.0 0.6	-CONCRETE- -BURIED ASPHALT- Brown mottled yellow-brown and light brown sandy lean CLAY (CL),mps 18 mm, no odor, moist, reworked natural material. Gravel layers at transition	0	5	5	5	20	65
								-FILL-						
		G2 22	4.0 8.0	0.0	SP		397.3 4.3	Brown pooly graded SAND (SP), mps 3 mm, no odor, moist, occasional clay layers, trace roots	0	0	5	70	25	0
5								-ALLUVIAL DEPOSITS-						
		G3 36	8.0 12.0					Note: Wet at 8.0 ft.						
10				2.8	CL		391.4 10.2	Mottled yellow-brown and light brown sandy lean CLAY (CL), mps 0.5 mm, slight petroleum-like odor, wet	0	0	0	5	20	75
		G4 39	12.0 16.0											
15														
		G5 30	16.0 20.0	2.5										
20								TOP OF BEDROCK 20.3 FT						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/2/2013	08:45	0.0	8.0	12.0	8.0

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 22.3
Rock Cored (ft) 0
Samples 6G

Boring No. SB-12-13

Field Tests:

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-13
File No. 36492-022
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Well Diagram	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
20		G6 23	20.0 22.3	1.4			381.3 20.3	Highly to moderately weathered SHALE						
							379.3 22.3	-WEATHERED BEDROCK-						
								BOTTOM OF EXPLORATION 22.3 FT						
								Refusal on probably competent bedrock.						
								See also "Observation Well Installation Report" SW-12-13						

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-12-13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-14

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	--	Rig Make & Model: Brainard Kilman BK81-HD Truck
Inside Diameter (in.)	4	1 3/4	--	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: HSA Spin 2.0 ft.
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 2
Start October 2, 2013
Finish October 2, 2013
Driller K. Busch
H&A Rep. D. Keller
Elevation 401.6
Datum NYS Barge Canal
Location See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0				0.0	SM	401.5 / 0.1	-ASPHALT-	5	10	10	20	35	20
						400.7 / 0.9	Gray silty SAND with gravel (SM), mps 70 mm, no odor, dry, 10% glass fragments and particles						
					SM	400.0 / 1.6	-FILL-	0	0	5	30	40	25
		G1 18	2.0 6.0	0.0			Void Note: Concrete vault 0.9 - 1.6 ft. Red-brown silty SAND (SM), mps 4 mm, no odor, dry Asphalt layer 3.1 - 3.2 ft.						
5		G2 37	6.0 10.0										
				1.5	SM	394.1 / 7.5	Yellow-brown silty SAND (SM), mps 6 mm, no odor, wet at 9.6 ft, trace clay -FLUVIAL DEPOSITS-	0	5	5	15	35	40
10		G3 38	10.0 14.0										
		G4 36	14.0 18.0										
15				1.5	SM	386.6 / 15.0	Dark brown silty SAND with gravel (SM), mps 60 mm, no odor, wet with trace brick and unidentified material	10	10	15	25	30	20
						385.6 / 16.0							
		G5 15	18.0 22.0	1.5	SM		Gray-brown silty SAND with gravel (SM), mps 65 mm, no odor, wet, occasional silt layers	10	15	15	20	25	15
20													

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/2/2013	11:45	0.0	-	10.0	9.6

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft)	24.3
Rock Cored (ft)	0
Samples	6G

Boring No. SB-12-14

Field Tests:

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-14
File No. 36492-022
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
20													
							TOP OF BEDROCK 21.9 FT						
						379.7 21.9	Highly to moderately weathered BEDROCK. -WEATHERED BEDROCK-						
		G6 24	22.0 24.3										
						377.3 24.3	BOTTOM OF EXPLORATION 24.3 FT Refusal on probable competent bedrock. Backfilled with bentonite upon completion.						

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-12-14

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-15

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	--	Rig Make & Model: CME 85 Truck Mount
Inside Diameter (in.)	4 1/4	1 5/8	--	Bit Type: Cutting Head
Hammer Weight (lb)	-	140	-	Drill Mud: None
Hammer Fall (in.)	-	30	-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No.	36492-022
Sheet No.	1 of 2
Start	October 17, 2013
Finish	October 17, 2013
Driller	K. Busch
H&A Rep.	Keller/Nostrant
Elevation	415.9
Datum	NYS Barge Canal
Location	See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0		G1 35	0.0 4.0	1.1	ML		Brown sandy SILT with gravel (ML), mps 25 mm, no odor, damp, trace red brick, ash-like material (ALM), roots, bottom of polyliner at 3.2 ft	5	10	10	10	10	55
				ND									
				ND									
				ND			-FILL-						
		G2 14	4.0 8.0	ND	ML		Similar with increased gravel fraction, red brick, noted red, black, white ALM in shoe of sampler.						
5				ND									
				ND			-FILL-						
				ND									
						407.9							
		G3 19	8.0 12.0	ND		8.0	Brown-black-white ALM, mps 15 mm, no odor, moist						
				ND									
10				ND			-FILL-						
						404.2							
				ND	CL	11.7	Gray-brown lean CLAY (CL), mps 3 mm, slight organic odor, damp	0	0	0	5	5	90
		G4 38	12.0 16.0	ND	ML	403.9 12.0	Tan-brown SILT (ML), mps 2 mm, no odor, damp, trace ALM	0	0	0	5	5	90
				ND			-FILL-						
				ND									
						401.4							
15				ND	CL	14.5	Gray-brown-black mottled lean CLAY (CL), mps 2 mm, no odor, damp	0	0	0	0	10	90
		G5 44	16.0 20.0	ND			Similar as above						
						397.3							
20				ND	SM	18.6	Gray-brown silty SAND (SM), mps 1 mm, no odor, moist to wet	0	0	0	0	80	20

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft)	31.2
Rock Cored (ft)	0
Samples	9G

Boring No. SB-12-15

Field Tests:

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High

Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-15
File No. 36492-022
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
20		G6 32	20.0 24.0	ND			-FILL-						
				ND	CL	392.9 23.0	Gray-brown lean CLAY with sand (CL), mps 12 mm, weakly laminated, trace rounded gravel, no odor, moist	0	0	0	5	10	85
		G7 28	24.0 28.0										
25				ND			-LACUSTRINE-						
				ND			Similar with weathered shale fragments from 27.8 - 28.0 ft						
		G8 20	28.0 31.0	ND	GM		Dark gray-brown silty GRAVEL with sand (GM), mps 25 mm, subangular to rounded gravel, slight acrid odor, wet	10	40	15	10	10	15
							-ALLUVIAL-						
30				ND		384.7	Gray-brown WEATHERED ROCK FRAGMENTS, mps 30 mm, no odor, moist						
		G9 2	31.0 31.2	ND		31.2	-WEATHERED BEDROCK-						
							Similar to above Observed refusal at 31.2 ft						
							BOTTOM OF EXPLORATION 31.2 FT						

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-12-15

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-16

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	--	Rig Make & Model: Brainard Kilman BK81-HD Truck
Inside Diameter (in.)	-	1 3/4	--	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: N/A
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No.	36492-022
Sheet No.	1 of 1
Start	October 9, 2013
Finish	October 9, 2013
Driller	K. Busch
H&A Rep.	D. Keller
Elevation	401.6
Datum	NYS Barge Canal
Location	See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0	66	G1 36	0.0 4.0	0.0		401.4 0.2	-ASPHALT-						
				0.0			Gray dense buried top soil, over brown silty SAND						
				0.0		399.8 1.8							
				0.1	SP-SM		Light brown poorly graded SAND with silt (SP-SM), mps 0.7 mm, no odor, moist	0	0	0	35	55	10
	28	G2 37	4.0 8.0										
5				0.0			-ALLUVIAL DEPOSITS-						
				0.0			TOP OF BEDROCK 6.5 FT						
						395.1 6.5							
				0.0			Highly to completely weathered SHALE, slight petroleum-like odor						
		G3 4	8.0 8.5				-WEATHERED BEDROCK-						
						393.1 8.5	BOTTOM OF EXPLORATION 8.5 FT						
							Refusal on probable competent bedrock.						
							Borehole backfilled with bentonite upon completion.						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/9/2013	13:45	0.0	N/A	8.0	5.4

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft)	8.5
Rock Cored (ft)	0
Samples	3G

Boring No. SB-12-16

Field Tests:

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High

Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-2 REV-W/PID COL-NO FT HA-LIB09-BOS_ECG.GLB HA-TB+CORE+WELL-07-2 W FENCE.GDT G:\36492_EAST_STATION\022 OFFSITE OBF\FIELD\GINT LOGS\2013-1106-HAI-36492-022_TB.GPJ Jan 31, 14

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-17

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	--	Rig Make & Model: CME 85 Truck Mount
Inside Diameter (in.)	4 1/4	1 5/8	--	Bit Type: Cutting Head
Hammer Weight (lb)	-	140	-	Drill Mud: None
Hammer Fall (in.)	-	30	-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 1
Start October 17, 2013
Finish October 17, 2013
Driller K. Busch
H&A Rep. Keller/Nostrant
Elevation 401.1
Datum NYS Barge Canal
Location See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0		G1 26	0.0 4.0	ND	GW	400.8 0.3	-ASPHALT-						
							Gray-brown well graded GRAVEL with sand (GW), mps 20 mm, no odor, damp						
				ND			-FILL-						
						398.1							
				ND	ML	3.0	Gray-brown sandy SILT (ML), mps 2 mm, no odor, moist	0	0	0	5	20	75
				ND		397.1	-FILL-						
		G2 20	4.0 8.0	ND	SP-SM	4.0	Yellow-brown poorly graded SAND with silt (SP-SM), mps 1 mm, no odor, moist, trace clay, trace roots	0	0	0	5	85	10
5							-FILL-						
		G3 40	8.0 12.0	140	SM		Yellow-brown silty SAND (SM), mps 15 mm, petroleum-like staining (limited to outside of soil core), very strong petroleum-like odor, moist	0	0	10	20	40	30
10				42.5			Decision to abandon boring - yellow product like liquid on outside of bailer inserted into borehole						
				65.2			Boring abandoned using bentonite chips from 8.5 - 12.0 ft. Grout 8.5 ft - 0.0 ft.						
						389.1 12.0	-BOTTOM OF EXPLORATION 12.0 FT						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
10/17/2013				12.0	9.0

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 12.0
Rock Cored (ft) 0
Samples 3G

Boring No. SB-12-17

Field Tests:

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-17A

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	--	Rig Make & Model: Truck
Inside Diameter (in.)	-	1 5/8	--	Bit Type: Cutting Head
Hammer Weight (lb)	-	140	-	Drill Mud: None
Hammer Fall (in.)	-	30	-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model: MiniRAE 3000

File No. 36492-022
Sheet No. 1 of 1
Start November 7, 2013
Finish November 7, 2013
Driller S. Gelser
H&A Rep. S. McKenna
Elevation 401.1
Datum NYS Barge Canal
Location See Plan

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	PID Readings (ppm) (sample/bkgd)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines
0	0.0 0.0 0.0 0.5	G1 32	0.0 4.0		GW	400.8 0.3	-ASPHALT- Gray-brown well graded GRAVEL with sand (GW), mps 20 mm, no odor, damp -FILL-		80	5	10		5
					ML	398.1 3.0	Gray-brown sandy SILT (ML), mps 2mm, no odor, moist -FILL-				5	20	75
	0.0 0.0 0.3 5.1	G2 48	4.0 12.0		SP-SM	397.1 4.0	Yellow-brown poorly graded SAND with silt (SP-SM), mps 1 mm, no odor, moist, trace clay, trace roots -FILL-				5	85	10
5													
	25.6 13.6 9.8 10.2	G3 36	8.0 19.0		SM	393.1 8.0	Yellow-brown silty SAND (SM), mps 15 mm, petroleum-like staining, very strong petroleum-like odor, moist *Sample collected from 10'-11'			10	20	40	30
10						390.1 11.0	BOTTOM OF EXPLORATION 11.0 FT						

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 11.0
Rock Cored (ft) 0
Samples 3G

Boring No. SB-12-17A

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No. SW-12-01
Boring No. SB-12-01

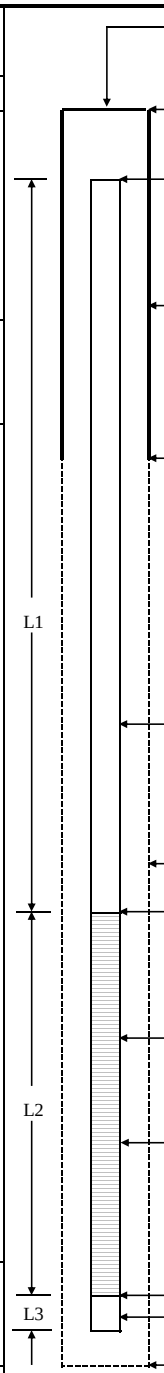
PROJECT	RG&E E. STATION: OFF-SITE SUPPLEMENTAL REMEDIAL	**H&A FILE NO.**	36492-022
LOCATION	SITE NO. V00358-8, ROCHESTER NEW YORK	**PROJECT MGR.**	D. ALLEN
CLIENT	ROCHESTER GAS & ELECTRIC CORPORATION	**FIELD REP.**	D. KELLER
CONTRACTOR	NOTHNAGLE DRILLING	**DATE INSTALLED**	10/8/2013
DRILLER	KEVIN BUSCH	**WATER LEVEL**	10.5* (10/11 @ 11:45)

Ground El.	399.6 ft	**Location**	Southwest corner of property	☑	**Guard Pipe**
El. Datum	402.12			☐	**Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
0.0	0.0
	GROUT
	4.0
FILL	BENTONITE
	6.0
	FILTER SAND
12.5	
ALLUVIAL DEPOSITS	
18.5	
W. BEDROCK	BENTONITE
20.8	**20.8**

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Masterlock Key
Height of top of guard pipe above ground surface	3.0 ft
Height of top of riser pipe above ground surface	2.7 ft
Type of protective casing:	Galvanized Steel
Length	5.0 ft
Inside	4"x4" in
Depth of bottom of guard pipe	2.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Grout	0.0	4.0
Bentonite Seal	4.0	2.0

Type of riser pipe:	Sch 40 PVC
Inside diameter of riser pipe	2.0 in
Type of backfill around riser	Grout
Diameter of borehole	8.0 in
Depth to top of well screen	8.5 ft
Type of screen	Sch 40 PVC
Screen gauge or size of openings	0.01 in
Diameter of screen	2.0 in
Type of backfill around screen	Filter Sand
Depth of bottom of well screen	18.5 ft
Bottom of Silt trap	20.5 ft
Depth of bottom of borehole	20.8 ft

4 ft	+	10 ft	+	2 ft	=	16 ft
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length

COMMENTS: * measured from top of PVC riser

Form 2007

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No. SW-12-04
Boring No. SB-12-04

PROJECT	RG&E E. STATION: OFF-SITE SUPPLEMENTAL REMEDIAL	**H&A FILE NO.**	36492-022
LOCATION	SITE NO. V00358-8, ROCHESTER NEW YORK	**PROJECT MGR.**	D. ALLEN
CLIENT	ROCHESTER GAS & ELECTRIC CORPORATION	**FIELD REP.**	D. KELLER
CONTRACTOR	NOTHNAGLE DRILLING	**DATE INSTALLED**	10/8/2013
DRILLER	K. BUSCH	**WATER LEVEL**	5.3* (10/11 @ 11:55)

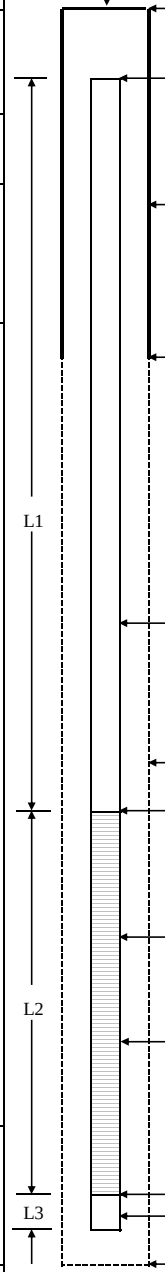
Ground El. 405.7 ft
El. Datum 405.27

Location Along southern property boundary near chain link fence gate

☐ **Guard Pipe**
☑ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
0.0	0.0
	CEMENT
	0.5
	SAND
	1.2
FILL	BENTONITE
	2.5
	FILTER SAND
9.0	
ALLUVIAL DEPOSITS	
11.3	
WETHERED BEDROCK	14.0
	BENTONITE
16.0	**16.0**

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



Type of protective cover/lock Hex Bolts

Depth of top of guard pipe/roadway box below ground surface 0.0 ft

Depth of top of riser pipe below ground surface 0.4 ft

Type of protective casing: Road Box
Length 1.1 ft
Inside Diameter 8.0 in

Depth of bottom of roadway box 1.1 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.5
Bentonite Seal	1.2	1.3

Type of riser pipe: Sch 40 PVC
Inside diameter of riser pipe 2.0 in
Type of backfill around riser Sand

Diameter of borehole 8.0 in

Depth to top of well screen 4.0 ft

Type of screen Sch 40 PVC
Screen gauge or size of openings 0.01 in
Diameter of screen 2.0 in
Type of backfill around screen Filter Sand

Depth of bottom of well screen 14.0 ft

Bottom of Silt trap 16.0 ft

Depth of bottom of borehole 16.0 ft

(Not to Scale)

40 ft	+	10 ft	2 ft	=	52 ft
Riser Pay Length (L1)		Length of screen (L2)	Length of silt trap (L3)		Pay length

COMMENTS: * measured from top of PVC riser

Form 2007

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No.	Boring No.
SW-12-05	SB-12-05

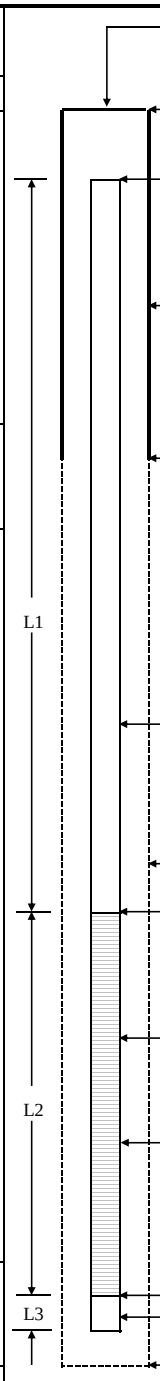
PROJECT	RG&E E. STATION: OFF-SITE SUPPLEMENTAL REMEDIAL	**H&A FILE NO.**	36492-022
LOCATION	SITE NO. V00358-8, ROCHESTER NEW YORK	**PROJECT MGR.**	D. ALLEN
CLIENT	ROCHESTER GAS & ELECTRIC CORPORATION	**FIELD REP.**	D. KELLER
CONTRACTOR	NOTHNAGLE DRILLING	**DATE INSTALLED**	10/9/2013
DRILLER	KEVIN BUSCH	**WATER LEVEL**	12.2* (10/11 @ 12:00)

Ground El.	414.6 ft	**Location**	Southeast corner of property	☑	**Guard Pipe**
El. Datum	416.95			☐	**Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
0.0	0.0
	GROUT
FILL	
	7.5
	BENTONITE
	10.2
12.1	
ALLUVIAL DEPOSITS	FILTER SAND
18.0	
	22.5
WEATHERED BEDROCK	BENTONITE
24.0	**24.0**

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



Type of protective cover/lock	Masterlock Key 2342
Height of top of guard pipe above ground surface	3.2 ft
Height of top of riser pipe above ground surface	2.9 ft
Type of protective casing:	Galvanized Steel
Length	5.0 ft
Inside	4"x4" in
Depth of bottom of guard pipe/roadway box	1.8 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Grout	0.0	7.5
Bentonite Seal	7.5	2.0

Type of riser pipe:	Sch 40 PVC
Inside diameter of riser pipe	2.0 in
Type of backfill around riser	Grout
Diameter of borehole	8.0 in
Depth to top of well screen	12.0 ft
Type of screen	Sch 40 PVC
Screen gauge or size of openings	0.01 in
Diameter of screen	2.0 in
Type of backfill around screen	Filter Sand
Depth of bottom of well screen	22.0 ft
Bottom of Silt trap	24.0 ft
Depth of bottom of borehole	20.8 ft ##

(Not to Scale)

14.9 ft	+	10 ft	+	2 ft	=	26.9 ft
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length

COMMENTS: * measured from top of PVC riser

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No.	Boring No.
SW-12-06	SB-12-06

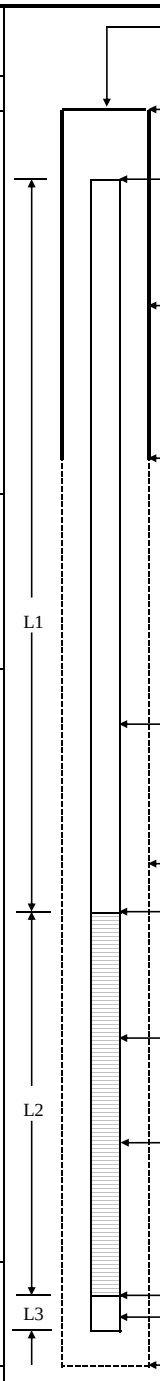
PROJECT	RG&E E. STATION: OFF-SITE SUPPLEMENTAL REMEDIAL	**H&A FILE NO.**	36492-022
LOCATION	SITE NO. V00358-8, ROCHESTER NEW YORK	**PROJECT MGR.**	D. ALLEN
CLIENT	ROCHESTER GAS & ELECTRIC CORPORATION	**FIELD REP.**	D. KELLER
CONTRACTOR	NOTHNAGLE DRILLING	**DATE INSTALLED**	10/9/2013
DRILLER	KEVIN BUSCH	**WATER LEVEL**	17.0* (10/11 @ 12:05)

Ground El.	421.3 ft	**Location**	Southeast corner of property	☑	**Guard Pipe**
El. Datum	423.79			☐	**Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
0.0	0.0
	GROUT
FILL	
	17.5
	BENTONITE
	20.0
20.5	
ALLUVIAL DEPOSITS	FILTER SAND
32.0	
	32.5
WEATHERED BEDROCK	BENTONITE
34.0	**34.0**

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Masterlock Key 2342
Height of top of guard pipe/roadway box above ground surface	3.2 ft
Height of top of riser pipe above gound surface	2.9 ft
Type of protective casing:	Galvanized Steel
Length	5.0 ft
Inside	4"x4" in
Depth of bottom of guard pipe	1.8 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Grout	0.0	17.5
Bentonite Seal	17.5	1.5

Type of riser pipe:	Sch 40 PVC
Inside diameter of riser pipe	2.0 in
Type of backfill around riser	Grout
Diameter of borehole	8.0 in
Depth to top of well screen	22.0 ft
Type of screen	Sch 40 PVC
Screen gauge or size of openings	0.01 in
Diameter of screen	2.0 in
Type of backfill around screen	Filter Sand
Depth of bottom of well screen	32.0 ft
Bottom of Silt trap	34.0 ft
Depth of bottom of borehole	34.0 ft ##

24.9 ft	+	10 ft	+	2 ft	=	36.9 ft
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length

COMMENTS: * measured from top of PVC riser

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No. SW-12-10
Boring No. SB-12-10

PROJECT	RG&E E. STATION: OFF-SITE SUPPLEMENTAL REMEDIAL	**H&A FILE NO.**	36492-022
LOCATION	SITE NO. V00358-8, ROCHESTER NEW YORK	**PROJECT MGR.**	D. ALLEN
CLIENT	ROCHESTER GAS & ELECTRIC CORPORATION	**FIELD REP.**	D. KELLER
CONTRACTOR	NOTHNAGLE DRILLING	**DATE INSTALLED**	10/4/2013
DRILLER	KEVIN BUSCH	**WATER LEVEL**	9.9* (10/11 @ 11:15)

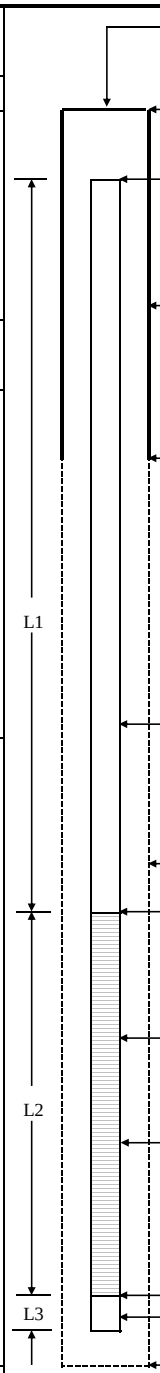
Ground El. 401.4 ft
El. Datum 404.06

Location Former building floor slab

☑ **Guard Pipe**
☐ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
0.0	0.0
	GROUT
	2.0
	BENTONITE
FILL	
	3.3
	FILTER SAND
9.5	
WEATHER BEDROCK	10.0
	BENTONITE
18.5	**18.5**

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



Type of protective cover/lock Masterlock Key

Height of top of guard pipe/roadway box above ground surface 3.0 ft

Height of top of riser pipe above ground surface 2.7 ft

Type of protective casing: Galvanized Steel
Length 5.0 ft
Inside 4"x4" in

Depth of bottom of guard pipe 2.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Grout	0.0	2.0
Bentonite Seal	2.0	1.3

Type of riser pipe: Sch 40 PVC
Inside diameter of riser pipe 2.0 in
Type of backfill around riser Grout

Diameter of borehole 8.0 in

Depth to top of well screen 4.5 ft

Type of screen Sch 40 PVC
Screen gauge or size of openings 0.01 in
Diameter of screen 2.0 in
Type of backfill around screen Filter Sand

Depth of bottom of well screen 9.5 ft

Bottom of Silt trap 11.5 ft

Depth of bottom of borehole 18.5 ft

(Not to Scale)

7.2 ft	+	5 ft	+	2 ft	=	14.2 ft
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length

COMMENTS: * measured from top of PVC riser

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No. SW-12-13
Boring No. SB-12-13

PROJECT	RG&E E. STATION: OFF-SITE SUPPLEMENTAL REMEDIAL	**H&A FILE NO.**	36492-022
LOCATION	SITE NO. V00358-8, ROCHESTER NEW YORK	**PROJECT MGR.**	D. ALLEN
CLIENT	ROCHESTER GAS & ELECTRIC CORPORATION	**FIELD REP.**	D. KELLER
CONTRACTOR	NOTHNAGLE DRILLING	**DATE INSTALLED**	10/3/2013
DRILLER	KEVIN BUSCH	**WATER LEVEL**	11.5* (10/11 @ 11:50)

Ground El. 401.6 ft
El. Datum 404.52

Location Former building floor slab

☑ **Guard Pipe**
☐ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
0.0	0.0
FILL	GROUT
	2.0
	BENTONITE
	3.5
4.3	
ALLUVIAL DEPOSITS (SAND)	
	FILTER SAND
10.2	
ALLUVIAL DEPOSITS (DAY)	
	15.3
	BENTONITE
22.3	**22.3**

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)

L1
L2
L3

Type of protective cover/lock Masterlock Key 2342

Height of top of guard pipe/roadway box above ground surface 3.4 ft

Height of top of riser pipe above/below ground surface 3.1 ft

Type of protective casing: Galvanized Steel
Length 5.0 ft
Inside 4"x4" in

Depth of bottom of guard pipe 1.9 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Grout	0.0	2.0
Bentonite Seal	2.0	1.5

Type of riser pipe: Sch 40 PVC
Inside diameter of riser pipe 2.0 in
Type of backfill around riser Bentonite

Diameter of borehole 8.0 in

Depth to top of well screen 5.0 ft

Type of screen Sch 40 PVC
Screen gauge or size of openings 0.01 in
Diameter of screen 2.0 in
Type of backfill around screen Filter Sand

Depth of bottom of well screen 15.0 ft

Bottom of Silt trap 17.0 ft

Depth of bottom of borehole 22.3 ft

(Not to Scale)

8.1 ft	+	10 ft	+	2 ft	=	20.1 ft
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length

COMMENTS: * measured from top of PVC riser

APPENDIX B

Off-Site Bedrock Coring Logs and Bedrock Well Installation Reports

HALEY & ALDRICH

CORE BORING REPORT

Boring No. BR-12-01

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type			NX/HQ	Rig Make & Model: Brainard Kilman BK81-HD Truck
Inside Diameter (in.)			--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing: Spun
				Hoist/Hammer: , Automatic Hammer

File No.	36492-022
Sheet No.	1 of 6
Start	October 10, 2013
Finish	October 10, 2013
Driller	K. Busch
H&A Rep.	Keller/Nostrant
Elevation	401.4
Datum	NYS Barge Canal
Location	See Plan

Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weath-ering	Elev./ Depth (ft)	Visual Description and Remarks
0								Advanced Borehole to 19.8 ft No Sampling See SB-12-10 for overburden details Obtained sample C1, then set 8 inch diameter permanent steel casing to 20 ft using the Haliburton method
							391.9 9.5	TOP OF BEDROCK 9.5 FT
10						Highly		
15								
20	5						381.6	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water

Sample Identification

- O - Open End Rod
- T - Thin Wall Tube
- U - Undisturbed Sample
- S - Split Spoon
- G - Geoprobe

Well Diagram

- Riser Pipe
- Screen
- Filter Sand
- Cuttings
- Grout
- Concrete
- Bentonite Seal

Summary

Overburden (lin. ft.)	9.5
Rock Cored (lin. ft.)	142.2
Samples	29C

Boring No. BR-12-01

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H+A CORE LOG PG1-07-1 HA-LIB09-BOS_MAN.GLB HA-TB+CORE+WELL-07-1.GDT G:\36492_EAST_STATION\022 OFFSITE OB\FIELD\GINT LOGS\2013-1106-HAI-36492-022_TB.GPJ Jan 31, 14

HALEY & ALDRICH

CORE BORING REPORT

Boring No. **BR-12-01**
File No. 36492-022
Sheet No. 2 of 6

Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
20		C1	19.8 24.8	89 58	148 97	Slight to Moder- ate	19.8	Moderately hard, slightly to moderately weathered, light gray to gray, aphanitic to fine grained, argillaceous LIMESTONE. Bedding horizontal, extremely thin, weak. Joints horizontal to low angle, very close to close, rough, planar to undulating,open. Two fractured zones that may account for recovery loss. Two moderately to highly weathered joints that may also account for recovery loss. Some joints discolored (not by contamination). -IRONDEQUOIT LIMESTONE-
	5							
	7							
	4							
	3							
	2	C2	24.8 29.8				376.4 25.0	Medium hard, slightly weathered, dark green-gray aphanitic SHALE. Bedding is horizontal, very thin, joints are horizontal, planar to undulating, fissile, moderate to highly weathered joints from 25.1 to 25.7 ft. -WILLIAMSON SHALE-
25	4							
	5							
	4							
	4							
30								
	7	C3	32.0 37.0	60 32	100 53	Slight		Medium hard, slightly weathered, gray-green with dark gray to black bands, aphanitic SHALE, bedding is horizontal, extremely thin to thin. Joints are horizontal to low angle, rough, slight to moderately weathered, open. Very close to medium light gray fossiliferous limestone interbeds observed throughout.
	6						368.2 33.2	-WILLIAMSON SHALE-
	6							Medium hard, slightly weathered, gray-brown and gray-green aphanitic SHALE. Bedding is very close to close, horizontal. Joints are very close to close, slightly weathered, rough, open. No sheen or odor noted, PID-non-detect. -LOWER SODUS SHALE-
35	6							
	5							
	6	C4	37.0 42.0	58 57	97 95	Slight		
	6							
	6							
40	6							
	6							
	6	C5	42.0 47.0	60 55	100 92	Slight		Similar as above except joints very close to moderate -LOWER SODUS SHALE-
	6							
	6							
45	6							
	6							
	5	C6	47.0 52.0	57 38	95 63	Slight to Moder- ate	354.0 47.4	Hard, slight to moderately weathered, light to medium gray, fine to medium grained fossiliferous crystalline LIMESTONE. Bedding is medium to very thin, horizontal to low angle, undulating. Joints are extremely close to moderate, moderately weathered, horizontal to undulating, rough, open. No sheen or odor noted, PID-non-detect. -REYNALES LIMESTONE-
	5							
	5							

HALEY & ALDRICH

CORE BORING REPORT

Boring No. **BR-12-01**
File No. 36492-022
Sheet No. 3 of 6

Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
50	5	C6	47.0 52.0	57 38	95 63			Moderate to highly weathered shale joint at 49.8 ft.
	5							
	4	C7	52.0 57.0	60 31	100 52	Slight to		Similar with frequent pits and vugs, some secondary mineralization, very close, slight to highly weathered shale interbeds, trace stylolites.
	4					Moder-		-REYNALES LIMESTONE-
	4					ate		
55	5							
	5							
	5	C8	57.0 62.0	58 22	97 37	Slight		Similar with very close, horizontal to low angle, moderate to highly weathered shale interbeds from 57.1 to 60.0. No sheen or odor noted, PID-non-detect.
	4					Moder-		-REYNALES LIMESTONE-
	4					ate		50 gallons of water lost during coring.
60	5							
	5							
	5						339.4	
	5	C9	62.0 67.0	50 13	83 22	Slight	62.0 338.9	Hard, slightly weathered, red-brown oolitie hematitic LIMESTONE, bedding is thin, horizontal.
	5						62.5	-FURNACEVILLE MEMBER-
	6					Moder-		Hard, moderately weathered medium to dark gray, fine to medium grained fossiliferous, crystalline LIMESTONE. Bedding is thin, horizontal, undulating to planar, joints are very close to close, horizontal, undulating, rough, open, moderately weathered, highly fractured, 64.0 - 71.0. Observed OLM, sheen, odor from 62.5 - 66.5 ft.
65	6					ate		PID = 97 ppm
	6							-REYNALES LIMESTONE-
	6							Note: Lost 475 gallons drilling water from 62.5 - 67.0 ft., noted odor, sheen from 67.0 - 72.0, lost 250 gallons.
	6	C10	67.0 72.0	39 4	65 7			PID = 10 ppm
	6							
	6							
70	6							
	6							
	6	C11	72.0 77.0	59 0	98 0	Slight to		Medium hard, slight to moderately weathered gray-green aphanitic SHALE, bedding is horizontal, thin to very thin, primary joints are horizontal, rough, planar, secondary joints from 75.0 - 77.0 moderately dipping, planar to undulating, trace sheen and odor
	6					Moder-		PID = 0.7 ppm
	6					ate		
75	7							
	6							
	6	C12	77.0 82.0	59 0	98 0	Slight to		Medium hard, slight to moderately weathered, gray-green, aphanitic SHALE, bedding is thin to very thin, horizontal, joints are very close to close, horizontal, smooth, moderately weathered with highly to completely weathered clay layer from 80.5 - 81.5 ft. Moderate to highly fractured from 77.0 - 78.5 ft.
	6					Moder-		
						ate		-MAPLEWOOD SHALE-

HALEY & ALDRICH

CORE BORING REPORT

Boring No. **BR-12-01**
File No. 36492-022
Sheet No. 4 of 6

Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
	6	C12	77.0 82.0	59 0	98 0			
80	6							
	6							
	5	C13	82.0 87.0	60 22	100 37	Slight		Similar as above, moderately fractured from 82.0 - 82.9 ft. Trace sheen, odor from 82.0 - 84.0 ft.
	5							
	4						316.8 84.6	Moderately hard, slightly weathered, light gray-green, fine to medium grained SANDSTONE, bedding is horizontal, moderate to close, joints are horizontal, rough, open. Conglomerate-like bed at top of formation, red-brown mottled 85.7 - 86.1 ft. Trace sheen, odor 82.0 - 84.0 ft. -KODAK SANDSTONE-
85	4							
	4							
	4	C14	87.0 92.0	58 57	97 95	Slight		
	4							
	4						312.0 89.4	Moderately hard, slightly weathered, red-brown and gray-green mottled fine to medium grained SANDSTONE. Bedding is think to medium, horizontal, undulating. Joints are horizontal to low angle, rough, planar to stepped, open, weakly bioturbated. -GRIMSBY SANDSTONE- Noted: No sheen or odor, PID-non-detect.
90	4							
	4	C15	92.0 97.0	54 32	90 53	Slight		Similar to above, except bedding is planar.
	4							
	3							-GRIMSBY SANDSTONE- Noted: No sheen or odor, PID-non-detect.
95	3							
	3							
	3	C16	97.0 102.0	59 16	98 27	Slight		
	3						303.1 98.3	Moderately hard, slightly weathered, red-brown and gray-green mottled and banded, fine grained SANDSTONE. Bedding is medium, horizontal. Joints are close to very close, horizontal to low angle, rough, open, several joints located at very thin slightly weathered shale beds.
	3							
100	3							-GRIMSBY SANDSTONE-
	3							
	3	C17	102.0 107.0	60 17	100 28			Similar to above
	3							
	3							
105	3							
	3							
	3						294.6 106.8	
	3	C18	107.0 112.0	58 22	97 37	Slight		Hard, slightly weathered, red-brown with green-gray mottling, fine grained SANDSTONE, bedding is medium to thin bedded, horizontal with some cross bedding. Joints are close to very close, horizontal to low angle, rough, open, no odor or sheen, PID-non-detect. -GRIMSBY SANDSTONE- Similar to above except weathered shale beds from 109.3 to 109.7 ft. No odor or sheen, PID detection of 2.0 at 110.5 ft.
	3							

HALEY & ALDRICH

CORE BORING REPORT

Boring No. **BR-12-01**
File No. 36492-022
Sheet No. 5 of 6

Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
	4	C18	107.0 112.0	58 22	97 37			-GRIMSBY SANDSTONE-
110	4							
	4							
	4	C19	112.0 117.0	60 22	100 37	Slight		Similar to C17, no odor or sheen, PID-non-detect.
	4							
	3							
115	4							
	4							
	2	C20	117.0 122.0	59 52	98 87	Fresh		Hard, fresh, red-brown with gray-brown mottling, fine grained SANDSTONE, bedding is thin to medium horizontal with some cross bedding, joints are close to moderate, horizontal to low angle, rough, partly open to open, no odor or sheen, PID-detect.
	2							
	3							
120	2							
	2							
	2	C21	122.0 127.0	60 27	100 45	Slight		Similar to above except slightly weathered with little medium grained, horizontal beds at 124.8 ft, 125.4 and 125.7 ft, weathered zones at 125.3 - 125.4 ft and 125.5 - 125.7, no odor or sheen, PID-non-detect.
	3							
	3							
125	3							
	3							
	3	C22	127.0 132.0	60 29	100 48			Similar to above
	4							
	5						272.1 129.3	Hard, slightly weathered, red-brown and gray-brown banded medium to fine grained SANDSTONE, bedding thick to thin horizontal to low angle bedding, joints close to very close to low angle, rough, open, no odor or sheen, PID-non-detect. -GRIMSBY SANDSTONE-
130	5							
	5							
		C23	132.0 132.7	5 0	60 0			
	4	C24	132.7 137.0	52 0	101 0			Similar with traces of sheen (< 1 square inch) on outside surface of core. Noted: Trace sheen in weathered sandstone joint at 136.1 ft. PID = 1.9 ppm Lost 300 gallons water
	4							
135	4							
	4							
	4	C25	137.0 142.0	55 21	92 35			Similar with traces of sheen from 137.0 - 139.6, very slight odor PID = 1.1 ppm
	4							Lost 300 gallons water

HALEY & ALDRICH

CORE BORING REPORT

Boring No. **BR-12-01**
File No. 36492-022
Sheet No. 6 of 6

Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
	5	C25	137.0 142.0	55 21	92 35			
140	6							
	6							
	5	C26	142.0 147.0	57 27	95 45	Slight		
	5							
	5							
	5						256.5	
145	5						144.9	Moderately hard, slightly weathered, red-brown, fine grained SHALE, bedding is medium, horizontal, joints are close to moderate, horizontal, planar to rough, partially open, no sheen or odor, PID-non-detect, weathered shale bed 144.9 - 145.1. -QUEENSTON FORMATION- Lost 1000 gallons drilling water.
	5							
	5	C27	147.0 152.0	56 13	93 22			Similar to above except close bedded, joints horizontal to low angle, frequent argillaceous partings, no sheen or odor, PID-non-detect.
	6							
	6							
150	7							
	7							
	7	C28	152.0 157.0	57	95	Slight		Moderately hard, slightly weathered, red-brown, fine grained SHALE, bedding is medium horizontal, joints are very close to close, horizontal, rough, open, moderately weathered shale bed from 152.6 - 152.8 ft, no sheen or odor, PID-non-detect. -QUEENSTON FORMATION-
	6							
	6							
155	6							Lost 550 gallons drilling water.
	6							
		C29	157.0 162.0					
160								Lost 400 gallons water.
							239.4 162.0	BOTTOM OF EXPLORATION 162.0 FT
165								

HALEY & ALDRICH — CORE BORING REPORT

Boring No. BR-12-02

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

File No. 36492-022
Sheet No. 1 of 6
Start October 15, 2013
Finish
Driller K. Busch
H&A Rep. Keller/Nostrant
Elevation 421.3
Datum NYS Barge Canal
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	-	HQ	Rig Make & Model: Brainard Kilman BK81-HD Truck
Inside Diameter (in.)	-	-	--	Bit Type: Cutting Head
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Spun
				Hoist/Hammer: , Automatic Hammer

Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
30								Advanced borehole to 33.2 ft., no sampling. See SB-12-06 for overburden details.
	5						388.1	Begin coring at 33.2 ft.
	5	C1	33.2 38.2	60 30	100 50	Slight to Moder-ate	33.2	Hard, slight to moderately weathered, light to medium gray, fine to medium grained LIMESTONE, medium to close, horizontal to low angle, very close to close, moderate to highly weathered shale interbeds at 33.8 - 34.0, 34.4 ft (slight acrid odor), 35.0 (sheen, acrid odor), 35.3 (acrid odor) 35.5, 35.7 (sheen, acrid odor), 36.6 - 36.8 (OLM, sheen, strong acrid odor PID = 191.2 ppm), 37.1, 37.3 ft. -IRONDEQUOIT LIMESTONE-
35	5							
	5							
	5							
	5	C2	38.2 43.2	56 34	93 57	Slight to Moder-ate		Similar with undulating, moderate to highly weathered shale interbeds with sheen, OLM at 40.0 - 40.2 ft. PID = 38.1 ppm
40	5							Noted: Significant OLM in wash water beginning at 40.5 ft., strong acrid, naphthalene-like odor.
	5							
	5							
	4	C3	43.2 48.2	60 50	100 83	Slight		Hard, slightly weathered, medium gray-green, fine to medium grained LIMESTONE, medium to very close, horizontal to undulated bedding, joints are medium to very close, horizontal to low angle, rough, moderately weathered shale interbeds, no sheen or odor noted, PID-non-detect.
45	5							
	5							
	6							
	3							
	3	C4	49.0 53.0	48 21	100 44			Hard, slightly weathered, medium to dark gray fine grained argillaceous LIMESTONE. Bedding is very thin, horizontal, undulating, joints are very close to extremely close, slight to highly weathered. Moderately weathered shale beds, 50.1 - 50.7 ft., no sheen or odor
50								

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft.) to: Bottom of Casing	Bottom of Hole	Water

Sample Identification

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon
G - Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (lin. ft.) 33.2
Rock Cored (lin. ft.) 144.8
Samples 29C

Boring No. BR-12-02

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
50	6	C4	49.0 53.0	48 21	100 44			noted, PID-non-detect.
	6						370.0 51.3	Medium hard, slightly weathered, dark gray-green aphanitic SHALE, bedding is very thin, horizontal to low angle, joints are close to very close, horizontal, planar, open, slightly weathered, no sheen or odor noted, PID-non-detect. -WILLIAMSON SHALE-
	7							
	6	C5	53.0 58.0	60 5	100 8			Similar with very thin dark gray to black shale beds and light gray limestone interbeds 56.3 - 57.4 ft. -WILLIAMSON SHALE-
	7							
55	7							
	7							
	6						363.9 57.4	Medium hard, slight to moderately weathered gray-green and red-brown aphanitic SHALE. Bedding is close to very close, horizontal to low angle. Joints are very close to extremely close, horizontal, rough,open, close to moderate light to medium gray thin limestone interbeds. -LOWER SODUS SHALE-
	6	C6	58.0 63.0	54 0	90 0	Slight to		
	7					Moder-ate		Similar to above except red-brown from 60.3 to end of core run.
60	7							
	7							
	7							
	7	C7	63.0 68.0	60 0	100 0	Slight		Medium hard, slightly weathered, red-brown aphanitic SHALE, bedding is thin to very thin, horizontal. Joints are extremely close to close, horizontal, rough, open. Occasional medium gray fossiliferous limestone interbeds. No sheen or odor, PID-non-detect. -LOWER SODUS SHALE-
	6							
65	6							
	6							
	6							
	6	C8	68.0 73.0	60 19	100 32	Slight		Similar to above except gray-green from 68.9 - 70.9 ft. -LOWER SODUS SHALE-
	6							
70	5							
	5						350.4 70.9	Hard, slightly weathered, light to dark gray, fine to medium grained crystalline LIMESTONE, bedding is very thin, horizontal to low angle, planar to undulating. Joints are very close to close, horizontal to low angle, rough, open. Frequent very thin to thin gray-green shale interbeds, no sheen or odor, PID-non-detect. -REYNALES LIMESTONE-
	4							
	4	C9	73.0 78.0	60 57	100 95			Similar to above except fewer shale interbeds, frequent stylolites, fossiliferous.
	4							
75	4							
	3							
	3							
	3	C10	78.0 83.0	60 54	100 90			Hard, slightly weathered, light to dark gray, fine to medium grained crystalline LIMESTONE, bedding is very thin to thin, horizontal, undulating. Joints are very close to moderate, horizontal, slightly undulating, rough, open.
	3							

HALEY & ALDRICH

CORE BORING REPORT

Boring No. **BR-12-02**
File No. 36492-022
Sheet No. 3 of 6

Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
80	3	C10	78.0 83.0	60 54	100 90			
	3							
	3							
	3							
	3	C11	83.0 88.0	59 40	98 67	Slight		
	4							
85	3					Slight		
	3						335.4 85.9	Hard, slightly weathered, red-brown, fine to medium grained hematitic LIMESTONE, fossiliferous
	4						335.0 86.3	-FURNACEVILLE MEMBER- Hard, slightly weathered, light to dark gray-green, fine to medium grained crystalline LIMESTONE, bedding is very thin, horizontal, undulating. Joints are extremely close to close horizontal, rough, open, frequent gray-green shale interbeds.
	4	C12	88.0 93.0	60 8	100 13	Slight		-RAYNALES LIMESTONE-
	7						332.0 89.3	Moderately hard, slightly weathered medium green-gray, argillaceous SHALE, bedding is very thin to thin, horizontal, planar. Joints are very close, horizontal, smooth to rough.
90	7							-MAPLEWOOD SHALE-
	8							
	8							
	7	C13	93.0 98.0	56 9	93 15			Similar with frequent moderately dipping tight joints and highly fractured from 94.0 - 95.9 ft. Rough, vertical fractures 96.4 - 97.1 ft.
	7							
95	8							
	8							
	7							
	6	C14	98.0 103.0	58 0	97 0			Moderately hard, slightly weathered, green-gray, aphanitic argillaceous SHALE, bedded is thin to very thin, horizontal, joints are very close, horizontal, slightly weathered, rough. Moderately dipping, tight fractures from 98.7 - 99.4 ft., no sheen or odor, PID-non-detect.
	6							-MAPLEWOOD SHALE-
100	6							Note: RQD suspected low due to close spaced tight joint sets.
	7							
	6							
	7	C15	103.0 108.0	60 11	100 18			Similar to above with fractured areas at 103.4 - 103.6, 104.9 - 105.1 ft.
	7							-MAPLEWOOD SHALE-
105	6							
	6							
	6						314.0 107.3	Moderately hard, slightly weathered, medium gray-green and red-brown mottled, fine to medium grained SANDSTONE, bedding is medium, horizontal, joints are close, horizontal, rough, undulating.
	5	C16	108.0 113.1	61 56	100 92			-KODAK SANDSTONE- Similar, bioturbated

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Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
	5	C16	108.0 113.1	61 56	100 92			
110	5							
	4							
	4						309.1 112.2	Hard, slightly weathered, red-brown and gray-green mottled, fine grained SANDSTONE, bedding is medium horizontal, swirly, joints are close to medium rough, undulating. Bioturbated with frequent silty infilling. Noted slight sheen on wash water, no odor, PID-non-detect. -GRIMSBY SANDSTONE-
	3	C17	113.1 118.2	61 59	100 96			
	3							
115	3							
	3							
	3							
	4	C18	118.2 123.2	60 59	100 98			Similar to above except no sheen, odor, PID non-detect. Joints horizontal to low angle, rough, no odor, no sheen, PID-non-detect.
	3							
120	4							
	3							
	4						299.3 122.0	Hard, slightly weathered, red-brown and gray-green mottled, fine to medium grained SANDSTONE, bedding is medium, horizontal, joints are close to moderate, horizontal, rough, tight to open, bioturbated, no odor, no sheen -GRIMSBY SANDSTONE-
	4	C19	123.2 127.9	56 51	99 90			Similar to above
	3							
125	3							
	3							
	3							
	3	C20	127.9 133.0	61 43	100 70			Similar to above except weathered shale joints at 128.9, 129.8, 131.1, 131.7 ft. Note: Lost 20 gallons of drilling fluid, no odor, no sheen, PID-non-detect.
	4							
130	3							
	4							
	3						289.6 131.7	Hard, slightly weathered, red-brown with gray to gray-green banding and mottling, fine grained SANDSTONE. Bedding is very thin to thin, horizontal to low angle, joints are close to very close, horizontal, undulating, rough, open, trace to little fossils. -GRIMSBY SANDSTONE-
	3	C21	133.0 138.0	60 47	100 78	Slight		Similar to above except cross bedded from 134.9 - 136.2 ft.
	4							
135	5							
	6					Slight		
	6							
		C22	138.0 142.9	59 50	100 85	Slight		Similar to above except shaley interbed at 138.5 ft. Joints very close to medium, bioturbated.

Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
		C22	138.0 142.9	59 50	100 85			
140								
		C23	142.9 148.0	61 58	100 95	Slight		Similar to above except very close green-gray banded, medium bedded.
145								
		C24	148.0 153.0	59 42	98 70	Slight	272.7 148.6	Hard, slightly weathered, red-brown and green-gray banded, fine to medium grained SANDSTONE. Bedding is very close, horizontal to low angle. Joints are very close to medium, horizontal to low angle, smooth to rough, partially open to open. -GRIMSBY SANDSTONE-
150								
		C25	153.0 158.0	56 18	93 30	Slight to Moder-ate		Similar to above except medium grained, poorly cemented, red-brown with trace of gray mottling. -GRIMSBY SANDSTONE-
155								
	2	C26	158.0 163.0	49 22	82 37	Slight to Moder-ate		Hard, slightly to moderately weathered, red-brown with gray-brown banding, fine to medium grained SANDSTONE, horizontal thin bedding, joints are close, low angle to moderately dipping, rough, open throughout, vertical fracture noted from 160.2 - 160.3, no odor or sheen, PID-non-detect. -GRIMSBY SANDSTONE-
	2							
160	2							
	2							
	2							
	3	C27	163.0 168.0	60 37	100 62	Slight	258.0 163.3	Similar to above except highly weathered from 163.0 - 163.1 Hard, slightly weathered, red-brown with green-gray mottling, fine grained SHALE, horizontal very thin bedding, joints are close to moderate, low angle, rough, open, highly weathered zone from 166.9 - 167.0 ft and 167.5 - 168.0 ft., no odor or sheen, PID-non-detect. -QUEENSTON FORMATION-
	5							
165	5							
	5							
	5							
	5							

HALEY & ALDRICH

CORE BORING REPORT

Boring No. **BR-12-02**
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Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
	5	C28	168.0 173.0	60 40	100 67	Fresh		Hard, fresh, red-brown with green-gray mottling, fine grained SHALE, horizontal very thin bedding, joints are close to moderate, horizontal to low angle, rough, open throughout, no odor or sheen, PID-non-detect.
170	5							-QUEENSTON FORMATION-
	5							
	5							
	5	C29	173.0 178.0	60 36	100 60			Similar to above, no odor or sheen, PID-non-detect.
175	5							
	5							
	5							
	5						243.3 178.0	BOTTOM OF EXPLORATION 178.0 FT
180								
185								
190								
195								

TEST BORING REPORT

Boring No. BR-12-03

Project	EAST STATION FORMER MGP SITE SUPPLEMENTAL RI, ROCHESTER, NY
Client	ROCHESTER GAS & ELECTRIC CORPORATION
Contractor	NOTHNAGLE DRILLING

File No. 36492-022
Sheet No. 1 of 7
Start October 14, 2013
Finish October 14, 2013
Driller K. Busch
H&A Rep. Keller/Nostrant
Elevation 399.2
Datum NYS Barge Canal
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	--	Rig Make & Model: BK-81 Truck Mount
Inside Diameter (in.)	4 1/4	1 5/8	--	Bit Type: Cutting Head
Hammer Weight (lb)	-	140	-	Drill Mud: None
Hammer Fall (in.)	-	30	-	Casing: Spun
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model: MiniRAE 3000

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		G1 41	0.0 4.0		ML	Brown sandy SILT with gravel (ML), mps 20 mm, no odor, dry, trace clay, concrete fragments from 3.8 - 4.0 ft -FILL- Advanced through obstruction (suspected concrete) to 4.5 ft. PID = ND ppm	5	10	5	10	15	55				
5		G2 6	4.5 7.0			Gray-brown-red CONCRETE FRAGMENTS with brick, mps 30 mm, no odor, moist, trace to little gray ash-like material (ALM), coke-like material, wood, glass -FILL- Observed refusal at 7.0 ft. Advance augers through obstruction to 8.0 ft. PID = ND ppm										
10		G3 2	8.0 12.0		GP	Gray-brown poorly graded GRAVEL with silt (GP), mps 30 mm, no odor, wet Note: Poor recovery, large aggregate lodged in shoe of sampler. -FILL- PID = ND ppm										
15		G4 23	12.0 16.0		ML	Gray-brown sandy SILT (ML), mps 15 mm, no odor, moist PID = ND ppm Black-white-tan mottled ALM, mps 10 mm, no odor, wet, trace to little clinker-like material -FILL- PID = ND ppm		5	15	10	10	60				
20		G5 26	16.0 20.0	382.7 16.5	SP	Gray-brown poorly graded SAND (SP), mps 1 mm, weakly laminated, slight organic odor, wet PID = ND ppm				5	90	5				

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 24.2
Rock Cored (ft) 119.8
Samples 7G, 24C

Boring No. BR-12-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. BR-12-03
File No. 36492-022
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Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		G6 43	20.0 24.0	379.2 20.0	SP-SM	Gray-brown poorly graded SAND with silt (SP-SM), mps < 1 mm, light brown silt interbeds, slight organic odor, wet PID = ND ppm										
				375.7 23.5												
				375.0 375.3		Gray-brown lean CLAY with sand, mps 3 mm, slight organic odor, moist PID = ND ppm				10	5	85				
		G7 2	24.0 24.2	24.2 23.9		Gray-brown moderately weathered SHALE, mps 20 mm, no odor, moist -WEATHERED BEDROCK- PID = ND ppm										
25						SEE CORE BORING REPORT FOR ROCK DETAILS										
30																
35																
40																
45																

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. BR-12-03

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CORE BORING REPORT

Boring No. **BR-12-03**
File No. 36492-022
Sheet No. 3 of 7

Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
								SEE TEST BORING REPORT FOR OVERBURDEN DETAILS
	1.5	C1	24.2	56	97	Slight to	375.0	Medium hard, slightly to moderately weathered, gray-green with light gray, dark gray and
			29.0	28	49		24.2	black banding, aphanitic, SHALE. Bedding horizontal to low angle, very thin, planar to
25	3					Moder-		slightly undulating. Joints horizontal, very close to close, rough, planar to undulating,
	6					ate		open, weathered. Frequent very thin, irregular bedded, light gray, fossilferous limestone
	5							interbeds.
								-WILLIAMSON SHALE-
							371.7	
	4						27.5	Medium hard, fresh to slightly weathered, dark green-gray, aphanitic, SHALE with
								occasional gray limestone beds. Bedding horizontal, extremely thin to very thin. Joints
	3.5							horizontal, extremely close to close, rough, planar to slightly undulating, open.
								-LOWER SODUS SHALE-
	3.5	C2	29.0	60	100			Similar to above except with red-brown layers.
			34.0	48	80			
30	4							
	3.5							
	3.5							
	-							
	4	C3	34.0	60	100			Medium hard, fresh, red-brown with dark green-gray layers, aphanitic, SHALE. Bedding
			39.0	59	98			horizontal, extremely thin, planar to slightly undulating. Joints horizontal, very close to
35	3.5							wide, smooth, planar to slightly undulating, open.
	3.5							Note: Bedding planes weaken as rock core dries out.
	3.5							-LOWER SODUS SHALE-
	3.5							
	3.5	C4	39.0	60	100			Similar to above except dark green-gray.
			44.0	19	32			
40	3.5						359.0	
							40.2	Hard, fresh, light gray to gray, fine to medium grained, LIMESTONE with frequent dark
	4.5							green-gray shale interbeds, bedding horizontal, very thin. Joints horizontal to low angle,
	4.5							very close to close, rough, undulating, open, tend to be in softer, slightly weathered shale.
	5.5							Clay in filling at 43.5 ft.
								-REYNALES LIMESTONE-
	6	C5	44.0	60	100			Similar to above except joints very close to moderately close.
			49.0	48	80			
45	6							
	6							
	7							
	7							
	7	C6	49.0	60	100			Similar to above except joints very close to moderately close.
			54.0	48	80			
50	7							
	6.5							
	6							
	6							
	5.5							

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CORE BORING REPORT

Boring No. **BR-12-03**
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Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
		C7	54.0 59.0	60 40	100 67			Similar to above except joints very close to moderately close.
55	6							
	6						343.3 55.9	Hard, fresh red-brown, fine to medium grained hematitic limestone. Furnaceville member.
	5.5						342.9 56.3	
	4.5							REYNALES LIMESTONE
	4.5	C8	59.0 64.0	58 46	97 77		340.2 59.0	Moderately hard, fresh, light green-gray, aphanitic, SHALE. Bedding horizontal, extremely thin. Joints horizontal to moderately dipping, very close to moderately close, rough, planar, open. Fractured zone at transition that likely accounts for lost recovery.
60	4							-MAPLEWOOD SHALE-
	4.5							
	4.5							
	4.5							
	4.5	C9	64.0 69.0	60 50	100 83			Similar to above except joints slightly weathered from 64.4 - 64.7 ft.
65	5.5							
	5							
	4							
	4							
	4	C10	69.0 74.0	59 52	98 87			Moderately hard, fresh, light green-gray, aphanitic, SHALE. Bedding horizontal, extremely thin. Joints horizontal, extremely close to moderately close, rough, planar, tight to open.
70	4							
	4							
	4.5							
	4.5							
	4	C11	74.0 79.0	58 47	97 78			Similar to above except moderately weathered joint from 74.1 - 74.2 with slight naphthalene-like odor, PID = 0.5 ppm and moderately weathered joints from 75.0 - 75.2 ft with slight naphthalene-like odor, PID = 2.5 ppm. No sheen noted on drill water.
75	4							
	4							
	4							
	4						321.5 77.7	Moderately hard, fresh, green-gray, fine grained SANDSTONE. Joints horizontal, very close to moderately close, rough, planar, open
	4							-KODAK SANDSTONE-
	4	C12	79.0 84.0	60 60	100 100			Similar to above except with red-brown mottling, no joints.
80	4.5							
	5							
	5							
	4						316.7 82.5	Moderately hard, fresh, red-brown with some green-gray mottling, fine grained, SANDSTONE. Joint low angle, rough, slightly undulating, open at 83.1 ft.
	3							-GRIMSBY SANDSTONE-

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CORE BORING REPORT

Boring No. **BR-12-03**
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Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
		C13	84.0 89.0	60 58	100 97			Similar to above except joints moderately close.
85	3							
	4							
	5							
	5.5							
	5	C14	89.0 94.0	60 58	100 97			Similar to above except joints close to moderately close.
90	5							
	5							
	5							Note: Began losing drill water at joint at change 92.5 ft.
	5						306.7 92.5	Moderately hard, fresh, red-brown to light gray, mottled, SANDSTONE, no joints.
	7	C15	94.0 99.0	60 54	100 90			Similar to above except moderately weathered joints, low angle, rough, moderately close from 94.4 - 94.9 and 96.0 ft., strong naphthalene-like odor, sheen on rock core from 94.4 - 97.4 ft. OLM bleb noted at 97.3 ft. PID = 5.1 ppm at 94.7 ft., 5.6 ppm at 96.0 ft., 5.0 ppm at 97.4 ft., and 3.7 ppm at 99.0 ft.
95	10							-GRIMSBY SANDSTONE-
	11							
	11							
	11							
	15	C16	99.0 104.0	58 44	97 73			Similar to above except moderately weathered joint at 101.4 ft., slight naphthalene-like odor, sheen present
100	16						299.2 100.0	Moderately hard, slightly weathered, fine grained, red-brown with some green-gray mottling SANDSTONE, joint slightly weathered, low angle, rough, open at 101.6 ft., 102.3 - 102.7 ft., and 103.5 ft., bioturbation throughout, slight naphthalene-like odor, sheen present, PID=0.5 ppm at 102.6 ft.
	4							-GRIMSBY FORMATION-
	4							
	6							
	7	C17	104.0 109.0	59 45	98 75	Slight		Similar to above except highly weathered zone from 104.8 - 105.0 ft., joints low angle, rough, moderately close to open zone from 105.6 - 106.4 ft., and 107.1 - 107.9 ft., slight naphthalene-like odor, little sheen at 104.8 - 105.0 ft., and 107.1 - 107.9 ft., PID=8.0 ppm at 104.0 ft., 2.6 ppm at 107.1 ft.
105	4							
	2.5							
	3							
	2.5							
	2.5	C18	109.0 114.0	60 57	100 95			Similar to above except joint planar, rough, open at 109.3 and 113.5 ft.
110	2.5							
	2.5							
	2							
	2							
	3						285.2	

HALEY & ALDRICH

CORE BORING REPORT

Boring No. BR-12-03
File No. 36492-022
Sheet No. 6 of 7

Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weathering	Elev./ Depth (ft)	Visual Description and Remarks
		C19	114.0 119.0	59 45	98 75	Fresh	114.0	Hard, fresh, fine to medium grained, red-brown to brown-gray/gray-green SANDSTONE, extremely thin to thin, moderately dipping, cross bedding, joint low angle, rough, moderately close to open zone from 116.7 - 117.4 ft., and at 117.8 ft., 118.5 ft., and 118.9 ft, slight naphthalene-like odor, trace sheen from 116.7 - 117.4 ft., PID=4.1 ppm at 116.7 ft., 4.0 ppm at 117.4 ft., 2.8 ppm at 118.5 ft., and 2.0 ppm at 118.9 ft. -GRIMSBY SANDSTONE-
115	2.5							
	2							
	3							
	3							
	4	C20	119.0 124.0	60 49	100 82			Similar to above except becoming medium grained at 122.0 ft., joint horizontal to low angle, rough, moderately close to open at 120.0 ft., 120.6 ft., 120.9 ft., 122.2 ft., 122.8 ft., slight naphthalene-like odor, little sheen at 122.2 ft., PID=13.8 ppm at 122.2 ft.
120	3.5							
	4							
	4							
	3							
	2	C21	124.0 129.0	59 58	98 97	Fresh		Hard, fresh, fine to medium grained red-brown with gray-brown banded SANDSTONE, thin to thick bedding, joint low angle, rough, moderately open at 124.4 ft., 124.7 ft., 125.6 ft., 127.4 ft., 127.9 ft and 129.3 ft., slight to trace naphthalene-like odor, trace sheen at 124.4 ft., 124.7 ft. and 125.7 ft., PID=2.7 ppm at 124.4 ft., 2.7 ppm at 124.7 ft., and 1.1 ppm at 125.7 ft.
125	2							
	2							
	2							
	2							
	6	C22	129.0 134.0	60 45	100 75			Similar to above except joints horizontal to low angle, rough, very close to open at 129.2 - 129.4 ft., 130.4 ft., 131.5 ft., 132.7 ft and 133.1 ft., highly weathered shale or clay zone from 133.3 - 133.7 ft., trace naphthalene-like odor, trace sheen at 129.2 ft.
130	2							
	2							
	2							
	5						265.5	
	4	C23	134.0 139.0	60 51	100 85	Slight	133.7	Hard, slightly weathered, red-brown, fine grained SHALE, little green-gray mottling, extremely thin to thin, horizontal bedding, no odor or sheen. -QUEENSTON FORMATION-
135	5							Similar to above except joints, horizontal, rough, open at 134.2 ft., 135.3 ft., 136.0 ft., 136.9 ft., weathered zone with very thin siltstone beds from 137.1 - 137.4 ft., no odor or sheen.
	4							
	4							
	5							
	5	C24	139.0 144.0	54 47	90 78	Fresh		Similar to above except joints horizontal to low angle, rough to planar, partially open to open at 139.2 ft., 140.2 ft., 141.1 ft., 141.3 ft., 141.4 ft., 141.7 ft., 142.3 ft., and 143.6 ft., no odor or sheen present. -QUEENSTON FORMATION-
140	5							
	5							
	5							
	5						255.2	

HALEY& ALDRICH

CORE BORING REPORT

Boring No. **BR-12-03**
File No. 36492-022
Sheet No. 7 of 7

Depth (ft)	Drilling Rate (min./ft)	Run No.	Run Depth (ft)	Recovery/RQD in.	Recovery/RQD %	Weath-ering	Elev./ Depth (ft)	Visual Description and Remarks
							144.0	BOTTOM OF EXPLORATION 144.0 FT
145								
150								
155								
160								
165								
170								

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

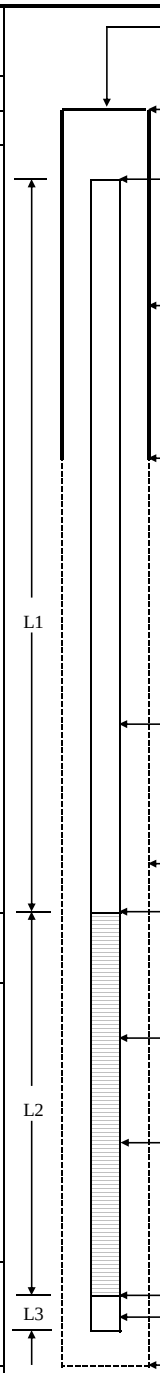
Well No. DW-12-01R
Boring No. SB-12-10

PROJECT	RG&E E. STATION: OFF-SITE SUPPLEMENTAL REMEDIAL	**H&A FILE NO.**	36492-026
LOCATION	SITE NO. V00358-8, ROCHESTER NEW YORK	**PROJECT MGR.**	D. ALLEN
CLIENT	ROCHESTER GAS & ELECTRIC CORPORATION	**FIELD REP.**	D. NOSTRANT
CONTRACTOR	NOTHNAGLE DRILLING	**DATE INSTALLED**	11/15/2013
DRILLER	S. GELSER	**WATER LEVEL**	Not measured

Ground El.	401.3 ft	**Location**	Former building floor slab	☑	**Guard Pipe**
El. Datum	401.87			☐	**Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
0.0	0.0
FILL	CONCRETE 0.8
9.5 WEATHERED BEDROCK	
18.5 BEDROCK	CEMENT BENTONITE GROUT (L1)
	53.0 BENTONIRE
	56.0 WG#0 SILICA SAND (L2)
	67.1 BENTONITE (L3)
69.0 (Bottom of Exploration)	**69.0**

(Numbers refer to depth from ground surface in feet)



Type of protective cover/lock	Aluminum/Padlock
Heigth of top of guard pipe above ground surface	0.9 ft
Height of top of riser pipe above ground surface	0.6 ft
Type of protective casing:	Steel
Length	20.9 ft
Inside Diameter	8.000 in
Depth of bottom of roadway box	20.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal-2	53.0	3.0
Bentonite Seal-1	67.1	1.9
Grout	53.0	52.2

Type of riser pipe:	PVC
Inside diameter of riser pipe	2.0 in
Type of backfill around riser	See Diagram
Diameter of borehole	14.0 in
Depth to top of well screen	57.0 ft
Type of screen	Slotted PVC
Screen gauge or size of openings	0.020 in
Diameter of screen	2.0 in
Type of backfill around screen	WG#0 Silica Sand
Depth of bottom of well screen	67.0 ft
Bottom of Silt Sump	69.0 ft
Depth of bottom of borehole	69.0 ft

(Not to Scale)

Riser Pay Length (L1)	+	Length of screen (L2)		Length of silt trap (L3)	=	Pay length
ft	+	ft		ft	=	ft

COMMENTS: * measured from top of PVC riser

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

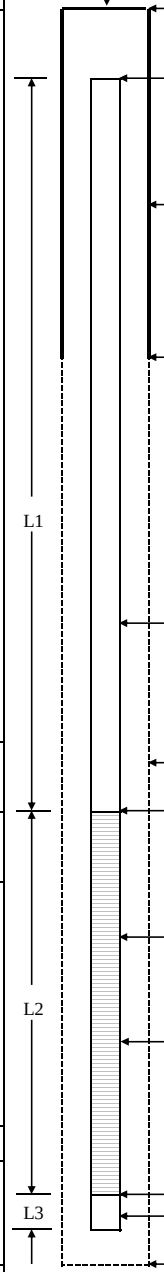
Well No. DW-12-01M
Boring No. SB-12-10

PROJECT	RG&E E. STATION: OFF-SITE SUPPLEMENTAL REMEDIAL	**H&A FILE NO.**	36492-024
LOCATION	SITE NO. V00358-8, ROCHESTER NEW YORK	**PROJECT MGR.**	D. ALLEN
CLIENT	ROCHESTER GAS & ELECTRIC CORPORATION	**FIELD REP.**	D. NOSTRANT
CONTRACTOR	NOTHNAGLE DRILLING	**DATE INSTALLED**	11/14/2013
DRILLER	S. GELSER	**WATER LEVEL**	Not measured

Ground El.	401.3 ft	**Location**	Former building floor slab	☑	**Guard Pipe**
El. Datum	401.87			☐	**Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
0.0	0.0
FILL	
9.5	
WEATHERED BEDROCK	NESTED WELL CLUSTER SEE BR-12-01R FOR INSTALLATION DETAILS ABOVE 69.0 FT
18.5	
BEDROCK	
	69.0
	SAND
	70.2
	BENTONITE
	72.7
	WG#0 SILICA
	84.25
	BENTONITE
	86.0
	WG#0 SILICA SAND
87.5	**87.5**

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Aluminum/Padlock
Heigth of top of guard pipe above ground surface	0.9 ft
Depth of top of riser pipe above ground surface	0.6 ft
Type of protective casing:	Steel
Length	22.4 ft
Inside Diameter	8.000 in
Depth of bottom of roadway box	20.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal-2	70.5	1.5
Bentonite Seal-1	84.3	1.8

Type of riser pipe:	PVC
Inside diameter of riser pipe	2.0 in
Type of backfill around riser	See Diagram
Diameter of borehole	14.0 in
Depth to top of well screen	74.0 ft
Type of screen	Slotted PVC
Screen gauge or size of openings	0.020 in
Diameter of screen	2.0 in
Type of backfill around screen	WG#0 Silica Sand
Depth of bottom of well screen	84.0 ft
Bottom of Silt Sump	86.0 ft
Depth of bottom of borehole	87.5 ft

Riser Pay Length (L1)	+	Length of screen (L2)	Length of silt trap (L3)	=	Pay length
ft		ft	ft		ft

COMMENTS: * measured from top of PVC riser

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No. DW-12-01G
Boring No. SB-12-10

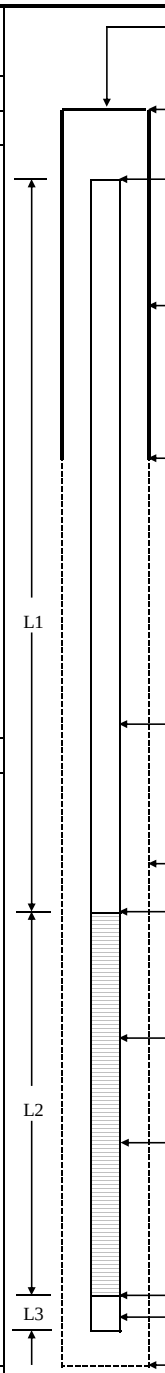
PROJECT	RG&E E. STATION: OFF-SITE SUPPLEMENTAL REMEDIAL	**H&A FILE NO.**	36492-024
LOCATION	SITE NO. V00358-8, ROCHESTER NEW YORK	**PROJECT MGR.**	D. ALLEN
CLIENT	ROCHESTER GAS & ELECTRIC CORPORATION	**FIELD REP.**	D. NOSTRANT
CONTRACTOR	NOTHNAGLE DRILLING	**DATE INSTALLED**	11/14/2013
DRILLER	S. GELSER	**WATER LEVEL**	Not measured

Ground El.	401.3 ft	**Location**	Former building floor slab	☑	**Guard Pipe**
El. Datum	403.42			☐	**Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
CONCRETE	0.0
0.5	CEMENT
FILL	0.8
9.5	
WEATHERED BEDROCK	
	CEMENT
18.5	BENTONITE
	GROUT
	116.4
BEDROCK	BENTONITE
	118.8
	WG#0
	SILICA
	SAND
132.7	**132.7**

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Aluminum/Padlock
Depth of top of guard pipe/roadway box below ground surface	2.4 ft
Depth of top of riser pipe below ground surface	2.3 ft
Type of protective casing:	Steel
Length	20.9 ft
Inside Diameter	8.000 in
Depth of bottom of roadway box	20.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal-2	116.4	2.4
Bentonite Seal-1	130.2	2.0
Grout		

Type of riser pipe:	PVC
Inside diameter of riser pipe	2.0 in
Type of backfill around riser	See Diagram
Diameter of borehole	14.0 ± in
Depth to top of well screen	120.2 ft
Type of screen	Slotted PVC
Screen gauge or size of openings	0.01 in
Diameter of screen	2.0 in
Type of backfill around screen	See Diagram
Depth of bottom of well screen	130.2 ft
Bottom of Sump	132.2 ft
Depth of bottom of borehole	132.7 ft

ft	+	ft	+	ft	=	ft	
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length	

COMMENTS:

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OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No. DW-12-01Q
Boring No. SB-12-10

PROJECT	RG&E E. STATION: OFF-SITE SUPPLEMENTAL REMEDIAL	**H&A FILE NO.**	36492-024
LOCATION	SITE NO. V00358-8, ROCHESTER NEW YORK	**PROJECT MGR.**	D. ALLEN
CLIENT	ROCHESTER GAS & ELECTRIC CORPORATION	**FIELD REP.**	D. NOSTRANT
CONTRACTOR	NOTHNAGLE DRILLING	**DATE INSTALLED**	11/13/2013
DRILLER	S. GELSER	**WATER LEVEL**	Not measured

Ground El. 401.3 ft
El. Datum 403.15

Location Former building floor slab

☑ **Guard Pipe**
☐ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
0.0	0.0
CONCRETE	
.5	
FILL	
9.5	NESTED
	WELL
WEATHERED	CLUSTER
BEDROCK	SEE
	BR-12-01G
	FOR
18.5	INSTALLATION
	DETAILS
	ABOVE 133.0 FT
BEDROCK	
	132.7
	BENTONITE
	147.0
	WG#0
	SILICA
	SAND
	158.2
	BENTONITE
	160.0
	SILICA SAND
162.1	**162.1**

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)

L1
L2
L3

Type of protective cover/lock Aluminum/Padlock

Heigth of top of guard pipe above ground surface 2.4 ft

Height of top of riser pipe above ground surface 2.1 ft

Type of protective casing: Steel
Length 22.4 ft
Inside Diameter 8.000 in

Depth of bottom of pipe/roadway box 20.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal-2	132.7	14.3
Bentonite Seal-1	158.2	1.8

Type of riser pipe: PVC
Inside diameter of riser pipe 2.0 in
Type of backfill around riser See Diagram

Diameter of borehole 14.0 in

Depth to top of well screen 148.0 ft

Type of screen Slotted PVC
Screen gauge or size of openings 0.020 in
Diameter of screen 2.0 in
Type of backfill around screen WG#0 Silica Sand

Depth of bottom of well screen 158.0 ft

Bottom of Silt Sump 160.0 ft

Depth of bottom of borehole 162.1 ft

(Not to Scale)

Riser Pay Length (L1)	+	Length of screen (L2)		Length of silt trap (L3)	=	Pay length
ft	+	ft		ft	=	ft

COMMENTS:

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OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No. DW-12-02I
Boring No. BR-12-02

PROJECT	RG&E E. STATION: OFF-SITE SUPPLEMENTAL REMEDIAL	**H&A FILE NO.**	36492-022
LOCATION	SITE NO. V00358-8, ROCHESTER NEW YORK	**PROJECT MGR.**	D. ALLEN
CLIENT	ROCHESTER GAS & ELECTRIC CORPORATION	**FIELD REP.**	D. NOSTRANT
CONTRACTOR	NOTHNAGLE DRILLING	**DATE INSTALLED**	11/6/2013
DRILLER	S. GELSER	**WATER LEVEL**	Not measured

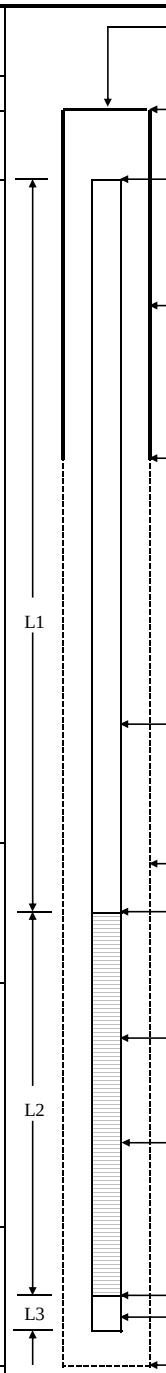
Ground El. 421.0 ft
El. Datum 423.54

Location Southeast corner of property

☐ **Guard Pipe**
☐ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
0.0	0.0
FILL	CONCRETE 0.8
	CEMENT BENTONITE GROUT
31.5	31.0 BENTONITE
BEDROCK	34.0 WG #0 SILICA SAND
	42.0 BENTONITE
44.0	**44.0**

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock Aluminum/Padlock

Heigth of top of guard pipe above ground surface 2.9 ft

Height of top of riser pipe above ground surface 2.5 ft

Type of protective casing: Galvanized Steel
Length 5.0 ft
Inside Diameter 4x4 in

Depth of bottom of pipe/roadway box 2.5 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Grout	0.8	31.0
Bentonite Seal-2	31.0	3.0
Bentonite Seal-1	42.0	2.0

Type of riser pipe: Sch 40 PVC
Inside diameter of riser pipe 2.0 in
Type of backfill around riser Grout

Diameter of borehole 8.0 in

Depth to top of well screen 35.0 ft

Type of screen Sch 40 Slotted PVC
Screen gauge or size of openings 0.010 in
Diameter of screen 2.0 in
Type of backfill around screen Filtered Sand

Depth of bottom of well screen 42.0 ft

Bottom of Silt trap 44.0 ft

Depth of bottom of borehole 44.0 ft

Riser Pay Length (L1)	+	Length of screen (L2)	Length of silt trap (L3)	=	Pay length
37.9 ft	+	7 ft	2 ft	=	46.9 ft

COMMENTS:

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No. DW-12-02M
Boring No. BR-12-02

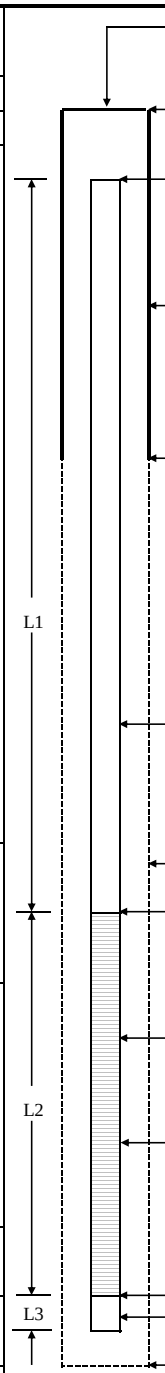
PROJECT	RG&E E. STATION: OFF-SITE SUPPLEMENTAL REMEDIAL	**H&A FILE NO.**	36492-024
LOCATION	SITE NO. V00358-8, ROCHESTER NEW YORK	**PROJECT MGR.**	D. ALLEN
CLIENT	ROCHESTER GAS & ELECTRIC CORPORATION	**FIELD REP.**	D. NOSTRANT
CONTRACTOR	NOTHNAGLE DRILLING	**DATE INSTALLED**	11/16/2013
DRILLER	S. LORANTY/S. GELSER	**WATER LEVEL**	Not measured

Ground El.	421.1 ft	**Location**	Southeast corner of property	☐	**Guard Pipe**
El. Datum	422.82			☐	**Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
0.0	0.0
	CONCRETE
	0.8
FILL	
20.5	CEMENT
ALLUVIAL	BENTONITE
DEPOSITS	GROUT
33.2	
	86.0
	BENTONITE
BEDROCK	89.0
	WG #0
	SILICA
	SAND
	105.0
	BENTONITE
	107.0
	SAND
108.0	**108.0**

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



Type of protective cover/lock	Aluminum/Padlock
Heigth of top of guard pipe above ground surface	1.9 ft
Height of top of riser pipe above ground surface	1.7 ft
Type of protective casing:	Steel
Length	49.9 ft
Inside Diameter	8.000 in
Depth of bottom of pipe/roadway box	48.2 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal-2	86.0	3.0
Bentonite Seal-1	105.0	2.0
Grout	0.8	77.2

Type of riser pipe:	Sch 40 PVC
Inside diameter of riser pipe	2.0 in
Type of backfill around riser	See Diagram
Diameter of borehole	14.0 ± in
Depth to top of well screen	90.0 ft
Type of screen	Sch 40 Slotted PVC
Screen gauge or size of openings	0.010 in
Diameter of screen	2.0 in
Type of backfill around screen	WG #0 Silica Sand
Depth of bottom of well screen	105.0 ft
Bottom of Sump	107.0 ft
Depth of bottom of borehole	108.0 ft

(Not to Scale)

ft	+	ft		ft	=	ft	
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length	

COMMENTS:

Form 2007

HALEY & ALDRICH

OBSERVATION WELL INSTALLATION REPORT

Well No. DW-12-03M
Boring No. BR-12-03

PROJECT	RG&E E. STATION: OFF-SITE SUPPLEMENTAL REMEDIAL	**H&A FILE NO.**	36492-022
LOCATION	SITE NO. V00358-8, ROCHESTER NEW YORK	**PROJECT MGR.**	D. ALLEN
CLIENT	ROCHESTER GAS & ELECTRIC CORPORATION	**FIELD REP.**	D. NOSTRANT
CONTRACTOR	NOTHNAGLE DRILLING	**DATE INSTALLED**	11/18/2013
DRILLER	S. LORANTY/S. GELSER	**WATER LEVEL**	Not measured

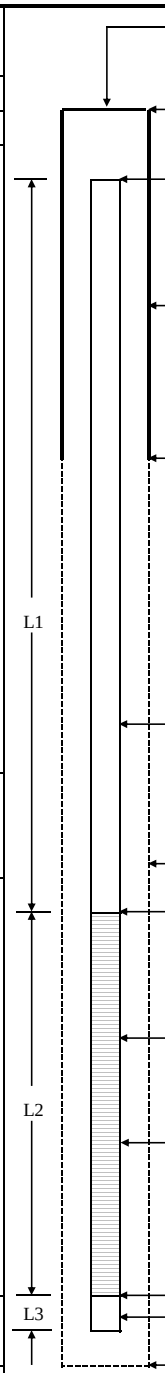
Ground El. 399.2 ft
El. Datum 400.81

Location Northern corner of property

☑ **Guard Pipe**
☐ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
0.0	0.0
	± 1.0
FILL	
16.5	
ALLUVIAL DEPOSITS	CEMENT BENTONITE GROUT
23.9	
BEDROCK	60.5 BENTONITE
	63.5 SAND
	77.0 BENTONITE
77.0 (Bottom of Exploration)	**77.0**

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Aluminum/Padlock
Heigth of top of guard pipe above ground surface	1.8 ft
Height of top of riser pipe above ground surface	1.6 ft
Type of protective casing:	Steel
Length	ft
Inside Diameter	8.000 in
Depth of bottom of pipe/roadway box	26.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete		
Bentonite Seal-1	60.5	3.0
Bentonite Seal-2	76.0	13.0
Grout		

Type of riser pipe:	PVC
Inside diameter of riser pipe	2.0 in
Type of backfill around riser	See Diagram
Diameter of borehole	14.0 ± in
Depth to top of well screen	65.0 ft
Type of screen	Slotted PVC
Screen gauge or size of openings	0.020 in
Diameter of screen	2.0 in
Type of backfill around screen	WG #0 Silica Sand
Depth of bottom of well screen	75.0 ft
Bottom of Silt trap	77.0 ft
Depth of bottom of borehole	77.0 ft

ft (Riser Pay Length (L1)) + ft (Length of screen (L2)) ft (Length of silt trap (L3)) = ft (Pay length)

COMMENTS:

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No. DW-12-03G
Boring No. BR-12-03

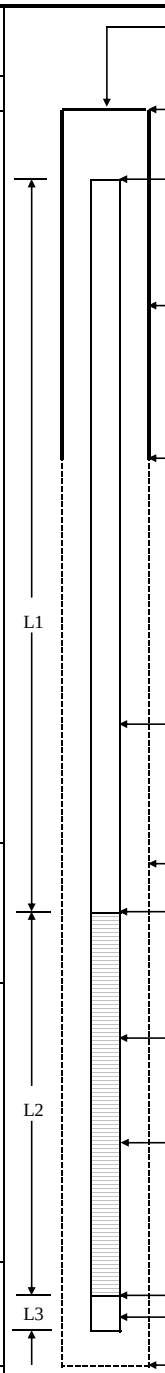
PROJECT	RG&E E. STATION: OFF-SITE SUPPLEMENTAL REMEDIAL	**H&A FILE NO.**	36492-024
LOCATION	SITE NO. V00358-8, ROCHESTER NEW YORK	**PROJECT MGR.**	D. ALLEN
CLIENT	ROCHESTER GAS & ELECTRIC CORPORATION	**FIELD REP.**	D. NOSTRANT
CONTRACTOR	NOTHNAGLE DRILLING	**DATE INSTALLED**	11/18/2013
DRILLER	S. LORANTY/K. BUSCH	**WATER LEVEL**	Not measured

Ground El.	399.2 ft	**Location**	Northern corner of property	☑	**Guard Pipe**
El. Datum	400.81			☐	**Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
0.0	0.0
FILL	
16.5	
ALLUVIAL	NESTED
ALLUVIAL	WELL
DEPOSITS	CLUSTER
	SEE
	BR-12-03M
23.9	FOR
	INSTALLATION
	DETAILS
	ABOVE 78.0 FT
BEDROCK	
	78.0
	BENTONITE
	89.0
	WG#0
	SILICA
	SAND
	105.6
	BENTONITE
109.4	**109.4**

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Aluminum/Padlock
Heigth of top of guard pipe above ground surface	1.8 ft
Height of top of riser pipe above ground surface	1.6 ft
Type of protective casing:	Steel
Length	28.0 ft
Inside Diameter	8.000 in
Depth of bottom of roadway box	26.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete		
Bentonite Seal-2	78.0	11.0
Bentonite Seal-1	105.6	3.8

Type of riser pipe:	Slotted PVC
Inside diameter of riser pipe	2.0 in
Type of backfill around riser	See Diagram
Diameter of borehole	89.0 in
Depth to top of well screen	90.0 ft
Type of screen	Slotted PVC
Screen gauge or size of openings	0.020 in
Diameter of screen	2.0 in
Type of backfill around screen	WG#0 Silica Sand
Depth of bottom of well screen	105.0 ft
Bottom of Silt Sump	107.0 ft
Depth of bottom of borehole	109.4 ft

ft	+	ft		ft	=	ft	
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length	

COMMENTS: Borehole sealed with cement-bentonite grout from 14.4-109.4 ft prior to well installation

Form 2007

APPENDIX C

Downhole Geophysical Logs

HAGER-RICHTER GEOSCIENCE, INC.

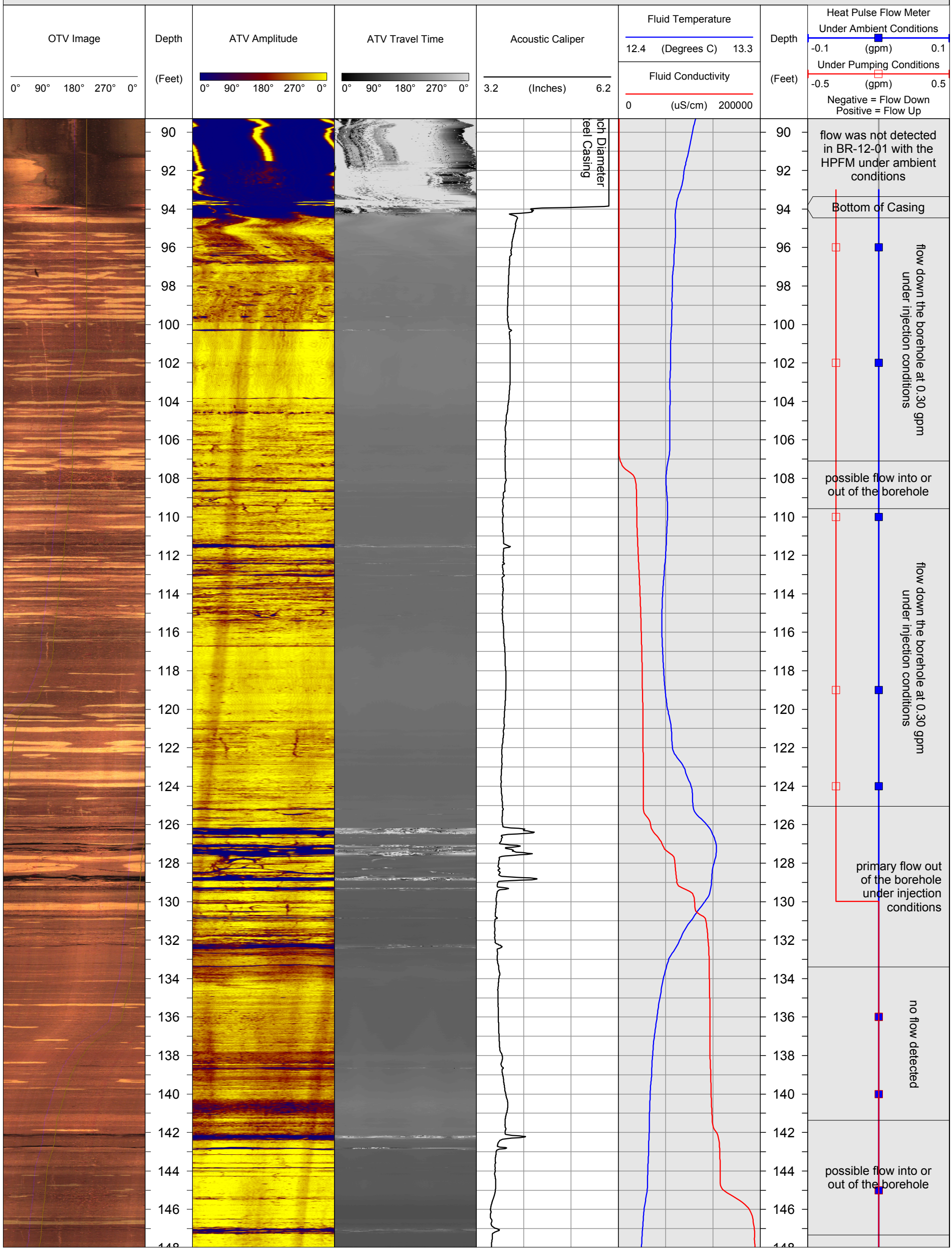
846 Main Street
Fords, NJ 08863
Phone: 732-661-0555
Fax: 732-661-0123

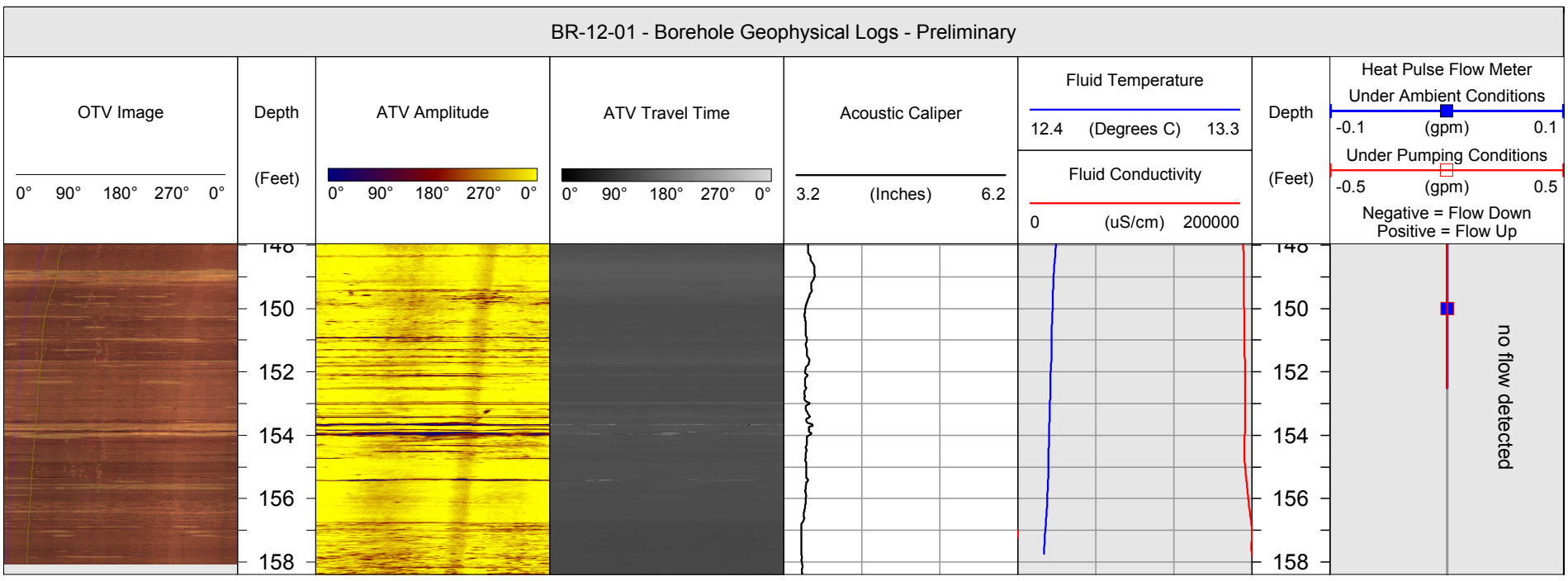
BR-12-01 - BOREHOLE GEOPHYSICAL LOGS - PRELIMINARY

DATE LOGGED: November 7, 2013

CLIENT:	Haley & Aldrich, Inc.	H-R FILE:	13RG85
PROJECT:	RG&E East Station Former MGP Site	LOG DATUM:	Top of the 6-Inch Inner & 8-Inch Outer Steel Casing
LOCATION:	Rochester, New York	TOP OF CASING:	2.2 Feet Above the Ground Surface
LOGGING GEOPHYSICIST(S):	Robert Garfield & Nick DeCristofaro	ORIENTATION REFERENCE:	Magnetic North
CLIENT REP(S) ON-SITE:	Dave Nostrant & Santa McKenna	BOREHOLE DIAMETER:	3.8 Inches (HQ-Cored)
LOGS PROCESSED BY:	Robert Garfield	WATER LEVEL DEPTH:	11.0 Feet

BR-12-01 - Borehole Geophysical Logs - Preliminary




BR-12-01 - Borehole Geophysical Logs - Preliminary
OTV Image
0° 90° 180° 270° 0°
Depth
(Feet)
ATV Amplitude
0° 90° 180° 270° 0°
ATV Travel Time
0° 90° 180° 270° 0°
Acoustic Caliper
3.2 (Inches) 6.2
Fluid Temperature
12.4 (Degrees C) 13.3
Fluid Conductivity
0 (uS/cm) 200000
Depth
(Feet)
Heat Pulse Flow Meter
Under Ambient Conditions
-0.1 (gpm) 0.1
Under Pumping Conditions
-0.5 (gpm) 0.5
Negative = Flow Down
Positive = Flow Up
150
152
154
156
158
no flow detected

HAGER-RICHTER GEOSCIENCE, INC.

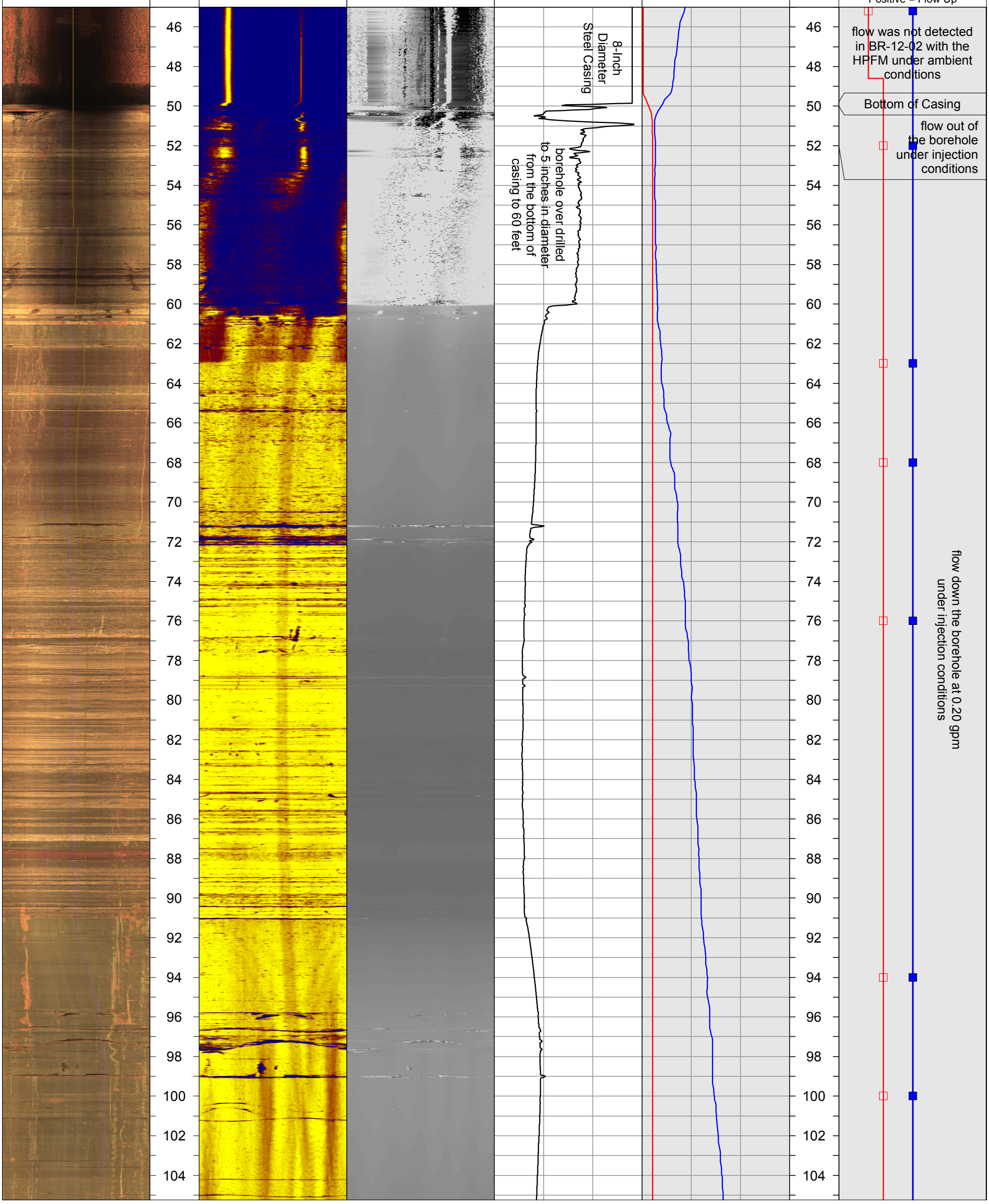
846 Main Street
Fords, NJ 08863
Phone: 732-661-0555
Fax: 732-661-0123

BR-12-02 - BOREHOLE GEOPHYSICAL LOGS - PRELIMINARY

DATE LOGGED: November 7, 2013

CLIENT:	Haley & Aldrich, Inc.	H-R FILE:	13RG85
PROJECT:	RG&E East Station Former MGP Site	LOG DATUM:	Top of the 8-Inch Steel Casing
LOCATION:	Rochester, New York	TOP OF CASING:	2.0 Feet Above the Ground Surface
LOGGING GEOPHYSICIST(S):	Robert Garfield & Nick DeCristofaro	ORIENTATION REFERENCE:	Magnetic North
CLIENT REP(S) ON-SITE:	Dave Nostrant & Santa McKenna	BOREHOLE DIAMETER:	3.8 Inches (HQ-Cored)
LOGS PROCESSED BY:	Robert Garfield	WATER LEVEL DEPTH:	30.5 Feet

BR-12-02 - Borehole Geophysical Logs - Preliminary



BR-12-02 - Borehole Geophysical Logs - Preliminary

OTV Image

0° 90° 180° 270° 0°

Depth (Feet)

ATV Amplitude

0° 90° 180° 270° 0°

ATV Travel Time

0° 90° 180° 270° 0°

Acoustic Caliper

3.2 (Inches) 6.2

Fluid Temperature

11.6 (Degrees C) 12.2

Fluid Conductivity

0 (uS/cm) 60000

Depth (Feet)

Heat Pulse Flow Meter

Under Ambient Conditions

-0.1 (gpm) 0.1

Under Pumping Conditions

-0.5 (gpm) 0.5

Negative = Flow Down
Positive = Flow Up

106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172 174

flow down the borehole at 0.20 gpm under injection conditions

flow out of the borehole under injection conditions

flow out of the borehole under injection conditions

flow down the borehole at 0.06 gpm under injection conditions

flow out of the borehole under injection conditions

no flow detected

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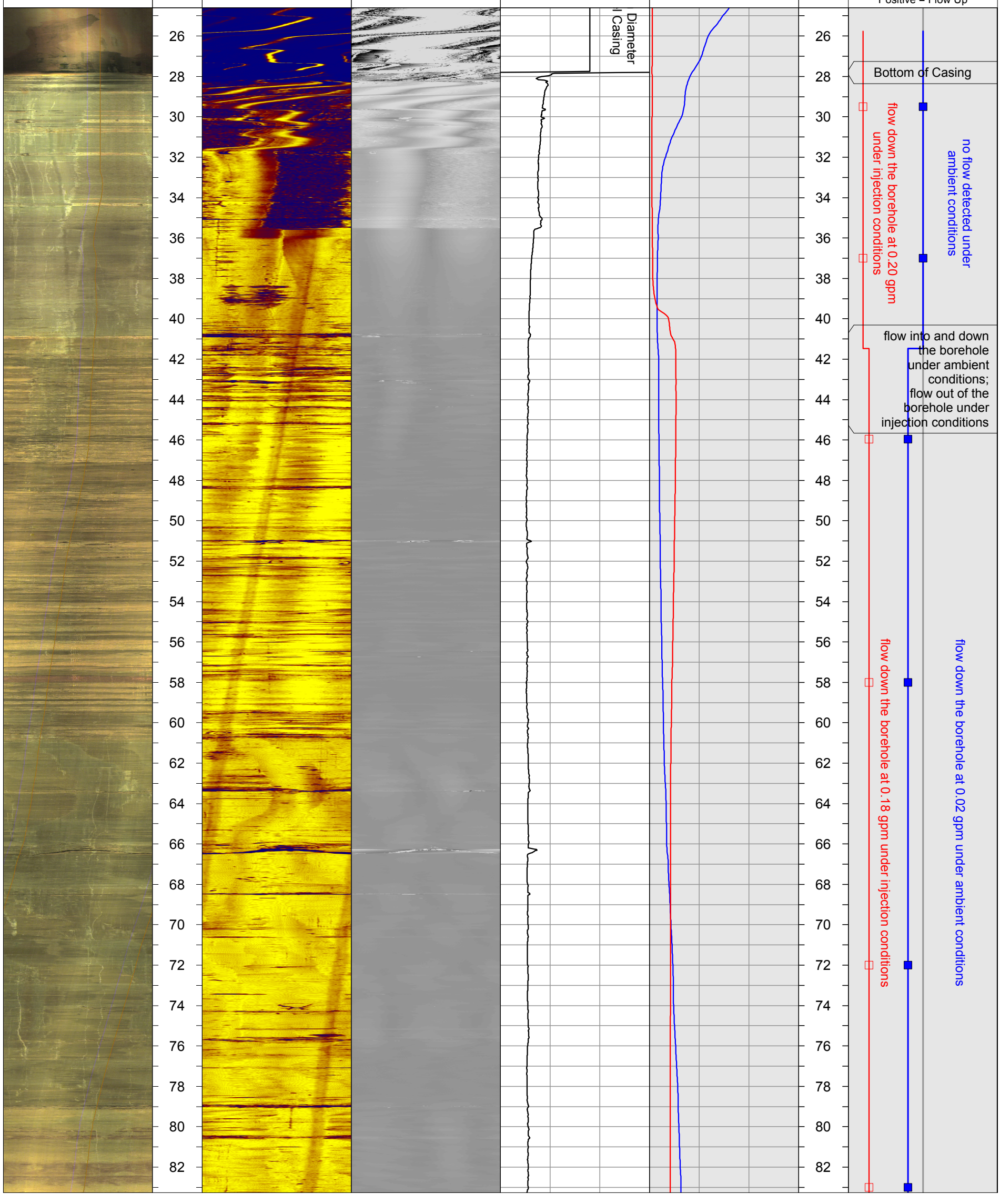
BR-12-03 - BOREHOLE GEOPHYSICAL LOGS - PRELIMINARY

DATE LOGGED: November 6, 2013

CLIENT:	Haley & Aldrich, Inc.	H-R FILE:	13RG85
PROJECT:	RG&E East Station Former MGP Site	LOG DATUM:	Top of the 8-Inch Steel Casing
LOCATION:	Rochester, New York	TOP OF CASING:	1.8 Feet Above the Ground Surface
LOGGING GEOPHYSICIST(S):	Robert Garfield & Nick DeCristofaro	ORIENTATION REFERENCE:	Magnetic North
CLIENT REP(S) ON-SITE:	Dave Nostrant & Santa McKenna	BOREHOLE DIAMETER:	3.8 Inches (HQ-Cored)
LOGS PROCESSED BY:	Robert Garfield	WATER LEVEL DEPTH:	9.3 Feet

BR-12-03 - Borehole Geophysical Logs - Preliminary



BR-12-03 - Borehole Geophysical Logs - Preliminary