Cortland-Homer Former MGP Site

HOMER, NEW YORK

Construction Completion Report

NYSDEC Site Number: 7-12-005

Prepared for:

New York State Electric & Gas Corporation Binghamton, New York

> Prepared by: Arcadis of New York, Inc. Syracuse, New York (315) 446-9120

> > September 2021

CERTIFICATIONS

I, John C. Brussel, P.E., am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities performed at the Cortland-Homer Former Manufactured Gas Plant Site located in Homer, New York (herein after referred to as the "Site") between July 2012 and February 2013. Based on my inquiry of the persons under my direction and involved in coordinating and observing the remedial activities summarized herein, I certify that these activities were implemented in substantial conformance with the New York State Department of Environmental Conservation- (NYSDEC-) approved Remedial Design (AECOM, June 2012) and the work plan modifications described in this report.

The data submitted to the NYSDEC with this Construction Completion Report demonstrate that the remediation requirements set forth in the Remedial Design, design modifications, and applicable statutes and regulations have been or will be achieved in general accordance with the time frames established for the remedy.

The use restrictions, Institutional Controls, and Engineering Controls applicable to the two parcels of the Site owned by New York State Electric & Gas Corporation (NYSEG) are contained in an Environmental Easement created and recorded pursuant ECL 71-3605 and that the affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded. The Environmental Easement for a third parcel of the Site (not owned by NYSEG) is pending.

A Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the Site, including the proper maintenance of all remaining monitoring wells, and that such plan has been approved by Department.

Documents generated in support of this report have been submitted in accordance with the NYSDEC Division of Environmental Remediation's electronic submission protocols and have been accepted by the NYSDEC.

Data generated in support of this report have been submitted in accordance with the NYSDEC's electronic data deliverable and have been accepted by the Department.

I certify that the information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor,

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pursuant to Section 210.45 of the Penal Law. I, John C. Brussel, of Arcadis of New York, Inc., am certifying as Owner's Designated Site Representative for the Site.



ohn C. Brussel

John C. Brussel, P.E. NYS Professional Engineer License #075208

Date

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CONSTRUCTION COMPLETION REPORT 1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 INTRODUCTION

This Construction Completion Report (CCR) has been prepared on behalf of New York Electric & Gas Corporation (NYSEG) and summarizes remedial activities implemented at the Site to address soil and groundwater impacts from historical site operations. The impacts were generally related to by-products associated with the former manufactured gas plant (MGP) facility (primarily coal tar). The remedial activities were performed by Geo-Con of Pittsburgh, Pennsylvania between July 2012 and February 2013. Arcadis of New York, Inc. (Arcadis) provided a full-time onsite construction manager to observe and monitor implementation of the remedial activities and a full-time onsite sampling technician to implement sampling activities and conduct air monitoring. The New York State Department of Environmental Conservation (NYSDEC) provided daily onsite observation. The site was remediated in accordance with the Order on Consent (Index # DO-0002-9309), the Amended Record of Decision (ROD) (December 2012), and the NYSDEC-approved Remedial Design (RD) (AECOM, June 2012).

1.2 SITE BACKGROUND

1.2.1 Site Location and Description

The NYSEG Cortland-Homer Former MGP Site is broken into two operable units (OUs): OU1 is the former MGP and adjacent offsite impacted soils under US Route 11, and OU2 is located across US Route 11 and hydraulically downgradient from OU1. The Site is comprised of the three separate parcels at the following addresses on South Main Street (US Route 11) in the Village of Homer, Cortland County, New York, just north of the City of Cortland.

- 216 South Main Street a small portion of the former MGP was located on this property, which comprises the northernmost part of OU1
- 218 South Main Street the majority of the former MGP was located on this property, which comprises most of the remainder of OU1

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• 221 South Main Street – this is OU2

The majority of OU1 is owned by NYSEG with a small northern portion owned by Irving D. Booth (ID Booth) and the westernmost portion owned by the New York Susquehanna and Western railroad line. The NYSEG-owned portion of OU1 is approximately 1.1 acres in area, and consists of a vacant land parcel identified as 76.57-01-05.200 on the Cortland County tax map. The ID Booth-owned portion of OU1 is approximately 0.74 acres in area, consisting of a single-story commercial building, vacant land to the south, and a paved parking area to the north, part of the 1.54 acre parcel identified as 76.57-01-08.100 on the Cortland County tax map. The railroad line portion of OU1 is approximately 0.09 acres in area, and consists of vacant land east of the railroad line. NYSEG is also the owner of OU2, which is approximately 1.1 acres in area, and consists of one vacant parcel identified as 76.57-01-08.200 on the Cortland County tax map. A site location map is provided as Figure 1.

The OU1 site parcel is bordered by US Route 11 to the east, the railroad line to the west and commercial properties to the north and south. East of US Route 11 and OU2 is the West Branch of the Tioughnioga River. The west bank of the river is approximately 150 feet to the east of the site parcels. The OU2 parcel is bordered by US Route 11 to the west, the Tioughnioga River to the east, and commercial properties to the north and south.

Land uses adjacent to the Site include part of the ID Booth electrical and plumbing supply store property to the north of OU 1, a former convenience store south of OU 1, an automotive/equipment repair shop north of OU 2, and vacant commercial land south of OU 2 (site of a former motel that was demolished following the remedial construction described in this report) and a gasoline service station. A private residence and a park with athletic fields are located immediately east of the West Branch of the Tioughnioga River. The Cortland County Club is located west of the Site, beyond the railroad line.

An electronic copy of this CCR with all supporting documentation is included on the attached compact disc (CD) as an electronic attachment. The Section below reviews the Remedial Action Objectives (RAOs) for the Site followed by a description of the remedial action performed at the Site.

1.2.2 Summary of Site Remedy

This section summarizes the work activities performed to remediate the Site. For this remedy, impacted soil within the designated OU1 and OU2 cleanup areas was removed to approximately 4 feet below ground surface (bgs), and the remaining soils were treated to the silt/clay layer (as much as 46 feet bgs) using in-situ soil solidification (ISS). Also, two steel sheet pile vertical barrier walls (VBWs) were installed under US Route 11 to connect the OU1 and OU2 monoliths and confine potential MGP residuals located between the monoliths, under US Route 11.

1.2.3 Remedial Action Objectives

Based on the results of the Remedial Investigation, summarized in Section 1.2.7 below and the requirements of the amended ROD, the following Remedial Action Objectives (RAOs) were identified for the Site. The primary objectives of the remedial action were to eliminate or reduce the extent practicable:

- Exposures of persons at or around the Site to site-related constituents consisting of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) in subsurface soils and groundwater.
- The release of contaminants from soil into groundwater that may create an exceedance of groundwater quality standards.
- The release of contaminants from subsurface soil under buildings into indoor air through soil vapor.
- The migration of coal tar beyond the site boundary.

A secondary remediation objective for the site was to attain the extent practicable ambient groundwater quality standards.

1.2.4 Description of Selected Remedy

The Site was remediated in accordance with the remedy approved by the NYSDEC in the RD dated June 2012. The factors considered during the selection of the remedy are those listed in 6NYCRR 375-1.8. The following are the components of the selected remedy:

1. Demolition of the southern portion of a former one-story masonry structure (part of the ID Booth building) to enable the treatment of impacted soils.

- Excavation and offsite disposal of existing former MGP structures, soil, debris, piping, major obstructions, including non-aqueous phase liquid- (NAPL-) saturated soils in the immediate vicinity of these structures, to allow ISS of soils containing greater than 500 parts per million (ppm) total polycyclic aromatic hydrocarbons (PAHs) to up to 46 feet bgs.
- 3. Removal and reinstallation of various utilities on the east and west sides of US Route 11 to facilitate remediation of soils beneath them.
- ISS treatment of OU1 and OU2 soils totaling approximately 54,530 cubic yards (CY). ISS was preceded by the pre-excavation of onsite soils to the approximate final top surface of the ISS monolith (approximately 4 feet bgs).
- 5. Installation of steel sheet pile VBWs under US Route 11 to connect OU1 and OU2.
- 6. Demolition of a one-story storage shed in the southwestern portion of OU2 to enable the excavation of petroleum-impacted soils for offsite transportation and disposal.
- 7. Construction and maintenance of a soil cover system consisting of an approximate 2foot clean soil cover (crushed stone and bank run gravel) onsite, an approximate 4foot clean soil cover over all restored subsurface utilities within the New York State Department of Transportation (NYSDOT) right-of-way (ROW), or at least 1 foot of clean subbase plus asphalt pavement or concrete over a demarcation layer to prevent human exposure to remaining impacted soil/fill remaining at the Site.
- 8. Execution and recording of an Environmental Easement (EE) to restrict land use and prevent future exposure to impacts remaining at the Site.
- 9. Development and implementation of a Site Management Plan (SMP) for long-term management of remaining impacts as required by the EE, which includes plans for institutional and engineering controls, monitoring, and reporting.

Remedial activities were substantially completed at the Site in February 2013.

1.2.5 Site History

In 1858, the Cortland-Homer MGP plant was established and began supplying manufactured gas to the Village of Homer, NY under the name, "Homer and Cortland Gas Light Company". Manufactured gas was produced at the Homer site using the coal gasification and carbureted water gas processes. Coal gas was manufactured on the Site until 1921, and then carbureted gas water gas was produced from 1921 to 1932. A gas holder was used until early 1935 to store natural gas onsite.

Records for the Cortland-Homer plant indicate that on-site coal tar production ranged from 19,528 gallons in 1907 to 51,347 gallons during 1913. Gas production in 1907 was 20,179,500 cubic feet of gas that was sold to consumers. By 1928, production had expanded to approximately 600,000 cubic feet of gas per day by carbureted water gas process.

In the 1940s, the plant was partially decommissioned by NYSEG. In 1944, the Brockway Motor Company purchased the MGP property and razed the remaining structures. A new building was constructed and modified by subsequent owners. The building extended over most of the MGP site.

The portion of the building covering most of OU1 was demolished in 2010, and all utilities to the building were disconnected. In 2012 to 2013, the at-grade slab remaining from building demolition on OU1 was removed, the storage shed and concrete slab located on OU2 were demolished, the impacted soils within the designated OU1 and OU2 cleanup areas were removed to approximately 4 feet bgs, and the remaining soils were treated to the silt/clay layer (up to 46 feet bgs) using ISS. Also, during the 2012 work, two steel sheet pile VBWs were installed under US Route 11 to connect the OU1 and OU2 monoliths and confine potential MGP residuals located between the monoliths/ under the US Route 11. The pre-remediation site conditions are presented on Drawing 1.

1.2.6 Geologic Conditions

Previous site investigations have defined the site geology and hydrogeology. The following description of site geologic conditions is based on the description provided in the ROD for OU1 issued by the NYSDEC in 2005. Site features and boring locations are shown on Figures 2 and 3.

The site is located in the Homer Preble Valley. This is within the Homer Preble Sole Source Aquifer. The regional geology is reported to consist of stratified drift and glacial outwash deposits that are underlain by bedrock composed primarily of shale. Collectively, the drift and outwash deposits can be up to 240 feet thick.

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In the Homer Preble Valley, the base of the aquifer is a lacustrine clay that is present at a depth of approximately 60 feet. Geological cross sections of the valley prepared by the United States Geological Survey indicate that this deposit may be over 100 feet thick in this area. South of the Site, in the City of Cortland, there is a confined outwash aquifer, as well as the surficial outwash aquifer. Wells drilled in the outwash aquifer in the Homer Preble Aquifer have been reported to have yields of 1,000 gallons per minute.

The Site is underlain (in descending order) by an anthropogenic fill layer, a glacial outwash sand, and a laminated gray silt and clay unit that constitutes a confining layer. The fill layer ranges from 6 inches to 10 feet onsite, and the outwash sand varies in thickness from 20 to 40 feet. The laminated gray silt and clay was found to be continuous beneath the Site.

Groundwater at the Site is encountered at approximately 5 feet bgs, in the glacial outwash deposits. A seasonal fluctuation of 1 to 1.5 feet has been observed. The groundwater flows across the site in a west-to-east/southeast direction. The flow is primarily horizontal, consistent with the stratified nature of the aquifer. The groundwater then discharges into the West Branch of the Tioughnioga River.

Site monitoring wells on the east bank of the Tioughnioga River, across the river from the Site, confirmed that the river is a discharge boundary as groundwater flows toward the river from both sides. Similarly, deep wells at the site have identified a slight upward gradient near the river. Water table maps showing pre- and post-construction water levels are attached as Figures 4 and 5.

1.2.7 Summary of Remedial Investigation Findings

A Remedial Investigation (RI) was performed to characterize the nature and extent of impacts at the Site. The results of the RI and earlier and subsequent investigations are described in detail in the following reports:

• Investigation of Former Coal Gasification Sites, Cortland-Homer, Homer, New York (E.C. Jordan Co., October 1985).

- Investigation of Former Coal Gasification Sites, Cortland-Homer, Homer, New York, Task 2 Report, (E.C. Jordan Co., July 1987).
- Investigation of Former Coal Gasification Sites, Cortland-Homer, Homer, New York, Task 3 Report, (E.C. Jordan Co., May 1989).
- Feasibility Study Addendum, Cortland-Homer Former MGP Site #712005, Cortland, New York (Groundwater Technology, Inc., February 1993).
- Historical Summary, NYSEG Cortland-Homer Former MGP Site, Cortland County, New York (Stearns & Wheler, LLC, April 2001).
- Supplemental Remedial Investigation (SRI), NYSEG Cortland-Homer Former MGP Site, Cortland County, New York (Stearns & Wheler, LLC, April 2001).
- Feasibility Study Report, NYSEG Cortland-Homer MGP Site, Cortland County, New York (URS Corporation, April 2004).
- Pre-Design Investigation (PDI) Summary, Cortland-Homer Former MGP Site, Homer, New York (AECOM, December 2011).

As described in the original ROD and other documents, many surface soil, subsurface soil, and groundwater samples were collected at the Site to characterize the nature and extent of impacts. The primary contaminants of concern include VOCs and SVOCs. The VOCs of concern include benzene, toluene, ethylbenzene, and xylene (BTEX), and the SVOCs of concern include polycyclic aromatic hydrocarbons (PAHs).

The production of manufactured gas created many by-products, some of which remained onsite. A dense, oily liquid known as coal tar would condense out of the gas at various stages during its production, purification, and distribution. Although some of the coal tar produced by plants may have been reused or sold, recovery of the tar was incomplete. Some of the tar leaked or was discharged from storage and processing facilities over the long life of the plant, contaminating subsurface soils onsite and groundwater. Another byproduct, purifier waste, was the exhausted lime and/or iron oxide treated wood chips that were used to remove cyanide and sulfur from the gas. Purifier waste was often discarded on the site of an MGP or used as a fill material.

The source of much of the BTEX and PAH impacts found onsite is the coal tar (NAPL), which is found both in and around the various subsurface structures and migrated through the subsurface. The NAPL was found to saturate the unconsolidated deposits and/or exist in scattered, discontinuous globules. Either of these conditions

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generally coincides with high BTEX and PAH concentrations in soils and typically results in impacts to the groundwater as well. Areas with a substantial volume of contaminants have been termed "source areas" and were defined as the locations at the site of former MGP structures and/or those areas of soil that contained significant volumes of coal tar waste or that were saturated with visually observed separate phase product (NAPL). Soils exhibiting odors, staining and/or sheens were not necessarily included in the definition of "source areas." At the Site, the "source areas" appeared to be directly associated with several of the former plant structures, some of which remained onsite below the ground surface (until site remediation in 2012/2013).

Below is a summary of site conditions during the RI.

1.2.8 Surface Soil

The surface soil/cover (this has been replaced with clean cover materials as later discussed) for the Site was either fill that was placed after MGP operations ceased, or asphalt pavement. MGP-related constituents were found above analytical detection limits in surface soil. However, they were orders of magnitude below those found in the waste materials and found in subsurface soil.

Total PAH (TPAH) concentrations in surface (0-1 inch) soil samples for OU1 ranged from 1.5 to 34.7 parts per million (ppm). TPAH concentrations in the two samples collected onsite were 10.5 and 34.7 ppm. Two samples collected to represent background ranged from 5.9 to 7.1 ppm for TPAHs. One sample collected from OU2 had TPAH concentrations of 1.5 ppm.

The following individual compounds and their range of concentrations were found to be above background levels and/or soil cleanup objectives for OU1: benzo(a)anthracene (0.6 to 3.6 ppm), chrysene (0.62 to 3.3 ppm), benzo(a,h)fluoranthene (1.4 to 2.5 ppm), benzo(k)fluoranthene (1.9 to 2.1 ppm), benzo(a)pyrene (0.58 to 3.3 ppm), dibenzo(a,h)anthracene (0.034 to 1.1 ppm). These compounds are commonly found in fuel, asphalt, and combustion and coal residues in urbanized areas.

1.2.9 Subsurface Soil

During the RI, approximately 43 subsurface soil samples were collected and analyzed. Approximately 28 additional subsurface samples were collected to characterize coal tar-impacted soil at the Site prior to the ROD being amended. The sample results, which were summarized in the PDI, showed that certain areas of the Site were heavilyimpacted by MGP tar and related constituents, while other areas had more discrete

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impacts. The analytical results for the subsurface soil samples collected at the Site (representing soil that remains and was not treated by ISS during the remedial activities) are presented in Appendix A.

The highest concentrations of BTEX and PAHs in subsurface soil were generally found in OU 1. Concentrations of these constituents decreased toward the east of the Site, under US Route 11. NAPL observed onsite occurred primarily as saturation of unconsolidated deposits and/or product in discrete horizontal zones, particularly toward the top of the water table and directly above the silty clay unit. PAH concentrations in subsurface soils ranged from non-detect to 60,300 ppm. BTEX concentrations in subsurface soils ranged from non-detect to 950 ppm.

1.2.10 Site-Related Groundwater

Groundwater impacts at the Site started at OU1 (in the vicinity of the former MGP structures) and extended into OU2. The groundwater at MW-17 (east of OU2) appeared to have been impacted by a former gasoline filling station on the property. Other monitoring wells located on the east bank of the river showed no impacts from the Site.

The groundwater impacts at the Site were found at comparable levels in both the shallow and deep wells. For example, in the well couplet of MW-3, which was screened at 7-12 feet, and MW-24, which was screened at 30-40 feet, the BTEX levels were 5,550 parts per billion (ppb) and 3,030 ppb, respectively. These two wells have since been decommissioned and the ISS monolith now encompasses this area. The TPAH concentrations were similarly found at 6,680 ppb and 7,570 ppb, respectively. The primary VOCs detected above groundwater quality standards include BTEX. These are the most mobile of the groundwater contaminants and were often present well above their individual groundwater quality standards in the onsite wells. Based on pre-ISS baseline and initial post-construction groundwater quality standards/guidance values at any wells around the ISS area, except MW-14, MW-14R, and MW-17, which are located south and east of OU2. Semi-volatile organic constituents (SVOCs) groundwater impacts were comprised primarily of PAHs, which were distributed similar to the VOCs in shallow and deep groundwater. PAHs were only identified in one pre-ISS baseline and the initial post-

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construction groundwater sample at concentrations exceeding groundwater quality standards/guidance values (i.e., acenaphthalene and naphthalene at MW-17). The groundwater analytical results for the pre-ISS baseline and initial post-construction groundwater monitoring event at the site are presented on Table 1.

1.2.11 Site-Related Soil Vapor Intrusion

Air samples were collected with Summa[®] canisters to assess potential impacts to indoor air quality and soil vapor. Six indoor air samples from the building formerly located in OU1 (the building has since been demolished) were collected and submitted for analysis for VOCs by United States Environmental Protection Agency (USEPA) Compendium Method TO-14. BTEX compounds were detected in all of the samples collected. Generally, these detections were low and commingled with various chlorinated solvents. Individual concentrations ranged up to 87 micrograms per cubic meter (μ g/m3) for toluene and 150 μ g/m3 for tetrahydrofuran.

Subsequently, three sub-slab soil vapor grab samples were collected with Summa[®] canisters from beneath the same building in OU1. These samples found the sub-slab vapor to contain BTEX. The highest BTEX concentrations in sub-slab vapor were found at location SB-9, near the relief holder. Values detected at location SB-9 included: $2,851 \mu g/m^3$ of BTEX, $173 \mu g/m^3$ of benzene, $60 \mu g/m^3$ of cumene, and $1,832 \mu g/m^3$ of xylene.

2.0 SUMMARY OF REMEDIAL ACTIONS

The Site was remediated between July 2012 and February 2013 in accordance with the NYSDEC-approved RD. The following is a summary of the remedial actions performed at the site:

- 1. Demolition of the southern portion of a former one-story masonry structure to enable the treatment of impacted soils.
- 2. Excavation and offsite disposal of existing former MGP structures, soil, debris, piping, major obstructions, including NAPL-saturated soils in the immediate vicinity of these structures, to allow ISS of soils containing greater than 500 ppm total PAHs to up to 46 feet bgs.
- 3. Removal and reinstallation of various utilities on the east and west sides of US Route 11 to facilitate remediation of soils beneath them.
- 4. ISS treatment of OU1 and OU2 soils totaling approximately 54,530 CY. ISS was preceded by the pre-excavation of onsite soils to the approximate final top surface of the ISS monolith (approximately 4 feet bgs).
- 5. Installation of steel sheet pile VBWs under US Route 11 to connect OU1 and OU2.
- 6. Demolition of a one-story storage shed in the southwestern portion of OU2 to enable the excavation of petroleum-impacted soils for offsite transportation and disposal.
- 7. Construction and maintenance of a soil cover system consisting of an approximate 2foot clean soil cover (crushed stone and bank run gravel) onsite, an approximate 4foot clean soil cover over all restored subsurface utilities within the NYSDOT roadway ROW, or at least 1 foot of clean subbase plus asphalt pavement or concrete over a demarcation layer to prevent human exposure to remaining contaminated soil/fill remaining at the Site.
- 8. Execution and recording of an EE to restrict land use and prevent future exposure to impacts remaining at the Site.
- 9. Development and implementation of an SMP for long-term management of remaining impacts as required by the EE, which includes plans for institutional and engineering controls, monitoring, and reporting.

Remedial activities were substantially completed at the site in February 2013. Final site restoration was completed in June 2013.

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The remainder of this section presents a description of the primary components of the remedial activities, including:

- Governing Documents
- Contractors and Consultants
- Site Mobilization and Preparation
- Site Controls
- Utility Relocation and Installation
- Vertical Barrier Wall Installation
- Materials Excavation Removal
- In-Situ Stabilization
- Performance and Documentation Sampling
- Backfilling
- Wastewater Management
- Reporting and Record Keeping

2.1 GOVERNING DOCUMENTS

The remedial activities at the Site were performed in accordance with the following:

- Section VII of the Order of Consent between NYSEG and the NYSDEC, dated March 1994 (Index #DO-0002-9309). The consent order requires the responsible party to implement a full remedial program for 33 former MGP sites across the State, including the Cortland-Homer Site.
- The Amended ROD between NYSEG and the NYSDEC, dated December 2010 (Site #7-12-005).
- The NYSDEC-approved *Remedial Design* (AECOM, June 2012).
- RD Modification No.1 as presented in an October 15, 2012 letter from Arcadis to the NYSDEC, which was approved by the EPA on October 22, 2012.

Copies of the RD modifications and NYSDEC approval are included in Appendix B. Copies of other project-related correspondence and NYSDEC approvals are included as Appendix C. The following subsections describe individual components and documents supporting the RD in more detail.

2.1.1 Site Specific Health and Safety Plan

Remedial work performed under this Remedial Action was in full compliance with governmental requirements, including Site and worker safety requirements mandated by Federal Occupational Safety and Health Administration (OSHA).

A Health and Safety Plan (HASP) was developed by Arcadis, dated June 22, 2012. Procedures outlined in the HASP included daily health and safety review meetings, proper use of safety equipment, proper mechanical equipment use, and other policies. The subjects covered in the HASP included:

- Health and Safety Risk Analysis.
- Personal Protective Equipment (PPE).
- OSHA Air Monitoring & Action Levels.
- Site Control.
- Decontamination.
- Emergency Response Plan.
- Lockout/Tagout.
- Heavy Equipment Operations.
- Excavation and Trenching.
- Material Data Safety Sheets.
- Health and Safety Records and Reports.

Geo-Con provided their own HASP and followed their HASP for remedial and invasive work performed at the Site. Each person who entered the work zone had OSHA 40-hour Hazardous Waste Operations and Emergency Response (Hazwoper) training and up-to-date annual physical exams.

2.1.2 Quality Assurance Project Plan (QAPP)

The Quality Assurance Project Plan (QAPP) is included as Appendix I of the RD approved by the NYSDEC. The QAPP describes the specific policies, objectives, organization, functional activities, and quality assurance/quality control activities designed to achieve the project data quality objectives.

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2.1.3 Construction Quality Assurance Plan (CQAP)

The Construction Quality Assurance Plan (CQAP) is included as Appendix Q of the RD. The CQAP managed performance of the remedial action tasks through designed and documented quality assurance/quality control (QA/QC) methodologies applied in the field and in the lab. The CQAP provided a detailed description of the observation and testing activities that were used to monitor construction quality and confirm that remedial construction was in conformance with the remediation objectives and specifications. The CQAP was implemented through inspection; sampling; testing; and review of services, workmanship, and materials.

Key personnel of the construction project team are identified in the table below, followed by a brief summary of each position's responsibility.

Project Position	Personnel
Contractor	Geo-Con
Engineer	Arcadis
Construction Quality Assurance Officer	NYSEG Remediation Officer, Tracy
(CQAO)	Blazicek
Sample Quality Assurance Officer	Arcadis Project Manager, John Brussel
Construction Quality Control	Arcadis Field Engineer, E. Michael Flynn
Representative	and Robert Gang
Sampling Representative	Arcadis, various

The Contractor was responsible for coordinating field operations for the remedial activities, including coordination of subcontractors. The CQAO was responsible for facilitating that the quality of construction meets or exceeds that defined by the RD and CQAP. The Sample Quality Assurance Officer was responsible for confirming that sampling efforts meet or exceed that defined by the RD and CQAP, and reporting directly to the CQAO. The Construction Quality Control Representative was onsite during the construction and took actions necessary to ensure compliance with the RD as necessary to achieve quality in the constructed facility. The Sampling Representative supported the Construction Quality Control Representative during the construction process.

The Remediation Engineer reviewed plans and submittals for this remedial project and confirmed that they complied with the RD. Remedial documents were submitted to NYSDEC and NYSDOH in a timely manner.

Quality assurance procedures and tests were implemented as required under the NYSDEC Program Policy document titled, "DER-10 / Technical Guidance for Site Investigation and Remediation" (DER-10) dated May 3, 2010, as follows:

- Submittal by Contractor of weight tickets for earthen materials transported to or from the Site. The weight tickets are included in Appendix L.
- Submittal by Contractor, prior to work, of geotechnical test results (sieve and compaction test results) for imported earthen materials. The geotechnical test results for imported fill materials are included in Appendix D.
- Evaluation by the Engineer of the Contractor's proposed sources for imported earthen materials. Laboratory analytical results for imported fill are included in Table 2.
- Surveying by the Contractor, with field verification by the Engineer, of the work limits, including areas, elevations, and volumes of excavations, ISS treatment, and placed materials.
- Field observations and confirmation sampling by the Engineer of excavated soils proposed for reuse onsite. Soils proposed for reuse were sampled on a frequency of once per 500 CY at the time of stockpiling.

The primary means of QA/QC during the ISS process was Engineer observations of the ongoing process. Samples were collected and tested for the performance criteria every 500 CY of material solidified, or once per day. Additional samples were collected at the discretion of the Engineer. The Contractor recovered the mixed soil samples at the direction of the Engineer, and the Engineer formed the sample cylinders and submitted them for analysis. ISS sampling results are included in Table 3. Extra sample cylinders were formed to allow for repeat testing should it be necessary. Solidified material that did not meet the performance criteria was reprocessed until the performance criteria are met.

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The Contractor was responsible for meeting the project's performance requirements. ISS QA procedures and performance requirements are described in the RD.

2.1.4 Erosion and Sediment Control Plan

The Erosion and Sediment Control Plan is included as Appendix E of the RD. The erosion and sediment controls for remedial construction were performed during onsite earthwork activities in conformance with requirements presented in applicable New York State guidelines and RD. Storm water run-off was controlled in a manner to prevent contact with impacted soils. Stormwater that contacted impacted soils was managed in accordance with the RD as described in Section 2.19. Hay bales, silt fence, erosion control fabric, stone, and/or rip rap were used as necessary to prevent erosion of exposed soils. Prior to clearing any vegetation or disturbing site soils, siltation fence and hay bales were placed around affected catch basins. The erosion control structures were inspected a minimum of once per week and after significant rainfall events (greater than ½ inch per day). Documentation of these inspections were included in the Contractor's Weekly Construction Reports. Additional erosion control materials were kept onsite to immediately repair any deficiencies that were discovered during the inspections or as directed by the Engineer. During all portions of the construction, erosion and sediment controls were maintained in accordance with the RD.

2.1.5 Community Air Monitoring Plan (CAMP)

The site-specific Community Air Monitoring Plan (CAMP) is included as Appendix L of the RD. The CAMP specified real-time monitoring for volatile VOCs and particulate matter less than 10 micrometers in diameter (PM_{10}) at two perimeter upwind stations and two perimeter downwind stations, except for the first week of air monitoring when only one upwind station was used. The CAMP was established and followed to address the following objectives:

- Monitor concentrations of VOCs and total suspended particulates to protect human health and the environment.
- Provide an early warning system so engineering controls could be enacted to prevent unnecessary exposure to emissions resulting from project activities.

• Measure and document the concentrations of VOCs and total suspended particulates for determining compliance with the established air-monitoring limits.

Air monitoring was continuously performed during the remedial activities when ground intrusive work was being performed. Readings were recorded in 15-minute increments by instrument dataloggers.

VOCs were monitored using a MiniRAE 2000 equipped with a photoionization detector (PID) that was calibrated each day to a 100 ppm isobutylene air standard. PM₁₀ monitoring was performed using a TSI DustTRAK Aerosol Monitor 8520. The action levels of 5 ppm (above background) for VOCs and 150 micrograms per cubic meter (μ g/m³) (above background) for PM₁₀ were based on the average ambient readings calculated for continuous 15-minute increments. A vapor emission response plan was established in the RD, but it did not need to be executed because the action levels were not exceeded at any air monitoring station for the duration of the project.

Odors were assessed continuously throughout remedial activities. An odor complaint hotline was established for residents and members of the community to report nuisance odors. A total of four odor complaints were received for this project. The complaints are summarized in Subsection 2.4.2. Vapor suppressant foams and/or Biosolve[®] spray were applied to the open excavation surfaces and uncovered soil within the material staging area to control the limited odors that were encountered periodically onsite during the remedial activities.

2.1.6 Community Participation Plan

The Community Participation Plan (CPP) is included as Appendix D of the RD. The CPP detailed citizen participation activities that were implemented for this remediation project. A mailing list was developed that includes adjacent property owners and businesses, local and state elected officials, local media, and other identified interested parties. A fact sheet was sent to the mailing list on August 1, 2012. The fact sheet introduced the Site and project, summarized site background, and described anticipated remedial action activities. The fact sheet is included with project correspondence in Appendix C. Also, an odor complaint hotline was established for residents and members of the community to report nuisance odors as described in Subsections 2.1.5 and 2.4.2.

2.2 CONTRACTORS AND CONSULTANTS

The table below list subcontractors who worked under Geo-Con and their associated work tasks:

Subcontractor	Work Task
PULs	Utility Location
SJB Drilling	Well Decommissioning
National Grid	Utility Relocation and Installation
Whitmore Fencing	Site Fencing
Essex Crane	Crane Equipment Mobilization
Asplundh Tree Expert	Tree Removal
Grant Street Construction	Utility and Sidewalk Installation, Site Grading
M.A. Bongiovanni	Steel Sheet Pile/VBW Installation
Verizon	Fiber Optics Utility Relocation and Installation
Atlantic Testing Laboratories	Geotechnical Testing
Klumpp Land Surveying	Surveying
TEC Smith	Sewer Flow Investigation
Sunstream Corporation	Sewer Line Replacement/Asbestos Abatement
Sun Environmental	Sewer Sludge Removal
Riccelli	Waste Transportation
CSG and RMS	Backfill Importation
Various (CW Trans, NABT, NDND,	ISS Material Transportation
St. Thomas, Wayne, BHB LLC)	

National Grid and Verizon were also onsite to uncover, temporarily relocate, and reinstall utilities owned by each including overhead electric lines and fiber optic lines.

2.3 SITE MOBILIZATION AND PREPARATION

Prior to mobilization, a pre-construction meeting was held with NYSDEC, NYSEG, Geo-Con, and Arcadis on July 18, 2012. Mobilization began on the week of July 30, 2012. Mobilization included the delivery of the materials and equipment needed for the excavation and ISS work. Mobilization activities included:

- Obtaining required approvals and permits.
- Installing erosion and sediment controls.

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- Clearing vegetation.
- Decommissioning monitoring wells.
- Constructing site facilities.
- Installing site security fencing.
- Surveying.
- Identifying utilities.

2.3.1 Agency Approvals and Permits

Prior to and during the implementation of the remedial action, approvals and permits were completed, as needed. Documentation of agency approvals required by the RD is included in Appendix C.

The NYSDEC granted exemption from most state permits required for completion of the remedial action, in accordance with Section 1.10 paragraph (b).2 of the DER-10. The following permits were completed prior to implementation of the remedy:

- Railroad ROW access permit.
- A temporary State Pollution Discharge Elimination System (SPDES).
- NYSDOT Highway Work Permit.

These permits and other permits relating to the remediation project are provided in Appendix E.

State Environmental Quality Review Act (SEQRA) requirements and substantive compliance requirements for attainment of applicable natural resource or other permits were achieved during this Remedial Action, as required by the NYSDEC.

2.3.2 Erosion and Sedimentation Control and Site Clearing

Erosion and sedimentation control fencing was installed as required by the Erosion and Sedimentation Control Plan included in Appendix E of the RD, except for the silt fence on the west side of the haul road located at the toe of the railroad ballast (i.e. upslope from the haul road). This fence was not installed as shown in the RD because it was determined not to be needed per discussions during the July 31, 2012 weekly site meeting with the NYSDEC (refer to Appendix Q for the meeting minutes). Hay bales, erosion control fabric, stone, and/or rip rap were mobilized and used, as needed, in addition to silt fence to prevent erosion of exposed soils. Following installation of the erosion and sedimentation controls, existing chain-link fencing was removed along the southern property boundary line of OU1 and the concrete pad and building foundation in OU1 were demolished and removed. Trees, shrubs, and other vegetation were removed from OU1, OU2, the soil staging area, and the haul road.

2.3.3 Monitoring Well Decommissioning

A total of 8 monitoring wells (MW-2, MW-3, MW-4, MW-5, MW-15, MW-16, MW-19, and MW-24) located within the ISS remediation area were decommissioned by SJB Drilling during the first week of remediation activities. Well decommissioning was performed by removing the well casing and grouting the boreholes. All extracted casings were decontaminated and placed in a roll-off container for offsite disposal.

2.3.4 Constructing Site Facilities and Fencing

A haul road was constructed using gravel underlain by geotextile to connect OU1 with the temporary soil staging area north of the Site. The haul road extended along the eastern side of the railroad tracks. The width of the haul road caused it to extend over an existing drainage ditch east of the railroad tracks. The ditch was modified with a 15-inch diameter corrugated pipe extension prior to backfilling the area with gravel for the haul road. An upgraded at-grade railroad crossing was installed where the haul road crossed the railroad tracks north of the site.

The soil staging area, decontamination area, stabilized construction entrance, office trailer, and temporary pedestrian sidewalk were constructed as specified in the RD. In addition to these facilities, the following plants and equipment were constructed and installed onsite:

- *ISS Batch Plant* installed onsite south of OU1. The plant consisted of a pad, mixers, hoppers, and tanks.
- *Temporary Water Treatment System* constructed on the south side of the garage located east of OU2. The temporary water system consisted of a baffle tank, a sludge storage tank, two frac tanks, an organo-clay vessel, four bag filters, two granular carbon vessels, two anion resin vessels, and an effluent tank.
- *Manitowok 4000 Crawler Crane with Drilling Platform* assembled onsite by Geo-Con's subcontractor Essex Crane with wooden crane mats and was moved as needed throughout the project.

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OU1 and OU2 were secured with temporary security fencing. The haul road, drainage ditch culvert, and soil staging area were surrounded with orange construction fencing. An NYSDEC-approved project sign was erected at the project entrance and remained in place during the Remedial Action.

2.3.5 Surveying and Utility Identification

A pre-construction building survey was provided by NYSEG prior to mobilization. The survey documented conditions of structures in proximity to the remedial construction that had the potential to be affected by the work.

During the remedial activities, land surveying was performed by the New York State-licensed surveyor, Klumpp Land Surveying. The horizontal and vertical excavation and ISS limits were marked-out and initial benchmarks were established prior to remedial activities. The initial survey was used to maintain and confirm horizontal and vertical limits, as needed. Klumpp Land Survey returned to the Site as needed to document actual ISS work limits and to complete as-builts of the finished work. Daily field surveying of the ISS progress was conducted by Geo-Con.

Underground utilities (gas main, water main, storm sewer, and fiber optic cable line) were located by PULs. Each utility line was uncovered by vacuum excavation at three locations (southern, middle, and northern) along the path of the utility.

2.4 SITE CONTROLS

This section describes the controls in place at the Site to control work activities. General site controls are discussed followed by nuisance controls.

2.4.1 General Site Controls

General site controls were implemented to keep the site orderly, secure, and safe. General site controls include:

- Site security.
- Erosion and sedimentation controls.
- Stockpile methods.
- Equipment decontamination.
- Truck wash and egress housekeeping.
- Truck routing.

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As indicated in Subsections 2.3.2 and 2.3.4, both site security fencing and erosions and sedimentation fencing were installed onsite. Over the duration of the project, no security issues occurred.

Erosion was prevented and sediment was controlled during onsite earthwork activities in accordance with the RD. Storm water runoff was controlled in a manner to prevent contact with impacted soils, and storm water that contacted impacted soils was managed with other water generated onsite as described in Section 2.19. The erosion control structures were inspected at least once a week and after significant rainfall events. Erosion and sedimentation controls were repaired onsite, as needed.

Waste materials were stored onsite prior to offsite disposal. As mentioned in Subsection 2.3.4, an offsite soil staging area was installed north of OU1 for staging soil proposed for reuse onsite as subsurface fill. A minimum of 6 inches of sand was placed and compacted above existing grade to form the base of the staging area. The sand was bermed along the perimeter of the staging area, and a 20-mil high density polyethylene (HDPE) liner and 16-ounce non-woven geotextile were placed over the sand forming an impoundment. The impoundment was filled with #1 and #2 crushed stone to a minimum thickness of 6 inches. The impoundment sloped toward a collection sump. Liquids that accumulated within the sump were managed with other water generated onsite as described in Section 2.19. The staging area was continuously covered with a properly anchored plastic cover (a minimum thickness of 20 mil), except while soil was actively being managed (placed, stabilized, or removed).

Equipment that contacted the impacted soil was decontaminated. Onsite decontamination pads were used to remove mud and soil from equipment and prevent tracking of impacted soils onto the streets. The decontamination pads used for the project consisted of an impoundment sloped toward a low point (collection sump), bermed sidewalls around the impoundment perimeter, and a 40-mil HDPE liner covering both the sides and the bottom of the impoundment and the collection sump. Equipment decontamination was performed via dry methods (brushing, wiping) and wet methods (water spray). Residues from decontamination operations were collected and managed with other impacted soil. Decontamination water was collected for treatment with other water waste generated onsite. Equipment that contacted impacted soil was decontaminated prior placing and compacting backfill material.

Measures were taken to keep haul trucks and egress roads clean and free of impacted debris from the Site. Truck beds were lined with disposable poly bed liners and

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equipped with a solid tarp covering the entire load and gasketed watertight tailgates. Trucks were loaded in such a way as to minimize impacted debris and soil from touching truck exteriors, including the tires. Truck loads were sprayed with odor suppressant foam prior to covering to reduce vapor and odor emissions, as necessary. Trucks were inspected before leaving the Site, and all loose soil or other material was sprayed or brushed off to prevent spreading on egress roads and streets. The haul road connecting OU1 and the soil staging area was enhanced by placing wood timber mats to further prevent debris from accumulating on truck tires. Site traffic and routing followed the site transportation route included in Appendix F of the RD.

2.4.2 Odor, Vapor, Dust, and Noise Control

Vapor and dust controls were employed throughout the remedial action to minimize disturbances to the surrounding residential and commercial buildings. A variety of engineering controls were used to control vapor and dust. Vapor and dust suppression measures used onsite included:

- Wetting soils with water to control dust.
- Limiting the size of excavations.
- Covering impacted soils with plastic sheeting or foam.
- Spraying soils with Biosolve[®].
- Spraying soils and the active ISS area with vapor suppressant foam.

An odor complaint hotline was established for residents and members of the community to report nuisance odors. Four odor complaints were received during the duration of the project on the dates as follows:

- September 28, 2012 A person called asking about odors emitted during application of the vapor suppressant foams. Several attempts were made to follow-up the call, but the person could not be reached. As a result of the call, additional foam was applied to exposed impacted soils, and stockpiles were covered with polyethylene sheeting before leaving for the weekend. The NYSDEC and NYSDOH were notified of the odor hotline call in September 28, 2012 e-mail correspondence from NYSEG (included in Appendix C).
- 2) *October 4, 2012* A person called asking about the odors emitted during application of the vapor suppressant foams. In a follow-up call between NYSEG and the person,

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the person reported that he lived nearby, drives by the Site several times a day, and noticed odors coming from the Site that coincided with the application of the odor suppressant foam. NYSEG explained to the person that the foam is used to suppress odors from the soil and that the foam itself is odorless. The person inquired about the source of the odors so NYSEG provided the person with a brief explanation of the MGP history of the Site. In October 5, 2012 e-mail correspondence from NYSEG to the NYSDEC and NYSDOH (included in Appendix C), NYSEG summarized the conversation with the person and concluded that the person appeared to be more curious than concerned with the odors from the Site.

- 3) December 5, 2012 A person noticed odors while driving by the Site and contacted the NYSDEC. Site activities at the time consisted of ISS production and moving spoils from ISS mixing (i.e., solidified material within 4-feet from the ground surface from the volume expansion caused when mixing reagents into the soil). It is believed that the odors were caused by the movement of the spoils. As a result of the call, additional foam was applied to exposed impacted soils. Additional details regarding the call are provided in internal Arcadis e-mail correspondence included in Appendix C).
- 4) December 21, 2012 A call was received on the odor hotline on December 21, 2012 inquiring about the odors from the site. The NYSDEC contacted the person, provided them with information regarding the odors, and provided them with a contact at the NYSDOH if they wanted further information. This is as summarized in the meeting minutes for the January 3, 2013 construction coordination meeting (refer to Appendix Q).

Biosolve[®] spray was also applied to the open excavation surfaces and uncovered soil within the material staging area to control odors that were encountered during the remedial action. Based on records provided by the Geo-Con, approximately 700 gallons of Biosolve[®] and 12,100 gallons of vapor suppressant foam (220 drums at 55 gallons each) were used during the remedial construction.

2.5 AIR QUALITY MONITORING PROGRAM RESULTS

As discussed in subsection 2.1.5 of this report, airborne monitoring for particulate matter less than 10 micrometers in diameter (PM_{10}) and for VOCs was conducted during the remedial activities when ground intrusive work was being performed. Airborne monitoring consisted of: (1) exclusion zone air-monitoring for evaluating construction

worker health and safety; and (2) community air monitoring to determine the levels of VOCs and total suspended particulates at the site perimeter and offsite. This air monitoring was performed in accordance with the NYSDOH Generic CAMP and site-specific CAMP included in the RD.

The air quality within the exclusion zone was monitored to ensure worker health and safety in accordance with requirements specified in 29 Code of Federal Regulations (CFR) 1910.120. Based on the air monitoring results during the remedial and redevelopment activities, all work was performed in Modified Level D personal protective equipment, and no upgrades to higher level protection were required.

The action levels established in the CAMP were not exceeded at any air monitoring station for the duration of the project. On a few occasions during remediation (three occasions total), the PM₁₀ concentration exceeded 100 μ g/m³ above the average background concentration. In these cases, dust suppression measures were subsequently implemented, and the PM₁₀ concentration was reduced below 100 μ g/m³.

The CAMP air monitoring data recorded by dataloggers is included in the attached CD. Copies of weekly air monitoring reports are provided in Appendix F.

2.6 UTILITY RELOCATION AND INSTALLATION

Utilities were relocated and installed throughout the remedial action on the east and west sides of US Route 11 to facilitate remediation of soils beneath them. Utilities that required relocation include the overhead electric lines, overhead fiber optic line, underground fiber optic line, underground storm/sanitary sewer, underground water main, and other drainage features. The underground storm/sanitary sewer and water main were replaced with new piping and materials as part of the remedial action.

Prior to the remedial action, the existing storm/sanitary sewer was constructed of 24-inch diameter asbestos-containing material (ACM) transite piping installed approximately 8 feet bgs. Flows in the sewer were monitored from late August 2012 to mid-September 2012 to evaluate bypass pumping requirements for replacing the sewer. Refer to Appendix G for the sewer flow monitoring results.

A bypass sewer pumping system was subsequently installed from upstream manhole MH-4 (near the ID Booth building) to downstream manhole MH-3 (near the batch plant located at the southern end of the Site) to maintain operation of the Village of Homer's sewer system. Once the bypass was installed, approximately 250 linear feet of the transite sewer was excavated, cut into sections, loaded, and transported for offsite

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disposal by Sunstream Corporation (Geo-Con's asbestos abatement subcontractor) to facilitate ISS of soils on the eastern limit of OU1. The ACM waste manifests are included in Appendix H. The sewer bypass was active for 8 weeks of construction. A new 24-inch diameter polyvinyl chloride (PVC) sewer pipe was installed during the week ending on December 21, 2012 at the approximate same grade and alignment as the former ACM sewer line. The bypass pumping was discontinued following installation of the new sewer line. The new sewer line was video-inspected by Grant Street Construction and approved by the Village of Homer's Department of Public Works on January 2, 2013. The new sewer was backfilled with clean controlled low-strength material (CLSM or "flowable fill"). On January 4, 2013, the new sewer line was inadvertently damaged during placement of the final lift of CLSM. The damaged section was removed and replaced the following day. The sewer was re-inspected on January 7, 2013 and approved for use the same day.

A 6-inch ductile iron (DI) water main at the eastern limits of OU1 was excavated, cut into sections, and loaded for offsite disposal. The exposed ends of the pipe were temporarily capped. A new 6-inch DI cement-lined (DICL) water pipe was installed on February 13, 2013. The alignment of the new DICL pipe was slightly west of the former pipe to avoid potential undermining of soil adjacent to the roadway. The following day, the water main was pressure tested, chlorinated, flushed out, and tested for bacteria (coliform). A second bacteria sample was collected on February 20, 2013. Both sets of bacteria test results were negative, and verbal approval to re-instate the water main into service was granted by the Cortland County Health Department on February 21, 2013. The new water main was flushed with village water for approximately 15 minutes on February 22, 2013 to remove any remaining sediment from the line, and the water main was subsequently placed into service. A detailed summary of the water main removal and replacement is provided in a July 11, 2014 letter from Arcadis to the Cortland County Health Department (included in Appendix C).

In addition to the sewer and water main, other utilities were installed and/or replaced by either Geo-Con or Grant Street construction unless otherwise noted as follows:

• *Overhead electric lines* – relocated by National Grid from along US Route 11 to the eastern side of OU2 to facilitate installation of the VBWs and ISS treatment of OU2.
- *Waterline tee* installed south of OU1 on the west side of US Route 11 to direct water to the batch plant using a 2-inch water service line. This water service line was left in-place following project completion for future landowner use.
- *Waterline tee* installed north of OU1 on the west side of US Route 11 to relocate an existing fire hydrant.
- *New fire hydrant* installed north of OU1 between US Route 11 and the ID Booth building.
- *Storm sewer catch basin* replaced during the completion of the northern VBW on the east site of US Route 11.
- Underground fiber optic lines relocated and restored by Verizon on the east side of US Route 11. Buried fiber optic lines were returned to their original positions and encased in concrete.
- *Overhead fiber optic lines* relocated by Verizon to facilitate installation of the VBWs.
- *Drainage swale* constructed behind the ID booth building.

In addition to the utilities installed above, the gas main along US Route 11 was removed from service and purged of gas by NYSEG. Once inactive, the gas main was cut/capped, excavated, and transported for offsite disposal.

2.7 VERTICAL BARRIER WALL INSTALLATION

Two steel sheet pile VBWs were installed under US Route 11 to connect the OU1 and OU2 monoliths and confine potential MGP residuals located between the monoliths/under the US Route 11 as required by the amended ROD (NYSDEC 2010). One VBW was installed to connect the north limits of the ISS monoliths (the "northern VBW") and the other VBW was installed to connect the south limits of the ISS monoliths (the "southern VBW"). The VBWs were installed in conjunction with the ISS treatment of soils along the edges of US Route 11. VBW installation was performed in multiple stages throughout the duration of the project.

Prior to performing work in the ROW of US Route 11, a NYSDOT Highway Work Permit was prepared (see Appendix E for a copy of the permit). The highway ROW work was scheduled after appropriate notification was provided to the local NYSDOT Engineer and was performed between 7 pm and 7 am to minimize traffic

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disruptions caused by the construction. Vehicle and pedestrian traffic along US Route 11 and lane closures were managed according to the RD and in accordance with NYSDOT regulations and local requirements.

To facilitate installation of the VBWs, Geo-Con saw-cut through multiple layers of asphalt/concrete and excavated two trenches at the northern and southern limits of OU1 and OU2 to approximately 5 feet bgs across US Route 11. The trench sidewalls were stabilized with trench boxes. Steel road plates and cold patch asphalt were used to cover the areas of the trenches that were partially backfilled. Excavated soils from trenching were removed and stockpiled onsite with other soils intended for onsite reuse as described in Section 2. Once trenching was complete, steel sheeting was installed at each VBW location by M.A. Bongiovanni. In accordance with the RD, steel sheeting was installed to a minimum sheetpile tip elevation of 1,071 feet for the southern VBW and 1,074 feet for the northern VBW based on the North American Vertical Datum (NAVD) of 1988. The steel sheeting was driven to a depth of approximately 4 feet into the underlying clay layer except for one sheet on the eastern side of the southern VBW (as detailed in the bullets below). Following completion of the VBW installations, clean fill was backfilled into the trench as described in Section 2. A detailed description of the sequence of the VBW installation is as follows:

- *Week ending on August 31, 2012* the western half of the southern VBW was installed except for the two westernmost pairs of steel sheeting.
- *Week ending on October 6, 2012* the western half of the northern VBW was installed except for the two westernmost pairs of steel sheeting. During installation, a catch basin was excavated and removed. The catch basin was permanently damaged during removal and replaced with a new NYSDOT-approved catch basin as discussed in Section 2.6.
- Week ending on October 13, 2012 the eastern half of the northern and southern VBWs were installed except for the two easternmost pairs of steel sheeting. At this point, the majority of the northern VBW was installed (except the easternmost two pairs). During this week, two 12-inch HDPE pipes were installed along the southern VBW trench to transfer grout and water between OU1 and OU2.
- *Week ending on December 1, 2012* the two westernmost steel sheet pairs of the northern and southern VBWs were installed into newly-completed columns in OU1

while the columns were still wet, completing the western side of the northern and southern VBW.

Week ending on January 12, 2013 – the two easternmost steel sheet pairs of the northern and southern VBWs were installed into newly-completed columns in OU2 while the columns were still wet, completing both VBWs. Refusal was encountered on one sheet on the southern end of OU2, resulting in the sheet terminating 1-foot higher than the bottom of the 4-foot embedment depth specified in the RD. The early refusal was attributed to damage (bent steel) in the interlocks between adjoining sheets. This sheet was advanced 3 feet into the underlying clay. In addition, the final number of sheets installed along the southern VBW east of US Route 11 was 1½ pairs as opposed to the 2 pairs (4 sheets) identified in the RD. During the January 17, 2013 weekly construction coordination meeting, it was determined that these two minor changes would not affect the ability of the sheeting to provide appropriate containment or the overall remedy to perform as intended.

Logs documenting the sheet pile installation are provided in Appendix I.

Vibration monitoring was conducted on existing structures near OU1 and OU2 in connection with the installation of sheet pile VBW across Route 11 between August 29, 2012 and October 11, 2012. The maximum peak particle velocity limit of 1 inch per second was not reached or exceeded during the sheet pile VBW installation. The vibration monitoring report is included in Appendix J.

2.8 DEMOLITION, EXCAVATION, AND MATERIAL HANDLING

Prior to starting the pre-ISS excavation activities, a concrete slab within the OU1 footprint was demolished and transported offsite for recycling. The concrete slab was remaining from the previous one-story building demolition.

Excavation of former MGP structures, soil, debris, piping, and ISS obstructions was conducted throughout the course of the remedial action. Excavation activities were conducted to facilitate ISS and remove heavily-impacted material from below 4 feet bgs at the Site.

Following completion of ISS activities, additional demolition was performed on a steel storage shed with a concrete slab foundation, which was located east of OU2. The building was demolished to facilitate removal of petroleum-impacted soil under the storage shed slab.

The demolition, excavation, and material handling activities are summarized below.

2.8.1 OU1 Concrete Slab Removal

A concrete pad and building foundation remaining in OU1 were demolished and removed from the Site to facilitate ISS. The building foundation had been left in-place as a low-permeability cover when the southern portion of the ID Booth building (located on the northern end of OU1) was demolished in preparation for the remedial construction. Approximately 1,062 tons of concrete and brick from the slab demolition were transported offsite for recycling at T.H. Kinsella, Inc. (a NYSDEC-permitted concrete recycling facility) located in Fayetteville, New York. A shipping summary for the recycled concrete is provided on Table 4. NYSEG received approval for recycling the concrete in August 20, 2012 e-mail correspondence from the NYSDEC (refer to Appendix C).

2.8.2 ISS Pre-Cut Excavation

Before ISS production, a pre-cut excavation was performed to approximately 4 feet bgs for both OUs to establish a working platform for the ISS rig. The pre-cut excavation for OU1 began in the first week of October 2012. The OU2 pre-cut excavation began during the first week in December 2012. Soil removed from OU1 and OU2 with no visible impacts was transferred to the offsite staging area for sampling for potential reuse as subsurface fill onsite. Soil with visible impacts was staged within the pre-cut excavation footprints for offsite transportation and disposal. Soil excavated from the middle and southern portions of OU2 contained moderate petroleum impacts from 2 to 4 feet bgs. Petroleum impacts were suspected to be related to a gasoline filling station formerly located within OU2.

Approximately 10,040 tons of impacted soil and debris (i.e., non-hazardous material containing visible sheens, odors, and/or total PAHs over 500 ppm) were removed and transported offsite for disposal as a non-hazardous waste at the Seneca Meadows, Inc. landfill located in Waterloo, New York. Soil removed during excavation of the VBW trenches was added to the pre-cut excavation soils for offsite transportation and disposal as an impacted soil at Seneca Meadows, Inc., except for 50 CY, which was characterized and approved for reuse onsite as subsurface fill. The VBW quantity is included in the total volume of pre-cut material transported for offsite disposal.

2.8.3 MGP Structure and Obstruction Removal

MGP structures and other obstructions were removed to facilitate ISS activities. Oversized MGP structure material was broken into manageable pieces and stockpiled onsite prior to offsite transportation and disposal.

The largest former MGP structure was the relief gas holder in the center of OU1. Prior to removing the former holder, a perimeter ring of columns was installed around the holder to create a sidewall support structure for safe excavation activities. The debris and soil generated during removal of the holder was either transported offsite for thermal treatment or mixed with the columns in that area as described in the RD. Debris and soil generated from the holder removal were staged in the southwestern corner of the OU1 pre-cut excavation prior to disposal. Approximately 521 tons of conditionally-exempt non-hazardous waste (coal tar-saturated soils and debris from the former MGP structures including the relief holder and other areas) was transported offsite for thermal treatment at Environmental Soil Management, Inc. (ESMI) located in Fort Edward, New York.

2.8.4 ISS Spoil Removal

During ISS production in OU1 and OU2, approximately 19,550 tons of excess solidified soil were removed and transported offsite for disposal as a non-hazardous waste at the Seneca Meadows, Inc. landfill. The excess solidified soil (ISS spoils) resulted from the soil volume expansion by reagent addition and mixing. The ISS spoils weight is approximately double that reported in the SMP (9,732 tons) because it is based on actual weight tickets from the landfill vs. the estimated amount presented in the SMP.

Trenching activities performed through the ISS monolith to replace subsurface utilities are not discussed in this Section because they are discussed in Section 2.6. A figure showing the locations, horizontal/vertical limits, spot elevations, and contours of the completed excavations are shown on Figure 6.

A waste shipment summary, which includes the weight of soil, debris, and ISS spoils from OU 1 and OU 2 in each waste shipment, the date the waste was shipped, and the total weight of wastes transported to each disposal facility, is included in Tables 5 and 6. The analytical results for samples collected to characterize the waste for disposal are presented in the Pre-Design Investigation Summary (AECOM, December 2011) provided as Appendix A in the RD.

The waste profiles for the Seneca Meadows, Inc. landfill and ESMI thermal treatment facility are included in Appendix K. Waste manifests and bills of lading are included in Appendix L.

2.8.5 Steel Storage Shed Demolition

Following completion of ISS activities, a steel storage shed in OU2 and its concrete floor slab were demolished. The demolition was performed to facilitate removal of petroleum-impacted soil found to extend under the storage shed slab. The steel from the storage shed was sent for offsite reclamation and the concrete was sent to T.H. Kinsella, Inc. for recycling.

2.8.6 Petroleum-Impacted Soil Removal

In February 12, 2013 e-mail correspondence to the NYSDEC (refer to Appendix C), Arcadis provided a plan for removing petroleum-impacted soil remaining east and southeast of the OU2 ISS area (after ISS mixing was completed) and for performing documentation sampling at the excavation limits. The NYSDEC provided approval to proceed with the petroleum-impacted soil removal and sampling in February 14, 2013 follow-up e-mail correspondence (refer to Appendix C). The petroleum-impacted soil included soil remaining after removal of petroleum-impacted soil during OU2 ISS mixing and soil located under the steel storage shed concrete slab. The anticipated excavation limits were based on observations at the limits of previous petroleum-impacted soil removal during OU2 ISS mixing operations and observations within test pits excavated in the area during the OU2 ISS mixing. The eastern excavation limit was 10 feet from the overhead electric lines (i.e., the OSHA set-back distance for equipment operators without electric-qualified person training/ certification) and the Tioughnioga River. The excavation limits are shown on Figure 6.

Approximately 660 tons of petroleum-impacted soil were removed from the area. Petroleum-impacted soil was excavated to an average depth of 5 feet bgs. The petroleumimpacted soil was transported offsite for disposal as a non-hazardous waste to the Seneca Meadows, Inc. landfill.

2.9 ON-SITE REUSE OF SOIL

Approximately 3,000 CY of soil free of odor, staining, and sheens was stockpiled in an offsite staging area during the pre-cut excavation activities. This soil was generated from the pre-cut excavation for ISS and trenching for the VBW. The soil was sampled approximately every 500 CY for laboratory analysis. In total, eight soil samples were

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collected for reuse evaluation, and seven of the eight soil samples met reuse criteria (PAH concentrations less than 500 ppm) specified in the NYSDEC policy document entitled "CP-51/Soil Cleanup Guidance" dated October 21, 2010 (CP-51/Soil Cleanup Guidance). Soil characterization sample CH-EX-WS-NA-003 did not meet reuse criteria (the soil had a PAH concentration of 1,900 ppm). Therefore, soil represented by this sample was transported to OU1 for staging until the soil was loaded and transported offsite for disposal. Soil meeting reuse criteria was approved by the NYSDEC for reuse onsite as subsurface fill (below a minimum of one foot of clean imported soil meeting NYSDEC commercial use soil clean-up objectives [SCOs] and protection of groundwater SCOs, which was underlain by a demarcation layer). The reuse characterization sampling results are presented in Table 7. NYSDEC's approvals to reuse soil excavated during the remedial construction are provided in Appendix C and consist of the following:

- September 25, 2012 e-mail correspondence providing approval to reuse soil characterized by four of the first five reuse soil characterization samples (as indicated above, one of the samples did not meet criteria for onsite reuse and therefore required offsite disposal).
- October 4, 2012 e-mail correspondence providing approval to reuse soil characterized by two additional reuse characterization soil samples.
- December 6, 2012 e-mail correspondence providing approval to reuse soil characterized by the final reuse characterization soil sample.

2.10 IN-SITU SOIL STABILIZATION

The majority of soil impacted from former MGP processes at the Site was solidified to isolate and reduce the mobility of residuals. ISS began on September 11, 2012 and was completed on January 14, 2013. The ISS activities involved solidifying approximately 54,530 CY of impacted soils within the limits of OU1 and OU2. Soil was solidified using an auger mixing rig with an 8-foot diameter auger in an overlapping sequence to create a monolithic solidified mass.

The OU1 and OU2 areas covered approximately 33,000 SF and 6,100 SF, respectively. In accordance with the ROD, soils that contain PAHs greater than 500 ppm and/or visible coal tar were solidified. ISS limits were based on historical PAH values, visual impacts, and physical boundaries (adjacent structures and structures associated with US Route 11). ISS limits were offset 10 feet from physical boundaries to ensure that

work did not interfere with the structural integrity of adjacent structures. The horizontal ISS limits are shown on Drawing 2.

Soil was solidified from the bottom of the pre-cut excavations to a silt/clay layer encountered at approximately 46 feet bgs. The OU1 perimeter columns, except for the columns along the eastern perimeter between the VBWs, extended 4 feet into the top of the silt/clay layer. All remaining columns extended at least 2 feet into the top of the silt/clay layer except as noted below. Due to auger refusal at 31 feet bgs, an interior column near the northeast corner of OU1 (column V-26) did not extend into the clay layer elevation presented in the RD (i.e., top of clay elevation of approximately 1,081 feet). However, all columns surrounding V-26 extended at least 2 feet into the clay layer. A column near the southwest corner of OU 2 (Column AA-3) only extended 1 foot into the clay layer and was the only column of OU2 that did not extend at least 2 feet into the clay layer. All columns surrounding column AA-3 extended at least 2 feet into the clay layer, and the column was bounded to the west by soil under US Route 11 that was enclosed by the two vertical barrier walls. ISS material that expanded above the maximum top of monolith of 4 feet bgs was considered "spoil" and was removed and transported to the Seneca Meadows, Inc. landfill for disposal. After the ISS activities were completed, the monolith surfaces were fine-graded as detailed in the RD.

Quality control (QC) samples were collected during ISS production from random columns at various depth intervals at an approximate frequency of one per every 500 CY. The samples were sent to PW Laboratories, Inc. of Syracuse, New York and tested for unconfined compressive strength (UCS) (American Society for Testing and Materials [ASTM] D1633) and permeability (ASTM D5084-00) after 28 days of curing. Additional permeability tests were performed after 56 days and 84 days of curing if the results did not meet the 1.0×10^{-6} centimeter per second (cm/sec) performance criteria specified in the RD. Due to initial high UCS test results, the ISS mix was modified on September 26, 2012 by reducing Portland cement/blast furnace slag mix by 0.5%. Additional adjustments were made throughout remediation to reduce the UCS and allow the monolith to be more workable.

The QC results for the material treated in OU1 indicate that the UCS ranges from 140 to 980 pounds per square inch (PSI) and the permeability ranges from 1.41×10^{-8} cm/sec to 8.59×10^{-7} cm/sec. QC testing results for the material treated in OU2 indicates that the UCS ranges from 70 to 800 PSI and the permeability ranges from 6.80 x 10^{-8} cm/sec to 1.5×10^{-6} cm/sec. OU1 samples M-14, P-32, G-29, D-30, and V-3 and OU2

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samples EE9 and CC17 had permeabilities equal to or slightly greater than $1.0 \ge 10^{-6}$ cm/sec after 28 days of curing but met the criteria when they were tested after 56 days of curing. OU2 sample GG-9 was tested at 28, 56, and 84 days and had an average permeability of $1.5 \ge 10^{-6}$ cm/sec after 84 days of curing, which was only slightly greater than $1.0 \ge 10^{-6}$ cm/sec. However, the permeability of GG-9 is approximately three orders of magnitude lower than the permeability of the native soils at the Site and the UCS was well within range of the performance standard at 70 PSI. See Table 3 for a summary of the ISS mixing depths, reagent (Portland cement, blast furnace slag, bentonite, and water) mixing quantities, ISS QC sampling locations, and ISS QC testing results. Refer to Appendix M for the laboratory reports for the QC testing.

Non-impacted construction debris and some heavily-impacted construction debris (as accepted by the NYSDEC during the October 5, 2013 meeting) was reused onsite by re-incorporation into the ISS-treated soils. This material was sized to smaller than 75% of the column diameter. The material was placed into columns that had all the surrounding (interlocking) columns installed. Material was placed into the ISS with an excavator and allowed to sink on its own. No material was forced into columns.

ISS was generally sequenced as described in the RD. ISS began on September 11, 2012 with the installation of columns to completely encircle the former gas holder in OU1. Once the holder was surrounded with ISS columns, ISS began at the southwestern corner of OU1. ISS in this corner was completed before ISS began in the northern half of OU1. Once the holder components were excavated and the northern half of OU1 was stabilized, ISS was performed inside the holder. ISS in OU1 was completed on December 14, 2012. ISS in OU2 began on December 17, 2012 in the southern half of the area. ISS work progressed north until ISS in OU2 was completed on January 14, 2013.

2.11 REMEDIAL PERFORMANCE/DOCUMENTATION SAMPLING

This Section describes quality assurance and quality control samples that were collected to verify that SCOs were achieved, document remaining impacts onsite, and confirm that performance criteria were achieved by the ISS columns.

2.12 DOCUMENTATION SAMPLING RESULTS

ISS and excavation limits were determined as part of the PDI performed in April 2011. During this investigation, a total of 28 soil borings and 103 samples were collected. The soil borings drilled and samples collected during the PDI represent most of the

confirmation/documentation sampling for this project. The PDI soil analytical results are presented in Appendix A. The PDI soil sampling locations are shown on Figure 3.

Additional documentation sampling was performed at the limits of the OU2 excavation. As discussed in Subsection 2.11, this excavation was performed to remove soils with petroleum impacts that were not addressed via ISS. A total of seven excavation sidewall samples and three excavation bottom samples were collected in accordance with the protocols presented in Section 5.4 (b) of DER-10. Documentation samples were collected from areas where the removed soil exhibited staining, obvious odors, and/or elevated PID readings. Grab samples were collected for VOC analysis and composite samples were collected for SVOC analysis. The documentation soil samples were submitted for laboratory analysis using USEPA SW-846 Method 8260 for VOCs and USEPA SW-86 Method 8270 for SVOCs as referenced in the most recent edition of the NYSDEC Analytical Services Protocol (ASP), and results were reported with Category B analytical data deliverables.

Analytical results from the documentation samples indicate the presence of several VOCs greater than the soil cleanup levels for fuel oil contaminated soil as presented in CP-51/Soil Cleanup Guidance in multiple samples. 1,2,4-Trimethylbenzene, 1,3,5-trimethylbenzene, benzene, ethylbenzene, n-butylbenzene, n-propylbenzene, toluene and xylenes were detected above soil cleanup levels. Analytical results were generally within an order of magnitude of the soil cleanup levels. Naphthalene was the only SVOC detected in documentation samples at a concentration greater than its corresponding cleanup level (12 ppm). Naphthalene was identified in only one sample at a concentration greater than the cleanup level (16.6 ppm in a sidewall sample from near the northeast corner of the excavation).

The documentation soil analytical results are presented in Table 8 and the sampling locations are shown on Figure 6. Analytical results that exceed the site cleanup levels are highlighted.

2.13 ISS PERFORMANCE CRITERIA TESTING

QC samples were collected during ISS production from random columns at various depth intervals at a frequency of one per every 500 CY, as discussed in Section 2.10. A total of 112 samples were collected for UCS and permeability testing after 28 days of curing. After 56 days, nine of these samples were again tested for permeability, and one of these samples was tested for permeability after 84 days. The UCS and permeability performance criteria specified in the RD were as follows:

- UCS greater than 50 PSI after 28 days of curing by ASTM D 1633-00 standard test method for compressive strength of molded cement cylinders.
- Hydraulic Conductivity (permeability) less than 1.0 x 10⁻⁶ centimeters per second (cm/sec) after 28 days of curing by ASTM D 5084-00 – standard test method for measurements of hydraulic conductivity of saturated porous materials using a flexible wall permeameter.

The QC results for treated material indicate that the UCS ranged from 70 to 980 PSI achieving the performance criteria. The permeability ranged from 1.41×10^{-8} cm/sec to 1.5×10^{-6} cm/sec, achieving the performance criteria with only minor exception. The low permeability of 1.0×10^{-6} cm/sec was not achieved within the initial 28 days for seven (D-30, P-32, G-29, V-3, EE-6, GG-9, and CC-17) of the 112 permeability samples. However, a permeability below 1.0×10^{-6} cm/sec was achieved in six of these seven samples within 56 days or from duplicate samples collected by Geo-Con. Samples collected from column GG-9 did not achieve the performance criteria for permeability. After measuring permeability after 84 days, the average permeability was equal to 1.5×10^{-6} cm/ in that sample. This permeability is approximately three orders of magnitude lower than the native soils on the site and the strength was well within range of the performance standard (70 PSI). No further action was performed on GG-9 or the 11 other columns that the sample represented, which were a small subset (1.1%) of the 972 total completed ISS columns. The UCS and permeability results are included in Table 3.

2.14 SOIL STAGING AREA SAMPLING RESULTS

Two sets of pre- and post-construction soil samples (samples CH-SP-1/CH-SP-2 and CH-SP-1A/CH-SP-2A, respectively) were collected from native soil immediately below the soil staging area. The native soil at the staging area mainly consisted of topsoil intermixed with cinders. The staging area had a protective multi-component liner system consisting of the following (from top down): 6 inches of sacrificial stone, 16-ounce nonwoven geotextile, 20 mil thick high-density polyethylene (HDPE) liner, and 6-inches of imported clean sand bedding directly above the native soils, as described in Section 2.4.1. The reuse soil temporarily stockpiled in the staging area consisted primarily of stone and sand/gravel fill intermixed with brick debris. The two pre-construction (baseline) samples were collected from the proposed soil staging area footprint on August 7, 2012. Once the soil staging area was removed, the approximate baseline soil sampling locations were revisited, and two post-construction soil samples were collected from the re-exposed native soil on February 6, 2013. Both sets of samples were submitted for laboratory analysis of polychlorinated biphenyls, pesticides, VOCs, SVOCs, and inorganic constituents. The laboratory analytical results were validated by Arcadis. The validated analytical results, with comparisons to SCOs from 6 NYCRR Part 375-6.8(b), are presented in Table 9. The laboratory analytical data reports and data validation report for these samples are included in Appendix N.

Based on review of the laboratory analytical results, the constituents and their respective concentrations identified in the native soil before vs. after the construction activities were generally consistent. Slight variations in constituents and concentrations were attributed to localized spatial variation and typical laboratory variability.

For reference only, the soil analytical results were compared to SCOs for residential use (the most conservative land use of neighboring properties, which are currently used for residential or commercial purposes). The analytical results for all samples (except the mercury result for <u>pre</u>-construction sample CH-SP-1) were less than the residential use SCOs. Mercury was identified in sample CH-SP-1 at a concentration of 1.3 ppm, which slightly exceeded the 0.81 ppm residential use SCO.

The analytical data above demonstrate that the native soil was not impacted by the soil staging area.

2.15 BACKFILLING

Following excavation and ISS remedial activities, the affected areas were backfilled to finish grade with NYSDEC-approved reuse soils (as subsurface fill) and imported clean fill. Pursuant to the ROD, the top 1 foot of the ISS area was backfilled with clean fill meeting NYCRR Part 375-6(d) requirements for commercial use, and a demarcation layer was installed beneath the clean fill. This section details the backfilling and restoration of areas affected by the remediation.

2.16 REUSE SOIL

Approximately 3,000 CY of soil free of odor, staining, and sheens was used as reuse backfill. Details of characterization sampling for reuse soil are presented in Subsection 2.9 (refer to Table 7 for sample results). Geo-Con began backfilling with reuse material on January 21, 2013. Geo-Con began placing reuse material from the

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onsite stockpile area onto the OU2 ISS monolith. The reuse material was placed to within 1 foot of the final grade in OU2. Following placement of reuse soil in OU2, remaining reuse soil was backfilled into OU1. The staging area was dismantled and the sand (from staging area bedding) and stone (above staging area liner) were transferred to OU1 as additional "reuse" subsurface fill. The reuse material was placed to within 2 feet of the final grade in OU1. Placement of reuse soil was completed during the week ending on February 8, 2013. The areas were reuse soil was placed onsite and top of reuse soil elevations are shown on Drawing 3.

The specified compaction for the reuse material (90% of maximum dry density as determined by modified Proctor test [ASTM D1557]) was difficult to achieve. This was due to a large percentage of debris (bricks) and moisture contents above optimum in the material. Relative compaction in the OU2 area was generally between 80-85% of the maximum dry density. The 90% relative compaction requirement for the portion of NYSEG's property not subject to easements/ROWs by others was waived. This NYSEG self-imposed requirement was waived because: (1) the material had been used successfully beneath onsite buildings before; (2) NYSEG will continue to own both OU1 and OU2 for the foreseeable future; and (3) compaction test results documenting conditions from the remediation site restoration (compaction less than 90%) will be available for consideration in future site/building redevelopment. The compaction requirement for the sections of NYSEG's property within the roadway or railroad ROWs (and utility easements) remains at 90% maximum dry density and proof-rolling was still performed for the areas where the compaction requirement was waived.

2.17 CLEAN FILL

Clean fill, consisting of at least 1 foot of either run-of-bank gravel or crushed stone, was placed above the reuse soil and a demarcation layer. The clean fill in conjunction with clean sub-base plus asphalt pavement or concrete totaling at least 1-foot thick makes up the soil cover system as described in Section 3.2. The top of fill elevations and fill thicknesses in OU1 and OU2 are shown on Drawing 4. The elevations of the demarcation layer below the clean fill are shown on Drawing 3. Clean fill materials were sourced from either Cortlandville Sand and Gravel Pit or Kinsella E-Z Acres Pit. Tables summarizing chemical analytical results for the imported clean backfill, in comparison to allowable levels, are provided in Table 2.

OU1 and OU2 were restored to grade with run-of-bank gravel, and then an additional one foot of crusher run stone was placed as a clean surface cover. The

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combination of both fills exceeds the 1-foot requirement for a soil cover that is protective of human health for commercial or industrial site use. In addition, the OU1 driveway was restored to drain from east to west (away from US Route 11) instead of having a crown in the middle (as show in the RD) to prevent storm water runoff from draining toward the road.

OU2 was restored to a higher elevation than the pre-remediation elevation (1 foot higher, on average), which is consistent with discussions with the NYSDOT during preconstruction meetings. The higher grade was accomplished by removing only 3 feet of ISS spoils instead of 4 feet and providing 4 feet of backfill above the monolith (reuse soil and imported clean fill).

Clean fill was also used to completely backfill utilities uncovered and/or reinstalled during remediation. Utilities were backfilled with a combination of CLSM fill and run-of-bank gravel.

Weight tickets for the imported clean fill are provided in Appendix O.

2.18 DEMARCATION LAYER

Orange polyethylene construction fencing was placed as a demarcation layer above the reuse soil before placing the clean fill. A demarcation layer was also installed at approximately 2 feet below final grade across the northern and eastern areas of the Site in the vicinity of the sanitary sewer and near the ID Booth building. The limits of the demarcation layer are shown on Drawing 3.

2.19 WATER TREATMENT

Water containing or contacting MGP residuals during the remedial action was collected, contained, and treated before being discharged into the Tioughnioga River in accordance with the SPDES Permit. Collected water was sent to the onsite Temporary Water Treatment System (TWTS). In total, 154,349 gallons of water were treated and discharged into the Tioghnioga River. Most wastewater was generated from stormwater that collected above the ISS monolith. Proper run-on and run-off controls were employed to limit the amount of wastewater generated.

The assembly of the TWTS was completed during the week ending November 3, 2013. Prior to completion of the TWTS, water was stored in onsite temporary storage tanks (frac-tanks). As part of the start-up system activities, one sample was collected from the first 10,000 gallons for laboratory analysis and a second sample was collected

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from the first 20,000 gallons for laboratory analysis. Following system startup activities and testing, additional QA/QC samples were taken to monitor the discharge into the river as specified by the SPDES permit. A total of six samples were collected from the TWTS for laboratory analysis prior to discharging the treated water into the river. The samples were analyzed for pH, iron, manganese, cyanide, benzene, ethylbenzene, toluene, total xylenes, and naphthalene. Laboratory analytical results for wastewater are presented in Table 10. Additional pH samples were collected and measured from multiple locations for each treatment and discharge batch. Results were submitted to the NYSDEC for approval prior to treated water discharge into the river.

2.20 REPORTING AND RECORD KEEPING

Field activities were documented in accordance with the RD. Daily and weekly construction reports were prepared throughout the project. Daily construction reports were prepared by Geo-Con for Arcadis and weekly construction reports were prepared by Arcadis for NYSEG.

Daily construction reports included:

- 1. Number of workers for each trade and worker names.
- 2. Names of subcontractors and their onsite employees.
- 3. Hours of work for each trade or type of equipment.
- 4. Equipment on project site and materials furnished.
- 5. Major work activities performed, and progress thereof, including estimated amounts of specialty work, stockpiling, loading, dewatering, stormwater diversion, and backfilling completed.
- 6. Odor, vapor, or dust mitigation work activities performed.
- 7. Weather conditions, temperature, and daily precipitation total.
- 8. Unforeseen subsurface conditions.
- 9. Meetings attended.
- 10. Accidents, safety, and security issues.
- 11. Tests and inspections performed.
- 12. Reasons for construction delays.
- 13. Units of cost-plus work.
- 14. Units of T&M work.
- 15. Daily trucking logs as specified in Transportation of Solid and/or Liquid Material.

Weekly progress reports summarized work activities completed for the week, and included representative photographs of the work performed each week. The weekly progress reports serve as the photograph log for the Site as well. The weekly construction reports with digital photos are included in Appendix P.

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Construction coordination meetings attended by representatives from the NYSDEC, NYSEG, Geo-Con, and Arcadis (in person or by telephone) were held weekly. The meeting minutes from these coordination meetings are included in Appendix Q.

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3.0 CONTINUOUS AND ON-GOING REMEDIAL ACTIONS

This section describes on-going and continuous activities required as part of the overall remedial action. This section begins with a discussion of the impacts remaining onsite followed by a description of the soil cover system, other engineering controls, and institutional controls.

3.1 CONTAMINATION REMAINING AT THE SITE

After completion of the remedial work described in the RD, some remaining "site residuals" were left in the subsurface at this site. The site residuals include limited coal tar dense non-aqueous phase liquid (DNAPL) (i.e., in blebs, stringers), hydrocarbon type stains, sheens, odors, and/or trace of chemical constituents associated with the former MGP that remain in soil at or beyond the remedial excavation/ISS limits, below a soil cover system. The residuals also include coal tar that was encapsulated and solidified into the ISS monoliths. The location and extent of residuals remaining at the Site following the remedial activities are discussed below.

The analytical results for imported clean material used to backfill the excavation areas are presented in Table 2, and the analytical results for reuse soil placed as backfill are presented in Table 7. The tables in Appendix A summarize the laboratory results for untreated soil sampling locations remaining at the Site located outside of the ISS monolith limits after completion of the remedial action. The soil sampling locations outside the treatment area and corresponding analytical results for total PAHs are shown on Figure 7. The analytical results for soil samples collected from within the ISS limits before ISS was performed are no longer valid and therefore not shown on Figure 7.

Surface Soil

Surface soils that exhibited MGP-related impacts during site investigation have been removed, treated via ISS, covered under at least 1 foot of clean soil, or covered with asphalt pavement/concrete.

Subsurface Soil

ISS of NAPL-containing soil to the silt/clay confining layer within the designated OU limits at the Site created two solidified monoliths. Potential MGP residuals between the two monoliths (under US Route 11) were isolated by the installation of two VBWs connecting the two monoliths. Utilities within the limits of the OUs were removed to

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facilitate ISS treatment of soil under them and installation of the VBWs. They were generally reinstalled to their original alignments after the work was completed, except for the water main on the west side of US Route 11 that was installed approximately 10-feet to the west from its original alignment.

Existing data indicates that site residuals are present in subsurface soils at concentrations less than the 500 ppm TPAH threshold presented in NYSDEC CP-51/Soil Cleanup Guidance. Soil at sampling location PDI-8 (south of the OU1 monolith) was visually characterized during the 2011 PDI as having coal tar/NAPL saturated soils between 11 and 16 feet bgs. Subsurface soil in certain areas outside the ISS monoliths (mainly, but not limited to, south of the OU1 monolith) contains NAPL blebs, hydrocarbon-type stains, sheens, and/or odors, but this soil is below clean surface cover material (crushed stone and bank run gravel).

The 4-foot pre-cut excavations above the OU1 and OU2 monoliths were backfilled using a combination of: (1) excavated on-site soils that were approved by the NYSDEC for reuse; and (2) imported clean fill. Approximately 2 feet of reuse soil was placed first and then approximately 2 feet of imported clean fill material was placed on top of that material up to final grade. The clean fill was a virgin material from a permitted mine/quarry that met the unrestricted use SCOs presented in 6 NYCRR Part 375-6.8(a) and/or met the sampling exemption specified in Section 5.4(e)3.ii.(1) of DER-10 (less than 10% by weight material passing through a size 80 sieve). All utility excavations were entirely backfilled with imported clean fill.

An orange demarcation layer (consisting of orange polyethylene construction fence) was placed at the interface between reuse soils and imported clean fill. The limits of the demarcation layer are shown on Drawing 3.

Groundwater

The remedial activities performed at the Site removed potential remaining sources of impacts to groundwater. No groundwater removal or treatment was performed as part of the remedial activities other than removal of water from the pre-cut excavation and utility installation excavations and treatment of that water in a temporary onsite wastewater treatment system.

Analytical results for groundwater samples collected during the baseline groundwater monitoring event performed in 2012, before remedial the activities, are summarized as follows:

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- VOCs were not identified at concentrations greater than the groundwater quality standards or guidance values in 13 of the 15 wells that were sampled. The VOCs that were identified at concentrations exceeding groundwater quality standards/guidance values consisted of benzene in MW-14 (southwest of OU2) and BTEX in MW-17 (just east of a former filling station within OU2).
- SVOCs were only identified at concentrations exceeding groundwater quality standards/guidance values in one well (MW-17). The only SVOCs identified in MW-17 at concentrations exceeding groundwater quality standards/guidance values were acenaphthene and naphthalene.
- One or more inorganic constituents were identified at concentrations exceeding groundwater quality standards/guidance values in 11 of the 15 sampled wells.

Concentrations of detected VOCs, SVOCs, and inorganic constituents identified in groundwater at the Site during the baseline groundwater monitoring event and first post-remediation groundwater monitoring event are summarized in Table 1.

Sediments

The remedial activities did not address sediment in the Tioughnioga River adjacent to or downgradient from the Site. The sediment is being addressed separately from the onsite remedy.

Since residuals remain in soil and groundwater beneath the Site after completion of the remedial action, Institutional and Engineering Controls (IC/ECs) are required to protect human health and the environment. IC/ECs are described in the following sections. Long-term management of these EC/ICs and residuals will be performed under the SMP approved by the NYSDEC.

3.2 SOIL COVER SYSTEM

Exposure to remaining residuals in soil at the site is prevented by a soil cover system placed over the site. Depending on the location, this cover system consists of the following: (1) clean soil (crushed stone and bank run gravel) at least 2 feet thick; or (2) clean subbase plus asphalt pavement or concrete totaling at least 1 foot thick. Drawing 4 shows the location of each cover type constructed at the Site. The composite cover system is a permanent control and the quality and integrity of this system will be

inspected annually or other reduced frequency, as appropriate with approval by the NYSDEC. An Excavation Work Plan, which outlines the procedures required in the event the cover system and/or underlying residuals are disturbed, is provided in the SMP.

3.3 OTHER ENGINEERING CONTROLS

The remedy for the Site did not require the construction of any other engineering control systems.

3.4 INSTITUTIONAL CONTROLS

The site remedy required that an EE be placed on the property to: (1) implement, maintain, and monitor the Engineering Controls; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface containing residuals; and (3) limit the use and development of the site to commercial uses only. Adherence to these Institutional Controls on the Site is required by the EE and will be implemented under the SMP. These Institutional Controls are:

- Compliance with the EE and the SMP by the Grantor and the Grantor's successors and assigns.
- All Engineering Controls must be operated and maintained as specified in the SMP.
- All Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.
- Groundwater and other environmental or public health monitoring must be performed as defined in the SMP.
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP.
- Institutional Controls identified in the EE may not be discontinued without an amendment to or extinguishment of the EE.

The EE for part of the Site (tax map parcels 76.57-01-08.2 and 76.57-01-05.2, which correspond to 218 and 221 South Main Street) was executed by the NYSDEC on June 27, 2016 and filed with the Cortland County Clerk on July 18, 2016. The County Recording Identifier number for this filing is 2016-03464. A copy of the EE and proof of filing is provided in Appendix R. A copy of the Boundary/Metes and Bounds Survey used for the EE is attached as Appendix S. The EE for the remainder of the Site (part of tax map parcel 76.57-01-08.100, which corresponds to 216 South Main Street, and is

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owned by ID Booth) is pending. NYSDEC sent a May 31, 2016 letter to ID Booth regarding the need for an EE for that portion of the Site.

3.5 DEVIATIONS FROM THE REMEDIAL DESIGN

This section of the report summarizes deviations from the RD. Deviations were made based on changes in field conditions and changes proposed by the remedial contractor to streamline remedy implementation. The NYSDEC was notified of deviations from the RD, and the NYSDEC provided formal approval, where needed. The deviations from the RD include:

- Not installing silt fencing on the west side of the railroad. Silt fence was installed on the east side of the railroad track. No site activities disturbed pre-remedial conditions on the west side of the railroad tracks along the haul road. Therefore, silt fencing was not needed on that side.
- Using a different material for constructing the Site sign. A solid core aluminum composite panel was used rather than half-inch wrapped plywood. The alternative material was deemed of equal or better quality then the material in the specification.
- Disposing of clean concrete from the former ID Booth building slab at an alternative offsite facility. Additional clean concrete was recycled at a facility permitted by the NYSDEC for such operations. This was a more sustainable option for the material than disposal at the Seneca Meadows, Inc. landfill. This change was in part due to the discovery of a secondary slab beneath the surface slab of the former ID Booth building. The quantity of clean concrete increased from the original estimate. However, this option reduced the overall cost for managing the concrete.
- Modifying the ISS mix ratio as needed throughout the project to make the soil-grout mixture more workable and reduce the UCS of the ISS monolith, which was initially found to be approximately 10 times greater than the minimum UCS performance criteria. Following ISS completion, all QC samples achieved UCS and permeability performance criteria, with one minor exception (the permeability of sample GG-9 was slightly above the maximum performance criteria as discussed in earlier sections of this report and below).
- Including small quantities of heavily-impacted material with no visible free coal tar impacts in various columns for onsite solidification/treatment. This procedure reduced the amount of material being transported to ESMI for offsite thermal

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treatment/disposal. During an October 5, 2012 meeting, the NYSDEC agreed to the approach provided the material did not contain free coal tar, and the NYSDEC indicated it could assist with visual characterization on a case-by-case basis. NYSDEC suggested that odor suppressant foam be added to the material at the time it was added to the columns until thoroughly mixed.

- Cutting and capping the ACM sanitary sewer shorter than specified in the RD. Cutting locations were changed to approximately 10 feet outside the OU1 limits. The cutting locations were changed to reduce the exposure and work on asbestos to site workers. During the November 6, 2012 site meeting, the NYSDEC accepted the change in the cutting locations.
- Achieving a permeability in columns slightly higher than the permeability specified in the RD at a select few interior columns. A permeability below 1.0×10^{-6} cm/sec was not achieved in column GG-9. After measuring permeability after 84 days, the average permeability was equal to 1.5×10^{-6} cm/s. This permeability is approximately three orders of magnitude lower than the native soils on the site and the strength was well within range of the performance standard (70 PSI). No further action was performed on GG-9 or the columns that the sample represented. The meeting minutes for the January 17, 2013 construction coordination meeting (Appendix Q) document that ISS production was completed on January 14, 2013. NYSDEC attended that meeting and agreed with concluding the ISS phase of the remedial construction. The extensive and overwhelming favorable unconfined compressive strength data and permeability data available for performance samples collected as of that date were used to conclude that ISS was complete and the ISS rig could be dismantled and demobilized. The final permeability data for column GG-9 (sampled January 1, 2013) were not received until after the 84 day curing period (after April 3, 2013). The slight exceedance of the permeability performance criteria for the final column GG-9 sample was considered acceptable because it represented a very small set of the total ISS columns (12 out of 972, or 1.2% of the total columns) and the columns represented by the sample GG-9 are surrounded by other columns where performance criteria were met.
- Extending the swale behind the ID Booth building so that it ended at the culvert north of OU1 rather than behind the building. The swale was extended so that water would be conveyed directly to the ditch without ponding behind the ID Booth building.

- Grading the OU1 driveway so that it drains from east to west. The grading was changed to prevent water from the eastern half of the OU draining toward the road.
- Modifying the VBW at the southern end of OU2 to account for difficult sheet pile driving conditions. Refusal was encountered on one sheet on the southern end of OU2 resulting in the sheet terminating at a slightly higher embedment depth than specified in the RD. The early refusal was attributed to damage (bent steel) in the interlocks between adjoining sheets. This sheet was only able to be driven 3 feet into the underlying clay. In addition, the final number of sheets installed along the southern VBW east of US Route 11 was 1½ pairs as opposed to the two pairs (four sheets) identified in the RD. During the January 17, 2013 weekly construction coordination meeting, it was determined that these two minor changes would not affect the ability of the sheeting to provide containment or the overall remedy to perform as intended.
- Installing holes in each VBW sheet pile rather than in every other one. The additional holes were installed to provide a groundwater relief window and prevent groundwater mounding between the sheet piles under the roadway. The holes were optimally placed to prevent groundwater mounding and still provide containment of the MGP-impacts beneath the roadway. The additional holes were determined to be acceptable as they would provide additional drainage without affecting the structural integrity of the sheets.
- Installing a demarcation layer directly above reuse soil backfill in the petroleum impacted soil removal areas outside the ISS area of OU2 (i.e., before placing imported clean fill material). The demarcation layer was installed to differentiate between soils with potential MGP residuals (reuse soils) from clean fill. Any work under this demarcation layer will require following the procedures of the excavation work plan included in the SMP.
- Backfilling with an alternative material for the gravel driveway/parking lot that would be more consistent with typical driveway/crushed stone material.
- Replacing the waterline in an alignment slightly west of the proposed alignment in the RD. The alignment was modified to follow the village requirements that the drinking water line be at least 10 feet away from the sanitary sewer line.
- Backfilling the waterline with material that was slightly different than that specified in the RD.

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- Backfilling to a relative compaction less than specified in the RD. The specified compaction for the reuse material (90% of maximum dry density as determined by modified Proctor test [ASTM D1557]) was difficult to achieve. This was due to a large percentage of debris (bricks) and moisture contents above optimum in the material. Relative compaction in the OU2 area was generally between 80-85% of the maximum dry density. The 90% relative compaction requirement for the portion of NYSEG's property not subject to easements/ROWs by others was waived. This NYSEG self-imposed requirement was waived because: (1) the material had been used successfully beneath onsite buildings before; (2) NYSEG will continue to own both OU1 and OU2 for the foreseeable future; and (3) compaction test results documenting conditions from the remediation site restoration (compaction less than 90%) will be available for consideration in future site/building redevelopment.
- Restoring OU2 to a higher elevation than the pre-remediation elevation (1 foot higher, on average). OU2 was restored to a higher elevation based on a request from the NYSDOT during preconstruction meetings.
- Removing the infiltration layer that was proposed to be installed south of the ISS monolith. The infiltration area was eliminated based on the findings of petroleum LNAPL within shallow soil and floating on the groundwater surface within the proposed infiltration area. The NYSDEC, NYSEG, and Arcadis agreed that the nature, extent, and recoverability of the petroleum LNAPL would be addressed in a step-wise manner via the approach to be detailed in an OU1 LNAPL Assessment Work Plan. Arcadis subsequently developed the OU1 Petroleum LNAPL Assessment Work Plan which is contained in a June 6, 2013 letter from Arcadis to the NYSDEC (refer to Appendix C). The fieldwork outlined in the plan was implemented following receipt of NYSDEC's approval. Refer to the correspondence in Appendix C regarding efforts undertaken to evaluate the limited presence and extent of LNAPL south of the ISS monolith in OU1 and subsequent groundwater monitoring in OU1 and OU2.

Creating a drainage feature in this area of OU1 would have been premature without first understanding the nature and extent of the LNAPL. Eliminating the infiltration area was determined not to have an adverse effect on the monolith. Although a small additional height of water may build up on the ISS monolith (from infiltration of precipitation and the elimination of both the geo-composite liner system and the infiltration area), the presence of such water above the monolith is not a concern. The majority of the monolith is below the water table and in direct contact with water.

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Such water is not expected to affect the long-term performance of the monolith. In addition, based on the gradual southward slope of the ISS monolith, it will shed water to the south. The water will infiltrate into the higher permeability soil beyond the monolith and to the water table, which is seasonally at or just below surface of the monolith. Because the seasonal high water-table elevation is very close to the design elevation of the infiltration area, the usefulness of the infiltration area south of the monolith was questionable.

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TABLES



Location ID:	NYSDEC	MW-1	MV	V-6	MM	V-12	MM	/-13	MW-14	MW-14R	MW-17	
Sample Depth(ft BGS):	Groundwater	15.5 - 20.5	26	- 31	8 -	13	35.5	40.5	6.5 - 11.5	2.8 - 12.8	6 - 11	
	Standards and											
	Guidance	44/00/40	00/00/40	44/05/40	00/07/40	44/00/40	00/07/40	44/00/40	00/00/40	44/05/40	00/05/40	44/05/40
Date Collected:	values	11/06/13	06/26/12	11/05/13	06/27/12	11/06/13	06/27/12	11/06/13	06/26/12	11/05/13	06/25/12	11/05/13
	6	1.00	1.00				1.00			1.00		1.00
1,1,1-I richloroethane	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]	<1.00
1,1,2,2-Tetrachloroethane	5	<0.500 J	<1.00	<0.500 J	<1.00	<0.500 J	<1.00	<0.500 J	<1.00	<0.500 J	<1.00 [<1.00]	<0.500 J
1,1,2-trichloro-1,2,2-trifluoroethane	5	<5.00	NA	<5.00	NA	<5.00	NA	<5.00	NA	<5.00	NA	<5.00
1,1,2-Trichloroethane	1	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]	<1.00
1,1-Dichloroethane	5	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00 [<1.00]	<1.00 J
1,1-Dichloroethene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]	<1.00
1,2,3-Trichlorobenzene		<5.00	NA	<5.00	NA	<5.00	NA	<5.00	NA	<5.00	NA	<5.00
1,2,4-Trichlorobenzene	5	<5.00	NA	<5.00	NA	<5.00	NA	<5.00	NA	<5.00	NA	<5.00
1,2-Dibromo-3-chloropropane	0.04	<5.00	NA	<5.00	NA	<5.00	NA	<5.00	NA	<5.00	NA	<5.00
1,2-Dibromoethane		<2.00	NA	<2.00	NA	<2.00	NA	<2.00	NA	<2.00	NA	<2.00
1,2-Dichlorobenzene	3	<1.00	NA	<1.00	NA	<1.00	NA	<1.00	NA	<1.00	NA	<1.00
1,2-Dichloroethane	0.6	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00 J [<1.00]	<1.00 J
1,2-Dichloropropane	1	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00 [<2.00]	<2.00
1,3-Dichlorobenzene	3	<1.00	NA	<1.00	NA	<1.00	NA	<1.00	NA	<1.00	NA	<1.00
1,4-Dichlorobenzene	3	<1.00 J	NA	<1.00 J	NA	<1.00 J	NA	<1.00 J	NA	<1.00 J	NA	<1.00 J
1,4-Dioxane		<25.0 J	NA	<25.0 J	NA	<25.0 J	NA	<25.0 J	NA	<25.0 J	NA	<25.0 J
2-Butanone		<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 [<5.00]	<5.00
2-Hexanone	50	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 [<5.00]	<5.00
4-Methyl-2-pentanone		<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 [<5.00]	<5.00
Acetone	50	<10.0 J	<5.00	<10.0 J	<5.00	<10.0 J	<5.00	<10.0 J	<5.00	<10.0 J	<5.00 [<5.00]	<10.0 J
Benzene	1	<0.500	<0.500	<0.500 J	<0.500	<0.500	<0.500	<0.500	14.5	17.0 J	291 [304]	14.1 J
Bromochloromethane		<5.00 J	NA	<5.00	NA	<5.00 J	NA	<5.00 J	NA	<5.00	NA	<5.00
Bromodichloromethane	50	<1.00	<1.00	<1.00 J	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00 [<1.00]	<1.00 J
Bromoform	50	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]	<1.00
Bromomethane	5	<2.00	<2.00	<2.00	<2.00 J	<2.00	<2.00 J	<2.00	<2.00	<2.00	<2.00 J [<2.00]	<2.00
Carbon Disulfide		<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 [<5.00]	<5.00
Carbon Tetrachloride	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]	<1.00
Chlorobenzene	5	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00 [<1.00]	<1.00 J
Chloroethane	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00 [<2.00]	<2.00
Chloroform	7	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00 [<1.00]	<1.00 J
Chloromethane		1.40 J	<2.00	3.00	<2.00 J	2.90	<2.00 J	2.00	<2.00	<2.00	<2.00 [<2.00]	1.60 J
cis-1,2-Dichloroethene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 <1.00 [<1.00]	
cis-1,3-Dichloropropene	0.4	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500 <0.500 [<0.500]	
Cyclohexane		<5.00	NA	<5.00	NA	<5.00	NA	<5.00	NA	<5.00	NA	<5.00

Location ID:	NYSDEC	MW-1	/-1 MW-6 MW-12		MW-13		MW-14	MW-14R MW-17				
Sample Depth(ft BGS):	Groundwater	15.5 - 20.5	26 -	- 31	8 -	13	35.5	- 40.5	6.5 - 11.5	2.8 - 12.8	6 - 11	
	Standards and											
Data Collected	Guidance	11/06/12	06/26/12	11/05/12	06/27/42	11/06/12	06/27/42	11/06/12	06/26/12	11/05/12	06/25/12	11/05/12
Volatile Organics (Cont.)	Values	11/00/13	00/20/12	11/03/13	00/21/12	11/00/13	00/21/12	11/00/13	00/20/12	11/03/13	00/23/12	11/03/13
Dibromochloromethane	50	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00[<1.00]	<1.00
Dichlorodifluoromethane	5	<2.00	NA	<2.00	<1.00 NA	<2.00	<1.00 NA	<2.00	NA	<2.00	<1.00 [<1.00] NA	<2.00
Ethylbenzene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	258 [257]	17.5
	5	<5.00	NA	<5.00	NA	<5.00	NA	<5.00	NA	0.780.1	NA	2.80.1
Methyl acetate		<5.00.1	NA	<5.00.1	NA	<5.00.1	NA	<5.00.1	NA	<5.00 J	NA	<5.00.1
Methyl tert-butyl ether		<1.00	NA	<1.00	NA	<1.00	NA	<1.00	NA	<1.00	NA	<1.00
Methylcyclohexane		<5.00	NA	<5.00	NA	<5.00	NA	<5.00	NA	<5.00	NA	<5.00
Methylene Chloride	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00 [<2.00]	<2.00
Styrene	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	0.840 J [1.10 J]	<5.00
Tetrachloroethene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]	<1.00
Toluene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	16.0 [17.1]	1.10
trans-1,2-Dichloroethene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]	<1.00
trans-1,3-Dichloropropene	0.4	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500 [<0.500]	<0.500
Trichloroethene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]	<1.00
Trichlorofluoromethane	5	<1.00	NA	<1.00	NA	<1.00	NA	<1.00	NA	<1.00	NA	<1.00
Vinyl Chloride	2	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00 [<1.00]	<1.00 J
Xylenes (total)	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	157 J [144]	1.70
Semivolatile Organics												
1,1'-Biphenyl	5	<12.0	NA	<12.0	NA	<13.0	NA	<12.0	NA	<12.0	NA	<13.0
1,2,4,5-Tetrachlorobenzene		<12.0	NA	<12.0	NA	<13.0	NA	<12.0	NA	<12.0	NA	<13.0
1,2,4-Trichlorobenzene	5	NA	<5.40	NA	<5.80	NA	<5.50	NA	<5.30	NA	<5.40 [<5.50]	NA
1,2-Dichlorobenzene	3	NA	<5.40	NA	<5.80	NA	<5.50	NA	<5.30	NA	<5.40 [<5.50]	NA
1,3-Dichlorobenzene	3	NA	<5.40	NA	<5.80	NA	<5.50	NA	<5.30	NA	<5.40 [<5.50]	NA
1,4-Dichlorobenzene	3	NA	<5.40	NA	<5.80	NA	<5.50	NA	<5.30	NA	<5.40 [<5.50]	NA
2,4,5-Trichlorophenol	1	<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	<11.0	<12.0	<11.0 [<11.0]	<13.0
2,4,6-Trichlorophenol	1	<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	<11.0	<12.0	<11.0 [<11.0]	<13.0
2,4-Dichlorophenol	5	<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	<11.0	<12.0	<11.0 [<11.0]	<13.0
2,4-Dimethylphenol	50	<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	<11.0	<12.0	11.8 [<11.0]	<13.0
2,4-Dinitrophenol	10	<24.0	<22.0	<25.0	<23.0	<25.0	<22.0	<24.0	<21.0	<24.0	<22.0 [<22.0]	<26.0
2,4-Dinitrotoluene	5	<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	<11.0	<12.0	<11.0 [<11.0]	<13.0
2,6-Dinitrotoluene	5	<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	<11.0	<12.0	<11.0 [<11.0]	<13.0
2-Chloronaphthalene	10	<6.00	<5.40	<6.20	<5.80	<6.30	<5.50	<6.10	<5.30	<6.00	<5.40 [<5.50]	<6.40
2-Chlorophenol	1	<6.00	<5.40	<6.20	<5.80	<6.30	<5.50	<6.10	<5.30	<6.00	<5.40 [<5.50]	<6.40
2-Methylnaphthalene		<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	<2.20 [<2.20]	26.8

Location ID:	NYSDEC	MW-1	MW-6		MW-12		MW-13		MW-14	MW-14R MW-1		
Sample Depth(ft BGS):	Groundwater	15.5 - 20.5	26	- 31	8 -	13	35.5	- 40.5	6.5 - 11.5	2.8 - 12.8	6 - 11	
	Standards and											
Data Callestadi	Guidance	44/06/42	06/26/42	44/05/42	06/07/40	44/06/42	06/07/40	44/06/42	06/06/40	44/05/42	06/25/42	44/05/42
Date Collected:	values	11/06/13	06/26/12	11/05/13	06/27/12	11/06/13	06/27/12	11/06/13	06/26/12	11/05/13	06/25/12	11/05/13
2 Methylaboral	[NIA	44.0	NIA	40.0	NIA	44.0	NIA	44.0	NIA	44.0 [44.0]	NIA
		INA 10.0	<11.0	NA 10.0	<12.0	NA	<11.0	NA 10.0	<11.0	INA 10.0	<11.0 [<11.0]	INA 12.0
2-Nitroaniline	5	<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	<11.0	<12.0	<11.0 [<11.0]	<13.0
		<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	<11.0	<12.0	<11.0 [<11.0]	<13.0
		<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	1.80 J	<12.0	<11.0 [<11.0]	<13.0
3,3'-Dichlorobenzidine	5	<6.00	<5.40	<6.20	<5.80	<6.30	<5.50	<6.10	<5.30	<6.00	<5.40 [<5.50]	<6.40
3-Nitroaniline	5	<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	<11.0	<12.0	<11.0 [<11.0]	<13.0
4,6-Dinitro-2-methylphenol		<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	<11.0	<12.0	<11.0 [<11.0]	<13.0
4-Bromophenyl-phenylether		<6.00	<5.40	<6.20	<5.80	<6.30	<5.50	<6.10	<5.30	<6.00	<5.40 [<5.50]	<6.40
4-Chloro-3-Methylphenol		<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	<11.0	<12.0	<11.0 [<11.0]	<13.0
4-Chloroaniline	5	<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	<11.0	<12.0	<11.0 [<11.0]	<13.0
4-Chlorophenyl-phenylether		<6.00	<5.40	<6.20	<5.80	<6.30	<5.50	<6.10	<5.30	<6.00	<5.40 [<5.50]	<6.40
4-Nitroaniline	5	<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	<11.0	<12.0	<11.0 [<11.0]	<13.0
4-Nitrophenol		<24.0 J	<22.0	<25.0 J	<23.0	<25.0 J	<22.0	<24.0 J	<21.0	<24.0 J	<22.0 [<22.0]	<26.0 J
Acenaphthene	20	<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	3.00	13.6	168 [146]	22.5
Acenaphthylene		<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	<2.20 [<2.20]	<2.60
Acetophenone		<12.0	NA	<12.0	NA	<13.0	NA	<12.0	NA	<12.0	NA	<13.0
Anthracene	50	<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	2.90 [2.80]	0.730 J
Atrazine	7.5	<12.0	NA	<12.0	NA	<13.0	NA	<12.0	NA	<12.0	NA	<13.0
Benzaldehyde		<12.0	NA	<12.0	NA	<13.0	NA	<12.0	NA	<12.0	NA	<13.0
Benzo(a)anthracene	0.002	<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	<2.20 [<2.20]	<2.60
Benzo(a)pyrene		<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	<2.20 [<2.20]	<2.60
Benzo(b)fluoranthene	0.002	<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	<2.20 [<2.20]	<2.60
Benzo(g,h,i)perylene		<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	<2.20 [<2.20]	<2.60
Benzo(k)fluoranthene	0.002	<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	<2.20 [<2.20]	<2.60
bis(2-Chloroethoxy)methane	5	<6.00	<5.40	<6.20	<5.80	<6.30	<5.50	<6.10	<5.30	<6.00	<5.40 [<5.50]	<6.40
bis(2-Chloroethyl)ether	1	<6.00	<5.40	<6.20	<5.80	<6.30	<5.50	<6.10	<5.30	<6.00	<5.40 [<5.50]	<6.40
bis(2-Chloroisopropyl)ether		NA	<5.40	NA	<5.80	NA	<5.50	NA	<5.30	NA	<5.40 [<5.50]	NA
bis(2-Ethylhexyl)phthalate	5	<2.40	<2.20	<2.50	<2.30	<2.50	0.810 J	<2.40	<2.10	<2.40	<2.20 [<2.20]	<2.60
Butylbenzylphthalate	50	<6.00	<5.40	<6.20	0.550 J	<6.30	0.700 J	<6.10	<5.30	<6.00	<5.40 [<5.50]	<6.40
Caprolactam		<12.0 J	NA	<12.0 J	NA	<13.0 J	NA	<12.0 J	NA	<12.0 J	NA	<13.0
Carbazole		<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	1.60 J	51.9 [50.7]	12.6
Chrysene	0.002	<2.40	<2.20	<2.50	<2.30	<2.30 <2.50 <2.20		<2.40	<2.10	<2.40	<2.20 [<2.20]	<2.60
Dibenzo(a,h)anthracene		<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	<2.20 [<2.20]	<2.60
Dibenzofuran		<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	28.7 [25.3]	5.20

Location ID:	NYSDEC	MW-1	V-1 MW-6		MW-12		MW-13		MW-14	MW-14R MW-1		
Sample Depth(ft BGS):	Groundwater	15.5 - 20.5	26	- 31	8 -	13	35.5	40.5	6.5 - 11.5	2.8 - 12.8	6 - 11	
	Standards and											
Data Callestad	Guidance	44/06/42	06/26/42	44/05/42	06/07/40	44/06/42	06/07/40	44/06/42	06/06/40	44/05/42	06/25/42	44/05/42
Date Collected:	values	11/00/13	00/20/12	11/05/15	00/2//12	11/00/13	00/2//12	11/00/13	00/20/12	11/05/15	00/23/12	11/05/13
Disthylabihalata	50	00.31	-5.40	-C 20	-5.90	-6.20	-5.50	-6.10	-5.20	.6.00	-E 40 [-E E0]	-6.40
Directly/philliplate	50	< 0.00	<5.40	<0.20	<5.00	<0.30	<5.50	<0.10	<5.30	< 0.00	<5.40 [<5.50]	<0.40
	50	<0.00	< 3.40	<0.20	<0.00	<0.30	<0.00	<0.10	< 3.30	<0.00	2.3.40 [<3.30]	<0.40
Di-n-Butyphithalate	50	< 0.00	<0.40 D	<0.20	<0.00 D	< 0.30	<0.00 B	<0.10	< 3.30	<0.00	2.20 J [<5.50]	<0.40
	50	<0.00	<5.40	<0.20	< 3.60	<0.30	< 3.50	<0.10	< 5.30	<0.00	<5.40 [<5.50]	<0.40
	50	<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	1.50 J [1.50 J]	<2.60
Fluorene	50	<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	39.0 [35.2]	6.70
Hexachlorobenzene	0.04	<6.00	<5.40	<6.20	<5.80	<6.30	<5.50	<6.10	<5.30	<6.00	<5.40 [<5.50]	< 6.40
Hexachlorobutadiene	0.5	<6.00	<5.40	<6.20	<5.80	<6.30	<5.50	<6.10	<5.30	<6.00	<5.40 [<5.50]	<6.40
Hexachlorocyclopentadiene	5	<12.0 J	<11.0	<12.0 J	<12.0	<13.0 J	<11.0	<12.0 J	<11.0	<12.0 J	<11.0 [<11.0]	<13.0 J
Hexachloroethane	5	<6.00	<5.40	<6.20	<5.80	<6.30	<5.50	<6.10	<5.30	<6.00	<5.40 [<5.50]	<6.40
Indeno(1,2,3-cd)pyrene	0.002	<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	<2.20 [<2.20]	<2.60
Isophorone	50	<6.00	<5.40	<6.20	<5.80	<6.30	<5.50	<6.10	<5.30	<6.00	<5.40 [<5.50]	<6.40
Naphthalene	10	<2.40	<2.20 B	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10 B	<2.40	1,870 D [<1,740 BD]	0.730 J
Nitrobenzene	0.4	<6.00	<5.40	<6.20	<5.80	<6.30	<5.50	<6.10	<5.30	<6.00	<5.40 [<5.50]	<6.40
N-Nitroso-di-n-propylamine		<6.00	<5.40	<6.20	<5.80	<6.30	<5.50	<6.10	<5.30	<6.00	<5.40 [<5.50]	<6.40
N-Nitrosodiphenylamine	50	<6.00	<5.40	<6.20	<5.80	<6.30	<5.50	<6.10	<5.30	<6.00	<5.40 [<5.50]	<6.40
Pentachlorophenol		<12.0	<11.0	<12.0	<12.0	<13.0	<11.0	<12.0	<11.0	<12.0	<11.0 [<11.0]	<13.0
Phenanthrene	50	<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	33.9 [32.5]	7.40
Phenol	1	<6.00 J	<5.40	<6.20 J	<5.80	<6.30 J	<5.50	<6.10 J	<5.30	<6.00 J	<5.40 [<5.50]	<6.40 J
Pyrene	50	<2.40	<2.20	<2.50	<2.30	<2.50	<2.20	<2.40	<2.10	<2.40	1.10 J [1.10 J]	<2.60
Total PAHs		NA	18.2 J	NA	19.6	NA	18.7	NA	19.5 J	NA	2,130 J [1,970 J]	NA
Inorganics												
Aluminum		153 B	<200 B	709	673	406	122 B	89.3 B	<200 B	84.3 B	<200 B [<200 B]	58.0 B
Antimony	3	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00 [<6.00]	<6.00
Arsenic	25	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00 B [<4.00]	3.40 B
Barium	1,000	247	162	185	108	80.8	198	191	363	362	565 [557]	385
Beryllium		<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00 [<4.00]	<4.00
Cadmium	5	0.700 B	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00 [<4.00]	<4.00
Calcium		91,100	80,300	80,500	200,000	144,000	87,900	88,800	81,500	70,200	126,000 [124,000]	88,200
Chromium	50	194	4.00 B	3.40 B	701	56.3	147	30.3	<10.0	12.4	<10.0 [<10.0]	<10.0
Cobalt		3.40 B	<50.0	0.900 B	9.70 B	4.40 B	12.6 B	3.10 B	<50.0 B	0.600 B	600 B <50.0 B [<50.0]	
Copper	200	<25.0	<25.0	<25.0	12.4 B	<25.0	4.80 B	<25.0	<25.0	<25.0	<25.0 <25.0 [<25.0]	
Cyanide	200	<10.0	<10.0	<10.0	2,600	3,000	<10.0	<10.0	100	130	310 [330]	30.0
Iron	300	1,830	<100 B	685	6,210	2,440	3,820	375	6,300	928	3,070 [3,020]	1,690

Location ID:	NYSDEC	MW-1	MW-6		MM	/-12	MM	/-13	3 MW-14		MW-17	
Sample Depth(ft BGS):	Groundwater	15.5 - 20.5	26 - 31		8 -	13	35.5	- 40.5	6.5 - 11.5	2.8 - 12.8	6 - 11	
	Standards and Guidance	11/00/40	00/00/40	44/05/40	00/07/40	44/00/40	00/07/40	44/00/40	00/00/40	11/05/40	00/05/40	44/05/40
Date Collected:	values	11/06/13	06/26/12	11/05/13	06/27/12	11/06/13	06/27/12	11/06/13	06/26/12	11/05/13	06/25/12	11/05/13
Inorganics (Cont.)		-			-	-			•	-		
Lead	25	<5.00	<5.00	2.10 B	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 [<5.00]	<5.00
Magnesium		19,000	15,400	17,500	21,600	14,300	17,700	19,300	7,590	7,570	22,800 [22,300]	18,100
Manganese	300	49.1	158	309	1,230	652	158	52.5	1,780	1,510	923 [907]	523
Mercury	0.7	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200 B	<0.200	<0.200 [<0.200]	<0.200
Nickel	100	44.9	<40.0	2.50 B	299	51.9	103	20.2 B	<40.0 B	54.4	<40.0 [<40.0]	3.30 B
Potassium		1,850 B	1,060 B	1,400 B	2,920 B	2,580 B	1,180 B	1,240 B	2,450 B	3,470 B	1,370 B [1,310 B]	1,110 B
Selenium	10	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0 [<10.0]	<10.0
Silver	50	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 [<5.00]	<5.00
Sodium		49,000	51,500	50,300	105,000	62,200	61,500	58,000	242,000	447,000	89,500 [86,900]	64,100
Thallium		<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 [<5.00]	<5.00
Vanadium		<10.0	<10.0	<10.0	<10.0 B	<10.0	<10.0 B	<10.0	<10.0	<10.0	<10.0 [<10.0]	<10.0
Zinc	2,000	4.90 B	4.90 B	14.1 B	5.90 B	78.6	<20.0	4.20 B	5.70 B	1.00 B	<20.0 [<20.0]	1.40 B

Location ID:	NYSDEC	MM	/-18	MM	V-21	MV	V-25	MW-26	MW	-27D		MW-27S
Sample Depth(ft BGS):	Groundwater	24.6	- 29.6	32	- 37	4 -	14	50 - 60	24	- 34		5 - 15
	Standards and											
Data Callested	Guidance	06/05/40	44/05/42	06/07/40	44/06/42	06/07/40	44/06/42	44/06/42	06/26/42	44/05/42	06/26/42	44/05/42
Velatile Organice	Values	00/23/12	11/05/13	00/2//12	11/00/13	00/2//12	11/00/13	11/00/13	00/20/12	11/05/15	00/20/12	11/05/15
	5	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1.00 [-1.00]
	5	<1.00	<1.00	<1.00	< 1.00	<1.00	< 1.00	< 1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]
1,1,2,2-1 etrachioroethane	5	<1.00	<0.500 J	<1.00	<0.500 J	<1.00	<0.500 J	<0.500 J	<1.00	<0.500 J	<1.00	<0.500 J [<0.500 J]
1,1,2-trichloro-1,2,2-trinuoroethane	5	1 00	<5.00	NA 1.00	<5.00	INA -1.00	<5.00	<5.00	1 00	<5.00	NA 1.00	<5.00 [<5.00]
	і Г	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]
1,1-Dichloroethane	5	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J [<1.00 J]
	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]
1,2,3- I richlorobenzene		NA	<5.00	NA	<5.00	NA	<5.00	<5.00	NA	<5.00	NA	<5.00 [<5.00]
1,2,4- I richlorobenzene	5	NA	<5.00	NA	<5.00	NA	<5.00	<5.00	NA	<5.00	NA	<5.00 [<5.00]
1,2-Dibromo-3-chloropropane	0.04	NA	<5.00	NA	<5.00	NA	<5.00	<5.00	NA	<5.00	NA	<5.00 [<5.00]
1,2-Dibromoethane		NA	<2.00	NA	<2.00	NA	<2.00	<2.00	NA	<2.00	NA	<2.00 [<2.00]
1,2-Dichlorobenzene	3	NA	<1.00	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	NA	<1.00 [<1.00]
1,2-Dichloroethane	0.6	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J [<1.00 J]
1,2-Dichloropropane	1	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00 [<2.00]
1,3-Dichlorobenzene	3	NA	<1.00	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	NA	<1.00 [<1.00]
1,4-Dichlorobenzene	3	NA	<1.00 J	NA	<1.00 J	NA	<1.00 J	<1.00	NA	<1.00 J	NA	<1.00 J [<1.00 J]
1,4-Dioxane		NA	<25.0 J	NA	<25.0 J	NA	<25.0 J	<25.0 J	NA	<25.0 J	NA	<25.0 J [<25.0 J]
2-Butanone		<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 J	<5.00	<5.00 [<5.00]
2-Hexanone	50	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 J	<5.00	<5.00 [<5.00]
4-Methyl-2-pentanone		<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 [<5.00]
Acetone	50	<5.00	<10.0 J	<5.00	<10.0 J	<5.00	<10.0 J	<10.0 J	<5.00	<10.0 J	<5.00	<10.0 J [<10.0 J]
Benzene	1	0.650	<0.500 J	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500 J	<0.500	<0.500 J [<0.500 J]
Bromochloromethane		NA	<5.00	NA	<5.00 J	NA	<5.00 J	<5.00 J	NA	<5.00	NA	<5.00 J [<5.00]
Bromodichloromethane	50	<1.00	<1.00 J	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00 [<1.00 J]
Bromoform	50	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]
Bromomethane	5	<2.00	<2.00	<2.00 J	<2.00	<2.00 J	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00 [<2.00]
Carbon Disulfide		<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 [<5.00]
Carbon Tetrachloride	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]
Chlorobenzene	5	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J [<1.00 J]
Chloroethane	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00 [<2.00]
Chloroform	7	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00 J	<1.00	<1.00 J	1.10	<1.00 J [<1.00 J]
Chloromethane		<2.00	<2.00	<2.00 J	<2.00	<2.00 J	2.10	1.80 J	<2.00	5.10	<2.00	<2.00 [1.60 J]
cis-1,2-Dichloroethene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]
cis-1,3-Dichloropropene	0.4	<0.500	<0.500	<0.500	<0.500	<0.500	< 0.500	<0.500	<0.500	<0.500	<0.500	<0.500 [<0.500]
Cyclohexane		NA	<5.00	NA	<5.00	NA	<5.00	<5.00	NA	<5.00	NA	<5.00 [<5.00]

Location ID:	NYSDEC	MW-18		MW-21		MM	V-25	MW-26 MW-27D		-27D	MW-27S	
Sample Depth(ft BGS):	Groundwater	24.6	- 29.6	32	- 37	4 -	14	50 - 60	24	- 34		5 - 15
	Standards and											
Data Callestad	Guidance	06/05/40	44/05/42	06/07/40	44/06/42	06/07/40	44/06/42	44/06/42	06/26/42	44/05/42	06/26/42	44/05/42
Date Collected:	values	06/25/12	11/05/13	06/27/12	11/06/13	06/27/12	11/06/13	11/06/13	06/26/12	11/05/13	06/26/12	11/05/13
Volatile Organics (Cont.)	50	1.00	1.00	1.00	1.00	1.00	4.00	4.00	1.00	4.00	4.00	4 00 [4 00]
Diblomocritoromethane	50	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]
	5	NA 1.00	<2.00	NA 1.00	<2.00	NA 1.00	<2.00	<2.00	NA 1.00	<2.00	NA 1.00	<2.00 [<2.00]
Ethylbenzene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]
Isopropyibenzene	5	NA	<5.00	NA	<5.00	NA	<5.00	<5.00	NA	<5.00	NA	<5.00 [<5.00]
Methyl acetate		NA	<5.00 J	NA	<5.00 J	NA	<5.00 J	<5.00 J	NA	<5.00 J	NA	<5.00 J [<5.00 J]
Methyl tert-butyl ether		NA	<1.00	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	NA	<1.00 [<1.00]
Methylcyclohexane		NA	<5.00	NA	<5.00	NA	<5.00	<5.00	NA	<5.00	NA	<5.00 [<5.00]
Methylene Chloride	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00 [<2.00]
Styrene	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 [<5.00]
Tetrachloroethene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]
Toluene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]
trans-1,2-Dichloroethene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]
trans-1,3-Dichloropropene	0.4	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500 [<0.500]
Trichloroethene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]
Trichlorofluoromethane	5	NA	<1.00	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	NA	<1.00 [<1.00]
Vinyl Chloride	2	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J [<1.00 J]
Xylenes (total)	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 [<1.00]
Semivolatile Organics												
1,1'-Biphenyl	5	NA	<12.0	NA	<11.0	NA	<13.0	<12.0	NA	<12.0	NA	<13.0 [2.70 J]
1,2,4,5-Tetrachlorobenzene		NA	<12.0	NA	<11.0	NA	<13.0	<12.0	NA	<12.0	NA	<13.0 [<12.0]
1,2,4-Trichlorobenzene	5	<5.40	NA	<5.60	NA	<5.60	NA	NA	<5.40	NA	<5.90	NA
1,2-Dichlorobenzene	3	<5.40	NA	<5.60	NA	<5.60	NA	NA	<5.40	NA	<5.90	NA
1,3-Dichlorobenzene	3	<5.40	NA	<5.60	NA	<5.60	NA	NA	<5.40	NA	<5.90	NA
1,4-Dichlorobenzene	3	<5.40	NA	<5.60	NA	<5.60	NA	NA	<5.40	NA	<5.90	NA
2,4,5-Trichlorophenol	1	<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
2,4,6-Trichlorophenol	1	<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
2,4-Dichlorophenol	5	<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
2,4-Dimethylphenol	50	<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
2,4-Dinitrophenol	10	<22.0	<24.0	<22.0	<23.0	<22.0	<26.0	<24.0	<22.0	<25.0	<24.0	<25.0 [<24.0]
2,4-Dinitrotoluene	5	<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
2,6-Dinitrotoluene	5	<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
2-Chloronaphthalene	10	<5.40	<5.90	<5.60	<5.70	<5.60	<6.50	<6.00	<5.40	<6.20	<5.90	<6.30 [<6.00]
2-Chlorophenol	1	<5.40	<5.90	<5.60	<5.70	<5.60	<6.50	<6.00	<5.40	<6.20	<5.90	<6.30 [<6.00]
2-Methylnaphthalene		<2.20	<2.40	<2.20	<2.30	<2.20	<2.60	<2.40	<2.20	<2.50	<2.40	<2.50 [<2.40]

Location ID: NYSDEC		MW-18		MW	/-21	MM	/-25	MW-26	MW	-27D	MW-27S	
Sample Depth(ft BGS):	Groundwater	24.6	- 29.6	32 -	- 37	4 -	14	50 - 60	24	- 34		5 - 15
	Standards and											
Data Callestad	Guidance	06/05/40	44/05/42	06/07/40	44/06/42	06/07/40	44/06/42	44/06/42	06/26/42	44/05/42	06/26/42	11/05/112
Date Collected:	values	00/23/12	11/05/13	00/27/12	11/00/13	00/2//12	11/00/13	11/00/13	00/20/12	11/05/15	00/20/12	11/05/15
2 Methylphonel	[.11.0	NIA	-11.0	NIA	-11.0	NIA	NIA	-11.0	NIA	.12.0	NIA
	5	<11.0	12.0	<11.0	NA -11.0	<11.0	12 0	12.0	<11.0	12.0	<12.0	-12 0 [-12 0]
2-Nitrophonol	5	<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
		<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
	5	<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
3,3 - Dichioloberizidine	5	< 3.40	<5.90	<0.00	<5.70	<0.00	<0.00	<0.00	< 3.40	<0.20	< 5.90	<0.30 [<0.00]
4.6 Disitra 2 methylahanal	5	<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
4,8-Diniti 0-2-methylphenol		<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
4-biomophenyi-phenyiether		< 0.40	< 5.90	<0.00	<5.70	< 3.00	<0.50	<0.00	< 5.40	<0.20	< 5.90	<0.30 [<0.00]
4-Chlorospiling		<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
4-Chlorophonyl phonylother	5	<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
4 Nitroapiline	5	<0.40	<0.90	<0.00	<0.70	< 3.00	<0.50	<0.00	<0.40	<0.20	<0.90	<0.30 [<0.00]
	5	<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
	20	<22.0	<24.0 J	<22.0	<23.0 J	<22.0	<20.0 J	<24.0 J	<22.0	<25.0 J	<24.0	<25.0 J [<24.0 J]
	20	<2.20	-2.40	<2.20	<2.30	<2.20	<2.00	<2.40	<2.20	<2.50	<2.40	<2.50 5 [10.4 5]
		<2.20 NA	<2.40	<2.20 NA	<2.30	<2.20 NA	<2.00	<2.40	<2.20 NA	<2.50	<2.40 NA	<2.50 [0.950 J]
Anthracene	50	<2.20	<12.0	<2.20	<7.30	~2.20	< 2.60	<7.40	~2.20	<2.50	<2.40	< 2.50 [< 2.40]
	7.5	<2.20 ΝΔ	<12.40	<2.20 ΝΔ	<2.30	<2.20 ΝΔ	<13.0	<12.40	<2.20 ΝΔ	<12.0	<2.40 ΝΔ	<13.0 [<12.0]
Benzaldebyde	7.5		<12.0		<11.0		<13.0	<12.0		<12.0	NA	<13.0 [<12.0]
Benzo(a)anthracene	0.002	<2.20	<12.0	<2.20	<7.30	<2.20	<7.60	<72.0	<2.20	<2 50	<2.40	<2.50 [<2.40]
Benzo(a)pyrene	0.002	<2.20	<2.40	<2.20	<2.30	<2.20	<2.00	<2.40	<2.20	<2.50	<2.40	<2.50 [<2.40]
Benzo(b)fluoranthene	0.002	<2.20	<2.40	<2.20	<2.30	<2.20	<2.00	<2.40	<2.20	<2.50	<2.40	<2.50 [<2.40]
Benzo(a h i)pervlene		<2.20	<2.40	<2.20	<2.30	<2.20	<2.00	<2.40	<2.20	<2.50	<2.40	<2.50 [<2.40]
Benzo(k)fluoranthene	0.002	<2.20	<2.40	<2.20	<2.00	<2.20	<2.00	<2.40	<2.20	<2.00	<2.40	<2.50 [<2.10]
bis(2-Chloroethoxy)methane	5	<5.40	<5.90	<5.60	<5.70	<5.60	<6.50	<6.00	<5.40	<6.20	<5.90	<6.30 [<6.00]
bis(2-Chloroethyl)ether	1	<5.40	<5.90	<5.60	<5.70	<5.60	<6.50	<6.00	<5.40	<6.20	<5.90	<6.30 [<6.00]
bis(2-Chloroisopropyl)ether		<5.40	NA	<5.60	NA	<5.60	NA	NA	<5.40	NA	<5.90	NA
bis(2-Ethylbexyl)phthalate	5	<2.20	<2.40	<2.20	<2.30	<2.20	<2.60	1.80 J	<2.20	<2.50	<2.40	<2.50 [<2.40]
Butylbenzylphthalate	50	<5.40	<5.90	0.880 J	<5.70	0.310 J	<6.50	<6.00	<5.40	<6.20	<5.90	<6.30 [<6.00]
Caprolactam		NA	<12.0 J	NA	<11.0 J	NA	<13.0 J	<12.0 J	NA	<12.0 J	NA	<13.0 J [<12.0 J]
Carbazole		<2.20	<2.40	<2.20	<2.30	<2.20	<2.60	<2.40	<2.20	<2.50	<2.40	<2.50 J [8.80 J]
Chrysene	0.002	<2.20	<2.40	<2.20	<2.30	<2.20	<2.60	<2.40	<2.20	<2.50	<2.40	<2.50 [<2.40]
Dibenzo(a,h)anthracene		<2.20	<2.40	<2.20	<2.30	<2.20	<2.60	<2.40	<2.20	<2.50	<2.40	<2.50 [<2.40]
Dibenzofuran		<2.20	<2.40	<2.20	<2.30	<2.20	<2.60	<2.40	<2.20	<2.50	<2.40	<2.50 [3.90]

Location ID:	NYSDEC	MW	/-18	MM	/-21	MM	/-25	MW-26	MW	-27D	MW-27S	
Sample Depth(ft BGS):	Groundwater	24.6	- 29.6	32	- 37	4 -	14	50 - 60	24	- 34		5 - 15
	Standards and											
Data Callestad	Guidance	06/05/40	44/05/42	06/07/40	44/06/42	06/07/40	44/06/42	44/06/42	06/06/40	44/05/42	06/26/42	11/05/112
Date Collected:	values	06/25/12	11/05/13	06/27/12	11/06/13	06/27/12	11/06/13	11/06/13	06/26/12	11/05/13	06/26/12	11/05/13
Semivolatile Organics (Cont.)	50	5.40	5.00	5.00	5 70	5.00	0.50	0.00	5.40	0.00	5.00	0.001.0.001
Dietnyiphthalate	50	<5.40	<5.90	<5.60	<5.70	<5.60	< 5.50	< 6.00	<5.40	<6.20	<5.90	<6.30 [<6.00]
	50	<5.40	<5.90	<5.60	<5.70	<5.60	< 6.50	< 6.00	<5.40	<6.20	<5.90	<6.30 [<6.00]
Di-n-Butyiphthalate	50	<5.40	<5.90	<5.60 B	<5.70	<5.60 B	< 6.50	< 6.00	<5.40 B	<6.20	<5.90	<6.30 [<6.00]
	50	<5.40	<5.90	<5.60	<5.70	<5.60	<6.50	<6.00	<5.40	<6.20	<5.90	<6.30 [<6.00]
Fluoranthene	50	<2.20	<2.40	<2.20	<2.30	<2.20	<2.60	<2.40	<2.20	<2.50	<2.40	<2.50 [<2.40]
Fluorene	50	<2.20	<2.40	<2.20	<2.30	<2.20	<2.60	<2.40	<2.20	<2.50	<2.40	<2.50 [5.10]
Hexachlorobenzene	0.04	<5.40	<5.90	<5.60	<5.70	<5.60	<6.50	<6.00	<5.40	<6.20	<5.90	<6.30 [<6.00]
Hexachlorobutadiene	0.5	<5.40	<5.90	<5.60	<5.70	<5.60	<6.50	<6.00	<5.40	<6.20	<5.90	<6.30 [<6.00]
Hexachlorocyclopentadiene	5	<11.0	<12.0 J	<11.0	<11.0 J	<11.0	<13.0 J	<12.0 J	<11.0	<12.0 J	<12.0	<13.0 J [<12.0 J]
Hexachloroethane	5	<5.40	<5.90	<5.60	<5.70	<5.60	<6.50	<6.00	<5.40	<6.20 J	<5.90	<6.30 [<6.00]
Indeno(1,2,3-cd)pyrene	0.002	<2.20	<2.40	<2.20	<2.30	<2.20	<2.60	<2.40	<2.20	<2.50	<2.40	<2.50 [<2.40]
Isophorone	50	<5.40	<5.90	<5.60	<5.70	<5.60	<6.50	<6.00	<5.40	<6.20	<5.90	<6.30 [<6.00]
Naphthalene	10	<2.20 B	<2.40	<2.20	<2.30	<2.20	<2.60	<2.40	<2.20	<2.50 J	<5.40 B	<2.50 [<2.40]
Nitrobenzene	0.4	<5.40	<5.90	<5.60	<5.70	<5.60	<6.50	<6.00	<5.40	<6.20	<5.90	<6.30 [<6.00]
N-Nitroso-di-n-propylamine		<5.40	<5.90	<5.60	<5.70	<5.60	<6.50	<6.00	<5.40	<6.20	<5.90	<6.30 [<6.00]
N-Nitrosodiphenylamine	50	<5.40	<5.90	<5.60	<5.70	<5.60	<6.50	<6.00	<5.40	<6.20	<5.90	<6.30 [<6.00]
Pentachlorophenol		<11.0	<12.0	<11.0	<11.0	<11.0	<13.0	<12.0	<11.0	<12.0	<12.0	<13.0 [<12.0]
Phenanthrene	50	<2.20	<2.40	<2.20	<2.30	<2.20	<2.60	<2.40	<2.20	<2.50	<2.40	<2.50 [5.70]
Phenol	1	<5.40	<5.90 J	<5.60	<5.70 J	<5.60	<6.50 J	<6.00 J	<5.40	<6.20 J	<5.90	<6.30 J [<6.00 J]
Pyrene	50	<2.20	<2.40	<2.20	<2.30	<2.20	<2.60	<2.40	<2.20	<2.50	<2.40	<2.50 [<2.40]
Total PAHs		18.8 J	NA	18.7	NA	18.7	NA	NA	18.7	NA	21.4 J	NA
Inorganics												
Aluminum		<200	53.2 B	<200 B	40.7 B	129 B	111 B	699	486	45.5 B	1,020	1,380 [1,150]
Antimony	3	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00 [<6.00]
Arsenic	25	<4.10 B	3.70 B	<4.00	<4.00	<4.00	9.50	<4.00	<4.00	<4.00	<4.00	<4.00 [<4.00]
Barium	1,000	135	168	145	138	153	182	158	180	163	43.9 B	45.4 B [43.7 B]
Beryllium		<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00 [<4.00]
Cadmium	5	<4.00 B	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00 B	1.00 B [0.800 B]
Calcium		19,200	34,700	89,200	80,100	112,000	112,000	47,200	93,300	82,500	57,000	47,800 [48,200]
Chromium	50	<10.0	1.60 B	26.8	21.6	<10.0	5.80 B	9.60 B	<10.0	<10.0	<10.0 B	2.50 B [2.10 B]
Cobalt		<50.0	<50.0	35.3 B	1.10 B	<50.0	4.10 B	0.400 B	<50.0 B	<50.0	<50.0 B	1.00 B [0.800 B]
Copper	200	1.80 B	<25.0	2.90 B	<25.0	<25.0	<25.0	<25.0	1.80 B	<25.0	4.40 B	<25.0 [<25.0]
Cvanide	200	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0 [<10.0]
Iron	300	<105 B	199	758	561	150	13,300	675	764	<100	1,760	1,570 [1,330]

Location ID:	NYSDEC	EC MW-18		MV	/-21	MM	/-25	MW-26	MW	-27D	MW-27S	
Sample Depth(ft BGS):	Groundwater	24.6	- 29.6	32	- 37	4 -	14	50 - 60	24	- 34		5 - 15
Data Callested	Standards and Guidance	00/05/40	44/05/40	00/07/40	44/00/42	00/07/40	44/00/40	44/00/40	00/00/40	44/05/40	00/00/40	44/05/40
Date Collected:	values	06/25/12	11/05/13	06/27/12	11/06/13	06/2//12	11/06/13	11/06/13	06/26/12	11/05/13	06/26/12	11/05/13
Inorganics (Cont.)	•									•		
Lead	25	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	2.10 B [1.80 B]
Magnesium		18,100	18,000	18,300	18,100	19,300	21,300	18,200	18,800	17,400	9,470	6,690 [6,960]
Manganese	300	278	242	300	6.40 B	142	989	26.6	87.2	17.5	56.7	109 [87.4]
Mercury	0.7	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200 [<0.200]
Nickel	100	<40.0 B	1.60 B	1,150	737	<40.0 B	19.7 B	35.3 B	<40.0 B	<40.0	<40.0 B	3.30 B [3.00 B]
Potassium		1,470 B	1,240 B	1,010 B	966 B	953 B	767 B	1,430 B	1,360 B	1,200 B	1,280 B	1,210 B [1,170 B]
Selenium	10	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0 [<10.0]
Silver	50	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 [<5.00]
Sodium		41,100	42,900	61,600	56,700	44,500	37,700	61,400	61,400	56,300	8,640	13,300 [13,400]
Thallium		<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 [<5.00]
Vanadium		<10.0	<10.0	<10.0	<10.0	<10.0	3.00 B	<10.0	<10.0	<10.0	<10.0 B	3.00 B [<10.0]
Zinc	2,000	<20.0	3.40 B	10.7 B	6.20 B	<20.0	2.30 B	15.6 B	7.30 B	1.70 B	11.2 B	14.5 B [12.3 B]
TABLE 1 BASELINE AND POST-ISS GROUNDWATER MONITORING ANALYTICAL RESULTS

Location ID:	NYSDEC	MW	-28D	MW	-28S	MW	-29D	MW-29S	MW	-30D	MW	-30S
Sample Depth(ft BGS):	Groundwater	18 -	- 28	4 -	14	35	- 45	5 - 15	24	- 34	5 -	15
	Standards and											
Data Callastada	Guidance	00/05/40	44/05/40	00/05/40	44/05/40	00/00/40	44/00/40	44/00/40	00/00/40	44/00/40	00/07/40	44/00/40
Date Collected:	values	06/25/12	11/05/13	06/25/12	11/05/13	06/26/12	11/06/13	11/06/13	06/26/12	11/06/13	06/27/12	11/06/13
		4.00	4.00	4.00	1.00	1.00	1.00	1.00	1.00	4.00	4.00	1.00
	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-1 etrachloroethane	5	<1.00	<0.500 J	<1.00	<0.500 J	<1.00	<0.500 J	<0.500 J	<1.00	<0.500 J	<1.00	<0.500 J
1,1,2-trichloro-1,2,2-trifluoroethane	5	NA	<5.00	NA	<5.00	NA	<5.00	<5.00	NA	<5.00	NA	<5.00
1,1,2-I richloroethane	1	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	5	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J
1,1-Dichloroethene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene		NA	<5.00	NA	<5.00	NA	<5.00	<5.00	NA	<5.00	NA	<5.00
1,2,4-Trichlorobenzene	5	NA	<5.00	NA	<5.00	NA	<5.00	<5.00	NA	<5.00	NA	<5.00
1,2-Dibromo-3-chloropropane	0.04	NA	<5.00	NA	<5.00	NA	<5.00	<5.00	NA	<5.00	NA	<5.00
1,2-Dibromoethane		NA	<2.00	NA	<2.00	NA	<2.00	<2.00	NA	<2.00	NA	<2.00
1,2-Dichlorobenzene	3	NA	<1.00	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	NA	<1.00
1,2-Dichloroethane	0.6	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J						
1,2-Dichloropropane	1	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,3-Dichlorobenzene	3	NA	<1.00	NA	<1.00	NA	<1.00	<1.00	NA	<1.00	NA	<1.00
1,4-Dichlorobenzene	3	NA	<1.00 J	NA	<1.00 J	NA	<1.00 J	<1.00 J	NA	<1.00 J	NA	<1.00 J
1,4-Dioxane		NA	<25.0 J	NA	<25.0 J	NA	<25.0 J	<25.0 J	NA	<25.0 J	NA	<25.0 J
2-Butanone		<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 J	<5.00	<5.00	<5.00	<5.00	<5.00
2-Hexanone	50	<5.00	<5.00	<5.00	<5.00	<5.00 J	<5.00 J	<5.00	<5.00	<5.00	<5.00	<5.00
4-Methyl-2-pentanone		<5.00	<5.00	<5.00	<5.00	<5.00 J	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Acetone	50	<5.00	<10.0 J	<5.00	<10.0 J	<5.00	<10.0 J	<10.0 J	<5.00	<10.0 J	<5.00	<10.0 J
Benzene	1	<0.500	<0.500 J	<0.500	<0.500 J	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Bromochloromethane		NA	<5.00	NA	<5.00	NA	<5.00 J	<5.00 J	NA	<5.00 J	NA	<5.00 J
Bromodichloromethane	50	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	50	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromomethane	5	<2.00 J	<2.00	<2.00 J	<2.00	<2.00 J	<2.00	<2.00	<2.00	<2.00	<2.00 J	<2.00
Carbon Disulfide		<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Carbon Tetrachloride	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorobenzene	5	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J
Chloroethane	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Chloroform	7	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J
Chloromethane		<2.00	2.20	<2.00	<2.00	<2.00 J	4.80	2.80	<2.00	<2.00	<2.00 J	1.80 J
cis-1,2-Dichloroethene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	0.4	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Cyclohexane		NA	<5.00	NA	<5.00	NA	<5.00	<5.00	NA	<5.00	NA	<5.00

TABLE 1 BASELINE AND POST-ISS GROUNDWATER MONITORING ANALYTICAL RESULTS

Location ID:	NYSDEC	MW	-28D	MW	-28S	MW	-29D	MW-29S	MW	-30D	MW	-30S
Sample Depth(ft BGS):	Groundwater	18 -	- 28	4 -	14	35	- 45	5 - 15	24	- 34	5 -	15
	Standards and											
Data Callastad	Guidance	06/05/40	44/05/42	06/05/40	44/05/42	06/26/42	44/06/42	44/06/42	06/26/42	44/06/42	06/07/40	44/06/42
Velatile Organics (Cent.)	values	00/23/12	11/05/15	00/23/12	11/05/15	00/20/12	11/00/13	11/00/13	00/20/12	11/00/13	00/2//12	11/00/13
Dibromochloromothono	50	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Diblomochloromethane	50	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Ethylopzopo	5	-1.00	<2.00	-1 00	<2.00	-1 00	<2.00	<2.00	-1 00	<2.00	-1.00	<2.00
	5	<1.00	< 5.00	<1.00 NA	< 5.00	<1.00 NA	<1.00	< 5.00	<1.00	< 1.00	<1.00	< 5.00
	5		<5.00		<5.00	NA NA	<5.00	<5.00	NA NA	<5.00		<5.00
Methyl tert butyl other			< 3.00 J		< 3.00 J		< 3.00 J	< 3.00 J	NA NA	<0.00 J		< 3.00 J
Methylevelebevene		NA NA	<1.00	NA NA	<1.00	NA NA	<1.00	<1.00	NA NA	<1.00	NA NA	<1.00
Methylopo Chlorido	5	INA -2.00	< 5.00	1NA -2.00	< 5.00	1NA -2.00	< 5.00	<5.00	INA -2.00	< 5.00	INA -2.00	<5.00
Sharene	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Stylene	5	<5.00	<5.00	<5.00	<5.00	< 5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Tetrachioroethene	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trong 1.2 Dicklargethere	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.20	<1.00	<1.00	<1.00
trans 1.2 Dichloropropopo	0.4	<1.00	<1.00	<1.00	<1.00	< 1.00	<1.00	<1.00	<1.00	<1.00	< 1.00	<1.00
	0.4	<0.500	<0.500	<0.500	<0.500	<0.500 J	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Trichlorofluoromothana	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Visud Chlorida	5	INA -1.00	<1.00	1 00	<1.00	1 00	<1.00	<1.00	NA 1.00	<1.00	NA -1.00	<1.00
Villyi Chiolide	2	<1.00	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J	<1.00 J	<1.00	<1.00 J	<1.00	<1.00 J
Ayleries (total)	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1 1' Bishand	E	NIA	-11.0	NIA	.12.0	NIA	-12.0	-12.0	NIA	-12.0	NIA	.12.0
1, 1 - Biprienyi	5	NA NA	<11.0	NA NA	<13.0	NA NA	<12.0	<12.0	NA NA	<12.0	NA NA	<13.0
		INA -E 10	<11.0 NA	-E 00	<13.0	-F 60	<12.0	<12.0	INA -E 60	<12.0	10/4	<13.0
	5	<0.10	NA NA	< 5.90	NA NA	< 0.60	IN/A	NA NA	< 0.60	NA NA	< 5.90	NA NA
	3	<5.10	NA	<5.90	NA NA	<5.60	NA NA	NA NA	<5.60	NA NA	<5.90	NA NA
	3	< 5.10	NA NA	<5.90	NA NA	< 5.60	NA NA	NA NA	< 3.00	NA NA	< 5.90	NA NA
	3	<5.10	NA -11.0	<5.90	12 0	< 0.00	12.0	12.0	< 0.00	12.0	<5.90	12 0
2,4,5-Trichlorophenol	1	<10.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<12.0
2,4,0- menorophenol	5	<10.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<13.0
2,4-Dichiolophenol	5	<10.0	<11.0	<12.0	<13.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<13.0
2,4-Dimensiphenol	50	<10.0	<11.0	<12.0	<13.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<13.0
	10	<20.0	<22.0	<24.0	<20.0	<22.0	<24.0	<24.0	<22.0	<20.0	<24.0	<20.0
2.4-Dinitrotoluopo	5	<10.0	<11.0	<12.0	<13.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<13.0
	5	<10.0	<11.0	<12.0	<13.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<13.0
	10	<0.10	< 5.50	< 0.90	<0.30	< 0.00	<0.00	< 0.90	< 0.00	<0.20	< 0.90	<0.30
	1	<5.10	<5.50	< 5.90	<0.30	<0.00	<0.00	<5.90	<0.00	<0.20	<5.90	<0.30
∠-ivietnyinaphthalene		<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50

TABLE 1 BASELINE AND POST-ISS GROUNDWATER MONITORING ANALYTICAL RESULTS

Location ID:	NYSDEC	MW	-28D	MW	-28S	MW	-29D	MW-29S	MW	-30D	MW	-30S
Sample Depth(ft BGS):	Groundwater	18 ·	- 28	4 -	14	35 -	- 45	5 - 15	24	- 34	5 -	15
	Standards and							-				
Data Callastada	Guidance	00/05/40	44/05/40	00/05/40	44/05/40	00/00/40	44/00/40	44/00/40	00/00/40	44/00/40	00/07/40	44/00/40
Date Collected:	values	06/25/12	11/05/13	06/25/12	11/05/13	06/26/12	11/06/13	11/06/13	06/26/12	11/06/13	06/27/12	11/06/13
2 Methylahanal		40.0	NIA	40.0	NIA		NIA	NIA	44.0	NIA	40.0	NIA
		<10.0	-11.0	<12.0	12 0	<11.0	12.0	12.0	<11.0	12.0	<12.0	12.0
2-Nitrophonol	5	<10.0	<11.0	<12.0	<13.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<13.0
		<10.0	<11.0	<12.0	<13.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<13.0
		<10.0	<11.0	<12.0	<13.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<13.0
2 Nitroapilipo	5	<0.10	<0.00	<0.90	<0.30	< 3.00	<0.00	<0.90	< 3.00	<0.20	<0.90	<0.30
4 6 Dipitro 2 mothylphopol	5	<10.0	<11.0	<12.0	<13.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<13.0
4,8-Dinitio-2-methyphenol		<10.0	<11.0	<12.0	<13.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<13.0
4-Chloro-3-Methylphenol		<0.10	<0.00	<0.90	<0.30	<11.0	<0.00	<0.90	<11.0	<0.20	<12.0	<0.30
	5	<10.0	<11.0	<12.0	<13.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<13.0
4-Chlorophenyl-phenylether	5	<5.10	<5.50	<5.90	<6.30	<5.60	<6.00	<5.90	<5.60	<6.20	<5.90	<6.30
4-Nitroaniline	5	<10.0	<11.0	<12.0	<13.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<13.0
4-Nitrophenol		<20.0	<22.0.1	<24.0	<25.0.1	<22.0	<24.0.1	<24.0.1	<22.0	<25.0.1	<24.0	<25.0.1
Acenaphthene	20	3.80	<2 20	9.90	4 50	<2.20	<2 40	<2 40	<2 20	<2.50	<2 40	<2.50
Acenaphthylene		0.870.1	<2.20	3 10	1.00.1	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
Acetophenone		NA	<11.0	NA	<13.0	NA	<12.0	<12.0	NA	<12.0	NA	<13.0
Anthracene	50	<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
Atrazine	7.5	NA	<11.0	NA	<13.0	NA	<12.0	<12.0	NA	<12.0	NA	<13.0
Benzaldehyde		NA	<11.0	NA	<13.0	NA	<12.0	<12.0	NA	NA	NA	NA
Benzo(a)anthracene	0.002	<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
Benzo(a)pyrene		<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
Benzo(b)fluoranthene	0.002	<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
Benzo(g,h,i)perylene		<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
Benzo(k)fluoranthene	0.002	<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
bis(2-Chloroethoxy)methane	5	<5.10	<5.50	<5.90	<6.30	<5.60	<6.00	<5.90	<5.60	<6.20	<5.90	<6.30
bis(2-Chloroethyl)ether	1	<5.10	<5.50	<5.90	<6.30	<5.60	<6.00	<5.90	<5.60	<6.20	<5.90	<6.30
bis(2-Chloroisopropyl)ether		<5.10	NA	<5.90	NA	<5.60	NA	NA	<5.60	NA	<5.90	NA
bis(2-Ethylhexyl)phthalate	5	<2.00 B	<2.20	<2.40	<2.50	3.50	0.780 J	<2.40	<2.20	<2.50	0.720 J	2.30 J
Butylbenzylphthalate	50	<5.10	<5.50	<5.90	<6.30	<5.60	<6.00	<5.90	<5.60	<6.20	<5.90	<6.30
Caprolactam		NA	<11.0	NA	<13.0 J	NA	<12.0 J	<12.0 J	NA	<12.0 J	NA	<13.0 J
Carbazole		<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
Chrysene	0.002	<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
Dibenzo(a,h)anthracene		<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
Dibenzofuran		<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50

TABLE 1 BASELINE AND POST-ISS GROUNDWATER MONITORING ANALYTICAL RESULTS

Location ID:	NYSDEC	MW	-28D	MW	-28S	MW	-29D	MW-29S	MW	-30D	MW	-30S
Sample Depth(ft BGS):	Groundwater	18 -	- 28	4 -	14	35	- 45	5 - 15	24 -	- 34	5 -	15
	Standards and											
Data Callastada	Guidance	00/05/40	44/05/40	00/05/40	44/05/40	00/00/40	44/00/40	44/00/40	00/00/40	44/00/40	00/07/40	44/00/40
Date Collected:	values	06/25/12	11/05/13	06/25/12	11/05/13	06/26/12	11/06/13	11/06/13	06/26/12	11/06/13	06/27/12	11/06/13
Diothylphtholato	50	-5.10	-5.50	-5.00	-6.20	-5.60	-6.00	-5.00	-5.60	-6.20	-5.00	-6.20
Dimethylphinalate	50	< 5.10	< 5.50	<5.90	<0.30	< 5.60	< 0.00	<5.90	< 5.60	<0.20	< 5.90	<0.30
Dimethylphinalate	50	< 5.10	< 5.50	< 5.90	<0.30	< 0.60	< 0.00	<5.90	< 00.6>	<0.20	<0.90	<0.30
Di-n-Butyiphthalate	50	<5.10	<5.50	<5.90 B	<0.30	<5.60	< 6.00	<5.90	<5.60	<0.20	<5.90 B	< 0.30
	50	< 5.10	< 5.50	<5.90	<0.30	< 3.60	< 0.00	<5.90	<0.00	<0.20	< 5.90	<0.30
Fluoranthene	50	<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
Fluorene	50	<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
Hexachlorobenzene	0.04	<5.10	<5.50	<5.90	<0.30	<5.60	< 6.00	<5.90	<5.60	<6.20	<5.90	< 6.30
	0.5	<5.10	<5.50	<5.90	<6.30	<5.60	< 0.00	<5.90	<5.60	<6.20	<5.90	<6.30
Hexachlorocyclopentadiene	5	<10.0	<11.0 J	<12.0	<13.0 J	<11.0 J	<12.0 J	<12.0 J	<11.0	<12.0 J	<12.0	<13.0 J
	5	<5.10	<5.50	<5.90	<6.30	<5.60	< 6.00	<5.90	<5.60	<6.20	<5.90	<6.30
Indeno(1,2,3-cd)pyrene	0.002	<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
Isophorone	50	<5.10	<5.50	<5.90	<6.30	<5.60	<6.00	<5.90	<5.60	<6.20	<5.90	<6.30
Naphthalene	10	<2.00 B	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20 B	<2.50	<2.40	<2.50
Nitrobenzene	0.4	<5.10	<5.50	<5.90	<6.30	<5.60	<6.00	<5.90	<5.60	<6.20	<5.90	<6.30
N-Nitroso-di-n-propylamine		<5.10	<5.50	<5.90	<6.30	<5.60	<6.00	<5.90	<5.60	<6.20	<5.90	<6.30
N-Nitrosodiphenylamine	50	<5.10	<5.50	<5.90	<6.30	<5.60	<6.00	<5.90	<5.60	<6.20	<5.90	<6.30
Pentachlorophenol		<10.0	<11.0	<12.0	<13.0	<11.0	<12.0	<12.0	<11.0	<12.0	<12.0	<13.0
Phenanthrene	50	<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
Phenol	1	<5.10	<5.50 J	<5.90	<6.30 J	<5.60 J	<6.00 J	<5.90 J	<5.60	<6.20 J	<5.90	<6.30 J
Pyrene	50	<2.00	<2.20	<2.40	<2.50	<2.20	<2.40	<2.40	<2.20	<2.50	<2.40	<2.50
Total PAHs		20.0 J	NA	31.0	NA	18.7	NA	NA	18.6 J	NA	20.4	NA
Inorganics	1		[1		1	1	1				
Aluminum		237	187 B	376	115 B	76.2 B	1,580	382	1,230	120 B	62,100	5,470
Antimony	3	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00	<6.00
Arsenic	25	<4.00	<4.00	<4.00 B	4.90	<4.00	<4.00	<4.00	<4.10 B	<4.00	77.7	8.20
Barium	1,000	170	188	145	183	179	22.5 B	105	280	329	808	210
Beryllium		<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	3.20 B	0.300 B
Cadmium	5	<4.00	3.90 B	5.70	<4.00	<4.00	<4.00	0.700 B	<4.00	<4.00	19.2	1.80 B
Calcium		101,000	88,800	72,100	84,800	91,700	20,900	86,800	86,900	81,400	260,000	112,000
Chromium	50	<10.0	<10.0	<10.0	<10.0	<10.0	9.60 B	<10.0	<10.0 B	<10.0	92.0	8.20 B
Cobalt		<50.0 B	0.700 B	<50.0	<50.0	<50.0	1.00 B	0.900 B	<50.0 B	<50.0	61.6	7.60 B
Copper	200	<25.0	<25.0	<25.0	<25.0	<25.0	10.3 B	<25.0	4.80 B	<25.0	216	14.5 B
Cyanide	200	<10.0	<10.0	240	200	<10.0	<10.0	110	<10.0	<10.0	16.0	14.0
Iron	300	931	537	3,140	3,170	28.9 B	1,650	435	2,320	332	142,000	9,620

TABLE 1 BASELINE AND POST-ISS GROUNDWATER MONITORING ANALYTICAL RESULTS

Location ID:	NYSDEC	MW	-28D	MW	-28S	MW	-29D	MW-29S	MW	-30D	MW	-30S
Sample Depth(ft BGS):	Groundwater	18	- 28	4 -	14	35 -	- 45	5 - 15	24	- 34	5 -	15
Date Collected:	Standards and Guidance Values	06/25/12	11/05/13	06/25/12	11/05/13	06/26/12	11/06/13	11/06/13	06/26/12	11/06/13	06/27/12	11/06/13
Inorganics (Cont.)												
Lead	25	<5.00	<5.00	<5.00	<5.00	<5.00	4.50 B	<5.00	<5.00	<5.00	132	6.80
Magnesium		22,800	22,000	8,440	9,050	18,600	1,390 B	14,200	19,600	22,100	57,200	15,000
Manganese	300	449	569	969	1,150	<15.0 B	43.9	437	181	287	6,830	1,650
Mercury	0.7	<0.200	<0.200	<0.200	<0.200	0.0800 B	<0.200	<0.200	<0.200	<0.200	0.840	<0.200
Nickel	100	<40.0	3.40 B	<40.0 B	0.800 B	<40.0	27.9 B	3.00 B	<40.0 B	0.700 B	132	10.5 B
Potassium		1,000 B	891 B	2,040 B	2,130 B	1,230 B	997 B	2,400 B	1,330 B	835 B	11,300	4,300 B
Selenium	10	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Silver	50	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Sodium		41,400	37,300	214,000	317,000	60,900	2,280 B	72,900	42,900	31,700	382,000	463,000
Thallium		<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Vanadium		<10.0	<10.0	<10.0	<10.0	<10.0	6.00 B	<10.0	<10.0 B	<10.0	112	12.2
Zinc	2,000	4.70 B	5.00 B	4.60 B	4.70 B	<20.0	63.9	8.90 B	18.5 B	4.60 B	839	46.0

TABLE 1 BASELINE AND POST-ISS GROUNDWATER MONITORING ANALYTICAL RESULTS

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

Notes:

1. Baseline samples collected by ARCADIS from June 25-27, 2012, and post-in-situ soil solidification (ISS) samples collected by ARCADIS from November 5-6, 2013.

2. Laboratory analysis was performed by Accutest Laboratories of Marlborough, Massachusetts for:

- Volatile organic compounds (VOCs) using United States Environmental Protection Agency (USEPA) SW-846 Method 8260B.
- Semi-volatile organic compounds (SVOCs) using USEPA SW-846 Method 8270C.
- Inorganic constituents using USEPA SW-846 Methods 6010, 7470, and 9012.
- 3. Concentrations reported in micrograms per liter (ug/L) which is equivalent to parts per billion (ppb).
- 4. Data qualifiers are defined as follows:
 - J Indicates an estimated value.
 - < Indicates that the compound was analyzed for but not detected. The associated value is the compound quantitation limit.
 - B Indicates that the analyte was also detected in the associated method blank.
 - D Indicates that the analyte was quantified using a second dilution.
- 5. NYSDEC groundwater standards/guidance values are from the NYSDEC Division of Water, Technical and Operational Guidance Series (TOGS) document titled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (TOGS 1.1.1) dated June 1998, revised April 2000 and June 2004.
- 6. Shading indicates that the results exceeds the water quality standard/guidance value.
- 7. -- Indicates that no water quality standard or guidance value is available for this compound.
- 8. [] Results shown in brackets represent field duplicates.
- 9. Results have been validated in accordance with USEPA National Functional Guidelines of October 1999, USEPA Region II Standard Operating Procedures, and the NYSDEC Analytical Services Protocol. 10. bgs = below ground surface.

Location ID:	Restricted Use	Restricted Use	CH-BP-4CR	CH-BP-S	CH-CSG-BR	Murdock-Composite	Murdock-Discrete
Date Collected:	SCOs	SCOs	08/01/12	08/01/12	12/14/12	05/24/13	05/24/13
	Protection of						
Sample Name:	Groundwater	Commercial Use	CH-BP-4CR	CH-BP-S	CH-CSG-BR	Murdock-Composite	Murdock-Discrete
PCBs							
Aroclor-1016			<0.099	<0.11	<0.10	<0.029	NA
Aroclor-1221			<0.099	<0.11	<0.10	<0.029	NA
Aroclor-1232			<0.099	<0.11	<0.10	<0.029	NA
Aroclor-1242			<0.099	<0.11	<0.10	<0.029	NA
Aroclor-1248			<0.099	<0.11	<0.10	<0.029	NA
Aroclor-1254			<0.099	<0.11	<0.10	<0.029	NA
Aroclor-1260			<0.099	<0.11	<0.10	<0.029	NA
Total PCBs (Max DL)		1	<0.099	<0.11	<0.10	<0.029	NA
Pesticides							
4,4'-DDD	14	92	< 0.0069	< 0.007	<0.0067	0.0022 J	NA
4,4'-DDE	17	62	< 0.0069	< 0.007	< 0.0067	0.0070	NA
4,4'-DDT	136	47	< 0.0069	< 0.007	< 0.0067	0.0031 J	NA
Aldrin	0.19	0.68	< 0.0069	< 0.007	< 0.0067	<0.0058	NA
Alpha-BHC	0.02	3.4	< 0.0069	< 0.007	<0.0067	<0.0058	NA
Alpha-Chlordane	2.9	24	< 0.0069	< 0.007	< 0.0067	<0.0058	NA
Beta-BHC	0.09	3	< 0.0069	< 0.007	<0.0067	<0.0058	NA
Delta-BHC	0.25	500	< 0.0069	< 0.007	< 0.0067	< 0.0058	NA
Dibenzofuran	200	350	<0.10	<0.11	<0.10	<0.12	NA
Dieldrin	0.1	1.4	< 0.0069	< 0.007	< 0.0067	< 0.0058	NA
Endosulfan I	102	200	< 0.0069	< 0.007	< 0.0067	< 0.0058	NA
Endosulfan II	102	200	< 0.0069	< 0.007	< 0.0067	< 0.0058	NA
Endosulfan Sulfate	1,000	200	< 0.0069	< 0.007	< 0.0067	< 0.0058	NA
Endrin	0.06	89	< 0.0069	< 0.007	< 0.0067	< 0.0058	NA
Gamma-BHC (Lindane)	0.1	9.2	< 0.0069	< 0.007	< 0.0067	< 0.0058	NA
Heptachlor	0.38	15	< 0.0069	< 0.007	< 0.0067	< 0.0058	NA
VOCs				•			
1,1,1-Trichloroethane	0.68	500	< 0.0024	< 0.0019	<0.0013	NA	<0.0018
1,1-Dichloroethane	0.27	240	< 0.0024	< 0.0019	< 0.0013	NA	<0.0018
1.1-Dichloroethene	0.33	500	< 0.0024	< 0.0019	< 0.0013	NA	<0.0018
1,2,4-Trimethylbenzene	3.6	190	< 0.0060	< 0.0048	< 0.0034	NA	< 0.0045
1,2-Dichlorobenzene	1.1	500	< 0.0024	< 0.0019	< 0.0013	NA	<0.0018
1,2-Dichloroethane	0.02	30	< 0.0024	< 0.0019	< 0.0013	NA	<0.0018
1,3,5-Trimethylbenzene	8.4	190	< 0.0060	< 0.0048	< 0.0034	NA	< 0.0045
1,3-Dichlorobenzene	2.4	280	< 0.0024	< 0.0019	< 0.0013	NA	<0.0018
1,4-Dichlorobenzene	1.8	130	< 0.0024	< 0.0019	< 0.0013	NA	<0.0018
1.4-Dioxane	0.1	130	< 0.030	< 0.024	<0.017	NA	<0.023
Methyl ethyl ketone	0.12	500	< 0.0060	< 0.0048	< 0.0034	NA	< 0.0045
Acetone	0.05	500	< 0.0060	< 0.0048	< 0.0034	NA	0.19
Benzene	0.06	44	< 0.0060	0.00079	0.00039	NA	< 0.00045
Carbon Tetrachloride	0.76	22	< 0.0024	< 0.0019	< 0.0013	NA	<0.0018
Chlorobenzene	1.1	500	< 0.0024	< 0.0019	<0.0013	NA	<0.0018
Chloroform	0.37	350	<0.0024	< 0.0019	<0.0013	NA	<0.0018
cis-1.2-Dichloroethene	0.25	500	< 0.0024	< 0.0019	<0.0013	NA	<0.0018
Ethylbenzene	1	390	<0.0024	< 0.0019	< 0.0013	NA	<0.0018

Location ID:	Restricted Use	Restricted Use	CH-BP-4CR	CH-BP-S	CH-CSG-BR	Murdock-Composite	Murdock-Discrete
Date Collected:	SCOs	SCOs	08/01/12	08/01/12	12/14/12	05/24/13	05/24/13
	Protection of						
Sample Name:	Groundwater	Commercial Use	CH-BP-4CR	CH-BP-S	CH-CSG-BR	Murdock-Composite	Murdock-Discrete
Hexachlorobenzene	3.2	6	<0.26	<0.26	<0.26	<0.29	NA
Methyl tert-butyl ether	0.93	500	< 0.0024	< 0.0019	< 0.0013	NA	<0.0018
Methylene Chloride	0.05	500	0.0032	0.0029	< 0.0013	NA	<0.0018
n-Butylbenzene	12	500	< 0.0060	< 0.0048	< 0.0034	NA	< 0.0045
n-Propylbenzene	3.9	500	< 0.0060	< 0.0048	< 0.0034	NA	< 0.0045
sec-Butylbenzene	11	500	< 0.0060	< 0.0048	< 0.0034	NA	<0.0045
tert-Butylbenzene	5.9	500	< 0.0060	< 0.0048	< 0.0034	NA	< 0.0045
Tetrachloroethene	1.3	150	< 0.0024	< 0.0019	< 0.0013	NA	<0.0018
Toluene	0.7	500	0.00083 J	0.0011 J	< 0.0034	NA	0.0021 J
trans-1,2-Dichloroethene	0.19	500	< 0.0024	< 0.0019	< 0.0013	NA	<0.0018
Trichloroethene	0.47	200	0.010	0.013	< 0.0013	NA	<0.0018
Vinyl Chloride	0.02	13	< 0.0024	< 0.0019	< 0.0013	NA	<0.0018
Xylenes (total)	1.6	500	< 0.0024	< 0.0019	< 0.0013	NA	<0.0018
SVOCs							
o-Cresol	0.33	500	<0.52	< 0.53	< 0.52	<0.59	NA
m&p-Cresol			<0.52	< 0.53	<0.52	<0.59	NA
Acenaphthene	98	500	<0.10	<0.11	<0.10	<0.12	NA
Acenaphthylene	107	500	<0.10	<0.11	<0.10	<0.12	NA
Anthracene	1,000	500	<0.10	<0.11	<0.10	0.0474 J	NA
Benzo(a)anthracene	1	5.6	<0.10	<0.11	<0.10	0.252	NA
Benzo(a)pyrene	22	1	<0.10	<0.11	<0.10	0.282	NA
Benzo(b)fluoranthene	1.7	5.6	<0.10	<0.11	<0.10	0.293	NA
Benzo(g,h,i)perylene	1,000	500	<0.10	<0.11	<0.10	0.225	NA
Benzo(k)fluoranthene	1.7	56	<0.10	<0.11	<0.10	0.244	NA
Chrysene	1	56	<0.10	<0.11	<0.10	0.332	NA
Dibenzo(a,h)anthracene	1,000	0.56	<0.10	<0.11	<0.10	0.0751 J	NA
Fluoranthene	1,000	500	<0.10	<0.11	<0.10	0.682	NA
Fluorene	386	500	<0.10	<0.11	<0.10	<0.12	NA
Indeno(1,2,3-cd)pyrene	8.2	5.6	<0.10	<0.11	<0.10	0.209	NA
Naphthalene	12	500	<0.10	<0.11	<0.10	<0.12	NA
Pentachlorophenol	0.8	6.7	<0.52	< 0.53	<0.52	<0.59	NA
Phenanthrene	1,000	500	<0.10	<0.11	<0.10	0.293	NA
Phenol	0.33	500	<0.26	<0.26	<0.26	<0.29	NA
Pyrene	1,000	500	<0.10	<0.11	<0.10	0.517	NA
Total PAHs (NDs at 1/2)			0.80	0.88	0.80	3.75 J	NA
Inorganics					-		-
Arsenic	16	16	4.20	2.90	5.90	5.40	NA
Barium	820	400	27.9	21.9	28.7	94.7	NA
Beryllium	47	590	0.30 B	<0.20	0.35 B	0.60	NA
Cadmium	7.5	9.3	0.072 B	<0.40	0.082 B	0.22 B	NA
Chromium, hexavalent			<0.41	<0.43	<0.42	NA	NA
Chromium, trivalent			10.4	6.80	13.0	NA	NA
Total Chromium		1,500	NA	NA	NA	17	NA
Copper	1,720	270	14.9	9.60	19.9	22.2	NA
Cyanide	40	27	<0.12	< 0.13	<0.13	0.31	NA

Location I	D: Restricted Use	Restricted Use	CH-BP-4CR	CH-BP-S	CH-CSG-BR	Murdock-Composite	Murdock-Discrete
Date Collecte	d: SCOs	SCOs	08/01/12	08/01/12	12/14/12	05/24/13	05/24/13
	Protection of						
Sample Nam	e: Groundwater	Commercial Use	CH-BP-4CR	CH-BP-S	CH-CSG-BR	Murdock-Composite	Murdock-Discrete
Lead	450	1,000	8.50	5.40	9.40	18.8	NA
Manganese	2,000	10,000	350	400	487	834	NA
Mercury	0.73	2.8	<0.032	0.014 B	<0.031	0.20	NA
Nickel	130	310	15.7	10.5	21.2	21.2	NA
Selenium	4	1,500	<0.91	<1.0	<1.0	<0.97	NA
Silver	8.3	1,500	<0.45	< 0.50	<0.51	<0.48	NA
Zinc	2,480	10,000	48.7	29.8	64.8	78.0	NA
Miscellaneous							
рН			9	8.7	8.8	6.9	NA
Redox Potential Vs H2			344	358	386	NA	NA
Solids, Percent			95.2	92.3	94.4	84.1	84.1

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

Notes:

- 1. Samples were collected by ARCADIS on the dates indicated.
- 2. VOCs = Volatile Organic Compounds.
- 3. SVOCs = Semi-Volatile Organic Compounds.
- 4. PCBs = Polychlorinated Biphenyls.
- 5. PAHs = Polycyclic Aromatic Hydrocarbons.
- 6. Samples were analyzed by Accutest Laboratories, Inc. (Accutest) located in Marlbourough, Massachusetts for:
 - VOCs using United States Environmental Protection Agency (USEPA) SW-846 Method 8260.
 - SVOCs using USEPA SW-846 Method 8270.
 - Inorganics using USEPA SW-846 Methods 6010, 7471 and 335.4.
 - PCBs using USEPA SW-846 Method 8082.
 - Pesticides using USEPA SW-846 Method 8081.
- 7. All concentrations reported in dry weight parts per million (ppm), which is equivalent to milligrams per kilogram (mg/kg).
- 8. Data qualifiers are defined as follows:
 - <- Constituent not detected at a concentration above the reported detection limit.
 - B- Analyte was also detected in the associated method blank.
 - J- Indicates that the associated numerical value is an estimated concentration.
- 6 NYCRR Part 375 Soil Cleanup Objectives (SCOs) are from Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375-6.8(b).
- 10. Shading indicates that the result exceeds the 6 NYCRR Part 375 Unrestricted Use SCO.
- 11. -- = No 6 NYCRR Part 375 SCO listed.
- 12. Total PAHs were calculated as the sum of the following, which is consistent with the
 - NYSDEC list from: http://www.dec.ny.gov/chemical/24922.html:
 - 2-Methylnaphthalene
 - Acenaphthene
 - Acenaphthylene
 - Anthracene
 - Benzo(a)anthracene
 - Benzo(a)pyrene
 - Benzo(b)fluoranthene
 - Benzo(g,h,i)perylene
 - Benzo(k)fluoranthene
 - Chrysene
 - Dibenzo(a,h)anthracene
 - Fluoranthene
 - Fluorene
 - Indeno(1,2,3-cd)pyrene
 - Naphthalene
 - Phenanthrene
 - Pyrene

		ISS Column	Coordinates			E	levations (f	t)	Clay				Grout M	lass					Sampl	le			F	Permeability (cm/se	ec)
						ISS C	olumn		Toe-In	Final Column	BFS	5	PC		Bento	nite	Grout	Water		Depth	UCS	(psi)			
Column	-			# of	Overlap Area	Ton	Pottom	Top of	Depth	Volume	(11)	(0/)	(1)>	(0/)	(1)	(0/)	Volume	Volume		(ft	7.0		28-Days	56-Days	84-Days
ID	Date	Northing	Easting	Overlaps	s (st)	тор	Бощоні	Clay	(ft)	(CY)	(IDS)	(%)	(IDS)	(%)	(IDS)	(%)	(gal)	(gal)	ID No.	bgs)	7-Day	28-Day	(cm/sec)	(cm/sec)	(cm/sec)
								Project	t Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923							
Operable	Unit 1																								
S20	9/11/12	955478.36	927626 861	0	0	1 111 0	1 072 0	1 073 5	-2	72.61	7 540	3.2%	11 310	4.8%	1 170 0	0.50%	3 480	3 160							
T18	9/11/12	955467.52	927632.011	0	0	1,111.0	1,071.0	1,073.5	-3	74.47	7,548	3.1%	11,322	4.7%	1,190.0	0.49%	3,625	3,184	CH-ISS-T18	20	220	500	2.08E-07		
U18	9/11/12	955477.40	927638.822	0	0	1,111.0	1,072.0	1,074.5	-3	72.61	6,288	2.7%	9,432	4.0%	1,010.0	0.43%	3,530	2,638							
013	9/12/12	955418.13	927597.954	0	0	1,110.0	1,070.0	1,072.5	-3	74.47	7,544	3.1%	11,316	4.7%	1,180	0.49%	3,530	3,176							
R13	9/12/12	955420.14	927616.173	0	0	1,110.0	1,071.0	1,073.5	-3	72.61	7,548	3.2%	11,322	4.8%	1,190	0.51%	3,560	3,177							
S19	9/12/12	955471.46	927626.307	2	5.73	1,111.0	1,071.0	1,073.0	-2	65.97	6,276	2.9%	9,414	4.4%	1,000	0.47%	3,250	2,646		10.15	005	455	0.405.00		
T10 T12	9/12/12	955412.28	927627.581	0	0.00	1,110.0	1,072.0	1,074.5	-3	<u> </u>	6,292 7.549	2.8%	9,438	4.1%	960	0.42%	3,440	2,643	CH-ISS-111	10-15	285	455	8.16E-08		
T17	9/12/12	955460.62	927631 457	1	2.07	1,110.0	1,071.0	1,073.0	-3	71.98	6 276	2.7%	9 414	4.0%	940	0.33 %	3,360	2 645	CH-ISS-T17	35	180	545	7.36E-08		
T20	9/12/12	955481.34	927633.118	2	5.73	1,111.0	1,072.0	1.074.5	-3	64.32	6.284	3.0%	9.426	4.5%	980	0.47%	3.060	2,642	01100117	00	100	0+0	1.002 00		
U11	9/12/12	955429.06	927634.946	0	0.00	1,111.0	1,072.0	1,074.5	-3	72.61	6,292	2.7%	9,438	4.0%	990	0.42%	3,440	2,649							
U13	9/12/12	955442.87	927636.054	0	0.00	1,111.0	1,071.0	1,073.5	-3	74.47	6,292	2.6%	9,438	3.9%	960	0.40%	3,480	2,665				1			
U15	9/12/12	955456.69	927637.161	1	2.87	1,111.0	1,071.0	1,073.0	-2	70.22	6,292	2.8%	9,438	4.1%	1,000	0.44%	3,350	2,655							
U17	9/12/12	955470.50	927638.268	2	5.73	1,111.0	1,072.0	1,074.0	-2	64.32	6,296	3.0%	9,444	4.5%	980	0.47%	3,150	2,650							
J20	9/13/12	955465.41	927571.649	0	0.00	1,111.0	1,069.0	1,071.5	-3	78.19	7,072	2.8%	10,608	4.2%	1,070	0.42%	3,800	2,575							
J22	9/13/12	955479.23	927572.756	0	0.00	1,111.0	1,070.0	1,072.5	-3	76.33	7,076	2.8%	10,614	4.3%	871	0.35%	3,220	2,583							
K16	9/13/12	955440.76	927575.692	0	0.00	1,110.0	1,068.0	1,070.0	-2	78.19	7,080	2.8%	10,620	4.2%	1,070	0.42%	3,305	2,568							
L 15	9/13/12	900404.00	927580 842	0	0.00	1,110.0	1,068.0	1,070.0	-2	78.19	0,492 7.072	3.3%	10,608	5.0% 4.2%	1,250	0.49%	3,302	3,072 2,570							
121	9/13/12	955471.36	927584,164	0	0.00	1,111.0	1,000.0	1.071.5	-3	78.19	7,072	2.8%	10,632	4.2%	1,000	0.39%	3,300	2,570							
L23	9/13/12	955485.17	927585.272	0	0.00	1.111.0	1.072.0	1.074.5	-3	72.61	7.080	3.0%	10.620	4.5%	950	0.40%	3.050	2.560	CH-ISS-L23	35		580	3.46E-08		
N14	9/13/12	955422.06	927592.250	1	2.87	1,110.0	1,070.0	1,072.0	-2	70.22	7,068	3.1%	10,602	4.7%	1,080	0.47%	2,960	2,575	CH-ISS-N14	20		630	3.63E-08		
N22	9/13/12	955477.31	927596.680	0	0.00	1,111.0	1,070.0	1,072.5	-3	76.33	7,084	2.9%	10,626	4.3%	980	0.39%	3,210	2,552							
N24	9/13/12	955491.12	927597.787	0	0.00	1,111.0	1,073.0	1,075.5	-3	70.74	7,096	3.1%	10,644	4.7%	1,000	0.44%	2,965	2,555							
022	9/14/12	955480.28	927602.937	1	2.87	1,111.0	1,070.0	1,072.5	-3	71.98	7,076	3.0%	10,614	4.5%	1,070	0.46%	3,030	2,562							
024	9/14/12	955494.09	927604.045	1	2.87	1,111.0	1,073.0	1,076.0	-3	66.71	7,076	3.3%	10,614	4.9%	1,080	0.50%	3,600	2,571							
Q22	9/14/12	955479.32	927614.899	0	0.00	1,111.0	1,070.0	1,072.5	-3	76.33	7,084	2.9%	10,626	4.3%	1,080	0.43%	3,235	2,562							
Q24 S21	9/14/12	955495.13	927610.000	2	0.00	1,111.0	1,072.0	1,075.0	-3	64.32	7,072	3.0%	10,000	4.3%	1,070	0.43%	3,050	2,575							
T12	9/14/12	955426.09	927628 688	3	8.60	1 111 0	1,072.0	1,074.0	-2	60.18	6,296	3.2%	9 444	4.8%	980	0.52%	3,060	2,550							
T19	9/14/12	955474.43	927632.565	6	34.40	1.111.0	1.071.0	1.074.0	-3	23.51	4.240	5.6%	6.360	8.3%	660	0.86%	2.460	1.544	CH-ISS-T19	10-15		525	1.58E-07		
U12	9/14/12	955435.97	927635.500	3	8.60	1,110.0	1,072.0	1,074.0	-2	58.64	6,276	3.3%	9,414	5.0%	940	0.50%	2,780	2,643							
U14	9/14/12	955449.78	927636.607	2	5.73	1,111.0	1,071.0	1,073.0	-2	65.97	6,272	2.9%	9,408	4.4%	970	0.45%	3,140	2,650							
U16	9/14/12	955463.59	927637.715	4	11.47	1,111.0	1,071.0	1,073.5	-3	57.48	5,012	2.7%	7,518	4.0%	760	0.41%	2,731	2,109							
R21	9/17/12	955475.39	927620.603	3	8.60	1,111.0	1,070.0	1,073.0	-3	63.27	6,288	3.1%	9,432	4.6%	930	0.45%	3,015	2,630							
R23	9/17/12	955489.20	927621.710	2	5.73	1,111.0	1,072.0	1,074.0	-2	64.32	6,280	3.0%	9,420	4.5%	950	0.46%	3,050	2,637							
S10 S12	9/17/12	955409.30	927621.323	0	0.00	1,110.0	1,072.0	1,074.5	-3	64.22	7,076	3.1%	10,614	4.6%	1,100	0.48%	2,960	2,570							
515 T14	9/17/12	955430.02	927620 706	2	3.73 8.60	1,110.0	1,071.0	1,073.5	-3	60.18	6 264	3.3%	0 306	1.8%	950	0.31%	3,110	2,000							
T14	9/17/12	955453 71	927630 903	3	8.60	1 111 0	1,071.0	1,073.5	-3	63.27	8 800	4.3%	13 200	6.4%	1,340	0.45%	4 241	3 694							
U10	9/17/12	955422.16	927634.392	4	11.47	1.110.0	1.072.0	1.075.0	-3	54.61	6.280	3.6%	9.420	5.3%	930	0.53%	2.960	2.635	CH-ISS-U10	10-15		410	9.28E-08		
120	9/18/12	955469.35	927565.945	1	2.87	1,111.0	1,070.0	1,072.5	-3	71.98	7,544	3.2%	11,316	4.8%	1,160	0.50%	3,435	3,171	CH-ISS-I20	20		405	4.87E-08		
J19	9/18/12	955458.51	927571.095	2	5.73	1,111.0	1,069.0	1,071.0	-2	69.27	6,276	2.8%	9,414	4.2%	1,020	0.45%	3,340	2,636							
K20	9/18/12	955468.39	927577.907	2	5.73	1,111.0	1,068.0	1,070.5	-3	70.92	6,284	2.7%	9,426	4.1%	930	0.40%	3,380	2,634							
K22	9/18/12	955482.20	927579.014	2	5.73	1,111.0	1,071.0	1,073.5	-3	65.97	6,272	2.9%	9,408	4.4%	960	0.45%	3,130	2,634							
M21	9/18/12	955474.33	92/590.422	2	5.73	1,111.0	1,070.0	1,072.0	-2	67.62	6,292	2.9%	9,438	4.3%	970	0.44%	3,235	2,634		<u> </u>					
M23	9/18/12	955488.15	927591.529	2	5.73	1,111.0	1,073.0	1,075.0	-2	67.62	6,300	3.1%	9,450	4.1%	970	0.48%	3,109	2,638				<u> </u>			
P24	9/10/12	955470.35	927600 740	2	5.13 5.73	1 111 0	1,070.0	1.072.0	-2	64 32	0,270 7.540	∠.9% 3.6%	9,414 11 310	4.3% 5.4%	900	0.44%	3,072	∠,039 3 176				+			
116	9/19/12	955441 72	927563 730	0	0.00	1,111.0	1,068.0	1.070.5	-3	80.05	7,556	2.9%	11.334	4.3%	1170	0.45%	3.846	3.162				+			
J18	9/19/12	955451.60	927570.542	2	5.73	1,111.0	1,068.0	1,070.5	-3	70.92	6.272	2.7%	9,408	4.1%	920	0.40%	3,405	2,640							
K13	9/19/12	955420.05	927574.031	0	0.00	1,111.0	1,068.0	1,071.5	-4	80.05	7,536	2.9%	11,304	4.3%	1170	0.45%	3,730	3,165							
K15	9/19/12	955433.86	927575.138	2	5.73	1,111.0	1,068.0	1,070.5	-3	70.92	6,292	2.7%	9,438	4.1%	970	0.42%	3,400	2,639							
K19	9/19/12	955461.48	927577.353	4	11.47	1,111.0	1,068.0	1,070.5	-3	61.79	6,288	3.1%	9,432	4.7%	960	0.48%	2,952	2,635							
M12	9/19/12	955412.18	927585.438	0	0.00	1,110.0	1,069.0	1,072.0	-3	76.33	7,552	3.0%	11,328	4.6%	1190	0.48%	3,340	3,164							

		ISS Column	Coordinates			E	levations (ft)	Clay				Grout M	lass					Sample	e			Р	ermeability (cm/se	c)
						ISS C	olumn		Toe-In	Final Column	BFS		PC		Bento	onite	Grout	Water		Depth	UCS	(psi)			
Column				# of	Overlap Area			Top of	Depth	Volume		·					Volume	Volume		(ft		(pol)	28-Days	56-Days	84-Days
ID	Date	Northing	Easting	Overlaps	(sf)	Тор	Bottom	Clay	(ft)	(CY)	(lbs)	(%)	(lbs)	(%)	(lbs)	(%)	(gal)	(gal)	ID No.	bgs)	7-Day	28-Day	(cm/sec)	(cm/sec)	(cm/sec)
								Project	Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923							
M14	9/19/12	955425.99	927586.546	2	5.73	1,110.0	1.070.0	1.071.5	-2	65.97	6.284	2.9%	9.426	4.4%	930	0.43%	3,218	2.640	CH-ISS-M14	35		300	1.10E-06	5.14F-07	
012	9/19/12	955411.22	927597.400	1	2.87	1.110.0	1.069.0	1.073.0	-4	71.98	6.280	2.7%	9.420	4.0%	950	0.41%	3.280	2.643	0					0	
Q12	9/19/12	955410.26	927609.362	0	0.00	1.110.0	1.071.0	1.074.0	-3	72.61	6.300	2.7%	9,450	4.0%	1030	0.44%	3,445	2.639							
Q14	9/19/12	955424.07	927610.469	1	2.87	1.111.0	1.071.0	1.073.0	-2	70.22	6.288	2.8%	9,432	4.1%	980	0.43%	3.338	2.640							
N23	9/20/12	955484.21	927597.233	4	11.47	1.111.0	1.071.0	1.074.0	-3	57.48	5.020	2.7%	7.530	4.0%	790	0.42%	2.738	2.106							
P12	9/20/12	955407.29	927603.104	2	5.73	1.110.0	1.071.0	1.073.5	-3	64.32	6.276	3.0%	9,414	4.5%	970	0.47%	3.050	2.642							
P23	9/20/12	955483.26	927609.195	4	11.47	1.111.0	1.071.0	1.073.0	-2	57.48	5.024	2.7%	7.536	4.0%	569	0.30%	2.732	2.116							
Q13	9/20/12	955417.17	927609.915	3	8.60	1,110.0	1,071.0	1,073.5	-3	60.18	6,284	3.2%	9,426	4.8%	950	0.49%	2,865	2,638							
R22	9/20/12	955482.30	927621.157	5	17.20	1,111.0	1,071.0	1,073.5	-3	48.99	5,016	3.2%	7,524	4.7%	750	0.47%	2,530	2,115	CH-ISS-R22	10-15		310	1.35E-07		
S12	9/20/12	955423.12	927622.431	4	11.47	1,110.0	1,071.0	1,074.0	-3	56.04	7,528	4.1%	11,292	6.2%	1,170	0.64%	3,618	3,171							
117	9/21/12	955448.63	927564.284	2	5.73	1,111.0	1,069.0	1,071.0	-2	69.27	6,276	2.8%	9,414	4.2%	990	0.44%	3,310	2,644							
l19	9/21/12	955462.44	927565.391	3	8.60	1,111.0	1,070.0	1,072.0	-2	63.27	6,284	3.1%	9,426	4.6%	970	0.47%	3,015	2,630							
K17	9/21/12	955447.67	927576.245	3	8.60	1.111.0	1.068.0	1.070.0	-2	66.36	6.288	2.9%	9.432	4.4%	970	0.45%	3,450	2.632							
K21	9/21/12	955475.29	927578.460	4	11.47	1.111.0	1.069.0	1.072.0	-3	60.36	7.528	3.8%	11.292	5.7%	1.130	0.57%	4.000	3.178							
L20	9/21/12	955464.46	927583.611	3	8.60	1.111.0	1.068.0	1.070.0	-2	66.36	6.276	2.9%	9.414	4.3%	910	0.42%	3,170	2.645	CH-ISS-L20	20		365	4.59E-08		
M22	9/21/12	955481.24	927590.976	5	17.20	1.111.0	1.071.0	1.073.5	-3	48.99	7.532	4.7%	11.298	7.1%	1.280	0.80%	2.044	3.167							
Q23	9/21/12	955486.23	927615.453	6	34.40	1.111.0	1.071.0	1.073.5	-3	23.51	5.660	7.4%	8.490	11.1%	860	1.13%	2.072	2.044							
118	9/24/12	955455.53	927564.838	4	11.47	1.111.0	1.069.0	1.071.5	-3	60.36	6,288	3.2%	9,432	4.8%	990.0	0.50%	2,900	2,633							
J17	9/24/12	955444.70	927569,988	5	17.20	1.111.0	1.068.0	1.070.0	-2	52.66	11.328	6.6%	16,992	9.9%	1.700.0	0.99%	5,407	4,758							
J21	9/24/12	955472.32	927572,203	5	17.20	1.111.0	1,069.0	1.071.5	-3	51.44	6.264	3.7%	9.396	5.6%	990.0	0.59%	3.074	2,633	CH-ISS-J21	35		335	1.38E-07		
L22	9/24/12	955478.27	927584.718	6	34.40	1.111.0	1.071.0	1.073.0	-2	23.51	6.268	8.2%	9,402	12.3%	960.0	1.26%	3.034	2.637	000 02.						
023	9/24/12	955487.19	927603.491	6	34.40	1.111.0	1.072.0	1.074.0	-2	22.92	7,536	10.1%	11.304	15.2%	1.130.0	1.52%	3,860	3,158							
115	9/25/12	955434.82	927563.176	1	2.87	1.111.0	1.068.0	1.070.5	-3	75.49	7.524	3.1%	11,286	4.6%	1,130	0.46%	10.420	3,161							
K14	9/25/12	955426.95	927574.584	3	8.60	1.111.0	1.069.0	1.071.0	-2	64.81	6.280	3.0%	9.420	4.5%	920	0.44%	8.914	2.634							
L13	9/25/12	955416.11	927579.735	2	5.73	1.110.0	1.069.0	1.071.5	-3	67.62	10.040	4.6%	15.060	6.8%	1.530	0.70%	15.206	4.227							
L16	9/25/12	955436.83	927581.396	3	8.60	1.111.0	1.068.0	1.070.5	-3	66.36	7.544	3.5%	11.316	5.2%	1,140	0.53%	11.059	3.161							
N13	9/25/12	955415.15	927591,696	4	11.47	1.111.0	1,070.0	1.072.5	-3	58.92	11.304	5.9%	16,956	8.8%	1,770	0.92%	16,128	4,737							
014	9/25/12	955425.03	927598.508	2	5.73	1,110.0	1,070.0	1.072.0	-2	65.97	6,280	2.9%	9,420	4.4%	970	0.45%	9.043	2,638	CH-ISS-014	10		395	2.15E-07		
R14	9/25/12	955427.05	927616.727	4	11.47	1.111.0	1,071.0	1.073.5	-3	57.48	6,284	3.4%	9,426	5.1%	980	0.53%	8,885	2,633	011100 011	10		000	2.102 01		
J16	9/26/12	955437.79	927569.434	5	17.20	1.111.0	1,068.0	1,070.5	-3	52.66	6,272	3.6%	9,408	5.5%	950.0	0.55%	3,473	2,635							
114	9/26/12	955423.02	927580 288	5	17.20	1 111 0	1,000.0	1,071.5	-3	51 44	5.028	3.0%	7 542	4.5%	750.0	0.66%	2 670	2 101							
N12	9/26/12	955408 25	927591 142	3	8.60	1 110 0	1,000.0	1,071.0	-3	61 73	6,020	3.1%	9 420	4.0%	1 030 0	0.51%	2,070	2,634							
P14	9/26/12	955421 10	927604 211	4	11 47	1 111 0	1,070.0	1,073.0	-3	58.92	7,516	3.9%	11 274	5.9%	1,000.0	0.63%	3 740	3 162							
S11	9/26/12	955416.21	927621.877	5	17.20	1,110.0	1,072.0	1.074.5	-3	46.54	7,548	5.0%	11.322	7.5%	1,170.0	0.78%	3,400	3,163							
	9/27/12	955430.88	927568 880	4	11 47	1 110 0	1 068 0	1 070 5	-3	60.36	6 250	3.2%	9.374	4.8%	975.0	0.50%	3 294	2 638							
M13	9/27/12	955419.09	927585 992	6	34 40	1 110 0	1,000.0	1,072.0	-3	24 10	7 492	9.6%	11 237	14.3%	1 179 0	1.50%	4 051	3 168							
P13	9/27/12	955414 19	927603 658	6	34 40	1 110 0	1 071 0	1,073.0	-2	22.92	5 020	6.8%	7 530	10.1%	830.0	1.00%	2 116	2 111							
R12	9/27/12	955413.24	927615 619	5	17 20	1 110 0	1,072.0	1,074.0	-2	46.54	6 296	4.2%	9 4 4 4	6.3%	1 020 0	0.68%	2 855	2 635							
V10	10/20/12	955432 035	927641 204	2	5 73	1 110 0	1,072.0	1,074.5	-3	62.68	5,656	2.8%	8 484	4.2%	880.0	0.00%	2 443	2,000							
V10	10/20/12	955445 847	927642 311	2	5.73	1 110 0	1,072.0	1,073.5	-3	64 32	5 640	2.0%	8 460	4.1%	900.0	0.43%	2,110	2,004							
V12 V14	10/20/12	955459 659	927643 419	2	5.73	1 110 0	1,071.0	1,070.0	-2	62.68	5 640	2.7%	8 460	4.1%	890.0	0.43%	2,512	2,000							
V11	10/22/12	955438 941	927641 757	4	11 47	1 110 0	1 072 0	1 074 0	-2	54 61	5 640	3.2%	8 460	4.8%	900.0	0.51%	2 144	2,002							
V13	10/22/12	955452 753	927642 865	4	11.47	1 110.0	1 071 0	1 073 5	-3	56.04	5 644	3.0%	8 466	4.5%	910.0	0.49%	2 248	2 032							
V/9	11/16/12	955425 129	927640 650	7	8.60	1 111 0	1 073 0	1 075 0	-2	58.64	5 656	3.1%	8 484	4.6%	940.0	0.51%	2 441	2,032							
VJ V15	11/16/12	955466 565	927643 972	3 2	8.60	1 111 0	1 072 0	1 074 5	-3	60.18	5,660	2 9%	8 400	4.0%	940.0	0.48%	2 351	2,002				+ +			
V13 V/17	11/16/12	955480 377	927645 080	3 2	8.60	1 111 0	1 073 0	1 075 0	_2	58.64	5,660	3.0%	8 400	4.5%	930 0	0.40%	2,001	2,000				+ +			
V 17 \/Q	11/10/12	955418 222	9276/0 006	J /	11 /7	1 110 0	1,073.0	1 075 0	_2	53 17	12 736	7 4%	10 10/	11 10/	2 1/0 0	1 25%	5 700	4 580				+ +			
V16	11/10/12	955473 471	927644 526		11.47	1 111 0	1 072 0	1 075 0	_3	56.04	5 004	2.8%	7 506	4.1%	800.0	0 44%	2 600	2 007							
T15	12/12/12	955446 806	927630 350	ب ۵	34.40	1 110 0	1 070 0	1 073 0	_3	23 51	9,004	12 10/	13 008	18 2%	1 490 0	1 95%	2,003 4 801	3,620				+ +			
115	12/12/12	555440.000	521050.550	U	54.40	1,110.0	1,010.0	1,075.0	-5	20.01	3,212	12.1/0	10,000	10.2 /0	1,430.0	1.30/0	4,001	3,020							

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

		ISS Column	Coordinates			E	levations (f	t)	Clay				Grout	Mass					Sample	e			F	Permeability (cm/se	c)
						ISS C	olumn		Toe-In	Final Column	BFS	S	PC	;	Bento	onite	Grout	Water		Depth	UCS	(psi)			
Column	Data	N a uth in a	Feeting	# of	Overlap Area	Top	Bottom	Top of	Depth	Volume	(lbc)	(9/)	(lbc)	(9/)	(lbc)	(0/)	Volume	Volume		(ft	7 Day	29 Day	28-Days	56-Days	84-Days
שו	Date	Northing	Easting	Overlaps	5 (SI)	100	Bottom		(ft) Totolou		(IDS)	(70)	(IDS)	(70)	(IUS)	(%)	(gai)	(gai)	ID NO.	(aga	1-Day	20-Day	(cm/sec)	(cm/sec)	(cm/sec)
"D				_		_	_	Project	TOLAIS.	54,526.96	4,930,300	3.2%	7,404,550	4.0%	806,304	0.53%	2,237,074	1,090,923			_				
N15	12/5/12	955428.965	927592.804	3	8.60	1.110.0	1.069.0	1.071.5	-3	63.27	14.736	7.2%	22.104	10.7%	2.390.0	1.16%	3.482	5.674			[<u> </u>		1	
P15	12/5/12	955428.006	927604.765	3	8.60	1,110.0	1,070.0	1,072.5	-3	61.73	5,648	2.8%	8,472	4.2%	920.0	0.46%	2,420	2,028							
S14	12/5/12	955436.927	927623.538	3	8.60	1,110.0	1,071.0	1,073.0	-2	60.18	8,488	4.4%	12,732	6.5%	1,370.0	0.70%	3,900	3,044							
M16	12/5/12	955439.804	927587.653	1	2.87	1,110.0	1,068.0	1,070.5	-3	73.73	6,264	2.6%	9,396	3.9%	1,080.0	0.45%	3,271	2,554	CH-ISS-M16	32		620	2.03E-07		
518	12/6/12	955464.551	927625.753	3	8.60 5.73	1,111.0	1,070.0	1,072.5	-3 -12	69.27	6,256 7.056	3.0%	9,384	4.6%	1,040.0	0.51%	3,104	2,627							
R17	12/7/12	955447.765	927618.388	0	0.00	1,110.0	1,070.0	1,072.0	-2	74.47	7,052	2.9%	10,578	4.4%	1,150.0	0.48%	2,914	2,543							
P18	12/7/12	955448.724	927606.426	0	0.00	1,110.0	1,069.0	1,071.0	-2	76.33	7,076	2.8%	10,614	4.3%	1,140.0	0.46%	2,999	2,537							
S17	12/7/12	955457.645	927625.199	3	8.60	1,111.0	1,070.0	1,072.5	-3	63.27	8,468	4.1%	12,702	6.2%	1,340.0	0.65%	4,120	3,051							
N18	12/7/12	955449.683	927594.465	0	0.00	1,110.0	1,068.0	1,070.5	-3	78.19	7,044	2.8%	10,566	4.1%	1,100.0	0.43%	3,078	2,535		20		400	2 765 07		
019	12/7/12	955460.522	927569.315	0	2.87	1,111.0	1,068.0	1,070.0	-2	75.49 80.05	7,060	2.9%	10,590	4.3%	1,140.0	0.46%	2,971	2,530	CH-122-10113	20		490	2.76E-07		
Q19	12/7/12	955458.604	927613.238	0	0.00	1.111.0	1.069.0	1.071.5	-3	78.19	7,000	2.8%	10,002	4.2%	1.120.0	0.44%	3.079	2,535							
N21	12/7/12	955470.402	927596.126	2	5.73	1,111.0	1,069.0	1,071.0	-2	69.27	7,052	3.1%	10,578	4.7%	1,160.0	0.51%	2,720	2,533							
P21	12/7/12	955469.442	927608.088	1	2.87	1,111.0	1,069.0	1,071.5	-3	73.73	7,068	2.9%	10,602	4.4%	1,130.0	0.47%	2,908	2,542							
R20	12/7/12	955468.483	927620.049	3	8.60	1,111.0	1,070.0	1,072.5	-3	63.27	5,656	2.7%	8,484	4.1%	930.0	0.45%	2,520	2,034							
M15	12/10/12	955432.898	927587.100	5	17.20	1,110.0	1,068.0	1,071.0	-3	51.44	8,472	5.1%	12,708	7.6%	1,320.0	0.79%	3,757	3,047	011100.045	07		105	5.005.00		
Q15	12/10/12	955430.980	927611.023	3	8.60	1,110.0	1,070.0	1,072.5	-3	61.73	9,868	4.9%	14,802	7.4%	1,630.0	0.81%	4,700	3,560	CH-ISS-Q15	37		425	5.90E-08		
117	12/10/12	955443 736	927581 949	5	17 20	1 110.0	1,009.0	1,071.5	-3	51 44	9,092 8,468	4.0%	12 702	7.6%	1,390.0	0.81%	3,668	3,000							
N17	12/10/12	955442.777	927593.911	2	5.73	1,110.0	1,068.0	1,070.5	-3	69.27	9,876	4.4%	14,814	6.6%	1,560.0	0.69%	4,127	3,553							
P17	12/10/12	955441.818	927605.873	1	2.87	1,110.0	1,069.0	1,071.5	-3	71.98	7,052	3.0%	10,578	4.5%	1,130.0	0.48%	2,823	2,539							
R16	12/10/12	955440.859	927617.834	2	5.73	1,110.0	1,070.0	1,072.5	-3	65.97	5,640	2.6%	8,460	3.9%	890.0	0.42%	2,580	2,031							
S16	12/10/12	955450.739	927624.646	3	8.60	1,111.0	1,070.0	1,072.0	-2	63.27	8,468	4.1%	12,702	6.2%	1,350.0	0.66%	3,718	3,048							
P19	12/10/12	955455.630	927606.980	3	8.60	1,111.0	1,068.0	1,0/1.0	-3	66.36	5,640	2.6%	8,460	3.9%	890.0	0.41%	2,803	2,028		10		C05	1 525 09		
P16	12/11/12	955435.871	927593.337		11.20	1 110.0	1,009.0	1,071.0	-2	57.48	9,020	2.9%	7 980	<u>0.0%</u> <u>4.3%</u>	860.0	0.94%	2 406	2 072	CH-1331110	10		000	1.52E-06		
R15	12/11/12	955433.953	927617.281	5	17.20	1.110.0	1.070.0	1.073.0	-3	48.99	5.312	3.3%	7,968	5.0%	840.0	0.53%	2,400	2.069							
S15	12/11/12	955443.833	927624.092	5	17.20	1,110.0	1,070.0	1,072.5	-3	48.99	9,308	5.9%	13,962	8.8%	1,490.0	0.94%	4,315	3,617							
Q17	12/11/12	955444.792	927612.130	4	11.47	1,110.0	1,069.0	1,071.5	-3	58.92	5,320	2.8%	7,980	4.2%	850.0	0.44%	2,477	2,071							
M17	12/11/12	955446.710	927588.207	5	17.20	1,110.0	1,068.0	1,070.0	-2	51.44	7,976	4.8%	11,964	7.1%	1,270.0	0.76%	3,528	3,106							
017	12/11/12	955445.751	927600.169	4	11.47	1,110.0	1,069.0	1,0/1.0	-2	58.92	5,316	2.8%	7,974	4.2%	850.0	0.44%	2,462	2,074							
P20	12/11/12	955462 536	927595.572	3	0.00 11.47	1 111 0	1,068.0	1,070.0	-2	60.36	0,002 6,652	3.1%	9,978	4.0%	1,070.0	0.49%	2,920	2,364							
R19	12/11/12	955461.577	927619.495	4	11.47	1.111.0	1,005.0	1.072.0	-3	60.36	5.320	2.7%	7.980	4.1%	850.0	0.43%	2,531	2,069	CH-ISS-R19	20		180	3.08E-07		
Q21	12/11/12	955472.416	927614.345	5	17.20	1,111.0	1,070.0	1,072.0	-2	50.21	6,648	4.1%	9,972	6.1%	1,080.0	0.66%	3,080	2,591							
O21	12/11/12	955473.375	927602.384	5	17.20	1,111.0	1,069.0	1,071.5	-3	51.44	6,648	4.0%	9,972	5.9%	1,050.0	0.63%	3,510	2,584							
016	12/12/12	955438.845	927599.615	6	34.40	1,110.0	1,069.0	1,071.5	-3	24.10	5,308	6.8%	7,962	10.2%	880.0	1.12%	2,332	2,072	011100 045	07		000	0.055.07		
Q16	12/12/12	955437.886	92/611.577	6	34.40	1,110.0	1,070.0	1,0/2.0	-2	23.51	5,308	1.0%	12 026	10.4%	840.0	1.10%	2,048	2,076	CH-ISS-Q16	37		390	2.35E-07		
018	12/12/12	955452 657	927600 722	4 5	11.47	1 111 0	1,000.0	1,070.0	-2	52.66	9,204 7.960	4.0%	11 940	6.9%	1 290 0	0.75%	3 630	3,022							
R18	12/12/12	955454.671	927618.942	5	17.20	1,111.0	1,069.0	1,072.0	-3	51.44	6,636	4.0%	9,954	5.9%	1,080.0	0.64%	2,945	2,589						+ +	
M20	12/12/12	955467.428	927589.868	6	34.40	1,111.0	1,068.0	1,070.5	-3	25.27	6,628	8.0%	9,942	12.0%	1,070.0	1.30%	3,044	2,585							
Q20	12/12/12	955465.510	927613.791	6	34.40	1,111.0	1,069.0	1,071.5	-3	24.68	6,632	8.2%	9,948	12.4%	1,080.0	1.34%	2,840	2,583							
L19	12/13/12	955457.55	927583.057	6	34.40	1,111.0	1,068.0	1,070.0	-2	25.27	5,304	6.4%	7,956	9.6%	850.0	1.03%	2,220	2,066							
Q18	12/13/12	955451.70	927612.684	6	34.40	1,111.0	1,069.0	1,0/1.5	-3	24.68	5,300	6.6%	7,950	9.9%	880.0	1.09%	2,150	2,075							
020	12/13/12	955466 47	927601 830	6	34.40	1 111 0	1,000.0	1,070.5	-3 _3	25.27	5 300	0.4% 6.4%	7 950	9.0%	880.0	1.04%	2,337	2,009	CH-ISS-020	10		610	1 28F-07		
Interior Ar	ea	000000.47	521001.000		57.40	1,111.0	1,000.0	1,071.0	5	20.21	5,500	0.470	7,330	5.070	000.0	1.07 /0	2,400	2,010	011100-020	10	· ·-	010	1.200-07		
U9	9/14/12	955415.25	927633.839	1	2.87	1,110.0	1,073.0	1,075.0	-2	64.95	6,288	3.0%	9,432	4.5%	960	0.46%	3,110	2,650							
Т9	9/20/12	955405.37	927627.027	3	8.60	1,110.0	1,073.0	1,075.0	-2	57.10	5,044	2.7%	7,566	4.1%	760	0.41%	2,703	2,114							
D7	10/8/12	955406.137	927530.781	2	5.73	1,110.0	1,070.0	1,072.5	-3	65.97	5,668	2.6%	8,502	4.0%	920.0	0.43%	2,585	2,040							
D11	10/8/12	955433.761	927532.996	2	5.73	1,110.0	1,072.0	1,074.0	-2	62.68	8,500	4.2%	12,750	6.3%	1,450.0	0.72%	2,450	3,049						+	
D13	10/8/12	955461 385	927535 210	2	5.73	1 111 0	1,073.0	1,075.0	-2	61.03	5,670 5,660	2.9%	0,514 8 400	4.3%	970.0	0.49%	2,300 2,378	2,030						+ +	
D10	10/9/12	955426.855	927532.442	3	8,60	1.110.0	1.071.0	1.073.5	-3	60.18	5.668	2.9%	8.502	4.4%	960.0	0.49%	2,395	2.032							
-				· · · · ·		,		,	-		,						, ,	,			·	·			

		ISS Column	Coordinates			E	levations (ft)	Clay				Grout M	lass					Sample	e			Pe	ermeability (cm/see	;)
						ISS C	Column		Toe-In	Final Column	BFS	6	PC	;	Bento	onite	Grout	Water		Depth	UCS ((psi)			
Column	Dete	Northing	Facting	# of	Overlap Area	Ton	Bottom	Top of	Depth	Volume	(lbc)	(%)	(lbc)	(9/.)	(lbs)	(9/.)	Volume	Volume		(ft	7-Day	28-Dav	28-Days	56-Days	84-Days
עו	Date	Northing	Easting	Overlaps	(ST)	100	Bottom	Proiect	t Totals:	54.528.98	4.936.366	(%)	(105)	4.8%	806.304	0.53%	(gai) 2.257.674	(gai) 1.898.923	ID NO.	bgs)	7-Day	20-Day	(cm/sec)	(cm/sec)	(cm/sec)
D12	10/9/12	955440.667	927533.549	4	11.47	1.110.0	1.072.0	1.074.5	-3	54.61	5.664	3.2%	8.496	4.8%	960.0	0.54%	2.128	2.034							
D14	10/9/12	955454.479	927534.657	4	11.47	1,110.0	1,073.0	1,075.5	-3	53.17	4,252	2.5%	6,378	3.7%	720.0	0.42%	2,074	1,533							
14	10/9/12	955358.850	927557.085	2	5.73	1,110.0	1,071.0	1,073.5	-3	64.32	5,656	2.7%	8,484	4.1%	970.0	0.47%	2,609	2,036							
M4	10/9/12	955356.931	927581.009	1	2.87	1,110.0	1,070.0	1,073.0	-3	70.22	7,076	3.1%	10,614	4.7%	1,220.0	0.54%	2,749	2,536							
04	10/9/12	955355.972	927592.970	2	5.73	1,110.0	1,071.0	1,074.0	-3	64.32	5,672	2.7%	8,508	4.1%	980.0	0.47%	2,712	2,041							
D6	10/10/12	955413 043	927530.227	<u>১</u> 3	8.60	1,110.0	1,070.0	1,073.0	-3	61.73	6 284	3.1%	9,420	4.7%	1,100.0	0.55%	2,730	2,020							
D18	10/10/12	955482.103	927536.872	1	2.87	1.110.0	1.075.0	1.077.0	-2	61.44	6.296	3.1%	9.444	4.6%	1,100.0	0.59%	2,780	2,623							
E5	10/10/12	955388.392	927535.377	2	5.73	1,110.0	1,071.0	1,073.0	-2	64.32	5,680	2.7%	8,520	4.1%	990.0	0.48%	2,645	2,029							
F4	10/10/12	955377.553	927540.527	3	8.60	1,110.0	1,071.0	1,073.5	-3	60.18	5,660	2.9%	8,490	4.4%	970.0	0.50%	2,646	2,030							
J4	10/10/12	955354.917	927562.789	4	11.47	1,110.0	1,070.0	1,073.0	-3	57.48	5,660	3.0%	8,490	4.5%	950.0	0.51%	2,260	2,028							
L4	10/10/12	955353.958	927574.751	4	11.47	1,110.0	1,070.0	1,073.0	-3	57.48	5,676	3.0%	8,514	4.6%	970.0	0.52%	2,253	2,035							
N4 D5	10/10/12	955352.999	927586.713	5	17.20	1,110.0	1,071.0	1,074.0	-3	47.76	5,660	3.7%	8,490	5.5%	960.0 896.0	0.62%	2,027	2,035							
D9	10/11/12	955419.949	927531.888	4	11.47	1,110.0	1.071.0	1.073.0	-2	56.04	5.024	2.8%	7,530	4.1%	880.0	0.48%	2,310	2,100							
D17	10/11/12	955475.197	927536.318	3	8.60	1,110.0	1,074.0	1,077.0	-3	55.56	5,036	2.7%	7,554	4.1%	920.0	0.50%	2,513	2,098							
E19	10/11/12	955485.076	927543.129	1	2.87	1,110.0	1,074.0	1,076.0	-2	63.20	6,276	3.0%	9,414	4.5%	1,100.0	0.53%	2,855	2,624							
G21	10/11/12	955484.117	927555.091	0	0.00	1,110.0	1,072.0	1,074.5	-3	70.74	6,288	2.7%	9,432	4.0%	1,110.0	0.47%	3,203	2,624							
122	10/11/12	955483.158	927567.053	1	2.87	1,110.0	1,071.0	1,073.0	-2	68.47	6,276	2.8%	9,414	4.1%	1,100.0	0.48%	3,109	2,628							
K4	10/11/12	955357.891	927569.047	3	8.60	1,110.0	1,070.0	1,073.0	-3	61.73	6,288	3.1%	9,432	4.7%	1,100.0	0.55%	2,732	2,628	CH-ISS-K4	35		350	2.35E-07		
P5	10/11/12	955358 946	927500 228	3	8.60	1,110.0	1,070.0	1,073.0	-3	58.64	0,204 5,016	2.6%	9,420	4.7%	860.0	0.57%	2,729	2,039							
D16	10/12/12	955468.291	927535.764	4	11.47	1.110.0	1.074.0	1.076.0	-2	51.73	5.004	2.9%	7,506	4.4%	930.0	0.54%	2,344	2,103							
F19	10/12/12	955481.144	927548.833	2	5.73	1,110.0	1,073.0	1,075.5	-3	61.03	6,280	3.1%	9,420	4.6%	910.0	0.45%	2,763	2,096							
H21	10/12/12	955480.185	927560.795	2	5.73	1,110.0	1,071.0	1,074.0	-3	64.32	6,280	2.9%	9,420	4.4%	1,120.0	0.52%	2,628	2,628	CH-ISS-H21	10		330	6.92E-07		
U5	10/12/12	955387.625	927631.624	1	2.87	1,110.0	1,074.0	1,076.5	-3	63.20	6,272	3.1%	9,408	4.6%	1,130.0	0.56%	2,792	2,621							
U7	10/12/12	955401.437	927632.731	0	0.00	1,110.0	1,073.0	1,076.0	-3	68.88	5,020	2.3%	7,530	3.4%	1,130.0	0.51%	3,022	2,623	011100110	00		570			
06	10/13/12	955394.531	927632.177	2	5.73	1,110.0	1,074.0	1,076.0	-2	59.38	5,024	2.6%	7,536	3.9%	930.0	0.49%	2,763	2,099	CH-155-06	20		570	1.11E-07		
 	10/15/12	955395 298	927535 931	3	8.60	1 110 0	1,073.0	1,073.5	-3	61 73	5,024	2.7%	7,530	3.8%	940.0	0.40%	2,310	2,101							
E8	10/15/12	955409.110	927537.038	2	5.73	1,110.0	1,069.0	1,072.0	-3	67.62	6,276	2.9%	9,414	4.3%	1,180.0	0.54%	3,000	2,624							
E10	10/15/12	955422.922	927538.146	2	5.73	1,110.0	1,070.0	1,072.5	-3	65.97	6,268	2.9%	9,402	4.4%	1,180.0	0.55%	2,923	2,623							
E12	10/15/12	955436.734	927539.253	2	5.73	1,110.0	1,071.0	1,073.5	-3	64.32	6,280	3.0%	9,420	4.5%	1,120.0	0.54%	2,850	2,620							
E14	10/15/12	955450.546	927540.361	2	5.73	1,110.0	1,072.0	1,074.5	-3	62.68	5,028	2.5%	7,542	3.7%	960.0	0.47%	2,765	2,100							
E16	10/15/12	955464.358	927541.468	2	5.73	1,110.0	1,073.0	1,075.5	-3	61.03	5,028	2.5%	7,542	3.7%	930.0	0.46%	2,760	2,102							
E 10	10/15/12	955384 459	927541.081	4	8.60	1,110.0	1,074.0	1,070.0	-2	60.18	5,030	2.9%	7,554	3.9%	890.0	0.35%	2,350	2,097							
H5	10/15/12	955369.688	927551.935	2	5.73	1,110.0	1,071.0	1,073.5	-3	64.32	6,280	3.0%	9,420	4.5%	1,160.0	0.56%	2,845	2,621							
J5	10/15/12	955361.823	927563.343	3	8.60	1,110.0	1,071.0	1,073.0	-2	60.18	5,016	2.6%	7,524	3.9%	910.0	0.47%	2,658	2,100							
M5	10/15/12	955363.837	927581.562	2	5.73	1,110.0	1,070.0	1,073.0	-3	65.97	6,268	2.9%	9,402	4.4%	1,160.0	0.54%	2,920	2,625							
05	10/15/12	955362.878	927593.524	3	8.60	1,110.0	1,071.0	1,073.5	-3	60.18	4,996	2.6%	7,494	3.8%	930.0	0.48%	2,655	2,096							
Q5 B6	10/15/12	955361.919	927605.486	4	11.47	1,110.0	1,073.0	1,075.0	-2	53.17	5,012	2.9%	7,518	4.4%	930.0	0.54%	2,410	2,105		24		450	2 22E 07		
- K0 - S6	10/15/12	955381 678	927619 108	2	0.00 5.73	1,110.0	1,073.0	1,076.0	-3	61.03	5,008	2.1%	7,512	3.8%	900.0	0.49%	2,505	2,100	CH-133-K0	34		430	2.232-07		
T8	10/15/12	955398.464	927626.474	4	11.47	1.110.0	1.073.0	1.075.0	-2	53.17	8.164	4.8%	12.246	7.1%	1.380.0	0.80%	3.358	3.089							
T7	10/15/12	955391.558	927625.920	2	5.73	1,110.0	1,073.0	1,076.0	-3	61.03	5,024	2.6%	7,536	3.8%	930.0	0.47%	2,674	2,095							
E7	10/16/12	955402.204	927536.485	4	11.47	1,110.0	1,070.0	1,072.0	-2	57.48	6,272	3.4%	9,408	5.0%	1,180.0	0.63%	2,790	2,629							
E9	10/16/12	955416.016	927537.592	4	11.47	1,110.0	1,070.0	1,072.0	-2	57.48	6,268	3.4%	9,402	5.0%	1,180.0	0.63%	2,700	2,629]			
E11	10/16/12	955429.828	927538.699	4	11.47	1,110.0	1,071.0	1,073.0	-2	56.04	5,024	2.8%	7,536	4.2%	870.0	0.48%	2,485	2,103		├					
E13 F15	10/16/12	955457 452	927540 011	4 1	11.47 11.47	1 110.0	1,072.0	1,074.0	-2	54.01	5,012	2.0%	7 536	4.3%	890.0	0.50%	2,400 2,478	2,099							
E17	10/16/12	955471.264	927542.022	4	11,47	1.110.0	1.073.0	1.074.5	-2	53.17	5.024	2.8%	7.536	4.3%	960.0	0.54%	2,100	5.780	CH-ISS-E17	10		640	1.41E-08		
 F6	10/16/12	955391.365	927541.635	3	8.60	1,110.0	1,070.0	1,072.5	-3	61.73	6,280	3.1%	9,420	4.7%	1,210.0	0.60%	2,745	2,632	CH-ISS-F6	20		430	1.94E-07		
G5	10/16/12	955373.621	927546.231	4	11.47	1,110.0	1,071.0	1,073.5	-3	56.04	5,656	3.1%	8,484	4.7%	930.0	0.51%	2,262	2,101							
G20	10/16/12	955477.211	927554.537	3	8.60	1,110.0	1,072.0	1,074.5	-3	58.64	5,008	2.6%	7,512	3.9%	930.0	0.48%	2,654	2,097]			
15	10/16/12	955365.756	927557.639	4	11.47	1,110.0	1,071.0	1,073.0	-2	56.04	5,668	3.1%	8,502	4.7%	950.0	0.52%	2,200	2,035							
121	10/10/12	9004/0.252	921000.499	5	17.20	1,110.0	1,070.0	1,072.5	-3	48.99	1,552	4.0%	11,328	0.9%	1,400.0	0.80%	ა,4∠ხ	3,151	I						

		ISS Column	Coordinates			E	levations (t)	Clay				Grout N	lass					Sample	e			Pe	ermeability (cm/sec	:)
	-					ISS C	olumn		Toe-In	Final Column	BES	;	PC		Bento	nite	Grout	Water	-	Depth	UCS	(nsi)			
Column				# of	Overlap Area			Top of	Depth	Volume		<u> </u>			Donie		Volume	Volume		(ft			28-Days	56-Days	84-Days
ID	Date	Northing	Easting	Overlaps	(sf)	Тор	Bottom	Clay	(ft)	(CY)	(lbs)	(%)	(lbs)	(%)	(lbs)	(%)	(gal)	(gal)	ID No.	bgs)	7-Day	28-Day	(cm/sec)	(cm/sec)	(cm/sec)
								Project	Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923							
L5	10/16/12	955360.864	927575.305	4	11.47	1.110.0	1.070.0	1.072.5	-3	57.48	5.668	3.0%	8.502	4.6%	960.0	0.51%	2.263	2.029							
N6	10/16/12	955366.811	927587.820	3	8.60	1,110.0	1,070.0	1,073.0	-3	61.73	5,660	2.8%	8,490	4.2%	970.0	0.48%	2,420	2,030							
F7	10/17/12	955398.271	927542.189	3	8.60	1,110.0	1,070.0	1,072.0	-2	61.73	7,080	3.5%	10,620	5.3%	1,170.0	0.58%	2,964	2,542							
F9	10/17/12	955412.084	927543.296	2	5.73	1,110.0	1,069.0	1,071.5	-3	67.62	5,656	2.6%	8,484	3.9%	910.0	0.41%	2,664	2,027							
F11	10/17/12	955425.896	927544.403	2	5.73	1,110.0	1,070.0	1,072.0	-2	65.97	5,660	2.6%	8,490	4.0%	950.0	0.44%	2,591	2,038							
F13	10/17/12	955439.708	927545.511	2	5.73	1,110.0	1,070.0	1,073.0	-3	65.97	6,256	2.9%	9,384	4.4%	1,160.0	0.54%	2,915	2,624		10		400			
F15	10/17/12	955453.520	927546.618	2	5.73	1,110.0	1,071.0	1,074.0	-3	64.32	6,288	3.0%	9,432	4.5%	1,150.0	0.55%	2,855	2,626	CH-ISS-F15	10		480	4.04E-07		
60	10/17/12	955372 662	927558 103	2	0.00 5.73	1,110.0	1,070.0	1,073.0	-3	65.97	5,024	2.3%	7,550	3.0%	930.0	0.40%	2,730	2,090							
10 K5	10/17/12	955364 797	927569 601	2	8.60	1,110.0	1,070.0	1,072.5	-3	61 73	6 276	2.370	9,400	4.4 %	1,210.0	0.50%	2 989	2,020							
M6	10/17/12	955370,744	927582,116	2	5.73	1,110.0	1.070.0	1,072.5	-3	65.97	6.272	2.9%	9,408	4.4%	1,100.0	0.56%	2,918	2,623							
06	10/17/12	955369.784	927594.078	2	5.73	1,110.0	1,071.0	1,073.5	-3	64.32	6,284	3.0%	9,426	4.5%	1,150.0	0.55%	2,840	2,629	CH-ISS-O6	35		470	1.47E-07		
Q6	10/17/12	955368.825	927606.039	3	8.60	1,110.0	1,073.0	1,075.0	-2	57.10	5,012	2.7%	7,518	4.1%	920.0	0.50%	2,516	2,102							
R7	10/17/12	955378.705	927612.851	3	8.60	1,110.0	1,073.0	1,075.5	-3	57.10	5,016	2.7%	7,524	4.1%	920.0	0.50%	2,309	2,100							
T6	10/17/12	955384.652	927625.366	5	17.20	1,110.0	1,074.0	1,076.0	-2	44.09	5,036	3.6%	7,554	5.3%	920.0	0.65%	2,105	2,110							
T7	10/17/12	955391.558	927625.920	4	11.47	1,110.0	1,073.0	1,075.5	-3	53.17	5,024	2.9%	7,536	4.4%	910.0	0.53%	2,339	2,098							
F8	10/18/12	955405.177	927542.742	4	11.47	1,110.0	1,069.0	1,071.5	-3	58.92	5,000	2.6%	7,500	3.9%	810.0	0.42%	2,713	2,101							
F10	10/18/12	955418.990	927543.850	4	11.47	1,110.0	1,069.0	1,071.5	-3	58.92	5,004	2.6%	7,506	3.9%	800.0	0.42%	2,607	2,098							
F12	10/18/12	955432.802	927544.957	4	11.47	1,110.0	1,070.0	1,072.5	-3	57.48	4,992	2.7%	7,488	4.0%	810.0	0.43%	2,540	2,094							
F14 F16	10/18/12	955460.426	927540.003	4	8.60	1,110.0	1,071.0	1,073.5	-3	58.64	3,004 4 992	2.6%	7,500	3.8%	830.0	0.43%	2,477	2,100							
F18	10/18/12	955474 238	927548 280	4	11 47	1,110.0	1,072.0	1,075.0	-2	53 17	4 992	2.0%	7,488	4.2%	820.0	0.46%	2,000	2,000							
G7	10/18/12	955387.433	927547.339	3	8.60	1,110.0	1.070.0	1.072.5	-3	61.73	6.252	3.1%	9.378	4.7%	1.030.0	0.51%	2,728	2,623							
H6	10/18/12	955376.594	927552.489	4	11.47	1,110.0	1,070.0	1,072.5	-3	57.48	4,992	2.7%	7,488	4.0%	800.0	0.43%	2,548	2,098							
H20	10/18/12	955473.279	927560.241	4	11.47	1,110.0	1,071.0	1,073.5	-3	56.04	4,992	2.7%	7,488	4.0%	810.0	0.43%	2,540	2,098							
J6	10/18/12	955368.729	927563.897	4	11.47	1,110.0	1,070.0	1,072.5	-3	57.48	5,120	2.7%	7,680	4.1%	810.0	0.43%	2,539	2,098	CH-ISS-J6	20		350	5.35E-07		
L6	10/18/12	955367.770	927575.858	4	11.47	1,110.0	1,070.0	1,072.0	-2	57.48	5,252	2.8%	7,878	4.2%	830.0	0.44%	2,546	2,106							
N7	10/18/12	955373.717	927588.374	3	8.60	1,110.0	1,071.0	1,073.0	-2	60.18	5,340	2.7%	8,010	4.1%	820.0	0.42%	2,655	2,101							
P6	10/18/12	955365.852	927599.782	5	17.20	1,110.0	1,072.0	1,074.5	-3	46.54	5,336	3.5%	8,004	5.3%	810.0	0.54%	2,350	2,096							
Q7	10/18/12	955375.731	927606.593	3	8.60	1,110.0	1,073.0	1,075.0	-2	57.10	5,340	2.9%	8,010	4.3%	830.0	0.45%	2,504	2,108							
	10/18/12	955385.611	927613.404	2	5.73	1,110.0	1,073.0	1,075.5	-3	61.03	0,008	3.4%	7.002	5.1%	1,010.0	0.51%	2,685	2,621							
R I I	10/10/12	955406.329	927615.066	3	0.00 5.72	1,110.0	1,072.0	1,074.5	-3	56.04 61.02	5,332	2.0%	7,998	4.2%	810.0 810.0	0.43%	2,580	2,097							
	10/10/12	955395.490	927620.216	2	5.73 8.60	1,110.0	1,073.0	1,073.5	-3	63.27	5,330	2.1%	0,004	4.1%	1 000 0	0.41%	2,003	2,100							
G10	10/19/12	955408 151	927549 000	2	5.00	1 110 0	1,003.0	1,072.0	-3	65.97	6 624	3.1%	9,910	4.0%	1,000.0	0.43%	2,700	2,030							
G12	10/19/12	955421.963	927550.107	2	5.73	1.110.0	1.069.0	1.071.5	-3	67.62	5.632	2.6%	8,448	3.8%	890.0	0.40%	2,660	2,100	CH-ISS-G12	20		290	4.79E-07		
G14	10/19/12	955435.775	927551.215	2	5.73	1,110.0	1,069.0	1,072.0	-3	67.62	5,628	2.6%	8,442	3.8%	860.0	0.39%	2,650	2,100							
G16	10/19/12	955449.587	927552.322	2	5.73	1, <u>11</u> 0.0	1,070.0	1,073.0	-3	65.97	5,636	<u>2.6</u> %	8,454	<u>3.9%</u>	890.0	0.42%	2,590	2,100							
H7	10/19/12	955383.500	927553.043	3	8.60	1,110.0	1,070.0	1,072.5	-3	61.73	6,624	3.3%	9,936	5.0%	1,010.0	0.50%	2,740	2,620	CH-ISS-H7	10		510	9.81E-08		
J7	10/19/12	955375.635	927564.451	2	5.73	1,110.0	1,070.0	1,072.0	-2	65.97	6,608	3.1%	9,912	4.6%	990.0	0.46%	2,910	2,630							
L7	10/19/12	955374.676	927576.412	2	5.73	1,110.0	1,070.0	1,072.0	-2	65.97	6,632	3.1%	9,948	4.6%	1,010.0	0.47%	2,930	2,620							
N8	10/19/12	955380.623	927588.927	1	2.87	1,110.0	1,071.0	1,073.0	-2	68.47	6,616	3.0%	9,924	4.5%	1,010.0	0.46%	3,020	2,620							
P7	10/19/12	955372.758	927600.335	4	11.47 8.60	1,110.0	1,072.0	1,074.5	-3	54.61	5,290	3.0%	7,944	4.5%	780.0	0.44%	2,400	2,100							
Q0 011	10/19/12	955403 356	927608 808	3	8.60	1,110.0	1,073.0	1,073.0	-2	58.64	5 296	2.9%	7,930	4.3%	800.0	0.44 //	2,500	2,110							
S7	10/19/12	955388 584	927619 662	5	17.20	1 110 0	1,072.0	1,074.0	-2	45.31	5,230	3.7%	8 016	5.5%	820.0	0.56%	2,300	2,100	CH-ISS-S7	34		140	4 39E-07		
S9	10/19/12	955402.396	927620.770	5	17.20	1,110.0	1,073.0	1,075.0	-2	45.31	5,348	3.7%	8,022	5.5%	820.0	0.56%	2,160	2,105	2	<u> </u>					
R10	10/20/12	955399.423	927614.512	4	11.47	1,110.0	1,072.0	1,074.5	-3	54.61	5,656	3.2%	8,484	4.8%	910.0	0.52%	2,150	2,030	CH-ISS-R10	35		490	1.13E-07		
F17	10/22/12	955467.332	927547.726	4	11.47	1,110.0	1,072.0	1,074.5	-3	54.61	5,636	3.1%	8,454	4.7%	910.0	0.50%	2,191	2,033							
G9	10/22/12	955401.245	927548.446	4	11.47	1,110.0	1,070.0	1,072.0	-2	57.48	5,644	3.0%	8,466	4.5%	910.0	0.49%	2,255	2,037							
G11	10/22/12	955415.057	927549.554	4	11.47	1,110.0	1,069.0	1,071.5	-3	58.92	5,640	2.9%	8,460	4.4%	900.0	0.47%	2,445	2,030							
G13	10/22/12	955428.869	927550.661	4	11.47	1,110.0	1,069.0	1,071.5	-3	58.92	5,644	2.9%	8,466	4.4%	890.0	0.46%	2,309	2,025	011100 045			045	7.045.07		
G15	10/22/12	955442.681	92/551./69	4	11.4/	1,110.0	1,070.0	1,072.0	-2	57.48	5,644	3.0%	8,466	4.5%	920.0	0.49%	2,310	2,033	CH-15S-G15			315	7.81E-07		
	10/22/12	900400.493 955390 106	921002.010	3	0.00	1,110.0	1,071.0	1,073.5	-3 _3	63.27	5,044 5,640	∠.ठ% 2.7%	0,400	4.∠% 4.1%	920.0	0.40%	2,423	2,030							
H19	10/22/12	955466 373	927559 687	3	8.60	1,110.0	1.071.0	1.073.0	-3	60.18	5,640	2.8%	8,460	4.2%	880.0	0.44%	2,400	2,030							
17	10/22/12	955379.568	927558.747	4	11.47	1,110.0	1,070.0	1,072.0	-2	57.48	5.632	3.0%	8,448	4.5%	900.0	0.48%	2.251	2.031							
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CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

		ISS Column	Coordinates			E	levations (f	t)	Clay				Grout N	lass					Sample	e			Pe	ermeability (cm/see	;)
						ISS C	olumn		Toe-In	Final Column	BFS		PC		Bento	onite	Grout	Water		Depth	UCS	(psi)			
Column	Data	No uthin a	Feeting	# of	Overlap Area	Ton	Bottom	Top of	Depth	Volume	(lbc)	(0/)	(lbc)	(0/)	(lbc)	(0/)	Volume	Volume		(ft	7 Day	29 Day	28-Days	56-Days	84-Days
טו	Date	Northing	Easting	Overlaps	(SI)	100	Bottom	Broioot	(IT)	(CT)	(IDS)	(%)	(105)	(70)	(IDS)	(%)	(gai)	(gai)	ID NO.	(aga	I-Day	20-Day	(cm/sec)	(cm/sec)	(cm/sec)
KC	40/00/40	055074 700	007570 454		47.00	4 4 4 0 0	4 070 0		Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923			1				
K6 M7	10/22/12	955371.703	927570.154	5	17.20	1,110.0	1,070.0	1,072.0	-2	48.99	5,648 5,640	3.6%	8,472	5.3%	920.0 910.0	0.58%	2,283	2,030							
N11	10/22/12	955401.341	927590.589	1	2.87	1,110.0	1,071.0	1,073.0	-2	68.47	5,636	2.5%	8,454	3.8%	950.0	0.43%	2,675	2,036							
07	10/22/12	955376.690	927594.631	4	11.47	1,110.0	1,071.0	1,073.5	-3	56.04	5,636	3.1%	8,454	4.7%	890.0	0.49%	2,192	2,034							
P9	10/22/12	955386.570	927601.443	1	2.87	1,110.0	1,072.0	1,074.5	-3	66.71	5,640	2.6%	8,460	3.9%	920.0	0.43%	2,600	2,030							
P11 R9	10/22/12	955400.382	927602.550	<u>2</u> 4	5.73	1,110.0	1,072.0	1,074.0	-2	62.68 53.17	5,644 5,644	2.8%	8,466	4.2%	900.0 890.0	0.44%	2,441	2,033							
G19	10/23/12	955470.305	927553.983	5	17.20	1,110.0	1,072.0	1,074.0	-2	46.54	5,644	3.6%	8,466	5.5%	910.0	0.59%	2,025	2,028							
H10	10/23/12	955404.218	927554.704	2	5.73	1,110.0	1,070.0	1,072.0	-2	65.97	7,048	3.3%	10,572	4.9%	1,110.0	0.52%	2,610	2,544							
19	10/23/12	955393.380	927559.854	1	2.87	1,110.0	1,070.0	1,072.0	-2	70.22	5,636	2.5%	8,454	3.7%	920.0	0.40%	2,749	2,033	011100.10	00		545	4 475 07		
J8 11	10/23/12	955382.541	927565.004	2	5.73	1,110.0	1,070.0	1,072.0	-2	65.97 74.47	5,648 5,648	2.6%	8,472	4.0%	910.0	0.42%	2,597	2,026	CH-155-J8	20		515	1.47E-07		
K9	10/23/12	955392.421	927571.816	0	0.00	1,110.0	1,070.0	1,072.5	-3	74.47	7,060	2.9%	10,590	4.4%	1,130.0	0.30%	2,912	2,535							
L8	10/23/12	955381.582	927576.966	2	5.73	1,110.0	1,070.0	1,072.5	-3	65.97	5,636	2.6%	8,454	3.9%	900.0	0.42%	2,590	2,036							
M11	10/23/12	955405.274	927584.885	3	8.60	1,110.0	1,070.0	1,072.5	-3	61.73	7,060	3.5%	10,590	5.3%	1,120.0	0.56%	2,425	2,539							
N9	10/23/12	955387.529	927589.481	1	2.87	1,110.0	1,071.0	1,073.0	-2	68.47	5,644	2.5%	8,466	3.8%	920.0	0.41%	2,684	2,035							
D11 D8	10/23/12	955404.315	927596.846	5	17.20	1,110.0	1,071.0	1,073.5	-3	47.76	5,648 4 228	3.6%	8,47Z	5.5%	900.0 690.0	0.58%	2,040	2,031							
Q9	10/23/12	955389.543	927607.701	4	11.47	1.110.0	1.072.0	1.075.0	-3	54.61	4,220	2.4%	6.348	3.6%	660.0	0.40%	2.127	1,524							
H9	10/24/12	955397.312	927554.150	5	17.20	1,110.0	1,070.0	1,072.0	-2	48.99	5,648	3.6%	8,472	5.3%	930.0	0.58%	2,094	2,042							
H11	10/24/12	955411.124	927555.258	3	8.60	1,110.0	1,069.0	1,072.0	-3	63.27	5,660	2.7%	8,490	4.1%	940.0	0.46%	2,490	2,029							
H13	10/24/12	955424.937	927556.365	2	5.73	1,110.0	1,069.0	1,071.0	-2	67.62	5,656	2.6%	8,484	3.9%	930.0	0.42%	2,655	2,028							
18	10/24/12	955386.474	927559.300	5	17.20	1,110.0	1,070.0	1,072.0	-2	48.99	5,640	3.5%	8,460	5.3%	940.0	0.59%	2,095	2,027		10		950	4.245.07		
JIZ K7	10/24/12	955378 609	927567.219	5	2.07	1,110.0	1,070.0	1,072.0	-2	48.99	7,068	3.1%	8 4 9 6	4.7%	974.0	0.43%	2,751	2,542	CH-133-J12	10		000	4.24E-07		
K10	10/24/12	955399.327	927572.369	2	5.73	1,110.0	1,070.0	1,072.5	-3	65.97	5,652	2.6%	8,478	4.0%	910.0	0.42%	2,581	2,033							
L12	10/24/12	955409.206	927579.181	3	8.60	1,110.0	1,070.0	1,072.0	-2	61.73	5,652	2.8%	8,478	4.2%	930.0	0.46%	2,426	2,028							
M8	10/24/12	955384.556	927583.224	4	11.47	1,110.0	1,070.0	1,072.5	-3	57.48	5,644	3.0%	8,466	4.5%	940.0	0.50%	2,253	2,034							
M10	10/24/12	955398.368	927584.331	2	5.73	1,110.0	1,070.0	1,073.0	-3	65.97	5,648	2.6%	8,472	4.0%	930.0	0.43%	2,584	2,031		25		440	2 07E 09		
010	10/24/12	955397 409	927595.185	3 3	8.60	1,110.0	1,071.0	1,073.5	-3	47.70 60.18	5,648	2.9%	0,470 8.472	<u> </u>	950.0	0.46%	2,024	2,032	СП-133-06	- 30		440	3.07E-00		
Q10	10/24/12	955396.449	927608.254	5	17.20	1,110.0	1,072.0	1,074.5	-3	46.54	4,240	2.8%	6,360	4.2%	680.0	0.45%	1,973	1,519							
G18	10/25/12	955463.399	927553.430	5	17.20	1,110.0	1,071.0	1,073.5	-3	47.76	7,064	4.4%	10,596	6.7%	1,150.0	0.72%	3,055	2,538							
H12	10/25/12	955418.030	927555.811	4	11.47	1,110.0	1,069.0	1,071.5	-3	58.92	5,652	2.9%	8,478	4.4%	950.0	0.50%	2,313	2,032							
H15	10/25/12	955438.749	927557.472	4	11.47	1,110.0	1,069.0	1,071.0	-2	58.92	7,072	3.7%	10,608	5.5%	1,180.0	0.62%	2,875	2,538							
H17	10/25/12	955452.561	927558.580	4	11.47	1,110.0	1,070.0	1,072.0	-2	57.48	5,660	3.0%	8,490	4.5%	930.0	0.50%	2,617	2,031							
114	10/25/12	955427.910	927562.623	3	8.60	1.110.0	1.068.0	1.071.0	-3	64.81	7.084	3.4%	10.626	5.0%	1.160.0	0.55%	2,250	2,034							
J10	10/25/12	955396.353	927566.112	4	11.47	1,110.0	1,070.0	1,072.5	-3	57.48	5,656	3.0%	8,484	4.5%	960.0	0.51%	2,256	2,032							
K8	10/25/12	955385.515	927571.262	4	11.47	1,110.0	1,070.0	1,072.5	-3	57.48	5,652	3.0%	8,478	4.5%	930.0	0.50%	2,256	2,032							
K11	10/25/12	955406.233	927572.923	4	11.47	1,110.0	1,070.0	1,072.0	-2	57.48	5,656	3.0%	8,484	4.5%	950.0	0.51%	2,260	2,037							
L10 N10	10/25/12	955395.394	927578.073	3	8.60	1,110.0	1,070.0	1,072.5	-3	61.73 56.04	5,652 5,656	2.8%	8,478	4.2%	950.0	0.47%	2,420	2,035	CH-ISS-N10	20		530	2.68E-07		
P10	10/25/12	955393.476	927601.997	5	17.20	1.110.0	1.072.0	1.074.5	-2	46.54	5.656	3.8%	8.484	5.6%	950.0	0.63%	2,107	2,030	01-100-1110	20		550	2.002-07		
l10	10/27/12	955400.286	927560.408	6	34.40	1,110.0	1,070.0	1,072.5	-3	23.51	5,660	7.4%	8,490	11.1%	940.0	1.23%	2,300	2,048	CH-ISS-I10	35		440	3.81E-07		
l12	10/27/12	955414.098	927561.515	4	11.47	1,110.0	1,069.0	1,072.0	-3	58.92	7,068	3.7%	10,602	5.5%	1,190.0	0.62%	2,980	2,537							
J9	10/27/12	955389.447	927565.558	6	34.40	1,110.0	1,070.0	1,072.0	-2	23.51	4,244	5.6%	6,366	8.3%	670.0	0.88%	1,914	1,519							
J14 K12	10/27/12	955423.977	927568.327	4	11.47	1,110.0	1,069.0	1,071.0	-2	58.92	8,480	4.4%	12,720	6.6% 5.2%	1,420.0	0.74%	3,476	3,049							
L9	10/27/12	955388,488	927577.520	5	17.20	1,110.0	1,003.0	1,072.5	-3	48.99	5.660	3.6%	8,490	5.3%	960.0	0.60%	2.089	2.030							
L11	10/27/12	955402.300	927578.627	6	34.40	1,110.0	1,070.0	1,072.5	-3	23.51	5,656	7.4%	8,484	11.1%	940.0	1.23%	2,558	2,037							
O9	10/27/12	955390.503	927595.739	6	34.40	1,110.0	1,071.0	1,073.5	-3	22.92	5,656	7.6%	8,484	11.4%	940.0	1.27%	2,380	2,035							
H14	10/29/12	955431.843	927556.919	6	34.40	1,110.0	1,068.0	1,071.0	-3	24.68	5,652	7.0%	8,478	10.5%	930.0	1.16%	2,021	2,029							
H16 H18	10/29/12	955445.655	927550 134	6	34.40	1,110.0	1,069.0	1,0/1.5	-3	24.10	5,648 8 4 8 8	10.8%	8,472 12 732	16.2%	940.0	1.20%	2,586	2,040							
13	10/29/12	955421.004	927562.069	6	34,40	1.110.0	1.069.0	1.071.0	-2	23.31	4.244	5.4%	6.366	8.1%	720.0	0.92%	1.973	1.523							
J13	10/29/12	955417.071	927567.773	5	17.20	1,110.0	1,069.0	1,071.5	-3	50.21	5,656	3.5%	8,484	5.2%	930.0	0.57%	2,646	2,038		1	1				
M9	10/29/12	955391.462	927583.777	6	34.40	1,110.0	1,070.0	1,073.0	-3	23.51	5,660	7.4%	8,490	11.1%	930.0	1.22%	2,215	2,031							
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CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

		ISS Column	Coordinates			Ele	evations (f	t)	Clay				Grout N	lass					Sample	е			Pe	ermeability (cm/se	ec)
	Γ					ISS Co	lumn	,	Toe-In	Final Column	BES		PC		Bento	nite	Grout	Water	-	Depth	UCS	(nsi)			
Column				# of	Overlap Area		Jann	Top of	Depth	Volume					Dente	inte	Volume	Volume		(ft	000		28-Days	56-Days	84-Days
ID	Date	Northing	Easting	Overlaps	(sf)	Тор	Bottom	Clay	(ft)	(CY)	(lbs)	(%)	(lbs)	(%)	(lbs)	(%)	(gal)	(gal)	ID No.	bgs)	7-Day	28-Day	(cm/sec)	(cm/sec)	(cm/sec)
								Project	Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923							
D25	11/5/12	955530.445	927540.748	2	5.73	1.111.0	1.077.0	1.079.0	-2	56.08	5.664	3.2%	8.496	4.7%	960.0	0.53%	2.175	2.027	CH-ISS-D25	10		570	6.31E-07		
D27	11/5/12	955544.257	927541.855	2	5.73	1,111.0	1,077.0	1,079.0	-2	56.08	5,656	3.2%	8,484	4.7%	940.0	0.52%	2,160	2,031							
D29	11/5/12	955558.069	927542.963	4	11.47	1,111.0	1,077.0	1,079.0	-2	48.86	4,244	2.7%	6,366	4.1%	710.0	0.45%	1,898	1,521							
U27	11/5/12	955539.558	927643.806	0	0.00	1,111.0	1,078.0	1,080.5	-3	61.44	5,656	2.9%	8,484	4.3%	910.0	0.46%	2,368	2,036							
P33	11/6/12	955552.315	927614.732	3	8.60	1,111.0	1,075.0	1,080.0	-5	55.56	5,656	3.2%	8,484	4.7%	930.0	0.52%	2,456	2,030							
R32	11/6/12	955551.356	927626.694	3	8.60	1,111.0	1,075.0	1,080.5	-6	55.56	5,656	3.2%	8,484	4.7%	950.0	0.53%	2,305	2,028		45		045	0.005.07		
U26	11/6/12	955532.652	927643.252	1	2.87	1,111.0	1,075.0	1,080.0	-5	63.20	5,656	2.8%	8,484	4.2%	950.0	0.47%	2,603	2,034	CH-155-026	15		315	2.03E-07		
D20	11/0/12	955540.404	927044.339	2	5.73	1,111.0	1,075.0	1,001.0	-0	50.39	5,000	3.0%	0,404 9,400	4.4%	940.0	0.49%	2,310	2,034							
D20	11/7/12	955509 727	927539 087	2	5.73	1 111 0	1,075.0	1,078.5	-3	57.73	5,000	3.0%	8 478	4.4 %	930.0	0.50%	2,312	2,030							
D24	11/7/12	955523.539	927540.194	3	8.60	1.111.0	1,077.0	1.079.5	-3	52.47	4.244	2.5%	6.366	3.8%	700.0	0.42%	2.028	1.520							
D26	11/7/12	955537.351	927541.301	4	11.47	1,111.0	1,077.0	1,079.0	-2	48.86	4,248	2.7%	6,372	4.1%	700.0	0.45%	1,895	1,529							
D28	11/7/12	955551.163	927542.409	4	11.47	1,111.0	1,077.0	1,079.0	-2	48.86	4,244	2.7%	6,366	4.1%	710.0	0.45%	1,905	1,525							
F30	11/7/12	955557.110	927554.924	3	8.60	1,111.0	1,077.0	1,078.5	-2	52.47	5,656	3.4%	8,484	5.1%	960.0	0.57%	2,038	2,034							
H32	11/7/12	955556.151	927566.886	3	8.60	1,111.0	1,077.0	1,079.0	-2	52.47	4,248	2.5%	6,372	3.8%	710.0	0.42%	2,030	1,530							
U19	11/7/12	955484.310	927639.376	0	0.00	1,111.0	1,073.0	1,075.0	-2	70.74	7,064	3.1%	10,596	4.6%	1,180.0	0.52%	2,768	2,549							
U21	11/7/12	955498.122	927640.483	0	0.00	1,111.0	1,073.0	1,076.0	-3	70.74	6,400	2.8%	9,600	4.2%	960.0	0.42%	2,766	2,029							
U23	11/7/12	955511.934	927641.591	0	0.00	1,111.0	1,075.0	1,078.0	-3	67.02	6,400 5,649	3.0%	9,600	4.5%	960.0	0.45%	2,605	2,032							
U25 T30	11/8/12	900020.740	927638 656	1	2.07	1,111.0	1,077.0	1,079.0	-2	09.09 17.12	0,040 1 211	3.0%	6 366	4.4%	940.0 720.0	0.49%	2,320	2,034							
T28	11/8/12	955536 585	927637 548	2	5.73	1 111 0	1,078.0	1 080 5	-3	54 43	5,660	3.3%	8 4 9 0	4.2 %	940.0	0.40%	2 107	2 034							
R31	11/8/12	955544.450	927626.140	1	2.87	1.111.0	1.078.0	1.080.5	-3	57.93	5.660	3.1%	8.490	4.6%	940.0	0.51%	2,231	2.029							
Doo	44/0/40	055545 400	007044470		0.07	4 4 4 4 0	4.077.0	4 000 0	2	50.00	5,050	0.00/	0.470	4 40/	040.0	0.400/	0.040	0,000				570	1.57E-06	4 74 5 07	
P32	11/8/12	955545.409	927614.179	1	2.87	1,111.0	1,077.0	1,080.0	-3	59.69	5,652	3.0%	8,478	4.4%	940.0	0.49%	2,310	2,039	CH-155-P32			570	(5.84E-07)	4.71E-07	
N33	11/8/12	955553.274	927602.771	3	8.60	1,111.0	1,077.0	1,079.5	-3	52.47	5,664	3.4%	8,496	5.1%	960.0	0.57%	2,232	2,027							
E29	11/8/12	955554.137	927548.667	4	11.47	1,111.0	1,077.0	1,079.0	-2	48.86	4,244	2.7%	6,366	4.1%	700.0	0.45%	1,900	1,526							
E27	11/8/12	955540.325	927547.559	2	5.73	1,111.0	1,077.0	1,079.0	-2	56.08	5,664	3.2%	8,496	4.7%	960.0	0.53%	2,164	2,034							
E25	11/8/12	955526.513	927546.452	2	5.73	1,111.0	1,077.0	1,079.0	-2	56.08	5,652	3.1%	8,478	4.7%	930.0	0.52%	2,168	2,031							
G31	11/8/12	955553.178	927560.628	3	8.60	1,111.0	1,077.0	1,079.0	-2	52.47	5,660	3.4%	8,490	5.1%	960.0	0.57%	2,035	2,032							
132	11/8/12	955552.219	927572.590	2	5.73	1,111.0	1,077.0	1,079.0	-2	56.08	5,656	3.2%	8,484	4.7%	950.0	0.53%	2,169	2,034							
K32	11/8/12	955551.260	927584.551	1	2.87	1,111.0	1,077.0	1,079.0	-2	59.69	5,660	3.0%	8,490	4.4%	950.0	0.50%	2,303	1,579							
U20	11/8/12	955491.216	927639.930	2	5.73	1,111.0	1,073.0	1,075.5	-3	62.68	5,660	2.8%	8,490	4.2%	960.0	0.47%	2,445	2,029							
U22	11/8/12	955505.028	927641.037	2	5.73	1,111.0	1,074.0	1,077.0	-3	61.03	5,660	2.9%	8,490	4.3%	940.0	0.48%	2,376	2,031	CH-ISS-U22			820	6.16E-08		
U24	11/8/12	955518.840	927642.145	2	5.73	1,111.0	1,076.0	1,078.5	-3	57.73	5,664	3.1%	8,496	4.6%	940.0	0.51%	2,245	2,030							
D19	11/8/12	955489.009	927537.425	5	17.20	1,111.0	1,075.0	1,077.5	-3	44.09	4,240	3.0%	6,360	4.5%	710.0	0.50%	1,900	1,527							
D21	11/8/12	955502.821	927538.533	4	11.47	1,111.0	1,076.0	1,078.0	-2	50.30	5,656	3.5%	8,484	5.3%	920.0	0.57%	1,950	2,033							
D23	11/8/12	955516.633	927539.640	4	11.47	1,111.0	1,077.0	1,079.0	-2	48.86	4,244	2.7%	6,366	4.1%	710.0	0.45%	1,892	1,523							
F23	11/8/12	955508.768	927551.048	0	0.00	1,111.0	1,075.0	1,078.0	-3	67.02	5,656	2.6%	8,484	3.9%	930.0	0.43%	2,600	2,032							
F25	11/8/12	955522.580	927552.156	1	2.87	1,111.0	1,077.0	1,079.5	-3	59.69	5,656	3.0%	8,484	4.4%	950.0	0.50%	2,300	2,039							
129	11/10/12	955543.491	927638.102	4	11.47	1,111.0	1,079.0	1,081.0	-2	45.99	4,228	2.9%	6,342	4.3%	670.0	0.46%	1,765	1,529				+			
127	11/10/12	955529.679	927636.994	3	8.60	1,111.0	1,077.0	1,080.0	-3	52.47	5,648	3.4%	8,472	5.0%	920.0	0.55%	2,025	2,037		10		570	2.605.07		
032	11/10/12	900010.007	927630.007	5	5.73 17.20	1,111.0	1,076.0	1,076.5	-3	27.73	5,040 7.048	5.0%	0,400 10,572	4.0%	920.0	0.30%	2,270	2,034	СП-155-125	10		570	2.00E-07		
R30	11/10/12	955537 544	927625 586	1	2.87	1 111 0	1,078.0	1,000.0	-2	57.93	5 640	3.1%	8.460	4.6%	930.0	0.03%	2 225	2,343							
032	11/10/12	955549 341	927608 475	4	11 47	1 111 0	1,070.0	1,000.0	-3	48.86	5 640	3.6%	8 460	5.4%	910.0	0.50%	2,220	2,034							
P31	11/10/12	955538 503	927613 625	1	2.87	1 111 0	1,077.0	1,070.0	-2	57.93	5,640	3.1%	8 460	4.6%	920.0	0.50%	2,000	2,002							
T21	11/12/12	955488,242	927633 672	4	11.47	1.111.0	1.072 0	1.075.0	-3	56.04	5.660	3.1%	8,490	4.7%	920.0	0.51%	2,190	2.035				+ +			
T23	11/12/12	955502 054	927634 779	2	5.73	1 111 0	1,072.0	1,076.0	-2	61.03	5 652	2.9%	8 478	4.3%	950.0	0.48%	2,380	2 032							
T26	11/12/12	955522.773	927636.441	4	11.47	1.111.0	1.077.0	1.079.0	-2	48.86	4.248	2.7%	6.372	4.1%	710.0	0.45%	1.893	1,525							
L33	11/12/12	955554,233	927590,809	4	11.47	1.111.0	1.077.0	1.079.0	-2	48,86	4.244	2.7%	6.366	4.1%	700.0	0.45%	1,900	1,524				1			
 S30	11/12/12	955547.423	927632.398	5	17.20	1.111.0	1.078.0	1.080.5	-3	40.42	4.244	3.3%	6,366	4.9%	700.0	0.54%	1.872	1,532							
S28	11/12/12	955533.611	927631.290	3	8.60	1,111.0	1,078.0	1,080.5	-3	50.93	4.244	2.6%	6,366	3.9%	720.0	0.44%	1.963	1.520	CH-ISS-S28	30		470	1.80E-07		
Q31	11/12/12	955541.476	927619.882	5	17.20	1,111.0	1,078.0	1,080.5	-3	40.42	4,240	3.3%	6,360	4.9%	690.0	0.54%	1,696	1,521			1				
O31	11/12/12	955542.435	927607.921	3	8.60	1,111.0	1,077.0	1,080.0	-3	52.47	4,240	2.5%	6,360	3.8%	710.0	0.42%	2,030	1,531				1 1			
M31	11/12/12	955543.394	927595.959	0	0.00	1,111.0	1,077.0	1,079.5	-3	63.30	5,660	2.8%	8,490	4.2%	930.0	0.46%	2,440	2,033							

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

		ISS Column	Coordinates			E	levations (ft)	Clay				Grout M	lass					Sample	e			Pe	rmeability (cm/see	;)
						ISS C	olumn		Toe-In	Final Column	BFS	5	PC		Bento	onite	Grout	Water		Depth	UCS	(psi)			-
Column				# of	Overlap Area		_	Top of	Depth	Volume		-					Volume	Volume		(ft			28-Days	56-Days	84-Days
ID	Date	Northing	Easting	Overlaps	(sf)	Тор	Bottom	Clay	(ft)	(CY)	(lbs)	(%)	(lbs)	(%)	(lbs)	(%)	(gal)	(gal)	ID No.	bgs)	7-Day	28-Day	(cm/sec)	(cm/sec)	(cm/sec)
								Project	Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923							
J33	11/12/12	955555.192	927578.847	5	17.20	1,111.0	1,077.0	1,079.0	-2	41.64	5,656	4.2%	8,484	6.4%	950.0	0.71%	2,218	2,032							
E24	11/12/12	955519.607	927545.898	4	11.47	1,111.0	1,077.0	1,079.0	-2	48.86	4,248	2.7%	6,372	4.1%	700.0	0.45%	1,910	1,521							
E26 E28	11/12/12	955533.419	927547.005	4	11.47	1,111.0	1,077.0	1,079.0	-2	48.86	7,072	4.5%	10,608	6.8%	1,180.0	0.75%	3,141	2,552							
G30	11/12/12	955546.272	927560.074	1	2.87	1,111.0	1,077.0	1,079.0	-2	59.69	5,660	3.0%	8,490	4.4%	950.0	0.50%	2,305	2,031							
G28	11/12/12	955532.460	927558.967	0	0.00	1,111.0	1,077.0	1,079.0	-2	63.30	5,664	2.8%	8,496	4.2%	950.0	0.47%	2,445	2,037							
131	11/12/12	955545.313	927572.036	1	2.87	1,111.0	1,077.0	1,079.0	-2	59.69	5,660	3.0%	8,490	4.4%	950.0	0.50%	2,305	2,029							
K31	11/12/12	955544.354	927583.998	1	2.87	1,111.0	1,077.0	1,079.0	-2	59.69	5,652	3.0%	8,478	4.4%	960.0	0.50%	2,350	2,029	CH-ISS-K31	10		375	3.02E-07		
T24	11/13/12	955508.960	927635.333	4	11.47	1,111.0	1,075.0	1,075.0	-2	51.73	5,644	3.4%	8,466	4.6%	910.0	0.52%	2,137	2,031							
S26	11/13/12	955519.799	927630.183	2	5.73	1,111.0	1,077.0	1,079.0	-2	56.08	5,648	3.1%	8,472	4.7%	900.0	0.50%	2,161	2,029							
S29	11/13/12	955540.517	927631.844	6	34.40	1,111.0	1,078.0	1,081.0	-3	19.40	4,244	6.9%	6,366	10.3%	690.0	1.11%	1,552	1,527							
M32	11/13/12	955550.300	927596.513	4	11.47	1,111.0	1,077.0	1,079.0	-2	48.86	4,232	2.7%	6,348	4.1%	690.0	0.44%	1,888	1,527							
L31	11/13/12	955540.421	927589.702	2	5.73	1,111.0	1,077.0	1,079.0	-2	56.08	5,644	3.1%	8,466	4.7%	900.0	0.50%	2,160	2,035							
J32	11/13/12	955548.286	927578.294	5	17.20	1,111.0	1,077.0	1,079.0	-2	41.64	5,636	4.2%	8,454	6.3%	910.0	0.68%	2,548	2,034							
F29 F24	11/13/12	955515.674	927551.602	3	8.60	1.111.0	1.077.0	1.079.0	-2	52.47	4,220 5.644	3.4%	8.466	<u>4.0%</u> 5.0%	910.0	0.52%	2.024	2.028							
F27	11/13/12	955536.392	927553.263	3	8.60	1,111.0	1,077.0	1,079.0	-2	52.47	5,636	3.4%	8,454	5.0%	900.0	0.54%	2,024	2,034	CH-ISS-F27	15		610	1.26E-07		
H31	11/13/12	955549.245	927566.332	5	17.20	1,111.0	1,077.0	1,079.0	-2	41.64	4,232	3.2%	6,348	4.8%	680.0	0.51%	1,745	1,527							
G27	11/13/12	955525.554	927558.413	2	5.73	1,111.0	1,077.0	1,078.5	-2	56.08	5,644	3.1%	8,466	4.7%	920.0	0.51%	2,162	2,035							
H20	11/13/12	955535.433	927565.225	1	2.87	1,111.0	1.077.0	1,079.0	-2	59.69	5.648	3.0%	8.472	4.4%	910.0	0.36%	2.298	2,539							
E23	11/14/12	955512.701	927545.344	5	17.20	1,111.0	1,076.0	1,079.0	-3	42.86	4,996	3.6%	7,494	5.4%	830.0	0.60%	2,058	2,104							
F28	11/14/12	955543.298	927553.817	5	17.20	1,111.0	1,077.0	1,079.0	-2	41.64	5,004	3.8%	7,506	5.6%	810.0	0.61%	2,026	2,100							
F26	11/14/12	955529.486	927552.709	6	34.40	1,111.0	1,077.0	1,079.0	-2	19.98	3,752	5.9%	5,628	8.8%	620.0	0.97%	1,815	1,578							
L32	11/14/12	955547.327	927590.255	4 6	34.40	1,111.0	1.077.0	1,079.0	-2	19.98	3,748	5.9%	5.622	4.0%	620.0	0.53%	1.815	2,099							
H28	11/14/12	955528.527	927564.671	3	8.60	1,111.0	1,077.0	1,078.5	-2	52.47	5,004	3.0%	7,506	4.5%	830.0	0.49%	2,286	2,096	CH-ISS-H28	31		435	3.42E-07		
J31	11/14/12	955541.380	927577.740	3	8.60	1,111.0	1,077.0	1,079.0	-2	52.47	5,004	3.0%	7,506	4.5%	830.0	0.49%	2,287	2,098							
N32	11/14/12	955546.368	927602.217	5	17.20	1,111.0	1,077.0	1,079.0	-2	41.64	5,004	3.8%	7,506	5.6%	810.0	0.61%	1,970	2,097							
\$27	11/14/12	955526.705	927630.737	4	11.47	1.111.0	1.077.0	1,080.0	-3	48.86	5.004	3.2%	7,506	4.8%	840.0	0.52%	2,200	2,099							
S25	11/14/12	955512.893	927629.629	3	8.60	1,111.0	1,076.0	1,078.5	-3	54.01	4,996	2.9%	7,494	4.3%	830.0	0.48%	2,357	2,100							
S23	11/14/12	955499.081	927628.522	2	5.73	1,111.0	1,073.0	1,081.0	-8	62.68	6,244	3.1%	9,366	4.6%	1,010.0	0.50%	2,754	2,621							
G23	11/14/12	955497.929	927556.198	0	0.00	1,111.0	1,073.0	1,076.0	-3	70.74	7,048	3.1%	10,572	4.6%	1,110.0	0.49%	2,758	2,536							
G25	11/14/12	955511.742	927557.306	3	8.60	1.111.0	1.072.0	1.074.5	-3 -3	54.01	5.636	3.3%	8.454	4.0%	890.0	0.50%	2,070	2,028							
125	11/14/12	955503.876	927568.714	0	0.00	1,111.0	1,075.0	1,077.5	-3	67.02	5,640	2.6%	8,460	3.9%	890.0	0.41%	2,595	2,027							
G29	11/15/12	955539.366	927559.521	6	34.40	1,111.0	1,077.0	1,079.0	-2	19.98	3,748	5.9%	5,622	8.8%	610.0	0.95%	1,816	1.572	CH-ISS-G29	10		335	1.14E-06	5.08E-07	
626	11/15/12	955518 6/8	927557 860	5	17 20	1 111 0	1 077 0	1 070 0	-2	41.64	12 /02	9.4%	18 739	14 1%	2 040 0	1 53%	1 071	5 220						(5.40E-08)	
130	11/15/12	955538.407	927571.482	4	11.47	1,111.0	1,077.0	1,079.0	-2	48.86	4,996	3.2%	7,494	4.8%	830.0	0.53%	2,131	2,099							
K30	11/15/12	955537.448	927583.444	3	8.60	1,111.0	1,077.0	1,079.0	-2	52.47	4,996	3.0%	7,494	4.5%	840.0	0.50%	2,287	2,097							
X25	11/15/12	955541.573	927662.025	0	0.00	1,111.0	1,077.0	1,081.0	-4	63.30	5,640	2.8%	8,460	4.2%	890.0	0.44%	2,481	2,028							
V26	11/15/12	955542.532	927650.063	2	5.73	1,111.0	1,083.0	1,081.0	-3	46.18	8,460 5,640	5.8%	12,690	8.8%	1,340.0	0.93%	3,357	3,047	CH-ISS-V24	15		355	1 87E-07		
X23	11/15/12	955527.760	927660.918	0	0.00	1,111.0	1,076.0	1,078.5	-3	65.16	5,644	2.7%	8,466	4.0%	890.0	0.43%	2,104	2,027	01-100-124	15		555	1.07 L-07		
V22	11/15/12	955514.907	927647.848	2	5.73	1,111.0	1,075.0	1,078.0	-3	59.38	5,640	3.0%	8,460	4.4%	890.0	0.47%	2,297	2,027							
X21	11/15/12	955513.948	927659.810	0	0.00	1,111.0	1,075.0	1,077.0	-2	67.02	5,636	2.6%	8,454	3.9%	890.0	0.41%	2,598	2,027							
524 \/20	11/15/12	955501.095	927629.075	4	11.4/ 5.73	1,111.0	1,075.0	1,077.0	-2 -4	51./3 61.03	5,636	3.4% 2.9%	8,454 8,454	5.1% 4 3%	890.0 900 0	0.53%	2,269	2,027							
X19	11/15/12	955500.136	927658.703	0	0.00	1,111.0	1,074.0	1,076.5	-3	68.88	7,048	3.2%	10,572	4.8%	1,120.0	0.50%	2,675	2,534							
S22	11/15/12	955492.175	927627.968	5	17.20	1,111.0	1,072.0	1,074.5	-3	47.76	5,640	3.6%	8,460	5.5%	890.0	0.58%	2,600	2,026							
V18	11/15/12	955487.283	927645.634	2	5.73	1,111.0	1,073.0	1,075.5	-3	62.68	5,640	2.8%	8,460	4.2%	890.0	0.44%	2,435	2,026							
V5 X4	11/16/12	955396 546	927650 307	2	5.73	1,111.0	1,074.0	1,076.0	-2	68 88	5,652 7,076	<u> </u>	8,478 10.614	4.4% 4 0%	950.0	0.50%	2,309	2,036							
V7	11/16/12	955411.317	927639.543	2	5.73	1,111.0	1,073.0	1,075.5	-3	62.68	5,660	2.9%	8,490	4.3%	950.0	0.48%	2,381	2,044							
				•					•			Page	3 of 19				•			•	•	•			

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

<table-container></table-container>			ISS Column	Coordinates			E	levations (ft)	Clay				Grout M	lass					Sample	e			Pe	rmeability (cm/see	;)
Dame Desc Desc Desc Desc Desc D					1		ISS C	olumn		Toe-In	Final Column	BFS	5	PC		Bento	onite	Grout	Water		Depth	UCS	(psi)			
D Dots Horing Entry Dest Dest </th <th>Column</th> <th></th> <th></th> <th></th> <th># of</th> <th>Overlap Area</th> <th>_</th> <th></th> <th>Top of</th> <th>Depth</th> <th>Volume</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Volume</th> <th>Volume</th> <th></th> <th>(ft</th> <th></th> <th></th> <th>28-Days</th> <th>56-Days</th> <th>84-Days</th>	Column				# of	Overlap Area	_		Top of	Depth	Volume							Volume	Volume		(ft			28-Days	56-Days	84-Days
U U	ID	Date	Northing	Easting	Overlaps	(sf)	Гор	Bottom	Clay	(ft)	(CY)	(lbs)	(%)	(lbs)	(%)	(lbs)	(%)	(gal)	(gal)	ID No.	bgs)	7-Day	28-Day	(cm/sec)	(cm/sec)	(cm/sec)
No. No. <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Project</th> <th>Totals:</th> <th>54,528.98</th> <th>4,936,366</th> <th>3.2%</th> <th>7,404,550</th> <th>4.8%</th> <th>806,304</th> <th>0.53%</th> <th>2,257,674</th> <th>1,898,923</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>									Project	Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923							
35 1	X6	11/16/12	955410.358	927651.504	0	0.00	1,111.0	1,073.0	1,075.5	-3	70.74	7,076	3.2%	10,614	4.8%	1,170.0	0.53%	2,687	2,534							
1210 111000 2004017 0 0.000 11110 107000 10700 2000 <td>X8</td> <td>11/16/12</td> <td>955424.170</td> <td>927652.612</td> <td>0</td> <td>0.00</td> <td>1,111.0</td> <td>1,072.0</td> <td>1,075.0</td> <td>-3</td> <td>72.61</td> <td>7,056</td> <td>3.1%</td> <td>10,584</td> <td>4.6%</td> <td>1,160.0</td> <td>0.51%</td> <td>2,769</td> <td>2,543</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	X8	11/16/12	955424.170	927652.612	0	0.00	1,111.0	1,072.0	1,075.0	-3	72.61	7,056	3.1%	10,584	4.6%	1,160.0	0.51%	2,769	2,543							
TATA TUMO12 OSCUS 000 OPTOS 534 O <td>X10 X12</td> <td>11/16/12</td> <td>955451.794</td> <td>927654.827</td> <td>0</td> <td>0.00</td> <td>1,111.0</td> <td>1.072.0</td> <td>1.073.5</td> <td>-2</td> <td>74.47</td> <td>7.078</td> <td>2.9%</td> <td>10,614</td> <td>4.0%</td> <td>1,190.0</td> <td>0.32%</td> <td>2,770</td> <td>2,540</td> <td>CH-ISS-X12</td> <td>10</td> <td></td> <td>440</td> <td>2.03E-07</td> <td></td> <td></td>	X10 X12	11/16/12	955451.794	927654.827	0	0.00	1,111.0	1.072.0	1.073.5	-2	74.47	7.078	2.9%	10,614	4.0%	1,190.0	0.32%	2,770	2,540	CH-ISS-X12	10		440	2.03E-07		
NH NH<	X14	11/16/12	955465.606	927655.934	0	0.00	1,111.0	1,072.0	1,074.0	-2	72.61	7,060	3.0%	10,590	4.5%	1,190.0	0.51%	2,837	2,542				_			
V20 V11/V12 V200261 V4 V11/V12 V200261 V4 V11/V12 V200261 V4 V400 V200 V400	X16	11/16/12	955479.418	927657.041	0	0.00	1,111.0	1,073.0	1,075.0	-2	70.74	8,488	3.7%	12,732	5.6%	1,410.0	0.62%	2,783	3,062							
1/1/10 2000 1/1/10 1/10	V27	11/17/12	955549.438	927650.617	4	11.47	1,111.0	1,079.0	1,081.0	-2	45.99	4,232	2.9%	6,348	4.3%	670.0	0.46%	1,802	1,524							
11/17/12 959766.400 4 11.477 1.1100 1.0765 3 5.300 5.430 4.580 0.478 1.840 1.871 Image: Constraint of the cons	X24	11/17/12	955534.666	927661.471	2	5.73	1.111.0	1.077.0	1.079.0	-3 -2	56.08	5.640	3.1%	8.460	4.1%	900.0	0.43 %	2.160	2.037	CH-ISS-X24	15		310	1.30E-07		
V22 11/17/1 95560 and 97780.388 1 11/17 15560 and 97780.388 2 5.73 1.70 2 5.73 5.85 4.84 5.45 1500 0.65 2.001 0.65 2.001 0.65 2.001 0.65 2.001 0.65 0.01 0.015 0.015 0.015 0.015 0.015 0.015 0.015 0.015 0.015 0.015 0.015 0.015 0.017	V23	11/17/12	955521.813	927648.402	4	11.47	1,111.0	1,076.0	1,078.5	-3	50.30	4,224	2.6%	6,336	3.9%	670.0	0.42%	1,946	1,521							
V17/12 89850001 82764/28 4 1147 11100 1070	X22	11/17/12	955520.854	927660.364	2	5.73	1,111.0	1,075.0	1,077.5	-3	59.38	5,636	3.0%	8,454	4.4%	890.0	0.47%	2,300	2,028							
View View Vi	V21	11/17/12	955508.001	927647.295	4	11.47 5.73	1,111.0	1,075.0	1,077.0	-2	51.73	5,636	3.4%	8,454	5.1%	910.0 800.0	0.55%	2,004	2,031							
Ve 11/912 26540441 22788.889 4 11.47 11.100 10780 2 10787 5.000 1.478 10100 10780 2 10787 5.000 1.478 10100 10780 10780 1078 10780 1080 1.478 1.080 0.878 2.398 2.030 </td <td>V4</td> <td>11/19/12</td> <td>955390.599</td> <td>927637.881</td> <td>4</td> <td>11.47</td> <td>1,110.0</td> <td>1,074.0</td> <td>1.076.5</td> <td>-3</td> <td>51.73</td> <td>5,660</td> <td>3.4%</td> <td>8,490</td> <td>4.3 %</td> <td>930.0</td> <td>0.45%</td> <td>2,309</td> <td>2,027</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	V4	11/19/12	955390.599	927637.881	4	11.47	1,110.0	1,074.0	1.076.5	-3	51.73	5,660	3.4%	8,490	4.3 %	930.0	0.45%	2,309	2,027							
Xi 11/19/12 95640.268 97656.568 2 5.73 11/100 107.00 107.50 -2 61.30 5.662 2.98 8.78 4.90 0.488 2.393 2.030 CHHIS2.85 44 - 960 3.566-77 Xi 11/19/12 95641.268 92765.258 2 5.73 11100 107.50 1.675 3 64.22 5.73 1100 107.50 3 64.22 7.08 3.45 10.00 2.755 5.01 4 4 4.90 4.90 2.355 4 4 4.90 4.90 2.355 4 4 4.90 4.90 2.355 4 4 4.90 4.90 2.355 4 4 4.90 4.90 2.355 4 4 4.90 4.90 4.90 2.355 4.90 4.90 4.90 4.90 4.90 2.355 2.30 4.00 4.90 2.355 4.90 4.90 4.90 2.355 4.90 4.90 <	V6	11/19/12	955404.411	927638.989	4	11.47	1,110.0	1,074.0	1,076.0	-2	51.73	5,660	3.4%	8,490	5.1%	910.0	0.55%	2,186	2,043							
X7 111/19/12 05511/264 02765 16 5.73 1.1100 1.0730 1.0730 1.0730 5.682 2.9% 8.478 4.3% 94.00 0.48% 2.379 2.032 1<	X5	11/19/12	955403.452	927650.950	2	5.73	1,110.0	1,073.0	1,075.5	-3	61.03	5,652	2.9%	8,478	4.3%	950.0	0.48%	2,393	2,030	CHH-ISS-X5	34		980	3.58E-07		
Abs 11/18/12 25.58/10/6 2/2 5.73 11/10/0 10/20 10/20 22.88 7/088 3.50 1.80/0 0.57% 3.50/1 2.533 1	X7	11/19/12	955417.264	927652.058	2	5.73	1,110.0	1,073.0	1,075.0	-2	61.03	5,652	2.9%	8,478	4.3%	940.0	0.48%	2,379	2,032							
Xi3 1119912 955493 700 2275 5330 2 573 11110 10710 10740 3 65.87 6.276 2.9% 9.414 4.4% 10000 0.4% 2.930 2.827 Image: Constraint of the constraint	X9 X11	11/19/12	955431.076	927653.165	2	5.73	1,110.0	1,072.0	1,074.5	-3 -3	62.68	7,068	3.5%	10,602	5.2%	1,180.0	0.58%	3,000	2,535							
X15 11/19/12 958472.512 927866.488 2 5.73 1,111.0 10720 10760 2 52.17 4.984 2.986 2.948 2.941 2.941 2.941 2.941 2.941 2.941 2.941 2.941 2.941 2.941 2.941 2.941 2.941 2.941 2.941	X13	11/19/12	955458.700	927655.380	2	5.73	1,111.0	1,071.0	1,074.0	-3	65.97	6,276	2.9%	9,414	4.4%	1,000.0	0.47%	2,930	2,627							
V19 11/19/12 955494.189 92768.187 4 11.47 1.11.10 1.074.0 1.076.0 -2 63.17 4.996 2.9% 7.494 4.4% 800.0 0.47% 2.342 2.096 W18 111/212 955538.599 92755.767 4 11.10 1.077.0 1.080.0 -2 64.95 6.22 3.0% 9.786 4.5% 11.00 0.62% 2.131 2.096 0.878 4.5% 11.00 0.62% 2.131 2.096 0.878 4.5% 810.0 0.63% 2.481 1.000 0.5% 2.411 2.007 9.78 4.5% 82.00 0.43% 2.100 4.98 80.00 0.45% 82.00 0.45% 82.00 2.497 2.007 <td>X15</td> <td>11/19/12</td> <td>955472.512</td> <td>927656.488</td> <td>2</td> <td>5.73</td> <td>1,111.0</td> <td>1,072.0</td> <td>1,075.0</td> <td>-3</td> <td>64.32</td> <td>6,248</td> <td>3.0%</td> <td>9,372</td> <td>4.5%</td> <td>1,000.0</td> <td>0.48%</td> <td>2,840</td> <td>2,626</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	X15	11/19/12	955472.512	927656.488	2	5.73	1,111.0	1,072.0	1,075.0	-3	64.32	6,248	3.0%	9,372	4.5%	1,000.0	0.48%	2,840	2,626							
X18 11/11/12 254/93.230 22/85.149 1 2.267 11/11.0 1.07.0 1.04.0 0.10.80 -2 64.85 6.262 3.0% 9.378 4.5% 1.000.0 0.48% 2.865 2.621	V19	11/19/12	955494.189	927646.187	4	11.47	1,111.0	1,074.0	1,076.0	-2	53.17	4,996	2.9%	7,494	4.4%	800.0	0.47%	2,342	2,096							
WED WED <td>X18</td> <td>11/19/12</td> <td>955493.230</td> <td>927658.149</td> <td>1</td> <td>2.87</td> <td>1,111.0</td> <td>1,074.0</td> <td>1,076.0</td> <td>-2</td> <td>64.95</td> <td>6,252</td> <td>3.0%</td> <td>9,378</td> <td>4.5%</td> <td>1,000.0</td> <td>0.48%</td> <td>2,865</td> <td>2,621</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	X18	11/19/12	955493.230	927658.149	1	2.87	1,111.0	1,074.0	1,076.0	-2	64.95	6,252	3.0%	9,378	4.5%	1,000.0	0.48%	2,865	2,621							
W23 11/20/12 985524.767 927656.660 4 11.47 1.11.0 1.076.0 1.076.5 3 50.30 5.012 3.1% 7.518 4.7% 820.0 0.51% 2.201 2.097 Y8 11/20/12 985523.878 927666.174 2 5.73 1.11.0 1.076.0 1.077.5 -3 51.73 5.000 2.6% 7.500 4.7% 820.0 0.43% 2.210 2.097 W21 11/20/12 955501.67 927666.172 2 5.73 1.111.0 1.074.0 1.074.0 1.076.5 3 61.03 6.266 3.2% 9.384 4.8% 1.020.0 0.63% 2.6637 CH-ISS Y4 17 - 445 8.59E-07 W19 11/20/12 955467.890 227652.416 4 11.47 1.111.0 1.074.0 1.076.0 3 64.26 3.7% 6.30% 9.348 4.6% 1.010.0 0.64% 2.362 2.644 1 4 4.5% 1.010.0 0.64% 2.360 2.164 1.110 1.07	Y10	11/20/12	955537.640	927667.729	4	5.73	1,111.0	1.077.0	1.079.0	-3 -2	40.00 56.08	4.992	2.8%	7,300	4.8%	810.0	0.32%	2,131	2,090							
Y8 11/20/12 95552.87.87.8 927666.174 2 5.7.3 1.11.0 1.075.0 1.077.5 3 5.9.38 5.000 2.9% 7.500 4.3% 82.00 0.43% 2.610 2.10 1	W23	11/20/12	955524.787	927654.660	4	11.47	1,111.0	1,076.0	1,078.5	-3	50.30	5,012	3.1%	7,518	4.7%	820.0	0.51%	2,201	2,097							
W21 11/20/12 955510.976 92765.352 4 11.47 1,110 1,077.5 3 51.73 5,000 3.0% 7,500 4.5% 820.0 0.49% 2,275 2,097 1 </td <td>Y8</td> <td>11/20/12</td> <td>955523.878</td> <td>927666.174</td> <td>2</td> <td>5.73</td> <td>1,111.0</td> <td>1,075.0</td> <td>1,077.5</td> <td>-3</td> <td>59.38</td> <td>5,000</td> <td>2.6%</td> <td>7,500</td> <td>3.9%</td> <td>820.0</td> <td>0.43%</td> <td>2,610</td> <td>2,100</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Y8	11/20/12	955523.878	927666.174	2	5.73	1,111.0	1,075.0	1,077.5	-3	59.38	5,000	2.6%	7,500	3.9%	820.0	0.43%	2,610	2,100							
10 11/20/12 2554/86.457 927662.169 2 5.7.3 1,11.10 1,074.0 1,076.0 -2 61.03 6,264 32.2% 9,364 4.8% 1,020.0 0.52% 2,680 2,627 1 1 - 445 8,59E-07 W19 11/20/12 9554/86.47 927652.445 4 11.47 1,111.0 1,076.0 -2 61.03 6,264 32% 9,364 4.8% 1,000.0 0.51% 2,693 CH-ISS-Y4 17 - 445 8,59E-07 X17 11/20/12 9554/86.329 927650.166 2 5.73 1,111.0 1,072.0 1,075.0 -3 66.426 3.1% 9,360 4.5% 1,050.0 0.51% 2,700 2,624	W21	11/20/12	955510.975	927653.552	4	11.47	1,111.0	1,075.0	1,077.5	-3	51.73	5,000	3.0%	7,500	4.5%	820.0	0.49%	2,275	2,097							
W19 11/20/12 955497.163 927652.445 4 11.47 1,111.0 1,076.5 -3 53.17 5,004 2.9% 7,506 4.4% 840.0 0.49% 2,350 2,110 10 100 <t< td=""><td>Y4</td><td>11/20/12</td><td>955496.457</td><td>927662.169</td><td>2</td><td>5.73</td><td>1,111.0</td><td>1,074.0</td><td>1.076.0</td><td>-3</td><td>61.03</td><td>6,264</td><td>3.2%</td><td>9,396</td><td>4.8%</td><td>1,020.0</td><td>0.52%</td><td>2,682</td><td>2,627</td><td>CH-ISS-Y4</td><td>17</td><td></td><td>445</td><td>8.59E-07</td><td></td><td></td></t<>	Y4	11/20/12	955496.457	927662.169	2	5.73	1,111.0	1,074.0	1.076.0	-3	61.03	6,264	3.2%	9,396	4.8%	1,020.0	0.52%	2,682	2,627	CH-ISS-Y4	17		445	8.59E-07		
N1 11/20/12 955486.324 92765.7595 2 5.73 1,111.0 1,072.0 1,075.5 -3 62.68 6.26 3.1% 9.384 4.6% 1,030.0 0.51% 2.70 2.624 0 0 0 0 0 0 0 V1 11/20/12 955465.339 927650.231 6 34.40 1,111.0 1,072.0 1,075.0 -3 66.04 9.920 5.5% 14,988 8.3% 1,640.0 0.50% 2,349 2,624 0	W19	11/20/12	955497.163	927652.445	4	11.47	1,111.0	1,074.0	1,076.5	-3	53.17	5,004	2.9%	7,506	4.4%	840.0	0.49%	2,350	2,110							
Y1 11/20/12 955475.890 927650.166 2 5.73 1,111.0 1,072.0 1,075.0 -3 64.32 6,240 3.0% 9,360 4.5% 1,650.0 0.50% 2,849 2,624	X17	11/20/12	955486.324	927657.595	2	5.73	1,111.0	1,073.0	1,075.5	-3	62.68	6,256	3.1%	9,384	4.6%	1,030.0	0.51%	2,770	2,624							
W13 I1/20/12 953463.539 927650.230 4 I1.47 I.1110 I.072.0 I.078.0 -3 36.04 9.992 5.3% I.4.960 6.3% I.030.0 1.66% 3235 2.624 Image: Constraint of the constraint of t	Y1	11/20/12	955475.890	927659.166	2	5.73	1,111.0	1,072.0	1,075.0	-3	64.32	6,240	3.0%	9,360	4.5%	1,050.0	0.50%	2,849	2,624							
W20 11/26/12 95530.734 927667.175 4 1.1.47 1.111.0 1.070.0 1.078.0 -2 50.103 51.103 7.524 4.7.% 820.0 0.519% 2.206 2.007 1.001.0	W26	11/20/12	955469.539	927656 321	4	34.40	1,111.0	1,072.0	1,074.5	-3	56.04 19.40	9,992	5.5% 10.1%	9 372	0.3%	1,040.0	0.90%	3 235	4,197							
W24 11/26/12 955531.693 927655.214 6 34.40 1,111.0 1,077.0 1,079.0 -2 19.98 8,780 13.7% 13,170 20.6% 1,420.0 2.22% 4,180 3,685	Y9	11/26/12	955530.734	927667.175	4	11.47	1,111.0	1,076.0	1,078.0	-2	50.30	5,016	3.1%	7,524	4.7%	820.0	0.51%	2,206	2,096							
Y7 11/26/12 955517.023 927665.173 4 11.47 1,11.0 1,075.0 1,077.0 -2 51.73 5,008 3.0% 7,512 4.5% 820.0 0.49% 2,756 2,101 CH-ISS-Y7 33 595 3.04E-08 W22 11/26/12 955517.881 927654.106 6 34.40 1,110 1,075.0 1,078.0 -3 21.16 5,004 7.4% 7,506 11.0% 820.0 1.20% 2,491 2,103 595 3.04E-08 595 <td>W24</td> <td>11/26/12</td> <td>955531.693</td> <td>927655.214</td> <td>6</td> <td>34.40</td> <td>1,111.0</td> <td>1,077.0</td> <td>1,079.0</td> <td>-2</td> <td>19.98</td> <td>8,780</td> <td>13.7%</td> <td>13,170</td> <td>20.6%</td> <td>1,420.0</td> <td>2.22%</td> <td>4,180</td> <td>3,685</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	W24	11/26/12	955531.693	927655.214	6	34.40	1,111.0	1,077.0	1,079.0	-2	19.98	8,780	13.7%	13,170	20.6%	1,420.0	2.22%	4,180	3,685							
W22 11/26/12 955517.881 927654.106 6 34.40 1,111.0 1,075.0 1,078.0 -3 21.16 5,004 7.4% 7,506 11.0% 820.0 1.20% 2,491 2,103 C <thc< th=""> <thc< th=""> C</thc<></thc<>	Y7	11/26/12	955517.023	927665.173	4	11.47	1,111.0	1,075.0	1,077.0	-2	51.73	5,008	3.0%	7,512	4.5%	820.0	0.49%	2,756	2,101	CH-ISS-Y7	33		595	3.04E-08		
No N126/12 050000012 051000111 05100 01101 01100 01000 05100 010000 010000 010000 01000	 	11/26/12	955517.881	927654.106	6 4	34.40	1,111.0	1,075.0	1,078.0	-3	21.16	5,004	7.4%	7,506	5.5%	820.0	0.59%	2,491	2,103							
Y3 11/26/12 955489.601 927661.168 3 8.60 1,11.0 1,073.0 1,075.5 -3 58.64 6,260 3.3% 9,390 5.0% 1,020.0 0.54% 3,140 2,630	W20	11/26/12	955504.069	927652.999	6	34.40	1,111.0	1,074.0	1,077.0	-3	21.75	7,524	10.7%	11,286	16.1%	1,220.0	1.74%	3,777	3,152							
W9 11/27/12 955428.102 927646.908 4 11.47 1,110.0 1,072.0 1,074.5 -3 54.61 7,504 4.3% 11,256 6.4% 1,280.0 0.73% 3,401 3,150 1	Y3	11/26/12	955489.601	927661.168	3	8.60	1,111.0	1,073.0	1,075.5	-3	58.64	6,260	3.3%	9,390	5.0%	1,020.0	0.54%	3,140	2,630							
W11 11/27/12 953441.915 927648.015 4 11.47 1,110.0 1,071.0 1,074.0 -3 50.04 10,004 5.5% 15,006 8.3% 1,620.0 0.88% 4,210 0	W9	11/27/12	955428.102	927646.908	4	11.47	1,110.0	1,072.0	1,074.5	-3	54.61	7,504	4.3%	11,256	6.4%	1,280.0	0.73%	3,401	3,150							
W10 W112 Occording I Occordin	W11 W13	11/27/12	955455 727	927648.015	4	11.47	1,110.0	1,071.0	1,074.0	-3 -3	56.04	6 268	5.5%	9 402	8.3%	1,620.0	0.89%	4,975	4,210							
	W10	11/28/12	955400.478	927644.693	4	11.47	1,110.0	1,074.0	1,074.0	-2	51.73	8,756	5.3%	13,134	7.9%	1,282.0	0.00%	4,183	3,678							
W7 11/28/12 955414.290 927645.800 4 11.47 1,110.0 1,073.0 1,075.5 -3 53.17 8,772 5.1% 13,158 7.7% 1,450.0 0.85% 4,682 3,671 CH-ISS-W7 17 950 1.13E-07	W7	11/28/12	955414.290	927645.800	4	11.47	1,110.0	1,073.0	1,075.5	-3	53.17	8,772	5.1%	13,158	7.7%	1,450.0	0.85%	4,682	3,671	CH-ISS-W7	17		950	1.13E-07		
W10 11/28/12 955435.008 927647.461 6 34.40 1,110.0 1,072.0 1,074.5 -3 22.33 6,252 8.7% 9,378 13.0% 1,040.0 1.44% 2,981 2,624	W10	11/28/12	955435.008	927647.461	6	34.40	1,110.0	1,072.0	1,074.5	-3	22.33	6,252	8.7%	9,378	13.0%	1,040.0	1.44%	2,981	2,624							
W12 11/28/12 955448.821 92/648.509 6 34.40 1,111.0 1,0/1.0 1,0/3.5 -3 23.51 7,508 9.8% 11,262 14.8% 1,240.0 1.62% 4,016 3,154 1 W17 11/28/12 955483.351 927651.338 4 11.47 1.111.0 1.073.0 1.075.0 -2 54.61 7.504 4.3% 11.256 6.4% 1.230.0 0.70% 3.762 3.149 14.9% 14.9% 14.9% 14.9% 14.256 6.4% 1.230.0 0.70% 3.762 3.149 14.9% 1	VV12 W/17	11/28/12	955448.821	927648.569	6	34.40 11 <i>4</i> 7	1,111.0	1,0/1.0	1,073.5	-3	23.51	7,508	9.8%	11,262	14.8%	1,240.0	1.62%	4,016	3,154							
W1 H/20/12 955393.572 927644.139 6 34.40 1,1100 1,076.5 -3 21.16 6,260 9.2% 9,390 13.8% 1,030.0 1.51% 4,026 2,626	W4	11/29/12	955393.572	927644.139	6	34.40	1,110.0	1,074.0	1,076.5	-3	21.16	6,260	9.2%	9,390	13.8%	1,030.0	1.51%	4,026	2,626							
W6 11/29/12 955407.384 927645.247 6 34.40 1,110.0 1,073.0 1,076.0 -3 21.75 7,520 10.7% 11,280 16.1% 3,998 3,165	W6	11/29/12	955407.384	927645.247	6	34.40	1,110.0	1,073.0	1,076.0	-3	21.75	7,520	10.7%	11,280	16.1%	1,260.0	1.80%	3,998	3,165							
W8 11/29/12 955421.196 927646.354 6 34.40 1,110.0 1,073.0 1,075.0 -2 21.75 10,004 14.3% 15,006 21.4% 1,670.0 2.38% 4,861 4,216	W8	11/29/12	955421.196	927646.354	6	34.40	1,110.0	1,073.0	1,075.0	-2	21.75	10,004	14.3%	15,006	21.4%	1,670.0	2.38%	4,861	4,216							
W14 11/29/12 955462.633 92/649.6/6 6 34.40 1,111.0 1,0/2.0 1,0/4.0 -2 22.92 6,256 8.4% 9,384 12.6% 1,020.0 1.37% 3,123 2,628 1 W16 11/29/12 955476.445 927650.784 6 34.40 1.111.0 1.073.0 1.075.0 -2 22.33 7.500 10.4% 11.250 1.56% 1.210.0 1.69% 3.920 3.154 1.114 1.073.0 1.075.0 -2 22.33 7.500 10.4% 11.250 1.56% 1.210.0 1.69% 3.920 3.154 1.114 1.073.0 1.075.0 -2 22.33 7.500 10.4% 11.250 1.56% 1.210.0 1.69% 3.920 3.154 1.114 1.114 1.073.0 1.075.0 -2 22.33 7.500 10.4% 11.250 1.56% 1.210.0 1.69% 3.920 3.154 1.114 1.073.0 1.075.0 -2 22.33 7.500 10.4% 11.200.0 1.69% 3.920 3.154 1.114 1.114 1.114 1.075.0	W14	11/29/12	955462.633	92/649.676	6	34.40	1,111.0	1,072.0	1,074.0	-2	22.92	6,256 7,500	8.4%	9,384	12.6%	1,020.0	1.37%	3,123	2,628							
Y2 11/29/12 955482.746 927660.167 4 11.47 1.111.0 1.073.0 1.075.0 -2 54.61 11.252 6.4% 16.878 9.6% 1.860.0 1.05% 5.346 4.733	Y2	11/29/12	955482.746	927660.167	4	11.47	1.111.0	1.073.0	1.075.0	- <u>-</u> 2	54.61	11.252	6.4%	16.878	9.6%	1.860.0	1.05%	5.346	4.733							
W18 11/29/12 955490.257 927651.891 6 34.40 1,111.0 1,073.0 1,076.0 -3 22.33 6,256 8.7% 9,384 13.0% 1,030.0 1.43% 2,828 2,625	W18	11/29/12	955490.257	927651.891	6	34.40	1,111.0	1,073.0	1,076.0	-3	22.33	6,256	8.7%	9,384	13.0%	1,030.0	1.43%	2,828	2,625							
E20 11/29/12 955491.982 927543.683 3 8.60 1,111.0 1,074.0 1,076.5 -3 57.10 5,000 2.7% 7,500 4.1% 810.0 0.44% 2,515 2,104 1000	E20	11/29/12	955491.982	927543.683	3	8.60	1,111.0	1,074.0	1,076.5	-3	57.10	5,000	2.7%	7,500	4.1%	810.0	0.44%	2,515	2,104							

		ISS Column	Coordinates			Eleva	tions (ft)	Clay				Grout M	lass					Sample	e			Р	ermeability (cm/see	;)
						ISS Colun	nn		Toe-In	Final Column	BFS	i	PC	;	Bento	onite	Grout	Water		Depth	UCS	(psi)			
Column	Data	Northing	Facting	# of	Overlap Area	Top Bo	ttom	Top of	Depth	Volume	(lbc)	(9/.)	(lbs)	(9/.)	(lbs)	(9/.)	Volume	Volume		(ft	7-Day	28-Day	28-Days	56-Days	84-Days
שו	Date	Northing	Easting	Overlaps	(SI)			Project	Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	(gar) 2,257,674	(gar) 1,898,923	ID NO.	ugs)	T-Day	20-Day	(cm/sec)	(cm/sec)	(cm/sec)
E22	11/29/12	955505.795	927544.790	4	11.47	1,111.0 1,0	075.0	1,077.5	-3	51.73	5,004	3.0%	7,506	4.5%	850.0	0.51%	2,331	2,099							
G22	11/29/12	955491.023	927555.645	2	5.73	1,111.0 1,0	073.0	1,075.0	-2	62.68	6,252	3.1%	9,378	4.6%	1,020.0	0.50%	2,760	2,624							
G24	11/29/12	955504.835	927556.752	3	8.60	1,111.0 1,0	075.0	1,077.0	-2	55.56	5,008	2.8%	7,512	4.2%	800.0	0.45%	2,440	2,102							
124 E21	11/29/12	955496.970	927568.160	2	5.73	1,111.0 1,0	073.0	1,076.0	-3	62.68	6,264 5.004	3.1%	9,396	4.6%	1,030.0	0.51%	2,785	2,623							
E21 F20	11/30/12	955498.069	927544.237	4	17.20	1,111.0 1,0	073.0	1,077.0	-2	46 54	5,004	3.0%	7,500	4.5%	850.0	0.52%	2,390	2,103							
H22	11/30/12	955487.091	927561.349	5	17.20	1,111.0 1,0	072.0	1,074.0	-2	47.76	5,008	3.2%	7,512	4.9%	830.0	0.54%	2,293	2,103							
J23	11/30/12	955486.132	927573.310	4	11.47	1,111.0 1,0	072.0	1,074.0	-2	56.04	6,256	3.4%	9,384	5.2%	1,020.0	0.56%	3,264	2,620	CH-ISS-J23	10		680	6.09E-08		
H27	11/30/12	955521.621	927564.117	4	11.47	1,111.0 1,0	077.0	1,078.5	-2	48.86	3,748	2.4%	5,622	3.6%	650.0	0.42%	2,144	1,582							
H24	11/30/12	955500.903	927562.456	4	11.47	1,111.0 1,0	074.0	1,076.5	-3	53.17	4,996	2.9%	7,494	4.4%	840.0	0.49%	2,350	2,103							
L24 129	11/30/12	955492.079	927585.826	2	5.73	1,111.0 1,0	073.0	1,076.0	-3	63 30	6,256 6,248	3.1%	9,384	4.6%	1,050.0	0.52%	2,757	2,624							
J27	11/30/12	955513.756	927575.525	0	0.00	1.111.0 1.0	077.0	1.079.0	-2	63.30	6.252	3.1%	9.378	4.6%	1.040.0	0.52 %	2,730	2,636							
J25	11/30/12	955499.944	927574.418	2	5.73	1,111.0 1,0	074.0	1,077.0	-3	61.03	6,252	3.2%	9,378	4.8%	1,050.0	0.53%	2,693	2,638							
L30	11/30/12	955533.515	927589.148	2	5.73	1,111.0 1,0	077.0	1,079.5	-3	56.08	5,000	2.8%	7,500	4.2%	840.0	0.47%	2,456	2,097							
L26	11/30/12	955505.891	927586.933	0	0.00	1,111.0 1,0	076.0	1,079.0	-3	65.16	6,252	3.0%	9,378	4.5%	1,030.0	0.49%	2,862	2,625							
L28	11/30/12	955519.703	927588.040	0	0.00	1,111.0 1,0	077.0	1,080.0	-3	63.30	6,256	3.1%	9,384	4.6%	1,060.0	0.52%	2,775	2,625	CH-ISS-L28	15		485	1.37E-07		
N31 N25	11/30/12	955539.462	927601.663	3	8.60	1,111.0 1,0	077.0	1,079.5	-3	52.47	5,004	3.0%	7,506	4.5%	860.0	0.51%	2,285	2,101							
N23	11/30/12	955511.838	927599.448	0	0.00	1,111.0 1,0)77.0	1.080.0	-3	63.30	6.252	3.1%	9,378	4.6%	1.010.0	0.52%	2,003	2,624							
N29	11/30/12	955525.650	927600.556	0	0.00	1,111.0 1,0	078.0	1,080.0	-2	61.44	6,264	3.2%	9,396	4.8%	1,060.0	0.54%	2,678	2,622							
P29	11/30/12	955524.691	927612.517	0	0.00	1,111.0 1,0	078.0	1,080.0	-2	61.44	6,260	3.2%	9,390	4.8%	1,020.0	0.52%	2,725	2,622							
F21	12/1/12	955494.956	927549.941	5	17.20	1,111.0 1,0	074.0	1,076.0	-2	45.31	5,000	3.4%	7,500	5.1%	850.0	0.58%	2,175	2,098							
H23	12/1/12	955493.997	927561.902	6	34.40	1,111.0 1,0	073.0	1,075.0	-2	22.33	3,760	5.2%	5,640	7.8%	640.0	0.89%	2,054	1,583							
H25	12/1/12	955507.809	927563.010	5	17.20	1,111.0 1,0	076.0	1,078.0	-2	42.86	3,748	2.7%	5,622	4.1%	660.0 840.0	0.48%	2,046	1,578							
.130	12/1/12	955534 474	927577 186	4	11.47	1,111.0 1,0	073.0	1,075.0	-2	48.86	4,990	2.0%	7,494	4.2%	610.0	0.46%	2,415	2,097							
J26	12/1/12	955506.850	927574.971	3	8.60	1,111.0 1,0	076.0	1,078.0	-2	54.01	5,012	2.9%	7,518	4.3%	850.0	0.49%	2,376	2,100	CH-ISS-J26	32		430	1.88E-07		
J28	12/1/12	955520.662	927576.079	2	5.73	1,111.0 1,0)77.0	1,079.0	-2	56.08	5,000	2.8%	7,500	4.2%	820.0	0.46%	2,451	2,100							
F22	12/3/12	955501.862	927550.494	6	34.40	1,111.0 1,0	074.0	1,076.5	-3	21.75	3,756	5.4%	5,634	8.0%	620.0	0.88%	2,085	1,571							
126	12/3/12	955510.782	927569.267	5	17.20	1,111.0 1,0	077.0	1,079.0	-2	41.64	3,744	2.8%	5,616	4.2%	630.0	0.47%	1,979	1,582							
128	12/3/12	955524.595	927570.375	4	11.47	1,111.0 1,0	077.0	1,079.0	-2	48.86	5,008	3.2%	7,512	4.8%	820.0	0.52%	2,146	2,099							
K23	12/3/12	955489.105	927579.568	5	17.20	1,111.0 1,0	073.0	1,075.0	-2	46.54	11,732	7.8%	17,598	11.7%	1,920.0	1.28%	5,954	4,692							
K29	12/3/12	955530.541	927582.890	4	11.47	1,111.0 1,0	077.0	1,079.0	-2	48.80	5,004	3.2%	7,506	4.8%	820.0	0.52%	2,145	2,097							
K27	12/3/12	955502 017	927580 675	3	0.00 8.60	1,111.0 1,0	077.0	1,060.0	-3	55 56	5,000	3.0%	7,500	4.5%	810.0	0.49%	2,293	2,100							
M24	12/3/12	955495.052	927502.073	4	11 47	1,111.0 1,0	073.0	1,076.5	-3	53.17	7 508	2.0%	11 262	6.6%	1 220 0	0.43%	2,430	2,101							
M30	12/3/12	955536,488	927595,406	4	11.47	1,111.0 1,0	077.0	1,079.5	-3	48.86	5.000	3.2%	7.500	4.8%	830.0	0.53%	2,145	2,100	CH-ISS-M30	10		425	7.56E-07		
M28	12/3/12	955522.676	927594.298	2	5.73	1.111.0 1.0	078.0	1.080.0	-2	54.43	5.008	2.9%	7.512	4.3%	820.0	0.47%	2.384	2.101							
M26	12/3/12	955508.864	927593.191	2	5.73	1,111.0 1,0	077.0	1,079.5	-3	56.08	5,000	2.8%	7,500	4.2%	810.0	0.45%	2,452	2,106							
O25	12/3/12	955500.999	927604.599	2	5.73	1,111.0 1,0	075.0	1,077.0	-2	59.38	5,000	2.6%	7,500	3.9%	810.0	0.42%	2,603	2,102							
O29	12/3/12	955528.623	927606.813	2	5.73	1,111.0 1,0	078.0	1,080.0	-2	54.43	5,004	2.9%	7,506	4.3%	830.0	0.48%	2,373	2,100							
O27	12/3/12	955514.811	927605.706	1	2.87	1,111.0 1,0	077.0	1,080.0	-3	59.69	5,000	2.6%	7,500	3.9%	830.0	0.43%	2,610	2,102							
129	12/4/12	955531.501	927570.929	6	34.40	1,111.0 1,0	077.0	1,079.0	-2	19.98	3,748	5.9%	5,622	8.8%	620.0	0.97%	1,830	1,573							
127	12/4/12	955517.688	927569.821	6	34.40	1,111.0 1,0	077.0	1,079.0	-2	19.98	3,752	5.9%	5,628	8.8%	640.0	1.00%	1,820	1,584							
K24	12/4/12	955496.011	927580.122	5	17.20	1,111.0 1,0	074.0	1,076.0	-2	45.31	5,004	3.4%	7,506	5.1%	830.0	0.57%	2,176	2,098							
K28	12/4/12	955523.635	921582.336	5	17.20	1,111.0 1,0	0.1.0	1,079.0	-2	41.64	3,150	2.8%	5,034	4.2%	620.0	0.47%	1,972	1,580							
N25	12/4/12	955501 052	927502 627	Э Д	11.20	1 111 0 1 0)76.0	1 078 0	-2	50 30	3,750 8,760	2.0% 5.4%	13 140	4.2% 8 1%	1 470 0	0.41%	2 257	1,070	CH-ISS-M25	16		810	8 13E-08	+ +	
M29	12/4/12	955529 582	927594 852	ч 4	11.47	1 111 0 1 ()77 0	1 080 0	-3	48.86	5,000	3.7%	7 500	4.8%	830.0	0.53%	2 146	2 101	511155-10125	10		510	0.132-00	+	
M27	12/4/12	955515.770	927593.744	4	11.47	1.111.0 1.0)78.0	1.080.0	-2	47.42	3,756	2.5%	5.634	3.7%	610.0	0.40%	2.077	1.582							
O26	12/4/12	955507.905	927605.152	3	8.60	1,111.0 1.0	076.0	1,079.0	-3	54.01	5,012	2.9%	7,518	4.3%	850.0	0.49%	2,368	2,104						1	
O30	12/4/12	955535.529	927607.367	4	11.47	1,111.0 1,0)78.0	1,080.0	-2	47.42	3,744	2.5%	5,616	3.7%	630.0	0.42%	2,107	1,575						1	
O28	12/4/12	955521.717	927606.260	4	11.47	1,111.0 1,0	078.0	1,080.0	-2	47.42	3,752	2.5%	5,628	3.7%	620.0	0.41%	2,090	1,572							
R29	12/5/12	955530.638	927625.033	4	11.47	1,111.0 1,0	078.0	1,080.0	-2	47.42	8,988	5.9%	13,482	8.9%	1,450.0	0.96%	4,410	3,648							

		ISS Column	Coordinates			E	levations (f	ťt)	Clay				Grout M	lass					Sample	e			Pe	rmeability (cm/se	c)
						ISS C	olumn		Toe-In	Final Column	BFS	5	PC		Bento	onite	Grout	Water		Depth	UCS	(psi)			
Column ID	Date	Northing	Easting	# of Overlaps	Overlap Area (sf)	Тор	Bottom	Top of Clay	Depth (ft)	Volume (CY)	(lbs)	(%)	(lbs)	(%)	(lbs)	(%)	Volume (gal)	Volume (gal)	ID No.	(ft bgs)	7-Day	28-Day	28-Days (cm/sec)	56-Days (cm/sec)	84-Days (cm/sec)
								Project	Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923							
L29	12/5/12	955526.609	927588.594	6	34.40	1,111.0	1,077.0	1,079.0	-2	19.98	5,000	7.8%	7,500	11.7%	830.0	1.30%	2,720	2,104							
N30	12/5/12	955532.556	927601.109	6	34.40	1,111.0	1,077.0	1,080.0	-3	19.98	5,008	7.8%	7,512	11.7%	810.0	1.27%	2,502	2,100							
L27	12/6/12	955512.797	927587.487	6	34.40	1,111.0	1,078.0	1,080.0	-2	19.40	6,256	10.1%	9,384	15.2%	1,040.0	1.68%	3,103	2,631							
L25	12/6/12	955498.985	927586.379	6	34.40	1,111.0	1,075.0	1,077.0	-2	21.16	7,508	11.0%	11,262	16.5%	1,240.0	1.82%	3,634	3,153							
N28	12/6/12	955518.744	927600.002	6	34.40	1,111.0	1,078.0	1,080.0	-2	19.40	5,004	8.1%	7,506	12.1%	830.0	1.34%	2,487	2,113							
N26	12/6/12	955504.932	927598.895	6	34.40	1,111.0	1,076.0	1,078.5	-3	20.57	5,012	7.6%	7,518	11.4%	840.0	1.27%	2,314	2,106							
R24	12/6/12	955496.108	927622.264	4	11.47	1,111.0	1,073.0	1,075.0	-2	54.61	5,000	2.8%	7,500	4.2%	840.0	0.48%	2,408	2,105							
P25	12/6/12	955497.067	927610.302	4	11.47	1,111.0	1,074.0	1,076.0	-2	53.17	5,008	2.9%	7,512	4.4%	840.0	0.49%	2,338	2,114							
R26	12/6/12	955509.920	927623.372	2	5.73	1,111.0	1,076.0	1,078.0	-2	57.73	5,004	2.7%	7,506	4.1%	810.0	0.44%	2,520	2,098							
P27	12/6/12	955510.879	927611.410	2	5.73	1,111.0	1,077.0	1,079.0	-2	56.08	5,000	2.8%	7,500	4.2%	820.0	0.46%	2,442	2,103	CH-ISS-P27	10		610	1.89E-07		
R28	12/6/12	955523.732	927624.479	3	8.60	1,111.0	1,077.0	1,080.0	-3	52.47	5,012	3.0%	7,518	4.5%	840.0	0.50%	2,292	2,102							
P30	12/6/12	955531.597	927613.071	5	17.20	1,111.0	1,078.0	1,080.0	-2	40.42	5,004	3.9%	7,506	5.8%	820.0	0.64%	2,988	2,101							
Q29	12/12/12	955527.664	927618.775	5	17.20	1,111.0	1,078.0	1,080.0	-2	40.42	6,636	5.1%	9,954	7.7%	1,080.0	0.84%	2,811	2,591							
Q27	12/12/12	955513.852	927617.668	2	5.73	1,111.0	1,077.0	1,079.0	-2	56.08	5,304	3.0%	7,956	4.4%	860.0	0.48%	2,301	2,064							
Q25	12/12/12	955500.040	927616.560	3	8.60	1,111.0	1,074.0	1,077.0	-3	57.10	5,308	2.9%	7,962	4.3%	850.0	0.46%	2,364	2,074							
R25	12/13/12	955503.01	927622.818	5	17.20	1,111.0	1,074.0	1,077.0	-3	45.31	3,988	2.7%	5,982	4.1%	630.0	0.43%	2,043	1,551							
P26	12/13/12	955503.97	927610.856	5	17.20	1,111.0	1,075.0	1,078.0	-3	44.09	3,992	2.8%	5,988	4.2%	660.0	0.47%	2,015	1,547							
R27	12/13/12	955516.83	927623.925	5	17.20	1,111.0	1,077.0	1,079.0	-2	41.64	3,980	3.0%	5,970	4.5%	640.0	0.48%	1,875	1,549							
P28	12/13/12	955517.79	927611.964	5	17.20	1,111.0	1,077.0	1,080.0	-3	41.64	3,980	3.0%	5,970	4.5%	640.0	0.48%	1,884	1,548							
Q26	12/14/12	955506.95	927617.114	6	34.40	1,111.0	1,076.0	1,078.0	-2	20.57	6,628	10.0%	9,942	15.1%	1,070.0	1.62%	2,743	2,582							
Q28	12/14/12	955520.76	927618.221	6	34.40	1,111.0	1,077.0	1,080.0	-3	19.98	3,980	6.2%	5,970	9.3%	640.0	1.00%	1,720	1,552	CH-ISS-Q28	15		520	5.49E-08		

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

		ISS Column	Coordinates			E	levations (f	t)	Clay				Grout M	Mass					Sampl	е			F	Permeability (cm/se	c)
						ISS C	olumn		Toe-In	Final Column	BFS	5	PC	;	Bento	onite	Grout	Water		Depth	UCS	(psi)			
Column	Data	Northing	Easting	# of	Overlap Area	Top	Bottom	Top of	Depth	Volume	(lbs)	(%)	(lbs)	(%)	(lbs)	(%)	Volume	Volume		(ft	7-Day	28-Dav	28-Days	56-Days	84-Days
שו	Dale	Northing	Easting	Overlaps	(51)		Dottoin	Broject	(II) Totals:	(CT) 54 528 08	4 926 366	2 2%	7 404 550	(/0)	(IDS) 806 204	0.53%	(yai) 2 257 674	(yai)	ID NO.	ugs)	1-Day	20-Day	(cm/sec)	(cm/sec)	(cm/sec)
Porimeter	Aroo							TTOJECT	rotais.	54,520.90	4,330,300	J.2 /0	7,404,330	4.078	000,304	0.55 /8	2,237,074	1,030,323							
N1	9/26/12	955332.28	927585 051	0	0.00	1 110 0	1 073 0	1 077 5	-5	68 88	6 288	2.8%	9 432	4.2%	1 010 0	0.45%	3 045	2 639	[1		1			
P1	9/26/12	955331.32	927597.013	0	0.00	1,110.0	1.074.0	1.078.5	-5	67.02	6.264	2.9%	9.396	4.4%	1.030.0	0.48%	2.945	2,631							
R1	9/26/12	955337.27	927609.528	0	0.00	1,110.0	1,074.0	1,078.5	-5	67.02	6,268	2.9%	9,402	4.4%	1,030.0	0.48%	2,930	2,641							
T1	9/26/12	955350.12	927622.597	0	0.00	1,110.0	1,073.0	1,077.0	-4	68.88	6,256	2.8%	9,384	4.2%	1,020.0	0.46%	3,032	2,636							
U1	9/26/12	955360.00	927629.409	0	0.00	1,110.0	1,073.0	1,077.0	-4	68.88	6,260	2.8%	9,390	4.2%	1,030.0	0.46%	3,025	2,636	CH-ISS-U1	20		330	1.03E-07		
J1	9/27/12	955334.20	927561.128	0	0.00	1,110.0	1,069.0	1,073.5	-5	76.33	7,056	2.8%	10,584	4.3%	1,150.0	0.46%	3,015	2,555							
L1	9/27/12	955333.24	927573.090	0	0.00	1,110.0	1,071.0	1,075.5	-5	72.61	7,056	3.0%	10,584	4.5%	1,140.0	0.48%	2,850	2,550							
01	9/27/12	955335.25	927591.309	2	5.73	1,110.0	1,073.0	1,077.0	-4	61.03	5,660	2.9%	8,490	4.3%	910.0	0.46%	2,371	2,043							
Q1	9/27/12	955334.30	927603.271	2	5.73	1,110.0	1,074.0	1,078.5	-5	59.38	5,652	3.0%	8,478	4.4%	940.0	0.49%	2,315	2,041							
T2	9/27/12	955357.03	927623.151	2	5.73	1,110.0	1,073.0	1,077.0	-4	61.03	5,644	2.9%	8,466	4.3%	920.0	0.47%	2,534	2,042							
U2	9/27/12	955366.91	927629.963	1	2.87	1,110.0	1,073.0	1,077.0	-4	64.95	5,640	2.7%	8,460	4.0%	900.0	0.43%	2,538	2,037	CH-ISS-U2	34		390	2.86E-07		
D1	9/28/12	955366.946	927528.082	0	0.00	1,110.0	1,071.0	1,075.0	-4	72.61	7,068	3.0%	10,602	4.5%	1,190.0	0.51%	2,928	2,556							
F1	9/28/12	955356.835	927538.866	0	0.00	1,110.0	1,070.0	1,074.5	-5	74.47	7,088	2.9%	10,632	4.4%	1,170.0	0.48%	2,915	2,546							
G1	9/28/12	955347.494	927544.141	0	0.00	1,110.0	1,069.0	1,073.5	-5	76.33	7,068	2.8%	10,602	4.3%	1,140.0	0.46%	3,000	2,549							
II K1	9/28/12	955338.131	927555.424	1	2.87	1,110.0	1,068.0	1,073.0	-5 4	73.73	7,056	2.9%	10,584	4.4%	1,210.0	0.50%	2,900	2,559							
M1	9/20/12	955336,112	927507.300	2	5.73	1,110.0	1,070.0	1,074.0	-4	62.69	5,052	2.0%	0,470	4.0%	920.0	0.43%	2,303	2,023			-				
P2	9/20/12	955338 228	927597 567	2	3.73 8.60	1,110.0	1,072.0	1,070.0	-4	57.10	5,660	2.0%	8,400	4.2 %	900.0	0.44 //	2,445	2,037							
R2	9/28/12	955344 175	927610 082	2	5.00	1 110 0	1,073.0	1,077.0	-4	61.03	5,660	2.9%	8 4 9 0	4.3%	910.0	0.01%	2,224	2,030							
S2	9/28/12	955354.054	927616.893	3	8.60	1,110.0	1,072.0	1,076.0	-4	58.64	5.644	3.0%	8,466	4.5%	900.0	0.47%	2,301	2,000	CH-ISS-S2	10		435	3.37E-08		
T3	9/28/12	955363.934	927623.705	3	8.60	1.110.0	1.072.0	1.077.0	-5	58.64	5.656	3.0%	8.484	4.5%	930.0	0.49%	2.302	2.042	011100 02				0.07 2 00		
U3	9/28/12	955373.813	927630.516	1	2.87	1,110.0	1,072.0	1,077.0	-5	66.71	5,644	2.6%	8,466	3.9%	910.0	0.42%	2,605	2,038							
E3	10/1/12	955374.580	927534.270	0	0.00	1,110.0	1,070.0	1,074.0	-4	74.47	7,068	2.9%	10,602	4.4%	1,170.0	0.48%	2,925	2,550							
G2	10/1/12	955352.903	927544.570	2	5.73	1,110.0	1,069.0	1,074.0	-5	67.62	5,660	2.6%	8,490	3.9%	950.0	0.43%	2,646	2,029							
G4	10/1/12	955366.715	927545.678	0	0.00	1,110.0	1,069.0	1,074.0	-5	76.33	7,072	2.8%	10,608	4.3%	1,190.0	0.48%	2,991	2,541							
H1	10/1/12	955342.064	927549.720	2	5.73	1,110.0	1,069.0	1,073.0	-4	67.62	5,644	2.6%	8,466	3.8%	950.0	0.43%	2,692	2,031	CH-ISS-H1	35		320	1.51E-07		
13	10/1/12	955351.944	927556.532	0	0.00	1,110.0	1,069.0	1,073.0	-4	76.33	7,072	2.8%	10,608	4.3%	1,200.0	0.48%	2,989	2,549							
K2	10/1/12	955344.078	927567.940	1	2.87	1,110.0	1,069.0	1,073.0	-4	71.98	7,076	3.0%	10,614	4.5%	1,110.0	0.47%	2,818	2,540							
M2	10/1/12	955343.119	927579.901	1	2.87	1,110.0	1,071.0	1,075.0	-4	68.47	5,652	2.5%	8,478	3.8%	950.0	0.43%	2,692	2,035							
02	10/1/12	955342.160	927591.863	2	5.73	1,110.0	1,072.0	1,076.0	-4	62.68	5,656	2.8%	8,484	4.2%	930.0	0.46%	2,440	2,031							
P4	10/1/12	955352.040	927598.674	0	0.00	1,110.0	1,071.0	1,075.0	-4	72.61	7,056	3.0%	10,584	4.5%	1,180.0	0.50%	2,879	2,555							
Q2	10/1/12	955341.201	927603.824	4	11.47	1,110.0	1,073.0	1,077.0	-4	53.17	4,228	2.5%	6,342	3.7%	670.0	0.39%	2,246	1,526							
R3	10/1/12	955351.081	927610.636	3	8.60	1,110.0	1,073.0	1,076.0	-3	57.10	5,668	3.1%	8,502	4.6%	950.0	0.52%	2,285	2,036				-			
53 ⊤4	10/1/12	955360.960	927017.447	<u></u> ৩	8.60	1,110.0	1,072.0	1,076.5	-5 F	58.64	5,648	3.0%	8,472 9,400	4.5%	920.0	0.49%	2,283	2,039							
14	10/1/12	955380 710	921024.209	3 1	0.0U 2.87	1 110.0	1,072.0	1,076.5	-5 -5	00.04 66 71	5,636	3.0% 2.6%	0,490 8 151	4.5%	920.0 910.0	0.49%	2,209	2,033		20		405	6385.07	+	
F1	10/1/12	955360.719	927533 162	2	5.72	1 110.0	1,072.0	1,070.0	-5	65 07	5 652	2.0%	8 478	<u> </u>	910.0	0.42%	2,000	2,030	CH-ISS-04	20		735	8 20 -07	+	
G3	10/2/12	955359 809	927545 124		8.60	1,110.0	1,070.0	1,074.0	-4	61 73	5 664	2.8%	8,496	4.0%	900.0	0.45%	2,000	2,029		20		135	0.202-00	+	
H2	10/2/12	955348,970	927550,274	4	11.47	1,110.0	1.069.0	1.073.5	-5	58.92	5,644	2.9%	8,466	4.4%	950.0	0.50%	2,315	2,034							
J2	10/2/12	955341.105	927561.682	4	11.47	1.110.0	1.068.0	1.073.0	-5	60.36	5.660	2.9%	8,490	4.3%	930.0	0.47%	2.370	2.039							
K3	10/2/12	955350.984	927568.493	1	2.87	1,110.0	1,068.0	1,073.0	-5	73.73	7,060	2.9%	10,590	4.4%	1,170.0	0.49%	2,895	2,551							
L2	10/2/12	955340.146	927573.644	5	17.20	1,110.0	1,070.0	1,074.0	-4	48.99	4,236	2.7%	6,354	4.0%	700.0	0.44%	2,090	1,524							
M3	10/2/12	955350.025	927580.455	1	2.87	1,110.0	1,070.0	1,074.0	-4	70.22	7,072	3.1%	10,608	4.7%	1,160.0	0.51%	2,755	2,549							
N2	10/2/12	955339.187	927585.605	5	17.20	1,110.0	1,072.0	1,074.5	-3	46.54	4,236	2.8%	6,354	4.2%	680.0	0.45%	1,975	1,532							
03	10/2/12	955349.066	927592.417	2	5.73	1,110.0	1,071.0	1,075.0	-4	64.32	5,640	2.7%	8,460	4.1%	940.0	0.45%	2,508	2,033	CH-ISS-O3	10		465	1.31E-07		
Q3	10/2/12	955348.107	927604.378	4	11.47	1,110.0	1,072.0	1,076.0	-4	54.61	5,640	3.2%	8,460	4.8%	950.0	0.54%	2,131	2,034							
R4	10/2/12	955357.987	927611.190	3	8.60	1,110.0	1,071.0	1,075.5	-5	60.18	5,660	2.9%	8,490	4.4%	940.0	0.48%	2,350	2,044							
S4	10/2/12	955367.866	927618.001	3	8.60	1,110.0	1,072.0	1,076.0	-4	58.64	5,664	3.0%	8,496	4.5%	910.0	0.48%	2,300	2,034							
T5	10/2/12	955377.746	927624.812	3	8.60	1,110.0	1,072.0	1,076.0	-4	58.64	5,652	3.0%	8,478	4.5%	920.0	0.49%	2,290	2,033							
D2	10/3/12	955371.606	927528.012	2	5.73	1,110.0	1,071.0	1,075.0	-4	64.32	6,268	3.0%	9,402	4.5%	1,040.0	0.50%	3,118	2,641							
E4	10/3/12	955381.486	927534.823	1	2.87	1,110.0	1,069.0	1,0/3.5	-5	/1.98	6,280	2.7%	9,420	4.0%	1,120.0	0.48%	3,230	2,623							
+2	10/3/12	955363.741	927539.420	4	11.47	1,110.0	1,070.0	1,074.5	-5	57.48	6,272	3.4%	9,408	5.0%	830.0	0.44%	3,177	2,633		1					

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

		ISS Column	Coordinates			E	levations (ft)	Clay				Grout M	lass					Sample	e			P	ermeability (cm/sec	;)
	·					ISS C	olumn		Toe-In	Final Column	BES	3	PC		Bento	onite	Grout	Water		Depth	UCS	(nsi)			
Column				# of	Overlap Area			Top of	Depth	Volume					Donie		Volume	Volume		(ft			28-Days	56-Days	84-Days
ID	Date	Northing	Easting	Overlaps	(sf)	Тор	Bottom	Clay	(ft)	(CY)	(lbs)	(%)	(lbs)	(%)	(lbs)	(%)	(gal)	(gal)	ID No.	bgs)	7-Day	28-Day	(cm/sec)	(cm/sec)	(cm/sec)
								Project	Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923							
H3	10/3/12	955355,876	927550,828	4	11.47	1,110.0	1.069.0	1.073.5	-5	58.92	5.016	2.6%	7.524	3.9%	1.070.0	0.56%	2,610	2,103							
12	10/3/12	955345.038	927555.978	5	17.20	1,110.0	1,068.0	1,073.0	-5	51.44	6,572	3.9%	9,858	5.9%	930.0	0.55%	3,000	2,599							
L3	10/3/12	955347.052	927574.197	5	17.20	1,110.0	1,069.0	1,073.0	-4	50.21	5,656	3.5%	8,484	5.2%	730.0	0.45%	2,141	2,032	CH-ISS-L3	35		605	3.00E-08		
N3	10/3/12	955346.093	927586.159	5	17.20	1,110.0	1,071.0	1,075.0	-4	47.76	4,248	2.7%	6,372	4.1%	930.0	0.60%	2,031	1,524							
P3	10/3/12	955345.134	927598.120	6	34.40	1,110.0	1,072.0	1,076.0	-4	22.33	5,648	7.8%	8,472	11.7%	940.0	1.30%	2,312	2,034							
Q4	10/3/12	955355.013	927604.932	4	11.47	1,110.0	1,071.0	1,075.0	-4	56.04	5,652	3.1%	8,478	4.7%	940.0	0.52%	2,260	2,031							
R5	10/3/12	955364.893	927611.743	3	8.60	1,110.0	1,071.0	1,075.5	-5	60.18	5,664	2.9%	8,496	4.4%	910.0	0.47%	2,355	2,047							
\$5	10/3/12	955374.772	927618.555	3	8.60	1,110.0	1,072.0	1,076.0	-4	58.64	5,648	3.0%	8,472	4.5%	220.0	0.12%	2,290	2,036							
Δ3	10/4/12	955390.310	927512 561	0	0.00	1,110.0	1,071.0	1,075.5	-5 -5	72.01	7,000	3.0%	10,564	4.5%	1,130.0	0.46%	2,030	2,544							
A5 45	10/4/12	955404.122	927513.669	0	0.00	1,110.0	1,070.0	1,074.5	-5	74.47	7,004	2.9%	10,590	4.4 %	1,120.0	0.40%	2,919	2,542							
A7	10/4/12	955431,746	927514,776	0	0.00	1,110.0	1,070.0	1,075.5	-5	72.61	7,060	3.0%	10,590	4.5%	1,120.0	0.49%	2,832	2,546							
A9	10/4/12	955445.558	927515.884	0	0.00	1,110.0	1.072.0	1.076.5	-5	70.74	7.056	3.1%	10,584	4.6%	1,160.0	0.51%	2,756	2,541							
A11	10/4/12	955459.370	927516.991	0	0.00	1,111.0	1,073.0	1,077.5	-5	70.74	7,052	3.1%	10,578	4.6%	1,140.0	0.50%	2,756	2,544							
B1	10/4/12	955379.471	927516.604	0	0.00	1,110.0	1,071.0	1,075.5	-5	72.61	6,268	2.7%	9,402	4.0%	1,040.0	0.44%	3,200	2,624	CH-ISS-B1	10		290	6.61E-07		
C3	10/4/12	955389.351	927523.416	0	0.00	1,110.0	1,070.0	1,074.0	-4	74.47	7,064	2.9%	10,596	4.4%	1,120.0	0.46%	2,910	2,539							
C5	10/4/12	955403.163	927524.523	0	0.00	1,110.0	1,069.0	1,073.0	-4	76.33	7,072	2.8%	10,608	4.3%	1,140.0	0.46%	3,000	2,645							
C7	10/4/12	955416.975	927525.630	0	0.00	1,110.0	1,069.0	1,073.0	-4	76.33	7,052	2.8%	10,578	4.3%	1,110.0	0.45%	3,001	2,542							
C9	10/4/12	955430.787	927526.738	0	0.00	1,110.0	1,070.0	1,074.0	-4	74.47	7,056	2.9%	10,584	4.4%	1,140.0	0.47%	2,919	2,546	CH-ISS-C9	20		435	3.55E-07		
C11	10/4/12	955444.599	927527.845	0	0.00	1,110.0	1,071.0	1,075.0	-4	72.61	7,056	3.0%	10,584	4.5%	1,170.0	0.50%	2,835	2,545							
C13	10/4/12	955458.411	927528.953	0	0.00	1,111.0	1,072.0	1,076.0	-4	72.61	7,064	3.0%	10,596	4.5%	1,130.0	0.48%	2,900	2,545							
D3	10/4/12	955378.512	927528.566	3	8.60	1,110.0	1,070.0	1,074.0	-4	61.73	5,008	2.5%	7,512	3.7%	840.0	0.42%	2,731	2,105							
E2	10/4/12	955367.674	927533.716	5	17.20	1,110.0	1,070.0	1,074.5	-5	48.99	5,016	3.2%	7,524	4.7%	840.0	0.53%	2,645	2,112							
J3	10/4/12	955348.011	927562.236	5	17.20	1,110.0	1,068.0	1,073.0	-5	51.44	5,004	3.0%	7,506	4.5%	840.0	0.50%	2,480	2,098		05		0.05	1.005.07		
A4	10/5/12	955411.028	927513.115	2	5.73	1,110.0	1,070.0	1,074.0	-4	65.97	5,652	2.6%	8,478	4.0%	910.0	0.42%	2,587	2,032	CH-155-A4	35		825	1.08E-07		
A IU B3	10/5/12	900402.404	927510.437	2	5.73 8.60	1,110.0	1,073.0	1,077.0	-4	61.03	5,660	2.9%	8,302 8,400	4.3%	920.0	0.47%	2,378	2,029	CH-ISS-B3	10		510	1 02E-07		
B4	10/5/12	955400 190	927518 265	2	5.00	1,110.0	1,070.0	1,074.0	-3	65.97	5,648	2.0%	8 472	4.2 %	900.0	0.40%	2,430	2,032	011100-00	10		510	1.022-07		
B7	10/5/12	955420,908	927519.926	2	5.73	1,110.0	1,070.0	1.074.0	-4	65.97	5,664	2.6%	8,496	4.0%	940.0	0.44%	2,586	2,042							
B9	10/5/12	955434.720	927521.034	2	5.73	1.110.0	1.070.0	1.075.0	-5	65.97	5.656	2.6%	8.484	4.0%	910.0	0.42%	2.584	2.031							
B13	10/5/12	955462.344	927523.249	2	5.73	1,111.0	1,073.0	1,077.0	-4	62.68	5,660	2.8%	8,490	4.2%	950.0	0.47%	2,447	2,036							
C1	10/5/12	955375.539	927522.308	3	8.60	1,110.0	1,071.0	1,075.0	-4	60.18	5,648	2.9%	8,472	4.3%	920.0	0.47%	2,355	2,037							
C6	10/5/12	955410.069	927525.077	2	5.73	1,110.0	1,068.0	1,073.0	-5	69.27	5,797	2.6%	8,696	3.9%	1,170.0	0.52%	2,730	2,545							
C12	10/5/12	955451.505	927528.399	2	5.73	1,110.0	1,071.0	1,076.0	-5	64.32	5,660	2.7%	8,490	4.1%	940.0	0.45%	2,515	2,038							
C15	10/5/12	955472.223	927530.060	0	0.00	1,111.0	1,073.0	1,077.5	-5	70.74	7,056	3.1%	10,584	4.6%	1,200.0	0.52%	2,764	2,546							
D4	10/5/12	955385.418	927529.119	3	8.60	1,110.0	1,069.0	1,074.0	-5	63.27	5,652	2.7%	8,478	4.1%	910.0	0.44%	2,490	2,032							
F3	10/5/12	955370.647	927539.974	4	11.47	1,110.0	1,070.0	1,074.0	-4	57.48	5,644	3.0%	8,466	4.5%	930.0	0.50%	2,249	2,029							
A2	10/6/12	955397.216	927512.008	4	11.47	1,110.0	1,071.0	1,075.0	-4	56.04	5,648	3.1%	8,472	4.7%	930.0	0.51%	2,190	2,032					5715.00		
A6	10/6/12	955424.840	927514.223	3	8.60	1,110.0	1,070.0	1,075.0	-5	61.73	5,660	2.8%	8,490	4.2%	1,000.0	0.50%	2,420	2,036	CH-ISS-A6	20		960	5.71E-08		
A8	10/6/12	955438.652	927515.330	3	8.60	1,110.0	1,071.0	1,076.0	-5	60.18	5,650	2.9%	8,484	4.4%	930.0	0.48%	2,393	2,036							
R2	10/6/12	955386 378	927517 158	4	11.47	1,111.0	1,075.0	1,079.0	-4	56.04	5,648	3.4%	0,470 8,472	0.1%	910.0	0.55%	2,000	2,030							
B11	10/6/12	955448 532	927522 141	4	8.60	1,110.0	1,071.0	1,075.0	-4	58.64	5 648	3.1%	8 472	4.7 %	930.0	0.33%	2,200	2,040							
C8	10/6/12	955423,881	927526,184	3	8.60	1,110.0	1,072.0	1,074.0	-5	63.27	5,640	2.7%	8,460	4.1%	920.0	0.45%	2,204	2,035							
C10	10/6/12	955437.693	927527.292	3	8.60	1,110.0	1.070.0	1.075.0	-5	61.73	5.664	2.8%	8,496	4.2%	980.0	0.49%	2,420	2.034							
C14	10/6/12	955465.317	927529.507	3	8.60	1,111.0	1,072.0	1,077.0	-5	60.18	5,648	2.9%	8,472	4.3%	940.0	0.48%	2,356	2,033						1	
A12	10/8/12	955466.277	927517.545	3	8.60	1,111.0	1,074.0	1,078.5	-5	57.10	5,668	3.1%	8,502	4.6%	940.0	0.51%	2,224	2,039	CH-ISS-A12	34		545	1.70E-07	1 1	
B5	10/8/12	955407.096	927518.819	5	17.20	1,110.0	1,069.0	1,073.5	-5	50.21	5,648	3.5%	8,472	5.2%	930.0	0.57%	2,360	2,031						1 1	
B8	10/8/12	955427.814	927520.480	6	34.40	1,110.0	1,070.0	1,074.5	-5	23.51	4,248	5.6%	6,372	8.3%	720.0	0.94%	2,044	1,529							
B12	10/8/12	955455.438	927522.695	6	34.40	1,110.0	1,072.0	1,076.5	-5	22.33	4,248	5.9%	6,372	8.8%	730.0	1.01%	2,025	1,526							
B15	10/8/12	955476.156	927524.356	2	5.73	1,111.0	1,074.0	1,078.5	-5	61.03	5,668	2.9%	8,502	4.3%	930.0	0.47%	2,370	2,033							
C2	10/8/12	955382.445	927522.862	6	34.40	1,110.0	1,070.0	1,074.5	-5	23.51	4,240	5.6%	6,360	8.3%	680.0	0.89%	1,945	1,526						ļļ	
C4	10/8/12	955396.257	927523.969	4	11.47	1,110.0	1,069.0	1,073.5	-5	58.92	7,072	3.7%	10,608	5.5%	1,130.0	0.59%	3,282	2,545							

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

		ISS Column	Coordinates			E	levations (ft)	Clay				Grout M	lass					Sample	e			Р	ermeability (cm/sed	2)
	ľ					ISS C	olumn		Toe-In	Final Column	BES	;	PC		Bento	onite	Grout	Water		Depth	UCS	(nsi)			
Column				# of	Overlap Area			Top of	Depth	Volume		<u> </u>			Donit		Volume	Volume		(ft			28-Days	56-Days	84-Days
ID	Date	Northing	Easting	Overlaps	(sf)	Тор	Bottom	Clay	(ft)	(CY)	(lbs)	(%)	(lbs)	(%)	(lbs)	(%)	(gal)	(gal)	ID No.	bgs)	7-Day	28-Day	(cm/sec)	(cm/sec)	(cm/sec)
								Project	Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923							
A14	10/9/12	955480.089	927518,652	2	5.73	1.111.0	1.075.0	1.079.5	-5	59.38	5.668	3.0%	8.502	4.5%	970.0	0.51%	2,301	2.049							
B10	10/9/12	955441.626	927521.588	6	34.40	1,110.0	1,071.0	1,075.5	-5	22.92	4,252	5.7%	6,378	8.6%	740.0	1.00%	1,965	1,525							
B14	10/9/12	955469.250	927523.803	6	34.40	1,111.0	1,074.0	1,078.0	-4	21.75	4,260	6.1%	6,390	9.1%	730.0	1.04%	2,009	1,524	CH-ISS-B14	10		375	9.94E-08		
B17	10/9/12	955489.968	927525.464	0	0.00	1,111.0	1,075.0	1,079.0	-4	67.02	5,648	2.6%	8,472	3.9%	950.0	0.44%	2,598	2,035							,
C16	10/9/12	955479.129	927530.614	2	5.73	1,111.0	1,073.0	1,078.0	-5	62.68	5,668	2.8%	8,502	4.2%	960.0	0.47%	2,441	2,031							
B6	10/10/12	955414.002	927519.373	6	34.40	1,110.0	1,069.0	1,073.5	-5	24.10	8,784	11.2%	13,176	16.8%	1,510.0	1.93%	4,240	3,676							
H4	10/10/12	955362.782	927551.381	4	11.47	1,110.0	1,071.0	1,073.5	-3	56.04	8,496	4.7%	12,744	7.0%	1,440.0	0.79%	3,681	3,056	CH-ISS-H4	20		710	1.19E-07		
A15	10/11/12	955486.995	927519.206	2	5.73	1,110.0	1,076.0	1,080.0	-4	56.08	5,028	2.7%	7,542	4.1%	890.0	0.48%	2,523	2,105							
B16	10/11/12	955483.062	927524.910	6	34.40	1,110.0	1,075.0	1,079.0	-4	20.57	3,772	5.5%	5,658	8.3%	700.0	1.03%	1,928	1,575							
C17	10/11/12	955486.036	927531.168	3	8.60	1,110.0	1,074.0	1,078.0	-4	55.56	5,024	2.7%	7,536	4.1%	920.0	0.50%	2,533	2,101							
A16	10/29/12	955493.901	927519.760	2	5.73	1,110.0	1,076.0	1,080.5	-5	56.08	5,664	3.1%	8,496	4.6%	950.0	0.51%	2,235	2,030							
A18	10/29/12	955507.713	927520.867	0	0.00	1,110.0	1,077.0	1,081.0	-4	61.44	5,648	2.8%	8,472	4.2%	940.0	0.46%	2,440	2,032	ISS-CH-A18	10		600	3.53E-07		
A17	10/30/12	955500.807	927520.314	2	5.73	1,111.0	1,076.0	1,081.0	-5	57.73	5,660	3.1%	8,490	4.6%	940.0	0.51%	2,240	2,036							
A19	10/30/12	955514.619	927521.421	1	2.87	1,111.0	1,077.0	1,081.5	-5	59.69	5,644	3.0%	8,466	4.4%	940.0	0.49%	2,310	2,032							
A21	10/30/12	955528.431	927522.528	0	0.00	1,111.0	1,077.0	1,081.5	-5	63.30	5,656	2.8%	8,484	4.2%	950.0	0.47%	2,445	2,028							
A23	10/30/12	955542.243	927523.636	0	0.00	1,111.0	1,077.0	1,081.0	-4	63.30	5,648	2.8%	8,472	4.2%	930.0	0.46%	2,439	2,029							
A25	10/30/12	955556.055	927524.743	0	0.00	1,111.0	1,077.0	1,081.0	-4	63.30	5,660	2.8%	8,490	4.2%	940.0	0.46%	2,449	2,033	011100.407			100			
A27	10/30/12	955569.867	927525.851	0	0.00	1,111.0	1,077.0	1,082.0	-5	63.30	5,660	2.8%	8,490	4.2%	940.0	0.46%	2,451	2,035	CH-ISS-A27	20		430	4.39E-07		
019	10/30/12	955499.848	927532.275	0	0.00	1,111.0	1,075.0	1,079.0	-4	67.02	5,664	2.6%	8,496	3.9%	930.0	0.43%	2,605	2,034							
021	10/30/12	955513.660	927533.383	0	0.00	1,111.0	1,075.0	1,080.0	-5	67.02	5,050	2.6%	8,484	3.9%	940.0	0.44%	2,597	2,041							
023	10/30/12	955527.472	927534.490	0	0.00	1,111.0	1,076.0	1,000.0	-4	67.02	5,072	2.1%	0,000	4.1%	960.0	0.47%	2,522	2,029							
C25	10/30/12	955555 006	927536 705	0	0.00	1,111.0	1,075.0	1,079.0	-4	67.02	5,000	2.0%	0,302 8.472	3.9%	950.0	0.44%	2,002	2,039							
C20	10/30/12	955568 008	927537 812	0	0.00	1,111.0	1,075.0	1,079.0	-4	67.02	5,660	2.0%	8.400	3.9%	900.0	0.45%	2,005	2,031							
D32	10/30/12	955578 788	927544 624	0	0.00	1 111 0	1,075.0	1,079.5	-3	65.16	5,000	2.0 %	8,490	3.9 % 4 1%	900.0	0.45%	2,012	2,030							
A20	10/31/12	955521 525	927521 975	2	5.00	1 111 0	1,070.0	1,000.0	-5	56.08	5 656	3.2%	8 484	4.7%	910.0	0.51%	2,020	1,582							
A22	10/31/12	955535.337	927523.082	2	5.73	1.111.0	1.077.0	1,002.0	-5	56.08	5,656	3.2%	8,484	4.7%	940.0	0.52%	2,158	2.036							
A24	10/31/12	955549.149	927524.190	2	5.73	1.111.0	1.077.0	1.081.0	-4	56.08	5.664	3.2%	8,496	4.7%	950.0	0.53%	2.163	2.039							
A26	10/31/12	955562.961	927525.297	2	5.73	1,111.0	1,077.0	1,081.0	-4	56.08	5,656	3.2%	8,484	4.7%	930.0	0.52%	2,167	2,037							
A28	10/31/12	955576.773	927526.405	1	2.87	1,111.0	1,078.0	1,082.0	-4	57.93	5,668	3.1%	8,502	4.6%	950.0	0.51%	2,226	2,036							
C18	10/31/12	955492.942	927531.721	3	8.60	1,111.0	1,074.0	1,078.5	-5	57.10	5,652	3.1%	8,478	4.6%	930.0	0.50%	2,234	2,028							
C20	10/31/12	955506.754	927532.829	2	5.73	1,111.0	1,075.0	1,079.5	-5	59.38	5,648	3.0%	8,472	4.4%	950.0	0.50%	2,300	2,026							
C22	10/31/12	955520.566	927533.936	2	5.73	1,111.0	1,076.0	1,080.0	-4	57.73	5,656	3.1%	8,484	4.6%	960.0	0.52%	2,236	2,034	CH-ISS-C22	32		730	7.51E-08		
C24	10/31/12	955534.378	927535.044	2	5.73	1,111.0	1,075.0	1,079.5	-5	59.38	5,648	3.0%	8,472	4.4%	900.0	0.47%	2,295	2,035							
C26	10/31/12	955548.190	927536.151	2	5.73	1,111.0	1,075.0	1,079.0	-4	59.38	5,640	3.0%	8,460	4.4%	920.0	0.48%	2,295	2,034							
C28	10/31/12	955562.002	927537.259	2	5.73	1,111.0	1,075.0	1,079.0	-4	59.38	5,652	3.0%	8,478	4.4%	930.0	0.49%	2,295	2,034							
D31	10/31/12	955571.881	927544.070	2	5.73	1,111.0	1,075.0	1,079.5	-5	59.38	5,648	3.0%	8,472	4.4%	900.0	0.47%	2,295	2,037							
E30	10/31/12	955561.043	927549.220	0	0.00	1,111.0	1,075.0	1,079.0	-4	67.02	5,640	2.6%	8,460	3.9%	920.0	0.43%	2,590	1,582							
F32	10/31/12	955570.922	927556.032	0	0.00	1,111.0	1,075.0	1,079.5	-5	67.02	5,648	2.6%	8,472	3.9%	910.0	0.42%	2,590	2,033	CH-ISS-F32	10		420	3.25E-07		
B18	11/1/12	955496.874	927526.017	4	11.47	1,111.0	1,075.0	1,080.0	-5	51.73	4,244	2.5%	6,366	3.8%	700.0	0.42%	2,016	1,527							
B20	11/1/12	955510.686	927527.125	4	11.47	1,111.0	1,076.0	1,080.5	-5	50.30	4,236	2.6%	6,354	3.9%	700.0	0.43%	1,950	1,523							
B22	11/1/12	955524.498	927528.232	4	11.47	1,111.0	1,077.0	1,081.0	-4	48.86	4,248	2.7%	6,372	4.1%	710.0	0.45%	1,895	1,524							
B24	11/1/12	955538.310	927529.340	4	11.47	1,111.0	1,076.0	1,080.5	-5	50.30	4,232	2.6%	6,348	3.9%	700.0	0.43%	1,952	1,519							
B20	11/1/1Z	955552.122	927530.447	4	11.47	1,111.0	1,075.0	1,080.0	-5 5	51.73	4,248	2.6%	6,372	3.8%	720.0	0.43%	2,007	1,522							
D20 B20	11/1/12	900000.930	921001.000	4	11.4/ 2.97	1 111.0	1,070.0	1,000.5	-5 _/	50.50	4,230	2.0% 3.0%	0,304 8 479	3.9%	00.0	0.43%	0,900	1,520						++	
000	11/1/12	333379.747	321332.002		2.01	1,111.0	1,077.0	1,001.0	-4	59.09	5,052	J.U70	0,470	4.470	900.0	0.00%	2,299	2,034						4 673-07	
D30	11/1/12	955564.975	927543.516	4	11.47	1,111.0	1,075.0	1,079.0	-4	51.73	4,248	2.6%	6,372	3.8%	720.0	0.43%	2,020	1,528	CH-ISS-D30	16		750	1.29E-06	(7.10E-08)	
F31	11/1/12	955564.016	927555.478	2	5.73	1,111.0	1,075.0	1,079.0	-4	59.38	5,648	3.0%	8,472	4.4%	950.0	0.50%	2,305	2,035							
F33	11/1/12	955577.828	927556.585	1	2.87	1,111.0	1,076.0	1,080.0	-4	61.44	5,656	2.9%	8,484	4.3%	950.0	0.48%	2,380	2,030							
H33	11/1/12	955563.057	927567.440	0	0.00	1,111.0	1,075.0	1,079.0	-4	67.02	5,660	2.6%	8,490	3.9%	940.0	0.44%	2,606	2,028							
H35	11/1/12	955576.869	927568.547	0	0.00	1,111.0	1,076.0	1,080.5	-5	65.16	5,656	2.7%	8,484	4.1%	960.0	0.46%	2,530	2,034						ļ	
J36	11/1/12	955575.910	927580.509	0	0.00	1,111.0	1,076.0	1,080.0	-4	65.16	5,656	2.7%	8,484	4.1%	960.0	0.46%	2,550	2,034							

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

		ISS Column	Coordinates			EI	levations (ft)	Clay				Grout M	lass					Sample	e			Р	ermeability (cm/se	c)
						ISS C	olumn		Toe-In	Final Column	BFS		PC		Bento	onite	Grout	Water		Depth	UCS	(psi)			*
Column				# of	Overlap Area			Top of	Depth	Volume					Donie		Volume	Volume		(ft			28-Days	56-Days	84-Days
ID	Date	Northing	Easting	Overlaps	(sf)	Тор	Bottom	Clay	(ft)	(CY)	(lbs)	(%)	(lbs)	(%)	(lbs)	(%)	(gal)	(gal)	ID No.	bgs)	7-Day	28-Day	(cm/sec)	(cm/sec)	(cm/sec)
								Project	Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923							
N34	11/1/12	955560.180	927603.324	0	0.00	1,111.0	1,075.0	1,079.0	-4	67.02	5,652	2.6%	8,478	3.9%	940.0	0.44%	2,620	2,028							
N36	11/1/12	955573.992	927604.432	0	0.00	1,111.0	1,075.0	1,079.5	-5	67.02	5,656	2.6%	8,484	3.9%	940.0	0.44%	2,599	2,035							
B19	11/2/12	955503.780	927526.571	6	34.40	1,111.0	1,076.0	1,080.0	-4	20.57	4,240	6.4%	6,360	9.6%	680.0	1.03%	1,668	1,529							
B21	11/2/12	955517.592	927527.679	6	34.40	1,111.0	1,076.0	1,081.0	-5	20.57	4,232	6.4%	6,348	9.6%	690.0	1.05%	1,659	1,523							
B23	11/2/12	955531.404	927528.786	6	34.40	1,111.0	1,076.0	1,080.5	-5	20.57	4,236	6.4%	6,354	9.6%	680.0	1.03%	1,660	1,529	CH-ISS-B23	32		375	2.48E-07		
B25	11/2/12	955545.216	927529.894	6	34.40	1,111.0	1,076.0	1,080.0	-4	20.57	4,232	6.4%	6,348	9.6%	670.0	1.01%	1,660	1,522							
B27	11/2/12	955559.028	927531.001	6	34.40	1,111.0	1,076.0	1,080.0	-4	20.57	4,240	6.4%	6,360	9.6%	690.0	1.05%	1,656	1,529							
C30	11/2/12	955575.814	927538.366	4	11.47	1,111.0	1,076.0	1,080.0	-4	50.30	5,648	3.5%	8,472	5.2%	930.0	0.58%	2,359	2,034							
E32	11/2/12	955574.855	927550.328	4	11.47	1,111.0	1,076.0	1,080.0	-4	50.30	4,232	2.6%	6,348	3.9%	690.0	0.43%	1,946	1,524							
G34	11/2/12	955573.896	927562.289	3	8.60	1,111.0	1,076.0	1,080.0	-4	54.01	5,648	3.3%	8,472	4.9%	930.0	0.54%	2,089	2,038							
135	11/2/12	955572.937	927574.251	2	5.73	1,111.0	1,076.0	1,080.0	-4	57.73	5,648	3.0%	8,472	4.6%	920.0	0.50%	2,231	2,039							
L30	11/2/12	955574.951	927592.470	0	0.00	1,111.0	1,075.0	1,079.5	-5 5	67.02	5,040	2.0%	0,472	3.9%	910.0	0.42%	2,093	2,033							
P34 D26	11/2/12	9555573 022	927616 202	0	0.00	1,111.0	1,075.0	1,080.0	-5 5	67.02	5,040 5,652	2.0%	0,472	3.9%	900.0	0.42%	2,093	2,036							
P33	11/2/12	955558 262	927010.393	0	0.00	1,111.0	1,075.0	1,000.0	-5	65.16	5,632	2.0%	0,470 8,466	3.9%	930.0	0.43%	2,090	2,030							
R35	11/2/12	9555572 074	927628 355	0	0.00	1 111 0	1,070.0	1,000.0	-3	65.16	5,044	2.7%	8.466	4.0%	030.0	0.4370	2,519	2,034							
T31	11/2/12	955557 303	927639 209	0	0.00	1,111.0	1,070.0	1,000.0	-4	65.16	5 648	2.7%	8 472	4.0%	930.0	0.44%	2,520	2,035	CH-ISS-T31	20		220	6 16E-07		
T33	11/2/12	955571 115	927640 317	0	0.00	1 111 0	1,076.0	1,001.0	-5	65.16	5 644	2.7%	8 466	4.0%	920.0	0.44%	2,517	2,000	0111001101	20		220	0.102 07		
B29	11/3/12	955572 841	927532 108	6	34 40	1 111 0	1,076.0	1,001.0	-5	20.57	4 240	6.4%	6,360	9.6%	710.0	1.08%	1 662	1,523							
E31	11/3/12	955567 949	927549 774	6	34 40	1,111.0	1,075.0	1,001.0	-5	21.16	4 236	6.2%	6,354	9.3%	700.0	1.00%	1,002	1,523							
G32	11/3/12	955560.084	927561.182	2	5.73	1,111.0	1,075.0	1,079.0	-4	59.38	5.648	3.0%	8,472	4.4%	940.0	0.49%	2,304	2.033	CH-ISS-G32	10		310	4.10F-07		
H34	11/3/12	955569,963	927567.993	4	11.47	1,111.0	1.075.0	1.080.0	-5	51.73	4,236	2.5%	6.354	3.8%	720.0	0.43%	2.007	1.526	011100 002			0.0			
133	11/3/12	955559.125	927573.144	1	2.87	1.111.0	1.075.0	1.079.0	-4	63.20	5.656	2.8%	8,484	4.2%	940.0	0.46%	2,456	2.029							
K33	11/3/12	955558.166	927585.105	0	0.00	1.111.0	1.075.0	1.079.0	-4	67.02	5.656	2.6%	8,484	3.9%	950.0	0.44%	2.603	2.034							
K35	11/3/12	955571.978	927586.213	2	5.73	1.111.0	1.075.0	1.079.5	-5	59.38	5.656	3.0%	8.484	4.4%	940.0	0.49%	2.310	2.034							
M33	11/3/12	955557.207	927597.067	1	2.87	1,111.0	1,075.0	1,079.0	-4	63.20	5,656	2.8%	8,484	4.2%	930.0	0.46%	2,456	2,030							
M35	11/3/12	955571.019	927598.174	2	5.73	1,111.0	1,075.0	1,079.5	-5	59.38	5,656	3.0%	8,484	4.4%	950.0	0.50%	2,305	2,028							
G33	11/5/12	955566.990	927561.736	6	34.40	1,111.0	1,075.0	1,079.5	-5	21.16	4,248	6.2%	6,372	9.4%	700.0	1.03%	1,709	1,533							
134	11/5/12	955566.031	927573.697	4	11.47	1,111.0	1,075.0	1,079.5	-5	51.73	4,244	2.5%	6,366	3.8%	720.0	0.43%	2,005	1,523							
K34	11/5/12	955565.072	927585.659	2	5.73	1,111.0	1,075.0	1,079.5	-5	59.38	5,660	3.0%	8,490	4.4%	940.0	0.49%	2,316	2,032							
M34	11/5/12	955564.113	927597.620	3	8.60	1,111.0	1,075.0	1,079.0	-4	55.56	5,660	3.2%	8,490	4.7%	960.0	0.54%	2,162	2,037							
O33	11/5/12	955556.247	927609.028	2	5.73	1,111.0	1,075.0	1,079.5	-5	59.38	5,660	3.0%	8,490	4.4%	940.0	0.49%	2,315	2,035							
O35	11/5/12	955570.060	927610.136	2	5.73	1,111.0	1,075.0	1,079.5	-5	59.38	5,648	3.0%	8,472	4.4%	950.0	0.50%	2,302	2,036							
Q33	11/5/12	955555.288	927620.990	2	5.73	1,111.0	1,076.0	1,080.0	-4	57.73	5,660	3.1%	8,490	4.6%	950.0	0.51%	2,226	2,028	CH-ISS-Q33	32		270	3.99E-07		
Q35	11/5/12	955569.100	927622.097	2	5.73	1,111.0	1,076.0	1,080.0	-4	57.73	5,656	3.1%	8,484	4.6%	940.0	0.51%	2,233	2,025							
S31	11/5/12	955554.329	927632.952	2	5.73	1,111.0	1,076.0	1,080.5	-5	57.73	5,664	3.1%	8,496	4.6%	734.0	0.40%	2,240	2,026							
S33	11/5/12	955568.141	927634.059	2	5.73	1,111.0	1,076.0	1,080.5	-5	57.73	5,648	3.0%	8,472	4.6%	950.0	0.51%	2,238	2,033							
U29	11/5/12	955553.370	927644.913	1	2.87	1,111.0	1,077.0	1,081.0	-4	59.69	5,664	3.0%	8,496	4.4%	950.0	0.50%	2,315	2,030							
U31	11/5/12	955567.182	927646.021	1	2.87	1,111.0	1,077.0	1,081.0	-4	59.69	5,660	3.0%	8,490	4.4%	940.0	0.49%	2,310	2,036							
J35	11/6/12	955569.004	927579.955	5	17.20	1,111.0	1,076.0	1,079.5	-4	42.86	4,240	3.1%	6,360	4.6%	710.0	0.52%	1,662	1,523							
L35	11/6/12	955568.045	927591.917	5	17.20	1,111.0	1,075.0	1,079.5	-5	44.09	4,236	3.0%	6,354	4.5%	700.0	0.49%	1,710	1,523							
034	11/6/12	955563.153	927609.582	4	11.47	1,111.0	1,075.0	1,079.5	-5	51.73	5,648	3.4%	8,472	5.1%	940.0	0.56%	2,304	2,033							
Q34	11/6/12	955562.194	927621.544	4	11.47	1,111.0	1,075.0	1,080.0	-5	51.73	4,236	2.5%	6,354	3.8%	/20.0	0.43%	2,007	1,526							
532	11/6/12	955561.235	927633.505	4	11.47	1,111.0	1,075.0	1,080.5	-6	51.73	5,656	3.4%	8,484	5.1%	940.0	0.56%	2,456	2,029				-			
J34	11/7/12	955562.098	92/5/9.401	5	17.20	1,111.0	1,075.0	1,079.0	-4	44.09	4,244	3.0%	0,300	4.5%	720.0	0.51%	1,864	1,520		22		60F			
L34	11/7/12	900001.139	921091.303	5	17.20	1,111.0	1,075.0	1,079.0	-4	44.09	2,052	4.0%	0,4/0	0.0%	950.0	0.01%	2,200	2,037	00-100-L34	33		600	9.93E-08		
D32	11/7/12	900007.000	927615 940	8	34.40	1,111.0	1,075.0	1,079.0	-4 _5	21.10	4 044	5 00/	6 066	8 00/	600.0	0.88%	2,010	2,000							
R3/	11/7/12	955565 169	927627 901	8	34.40	1 111 0	1.075.0	1 080 0	_1	21.10	4 044	6.1%	6,066	9.3%	600.0	0.00%	1,807	1,505							
1130	11/7/12	955560 276	927645 467	3	8.60	1 111 0	1 077 0	1 081 0	-4	52 47	4 240	2.5%	6 360	3.8%	700.0	0.31%	2 055	1,570							
T32	11/8/12	955564 200	927639 763	6	34.40	1 111 0	1 076 0	1 081 0	-5	20.57	4 244	6.4%	6 366	9.6%	710.0	1 08%	1 807	1 522							
V30	11/15/12	955570 156	927652 278	1	2.87	1.111 0	1.077.0	1.081.0	-4	59.69	5.636	3.0%	8,454	4.4%	900.0	0.47%	2.306	2.027	<u> </u>						
X27	11/15/12	955555 385	927663 132	0	0.00	1,111.0	1.077.0	1.081.0	-4	63.30	5,636	2.8%	8.454	4.2%	900.0	0.44%	2,435	2.028		-	<u> </u>				
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<table-container></table-container>			ISS Column	Coordinates			E	levations (ft)	Clay				Grout M	lass					Sampl	е			P	ermeability (cm/see	;)
							ISS C	olumn		Toe-In	Final Column	BFS	5	PC		Bento	onite	Grout	Water		Depth	UCS	(psi)			-
D Dev Marting Levin Dev Dev Dev Dev Dev <th>Column</th> <th></th> <th></th> <th></th> <th># of</th> <th>Overlap Area</th> <th></th> <th></th> <th>Top of</th> <th>Depth</th> <th>Volume</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Volume</th> <th>Volume</th> <th></th> <th>(ft</th> <th>_</th> <th></th> <th>28-Days</th> <th>56-Days</th> <th>84-Days</th>	Column				# of	Overlap Area			Top of	Depth	Volume							Volume	Volume		(ft	_		28-Days	56-Days	84-Days
UND UND <th>ID</th> <th>Date</th> <th>Northing</th> <th>Easting</th> <th>Overlaps</th> <th>(sf)</th> <th>Тор</th> <th>Bottom</th> <th>Clay</th> <th>(ft)</th> <th>(CY)</th> <th>(lbs)</th> <th>(%)</th> <th>(lbs)</th> <th>(%)</th> <th>(lbs)</th> <th>(%)</th> <th>(gal)</th> <th>(gal)</th> <th>ID No.</th> <th>bgs)</th> <th>7-Day</th> <th>28-Day</th> <th>(cm/sec)</th> <th>(cm/sec)</th> <th>(cm/sec)</th>	ID	Date	Northing	Easting	Overlaps	(sf)	Тор	Bottom	Clay	(ft)	(CY)	(lbs)	(%)	(lbs)	(%)	(lbs)	(%)	(gal)	(gal)	ID No.	bgs)	7-Day	28-Day	(cm/sec)	(cm/sec)	(cm/sec)
									Project	Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923							
1000 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 06800.8 0787.7 08800.8 0787.7 08800.8 0787.7 08800.8 0787.7 08800.8 0787.7 08800.8 0787.7 08800.8 0880.8 <td>V28</td> <td>11/15/12</td> <td>955556.344</td> <td>927651.171</td> <td>2</td> <td>5.73</td> <td>1,111.0</td> <td>1,077.0</td> <td>1,081.0</td> <td>-4</td> <td>56.08</td> <td>5,636</td> <td>3.1%</td> <td>8,454</td> <td>4.7%</td> <td>890.0</td> <td>0.50%</td> <td>2,168</td> <td>2,027</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	V28	11/15/12	955556.344	927651.171	2	5.73	1,111.0	1,077.0	1,081.0	-4	56.08	5,636	3.1%	8,454	4.7%	890.0	0.50%	2,168	2,027							
10 10<										_															1.32E-06,	
1292 11172 68863.6 67987.2 4 1.0 1.0 1.0	V3	11/16/12	955383.693	927637.328	2	5.73	1,111.0	1,072.0	1,076.5	-5	64.32	5,660	2.8%	8,490	4.2%	940.0	0.46%	2,447	2,036	CH-ISS-V3	20		910	1.01E-06	6.38E-07 (3.20E-08)	
328 111/101 63884.67 92702.57 2 5 5 5 5 5 6 100 1000	V29	11/17/12	955563.250	927651.725	4	11.47	1,111.0	1,077.0	1,081.5	-5	48.86	4,228	2.7%	6,342	4.1%	670.0	0.43%	1,885	1,523						(0.202 00)	
11 11 12 58388.88 6788.89 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.00 17.00 18.	X26	11/17/12	955548.479	927662.579	2	5.73	1,111.0	1,076.0	1,080.5	-5	57.73	5,636	3.0%	8,454	4.6%	910.0	0.49%	2,234	2,033							
X3 11/19/1 65000000 N20000000000 N2000000000000000000000000000000000000	V1	11/19/12	955369.881	927636.220	0	0.00	1,110.0	1,073.0	1,077.0	-4	68.88	7,068	3.2%	10,602	4.8%	1,180.0	0.53%	2,686	2,540							
No. No. <td>X3</td> <td>11/19/12</td> <td>955389.640</td> <td>927649.843</td> <td>1</td> <td>2.87</td> <td>1,110.0</td> <td>1,072.0</td> <td>1,076.0</td> <td>-4</td> <td>66.71</td> <td>5,656</td> <td>2.6%</td> <td>8,484</td> <td>3.9%</td> <td>910.0</td> <td>0.42%</td> <td>2,605</td> <td>2,036</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	X3	11/19/12	955389.640	927649.843	1	2.87	1,110.0	1,072.0	1,076.0	-4	66.71	5,656	2.6%	8,484	3.9%	910.0	0.42%	2,605	2,036							
NY10 NY10 <th< td=""><td>W29</td><td>11/20/12</td><td>955566.223</td><td>927657.982</td><td>2</td><td>5.73</td><td>1,111.0</td><td>1,077.0</td><td>1,081.5</td><td>-5</td><td>56.08</td><td>5,004</td><td>2.8%</td><td>7,506</td><td>4.2%</td><td>810.0</td><td>0.45%</td><td>2,443</td><td>2,096</td><td>CH-ISS-W29</td><td>10</td><td></td><td>500</td><td>2.53E-07</td><td></td><td></td></th<>	W29	11/20/12	955566.223	927657.982	2	5.73	1,111.0	1,077.0	1,081.5	-5	56.08	5,004	2.8%	7,506	4.2%	810.0	0.45%	2,443	2,096	CH-ISS-W29	10		500	2.53E-07		
NMM NMMM NMMM NMMM NMM<	W27	11/20/12	955552.411	927656.875	4	11.4/	1,111.0	1,077.0	1,081.0	-4	48.86	6,264	4.0%	9,396	6.0%	1,030.0	0.66%	2,865	2,628							
111 11/221/2 2085/448 2778/2233 4 11/77 10/721 20/73 5/17 5/	W/28	11/20/12	955559 317	927657 429	5	5.73 17.20	1,111.0	1,070.0	1,060.5	-0 -5	41 64	4,990	2.1%	7,494	4.0%	810.0	0.43%	2,527	2,090							
Vite 112712 6556.26 97722.25 0 0.00 0.1110 0.1027 0.028 2.400 <	Y11	11/26/12	955544.546	927668,283	4	11.20	1,111.0	1.075.0	1.079.5	-5	51.73	5,000	3.0%	7,518	4.5%	820.0	0.49%	2,133	2,097							
Theory 1988588 20989844 1 2 2111 20070 248 10070 0.808 238 </td <td>Y15</td> <td>11/27/12</td> <td>955566.207</td> <td>927672.205</td> <td>0</td> <td>0.00</td> <td>1,111.0</td> <td>1,078.0</td> <td>1,082.0</td> <td>-4</td> <td>61.44</td> <td>5,644</td> <td>2.9%</td> <td>8,466</td> <td>4.3%</td> <td>910.0</td> <td>0.46%</td> <td>2,360</td> <td>2,032</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Y15	11/27/12	955566.207	927672.205	0	0.00	1,111.0	1,078.0	1,082.0	-4	61.44	5,644	2.9%	8,466	4.3%	910.0	0.46%	2,360	2,032							
388 1111	Y14	11/27/12	955565.264	927669.944	1	2.87	1,111.0	1,077.0	1,082.0	-5	59.69	5,640	3.0%	8,460	4.4%	910.0	0.48%	2,306	2,032							
X1 X1 X12772 985778 X 1 1 <th< td=""><td>X29</td><td>11/27/12</td><td>955569.197</td><td>927664.240</td><td>2</td><td>5.73</td><td>1,111.0</td><td>1,077.0</td><td>1,081.5</td><td>-5</td><td>56.08</td><td>5,648</td><td>3.1%</td><td>8,472</td><td>4.7%</td><td>900.0</td><td>0.50%</td><td>2,563</td><td>2,032</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	X29	11/27/12	955569.197	927664.240	2	5.73	1,111.0	1,077.0	1,081.5	-5	56.08	5,648	3.1%	8,472	4.7%	900.0	0.50%	2,563	2,032							
V2 11/2/1/2 98557/87 97788.7/8 97788.7/8 97788.7/8 97788.7/8 97788.7/8 97784.28 3 6.00 11.00 1.070 1.0765 5 5.64 3.08 8.68 4.08 9000 0.48% 2.200 1.201 0 - - - -<	X1	11/27/12	955375.828	927648.736	0	0.00	1,110.0	1,072.0	1,076.5	-5	70.74	5,640	2.5%	8,460	3.7%	900.0	0.39%	2,758	2,033							
W2 112/712 6653/764 2774-502 3 8.60 1.100 1072 10765 4 444 300 4.66 4.56 1000 6.85 1.200	V2	11/27/12	955376.787	927636.774	4	11.47	1,110.0	1,070.0	1,076.5	-7	57.48	5,644	3.0%	8,466	4.5%	900.0	0.48%	2,420	2,029	CH-ISS-V2	10		520	6.19E-08		
X 11/2/12 858/82.04 92/746.28 3 6.80 1.100 1.070 0.765 4 0.84 3.7% 2.60 1.100 1.070 0.765 4 0.868 0.5% 0.96 0.20 1.100 0.770 0.765 0.700 0.455 3.10 0.157 0 0 0.75 0.157 0 0 0.75 0.157 0 0 0.75 0.157 0 0.75 0.157 0 0.75 0.157 0 0.75 0.157 0 0.75 0.157 0 0.75 0.157 0 0.75 0.157 0 0.75 0.157 0 0.75 0.157 0 0.75 0.157 0 0.75 0.157 0 0.75 0 0.75 0 0.75 0 0.75 0 0.75 0 0.75 0 0.75 0 0.75 0 0.75 0 0.75 0 0.75 0 0.75 0 0.75 0 0.75 0 0.75 0 0.75 0 0.75 0	W2	11/27/12	955379.760	927643.032	3	8.60	1,110.0	1,072.0	1,076.5	-5	58.64	5,644	3.0%	8,466	4.5%	910.0	0.48%	2,300	2,030							
Add 11/20/1 20/R63.080 5 11/10 10/07 <t< td=""><td>X2</td><td>11/27/12</td><td>955382.734</td><td>927649.289</td><td>3</td><td>8.60</td><td>1,110.0</td><td>1,072.0</td><td>1,076.5</td><td>-5</td><td>58.64</td><td>5,644</td><td>3.0%</td><td>8,466</td><td>4.5%</td><td>910.0</td><td>0.48%</td><td>2,296</td><td>2,032</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	X2	11/27/12	955382.734	927649.289	3	8.60	1,110.0	1,072.0	1,076.5	-5	58.64	5,644	3.0%	8,466	4.5%	910.0	0.48%	2,296	2,032							
W10 W10 W100 W100 W100 U100 U1000 U100 U100	X28 W/1	11/28/12	955562.291	927663.686	5	17.20	1,111.0	1,077.0	1,081.5	-5	41.64	3,752	2.8%	5,628	4.2%	630.0 920.0	0.47%	1,980	1,573							
Y13 Y132	W3	11/28/12	955386 666	927643 585	4	17.20	1,110.0	1,072.0	1,076.5	-0 -5	46 54	7 520	2.0%	11 280	4.2%	020.0	0.40%	2,407	3 152							
Operative Unit 2 Operative Unit 2<	Y13	11/29/12	955558.358	927669.390	4	11.47	1,111.0	1.077.0	1.081.5	-5	48.86	7,500	4.8%	11,250	7.2%	1,210.0	0.77%	3.394	3.153	CH-ISS-Y13	31		625	1.16E-07		
Ge4 1217/2 9537.68 92775.48 0 0.00 1.090 1.070 0.6 0.00 1.090 1.070 0.6 0.00 1.090 1.070 0.6 0.00 1.090 1.070 0.6 0.00 1.090 1.070 0.6 0.00 1.090 1.070 0.6 0.00 0.00 1.090 0.00 1.090 0.00 0.00 0.00 1.090 0.00 <th>Operable</th> <th>Unit 2</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>,</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>,</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	Operable	Unit 2							,										,							
GGC 12/17/2 95378.56 92774.48 0 0.00 1.000 1.070 1.070 0.700 2.670 2.670 2.679 2.679 2.679 2.679 2.679 2.679 2.679 2.679 2.679 2.679 2.677 2.677 2.677 2.677 2.677 2.677 2.677 2.677 2.677 2.677 2.677 2.677 2.677 2.677 2.677 2.677 2.678 2.677 2.678 2.677 2.678 2.677 2.678 2.677 2.678 2.677 2.678 2.677 2.678 2.677 2.678 2.677 2.678 2.677 2.678 2.677 2.678 2.677 2.678 2.678 2.677 <t< td=""><td>GG4</td><td>12/17/12</td><td>955391.56</td><td>927756.456</td><td>0</td><td>0.00</td><td>1,109.0</td><td>1,073.0</td><td>1,075.0</td><td>-2</td><td>67.02</td><td>6,636</td><td>3.1%</td><td>9,954</td><td>4.6%</td><td>1,070.0</td><td>0.50%</td><td>2,772</td><td>2,587</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	GG4	12/17/12	955391.56	927756.456	0	0.00	1,109.0	1,073.0	1,075.0	-2	67.02	6,636	3.1%	9,954	4.6%	1,070.0	0.50%	2,772	2,587							
EEE 121/11/2 05373 6.2 92774.447 0 0.00 1.090 1.070 1.070 2.767 5.361 2.878 860.0 0.39% 2.775 2.067 - - - - - - - - - 5.30 9.00E-08 4.5% 1.070 0.47% 2.83 2.857 - - 6.30 9.90E 4.5% 1.070 0.47% 2.838 2.877 - - 1.070 1.070 1.070 1.070 1.070 1.070 1.070 <td>GG2</td> <td>12/17/12</td> <td>955378.56</td> <td>927756.448</td> <td>0</td> <td>0.00</td> <td>1,109.0</td> <td>1,073.0</td> <td>1,075.0</td> <td>-2</td> <td>67.02</td> <td>5,316</td> <td>2.5%</td> <td>7,974</td> <td>3.7%</td> <td>870.0</td> <td>0.40%</td> <td>2,769</td> <td>2,079</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	GG2	12/17/12	955378.56	927756.448	0	0.00	1,109.0	1,073.0	1,075.0	-2	67.02	5,316	2.5%	7,974	3.7%	870.0	0.40%	2,769	2,079							
CCC 121/17/2 95380.48 927745.545 0 0.00 1,109.0 1,07.0 </td <td>EE2</td> <td>12/17/12</td> <td>955379.52</td> <td>927744.487</td> <td>0</td> <td>0.00</td> <td>1,109.0</td> <td>1,073.0</td> <td>1,075.0</td> <td>-2</td> <td>67.02</td> <td>5,316</td> <td>2.5%</td> <td>7,974</td> <td>3.7%</td> <td>850.0</td> <td>0.39%</td> <td>2,775</td> <td>2,067</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	EE2	12/17/12	955379.52	927744.487	0	0.00	1,109.0	1,073.0	1,075.0	-2	67.02	5,316	2.5%	7,974	3.7%	850.0	0.39%	2,775	2,067							
Lee 4 12/17/12 95538.3.8 92/778.539 0 0.00 1,102.0 1,074.0 6.350 2,004 4.5% 1,110.0 0,40% 2,266 2,067 2,067 2,077 0 0,00 1,000 0,070 1,073.0 2,277 2,087 2,080 2,077 0 0 0 0 0,070 0,073.0 3 7,261 6,628 2,989 9,492 4,2% 1,000.0 0,476 3,020 2,583 0 0 0 0 0<		12/17/12	955380.48	927732.525	0	0.00	1,109.0	1,073.0	1,075.0	-2	67.02	5,304	2.5%	7,956	3.7%	850.0	0.39%	2,768	2,067		20		520	0.005.00		
NCC 121/17/2 95328.00 8/173.310 0 0.00 1.102.0 1.074.0 2 0.00 1.002.0 1.074.0 2 0.002 <		12/17/12	900393.33	927722 310	0	0.00	1,109.0	1,072.0	1,074.5	-3	69.88	6,630	3.0%	9,954	4.5%	1,110.0	0.50%	2,850	2,580	CH-155-EE4	20		530	9.00E-08		
Abs 12/17/12 95538.95 927724.069 0 1.109.0 1.074 5.3 70.74 6.636 2.9% 9.954 4.4% 1.070 0.47% 2.972 2.567 0 0 0 0 AA7 12/17/12 955435.71 927724.828 0 0.00 1.109.0 1.071.0 1.073.0 -2 70.74 6.628 2.9% 9.942 4.4% 1.000.0 0.47% 2.938 2.577 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0.47% 2.938 2.573 0	CC4	12/17/12	955300.00	927733 633	0	0.00	1,109.0	1,072.0	1,072.3	-1	68.88	6,636	3.0%	9,940	4.5%	1,070.0	0.40%	2,000	2,591							
AA7 12/17/12 955411.22 927724.828 0 0.00 1,080 1,071.0 1,073.5 3 70.74 6,628 2.9% 9,960 4.4% 1,000.0 0.47% 2,938 2,577 AA11 12/17/12 95423.48 927725.617 0 0.00 1,080 1,070.0 1,073.0 3 72.61 6,628 2.9% 9,960 4.4% 1,080.0 0.47% 2,933 AA11 12/17/12 95547.48 927725.815 0 0.00 1,070.0 1,073.0 3 72.61 6.628 2.8% 9,942 4.2% 1,080.0 0.47% 2,583	AA5	12/17/12	955398.95	927724.069	0	0.00	1,109.0	1.071.0	1.074.0	-3	70.74	6.636	2.9%	9.954	4.4%	1,000.0	0.47%	2,000	2,587							
AA9 12/17/12 95543.6.1 927725.817 0 0.00 1.109.0 1.071.0 1.073.0 -2 70.74 6.602 2.8% 9.940 4.4% 1.080.0 0.47% 2.833 2.593 AA11 12/17/12 955447.64 927727.088 0 0.00 1.109.0 1.070.0 1.070.0 1.070.0 1.070.0 1.070.0 1.070.0 1.070.0 1.070.0 1.070.0 1.070.0 1.070.0 1.070.0 1.070.0 1.070.0 3.070.0 3.000 2.684 9.942 4.2% 1.060.0 0.4%6% 3.000 2.583	AA7	12/17/12	955411.22	927724.828	0	0.00	1,109.0	1,071.0	1,073.5	-3	70.74	6,628	2.9%	9,942	4.3%	1,070.0	0.47%	2,938	2,577							
AA13 121712 955435.71 92772.7038 0 0.00 1,000 1,000 1,000 1,020 2,020 0.00 0.000 1,000 0.000 <	AA9	12/17/12	955423.48	927725.817	0	0.00	1,109.0	1,071.0	1,073.0	-2	70.74	6,640	2.9%	9,960	4.4%	1,080.0	0.47%	2,939	2,593							
AA13 12/17/12 955447.84 927728.315 0 0.00 1,109.0 1,070.0 1,070.0 1,072.5 -3 72.61 6.628 2.8% 9.942 4.2% 1,080.0 0.4% 2.503 0	AA11	12/17/12	955435.71	927727.038	0	0.00	1,109.0	1,070.0	1,073.0	-3	72.61	6,628	2.8%	9,942	4.2%	1,080.0	0.46%	3,020	2,586							
FFS 12/19/12 955382.44 927751.38 2 5.73 1,109.0 1,072.0 1,075.0 -3 61.03 5,304 2.7% 7,966 4,0% 850.0 0.43% 2,542 2,074 - 600 8.81E-08 FF3 12/19/12 955382.49 927780.745 2 5.73 1,109.0 1,075.0 -3 61.03 5,304 2.7% 7,960 4.0% 870.0 0.44% 2,568 CH-ISS-FF3 10 - 600 8.81E-08 DD1 12/19/12 955381.45 927737.788 0 0.00 1,109.0 1,075.0 -3 67.02 6,620 3.1% 9,930 4.6% 1,080.0 0.63% 2,767 2.682 4.0% 850.0 0.43% 2,560 2.067	AA13	12/17/12	955447.84	927728.315	0	0.00	1,109.0	1,070.0	1,072.5	-3	72.61	6,628	2.8%	9,942	4.2%	1,060.0	0.45%	3,019	2,583							
FF1 12/19/12 955382.49 92/750.45 2 5.7.3 1,109.0 1,072.0 1,075.0 -3 61.03 5.300 2.7% 7,950 4.0% 87.00 0.44% 2.548 CH-ISS-FF3 10 600 8.81E-08 DD1 12/19/12 955372.07 92773.788 0 0.00 1,109.0 1,075.0 -3 67.02 6.622 3.1% 9,948 4.6% 1,000.0 5.0% 2.770 2.585 600 8.81E-08 DD1 12/19/12 955372.07 92773.788 0 0.00 1,070.0 1.075.0 -3 67.02 6.622 3.1% 9,930 4.6% 1,000.0 5.0% 2.770 2.585 6.00 6.00 5.00 2.7% 7.950 4.0% 850.0 0.43% 2.560 2.067 6.00 6.00 5.00 2.7% 7.950 4.0% 870.0 0.44% 2.535 2.067 6.00 6.00 <	FF5	12/19/12	955392.64	927751.338	2	5.73	1,109.0	1,072.0	1,075.0	-3	61.03	5,304	2.7%	7,956	4.0%	850.0	0.43%	2,542	2,074		10		000	0.04 - 00		
IP/19/12 95357.03 927738.88 0 0.00 1,109.0 1,073.0	FF3	12/19/12	955382.49	927750.745	2	5.73	1,109.0	1,072.0	1,075.0	-3	61.03	5,300	2.7%	7,950	4.0%	870.0	0.44%	2,540	2,068	CH-155-FF3	10		600	8.81E-08		
BB3 12/19/12 955383.43 92773.83 2 5.73 1,109.0 1,072.0 1,075.0 -3 61.03 5,300 2.7% 7,950 4.0% 850.0 0.43% 2,100 2,002 0 <		12/19/12	955370.85	927737 788	0	0.00	1,109.0	1,073.0	1,075.5	-3	67.02	6,632	3.1%	9,940	4.0%	1,070.0	0.50%	2 770	2,000							
BB3 12/19/12 95384.41 927728.821 2 5.73 1,109.0 1,072.0 1,073.	DD3	12/19/12	955383.45	927738,783	2	5.73	1,109.0	1,072.0	1,075.0	-3	61.03	5.300	2.7%	7,950	4.0%	850.0	0.43%	2,770	2,067							
DD5 12/19/12 955394.31 927739.153 2 5.73 1,109.0 1,072.0 1,074.0 -2 61.03 5,312 2.7% 7,968 4.0% 870.0 0.44% 2,535 2,067	BB3	12/19/12	955384.41	927726.821	2	5.73	1,109.0	1,072.0	1,075.0	-3	61.03	5,300	2.7%	7,950	4.0%	850.0	0.43%	2,560	2,068							
BB5 12/19/12 95398.22 927727.929 2 5.73 1,109. 1,071.0 1,074.0 -3 62.68 5,304 2.6% 7,956 3.9% 860.0 0.42% 2,603 2,073 1 1 1 1 1 2.87 1,109.0 1,071.0 1,073.5 -3 66.71 5,300 2.5% 7,950 3.7% 840.0 0.39% 2,810 2,064 1	DD5	12/19/12	955394.31	927739.153	2	5.73	1,109.0	1,072.0	1,074.0	-2	61.03	5,312	2.7%	7,968	4.0%	870.0	0.44%	2,535	2,067							
BB7 12/19/12 955408.00 927731.92 1 2.87 1,109.0 1,073.0 1,073.5 3.3 66.71 5,300 2.5% 7,950 3.7% 840.0 0.39% 2,810 2,064 1	BB5	12/19/12	955398.22	927727.929	2	5.73	1,109.0	1,071.0	1,074.0	-3	62.68	5,304	2.6%	7,956	3.9%	860.0	0.42%	2,603	2,073							
GG1 12/20/12 95371.65 92775.895 2 5.73 1,109.0 1,073.0 1,075.0 3 59.38 5,304 2.8% 7,956 4.2% 850.0 0.44% 2,452 2,068 1 <t< td=""><td>BB7</td><td>12/19/12</td><td>955408.00</td><td>927731.192</td><td>1</td><td>2.87</td><td>1,109.0</td><td>1,071.0</td><td>1,073.5</td><td>-3</td><td>66.71</td><td>5,300</td><td>2.5%</td><td>7,950</td><td>3.7%</td><td>840.0</td><td>0.39%</td><td>2,810</td><td>2,064</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	BB7	12/19/12	955408.00	927731.192	1	2.87	1,109.0	1,071.0	1,073.5	-3	66.71	5,300	2.5%	7,950	3.7%	840.0	0.39%	2,810	2,064							
GG3 12/20/12 95385.47 927757.002 3 8.60 1,109.0 1,072.0 <th< td=""><td>GG1</td><td>12/20/12</td><td>955371.65</td><td>927755.895</td><td>2</td><td>5.73</td><td>1,109.0</td><td>1,073.0</td><td>1,075.5</td><td>-3</td><td>59.38</td><td>5,304</td><td>2.8%</td><td>7,956</td><td>4.2%</td><td>850.0</td><td>0.44%</td><td>2,452</td><td>2,068</td><td></td><td></td><td></td><td></td><td></td><td> </td><td></td></th<>	GG1	12/20/12	955371.65	927755.895	2	5.73	1,109.0	1,073.0	1,075.5	-3	59.38	5,304	2.8%	7,956	4.2%	850.0	0.44%	2,452	2,068							
EE1 12/20/12 95372.61 92/143.933 3 8.60 1,109.0 1,07.0 1,07.0 1,07.0 5.56 5.304 3.0% 7,956 4.5% 8/0.0 0.49% 2,304 2,064 0	GG3	12/20/12	955385.47	927757.002	3	8.60	1,109.0	1,072.0	1,075.0	-3	57.10	5,304	2.9%	7,956	4.3%	860.0	0.47%	2,363	2,067							
Col 12/20/12 95357.57 92/715.92 2 5.75 1,09.0 1,09.0 1,07.0 3.07 5.307 4.6% 880.0 0.51% 2,220 2,070 1	EE1	12/20/12	955372.61	92//43.933	3	8.60	1,109.0	1,073.0	1,075.5	-3	55.56	5,304	3.0%	7,956	4.5%	8/0.0	0.49%	2,304	2,064							
LCS 12/20/12 955387.38 927733.079 4 11.47 1,109.0 1,072.0 1,074.0 -3 53.07 5,308 3.1% 7,962 4.6% 860.0 0.51% 2,220 2,010 1	EE3	12/20/12	9000/0.0/	927745 041	<u>∠</u>	5./3 11./7	1,109.0	1,073.0	1,075.5	-3	53 17	5,308 5,300	∠.0% 3.1%	7 950	4.2%	0.000	0.44%	2,452	2,009		1					
AA4 12/20/12 955392.81 927723.690 3 8.60 1,072.0 1,074.0 -2 57.10 5,304 2.9% 7,956 4.3% 860.0 0.47% 2,364 2,068 1	CC3	12/20/12	955387.38	927733.079	4	11.47	1,109.0	1.072.0	1.074.5	-3	53.17	5,308	3.1%	7,962	4.6%	860.0	0.50%	2.228	2,068		1					
	AA4	12/20/12	955392.81	927723.690	3	8.60	1,109.0	1,072.0	1,074.0	-2	57.10	5,304	2.9%	7,956	4.3%	860.0	0.47%	2,364	2,068		1					

		ISS Column	Coordinates			E	levations (ft)	Clay				Grout M	lass					Sample	e			I	Permeability (cm/see	;)
						ISS C	olumn		Toe-In	Final Column	BFS	;	PC		Bento	onite	Grout	Water		Depth	UCS	(psi)			
Column				# of	Overlap Area			Top of	Depth	Volume		<u> </u>					Volume	Volume		(ft			28-Days	56-Days	84-Days
ID	Date	Northing	Easting	Overlaps	(sf)	Тор	Bottom	Clay	(ft)	(CY)	(lbs)	(%)	(lbs)	(%)	(lbs)	(%)	(gal)	(gal)	ID No.	bgs)	7-Day	28-Day	(cm/sec)	(cm/sec)	(cm/sec)
								Project	Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923							
AA6	12/20/12	955405.09	927724.448	3	8.60	1.109.0	1.071.0	1.074.0	-3	58.64	5.308	2.8%	7.962	4.2%	860.0	0.45%	2.436	2.069							
BB8	12/20/12	955414.13	927731.572	2	5.73	1.109.0	1.071.0	1.073.5	-3	62.68	5.304	2.6%	7.956	3.9%	850.0	0.42%	2.608	2.068	CH-ISS-BB8	15		530	8.07E-07		
FF4	12/21/12	955389.40	927751.298	6	34.40	1,109.0	1,072.0	1,075.0	-3	21.75	5,308	7.6%	7,962	11.4%	870.0	1.24%	2,401	2,065		-					
DD4	12/21/12	955390.36	927739.337	6	34.40	1,109.0	1,072.0	1,074.5	-3	21.75	3,972	5.7%	5,958	8.5%	630.0	0.90%	1,893	1,548							
BB4	12/21/12	955391.316	927727.375	6	34.40	1,109.0	1,072.0	1,074.0	-2	21.75	3,980	5.2%	5,970	7.8%	640.0	0.84%	1,885	1,551	CH-ISS-BB4	20		680	6.80E-08		
BB6	12/21/12	955402.012	927729.671	4	11.47	1,109.0	1,071.0	1,074.0	-3	54.61	5,304	2.8%	7,956	4.2%	870.0	0.45%	2,272	2,079							
AA8	12/21/12	955417.360	927725.207	3	8.60	1,109.0	1,071.0	1,073.5	-3	58.64	5,304	2.6%	7,956	3.9%	850.0	0.41%	2,434	2,065							
AA10	12/21/12	955429.596	927726.428	2	5.73	1,109.0	1,071.0	1,073.0	-2	62.68	5,304	2.4%	7,956	3.6%	860.0	0.39%	2,605	2,065							
FF2	12/27/12	955375.586	927750.191	6	34.40	1,109.0	1,073.0	1,075.0	-2	21.16	6,624	8.9%	9,936	13.4%	1,050.0	1.41%	2,929	2,579							
DD2 PP0	12/27/12	955376.545	927738.229	6	34.40	1,109.0	1,073.0	1,075.0	-2	21.16	6,628 5,200	8.9%	9,942	13.4%	1,080.0	1.45%	3,055	2,581							
BB3	12/27/12	955420.104	927733 280	2	5.00	1,109.0	1,071.0	1,073.0	-3	64 32	5 300	2.0 %	7,950	3.5%	850.0	0.41%	2,442	2,007							
EF5	12/27/12	955441,102	927749.425	0	0.00	1,109.0	1.072.0	1,073.0	-2	68.88	6,624	2.7%	9,936	4.1%	1.080.0	0.45%	2,850	2,000	CH-ISS-FF5	10		380	7.06E-07		
AA12	12/27/12	955441.610	927727.686	2	5.73	1.109.0	1.070.0	1.073.0	-3	64.32	5.308	2.4%	7.962	3.5%	850.0	0.38%	2.673	2.068	011100 110						
CC5	12/27/12	955442.061	927737.463	0	0.00	1,109.0	1,070.0	1,073.0	-3	72.61	6,632	2.6%	9,948	3.9%	1,080.0	0.42%	3,023	2,581							
AA14	12/27/12	955453.449	927728.958	1	2.87	1,109.0	1,070.0	1,072.5	-3	68.47	6,628	2.8%	9,942	4.1%	1,080.0	0.45%	2,850	2,587							
BB14	12/27/12	955452.900	927732.313	2	5.73	1,109.0	1,070.0	1,072.5	-3	64.32	3,976	1.8%	5,964	2.6%	640.0	0.28%	2,865	1,553							
BB10	12/28/12	955426.282	927732.669	4	11.47	1,109.0	1,071.0	1,073.0	-2	54.61	5,300	2.8%	7,950	4.1%	860.0	0.45%	2,273	2,068							
BB12	12/28/12	955438.548	927734.028	4	11.47	1,109.0	1,070.0	1,073.0	-3	56.04	5,300	2.7%	7,950	4.0%	860.0	0.44%	2,337	2,073							
	12/28/12	955440.369	927755.745	1	2.87	1,109.0	1,073.0	1,075.0	-2	63.20	5,300	2.4%	7,950	3.6%	850.0	0.38%	2,610	2,071							
	12/28/12	955444.076	92773922	2	5.73	1,109.0	1,072.0	1,075.0	-3	61.03	5,304	2.5%	7,956	3.1%	870.0	0.41%	2,530	2,069							
	12/20/12	955445.035	927743.022	2	3.73 8.60	1,109.0	1,071.0	1,073.5	-3	58.64	6 624	2.4 /0	9,930	4.8%	1 060 0	0.59%	2,000	2,074							
FF9	12/28/12	955457,888	927756.790	0	0.00	1,109.0	1.072.0	1,073.5	-3	68.88	6.628	2.7%	9,942	4.1%	1,060.0	0.44%	2,852	2,587							
AA15	12/28/12	955459.543	927729.631	2	5.73	1,109.0	1,070.0	1,073.5	-4	64.32	5,308	2.4%	7,962	3.5%	870.0	0.39%	2,673	2,068							
BB15	12/28/12	955459.806	927732.867	3	8.60	1,109.0	1,070.0	1,073.5	-4	60.18	5,308	2.5%	7,962	3.8%	870.0	0.41%	2,501	2,077							
DD9	12/28/12	955458.847	927744.828	0	0.00	1,109.0	1,071.0	1,073.0	-2	70.74	6,624	2.7%	9,936	4.0%	1,060.0	0.43%	2,932	2,579	CH-ISS-DD9	15		310	6.66E-07		
FF11	12/28/12	955471.700	927757.897	0	0.00	1,109.0	1,073.0	1,075.0	-2	67.02	5,304	2.3%	7,956	3.4%	860.0	0.37%	2,772	2,066							
CC6	12/29/12	955448.967	927738.017	3	8.60	1,109.0	1,070.0	1,073.0	-3	60.18	5,304	2.5%	7,956	3.8%	860.0	0.41%	2,501	2,070							
BB13	12/29/12	955445.994	927731.759	6	34.40	1,109.0	1,070.0	1,073.0	-3	22.92	3,976	4.9%	5,964	7.4%	640.0	0.80%	1,990	1,549		00		0.05	4.005.00	F 00F 07	
EE6	12/29/12	955448.008	927749.978	3	8.60	1,109.0	1,072.0	1,074.0	-2	57.10	5,300	2.6%	7,950	4.0%	870.0	0.43%	2,363	2,070	CH-155-EE6	20		365	1.32E-06	5.96E-07	
BB16	12/29/12	955465.576	927733 420	2	5.73	1,109.0	1,070.0	1,072.5	-3	64.32	5,300 5,312	2.3%	7,950	3.5%	850.0	0.38%	2,070	2,001							
GG5	1/1/13	955440.143	927761.386	2	5.73	1,109.0	1.073.0	1,075.5	-3	59.38	5,296	2.5%	7,944	3.8%	870.0	0.42%	2,074	2,000							
GG7	1/1/13	955453.955	927762.494	1	2.87	1,109.0	1,073.0	1,075.5	-3	63.20	5,308	2.4%	7,962	3.6%	860.0	0.39%	2,604	2,074							
EE7	1/1/13	955454.914	927750.532	3	8.60	1,109.0	1,071.0	1,074.0	-3	58.64	5,304	2.6%	7,956	3.9%	850.0	0.41%	2,434	2,064							
CC7	1/1/13	955455.873	927738.571	4	11.47	1,109.0	1,070.0	1,073.0	-3	56.04	6,632	3.4%	9,948	5.1%	1,090.0	0.55%	2,810	2,582							
GG9	1/1/13	955467.767	927763.601	1	2.87	1,109.0	1,074.0	1,076.0	-2	61.44	5,300	2.5%	7,950	3.7%	850.0	0.39%	2,554	2,067	CH-ISS-GG9	10		70	5.96E-06	3.26E-06 (3.80E-06)	(1.50E-06)
AA17	1/1/13	955471.854	927730.978	2	5.73	1,109.0	1,070.0	1,072.5	-3	64.32	5,300	2.3%	7,950	3.5%	850.0	0.38%	2,676	2,068							
BB17	1/1/13	955473.618	927733.974	2	5.73	1,109.0	1,070.0	1,072.5	-3	64.32	5,308	2.4%	7,962	3.5%	850.0	0.38%	2,673	2,070							
EE9	1/1/13	955468.726	927751.640	1	2.87	1,109.0	1,072.0	1,074.0	-2	64.95	5,308	2.3%	7,962	3.5%	850.0	0.37%	2,693	2,066							
GG11	1/1/13	955481.579	927764.709	0	0.00	1,109.0	1,074.0	1,076.5	-3	65.16	5,296	2.3%	7,944	3.5%	850.0	0.37%	2,684	2,065							
AA19 EE11	1/1/13	955484.578	921132.655	0	0.00	1,109.0	1,070.0	1,073.0	-3	68 99	0,028	∠.0%	9,942	3.9%	1,080.0	0.42%	3,020	2,585							
BB10	1/1/13	955487 430	927735 081	1	2.00	1 109.0	1,072.0	1,074.0	-3	68 47	6.632	2.170	9,940 9,948	4.1%	1,070.0	0.44%	2,004	2,301						+ +	
AA18	1/2/13	955478.334	927731.699	3	8.60	1.109.0	1.070.0	1.072.5	-3	60,18	5.304	2.5%	7.956	3.8%	860.0	0.41%	2,501	2,065						+ +	
FF12	1/2/13	955478.606	927758.451	3	8.60	1,109.0	1,073.0	1,075.5	-3	55.56	5,312	2.7%	7,968	4.1%	860.0	0.44%	3,310	2,069						1	
BB18	1/2/13	955480.524	927734.528	4	11.47	1,109.0	1,070.0	1,072.5	-3	56.04	5,312	2.7%	7,968	4.1%	870.0	0.44%	2,320	2,066						1	
DD12	1/2/13	955479.565	927746.489	1	2.87	1,109.0	1,071.0	1,073.0	-2	66.71	5,312	2.3%	7,968	3.4%	860.0	0.37%	2,772	2,068							

		ISS Column	Coordinates			E	levations (ft)	Clay				Grout M	lass					Sample	e			Р	ermeability (cm/se	ec)
						ISS C	Column		Toe-In	Final Column	BFS		PC	;	Bento	onite	Grout	Water		Depth	UCS	(psi)			
Column				# of	Overlap Area	T	Detter	Top of	Depth	Volume							Volume	Volume		(ft			28-Days	56-Days	84-Days
ID	Date	Northing	Easting	Overlaps	(sf)	тор	Bottom	Clay	(ft)	(CY)	(lbs)	(%)	(lbs)	(%)	(lbs)	(%)	(gal)	(gal)	ID No.	bgs)	7-Day	28-Day	(cm/sec)	(cm/sec)	(cm/sec)
								Project	Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923							
FF14	1/2/13	955492.418	927759.558	0	0.00	1,109.0	1,074.0	1,076.0	-2	65.16	5,656	2.5%	8,484	3.7%	900.0	0.39%	2,525	2,065							
AA20	1/2/13	955490.823	927733.611	2	5.73	1,109.0	1,070.0	1,073.0	-3	64.32	7,052	3.1%	10,578	4.7%	1,120.0	0.50%	3,025	2,540							
DD14	1/2/13	955493.377	927747.597	0	0.00	1,109.0	1.071.0	1,073.5	-2	70.74	5,648	2.3%	8,472	3.4%	890.0	0.36%	2,400	2,033	CH-ISS-DD14	20		165	6.99E-07		
BB21	1/2/13	955500.809	927737.922	0	0.00	1,109.0	1,070.0	1,073.0	-3	72.61	7,044	2.8%	10,566	4.1%	1,130.0	0.44%	2,838	2,538	0.1.00 22.1				0.002 0.		
EE14	1/2/13	955503.257	927754.408	0	0.00	1,109.0	1,073.0	1,075.0	-2	67.02	5,648	2.4%	8,472	3.6%	910.0	0.39%	2,605	2,034							
CC15	1/2/13	955511.122	927743.000	0	0.00	1,109.0	1,071.0	1,073.0	-2	70.74	5,648	2.3%	8,472	3.4%	900.0	0.36%	2,767	2,029							
GG6	1/4/13	955447.049	927761.940	3	8.60	1,109.0	1,073.0	1,075.5	-3	55.56	5,640	2.9%	8,460	4.3%	900.0	0.46%	2,162	2,028	CH-ISS-GG6	20		495	1.53E-07		
668	1/4/13	955460 861	927763 047	3	34.40 8.60	1,109.0	1,071.0	1,075.0	-2	55 56	5,630	2.9%	8,404 8,460	4 3%	910.0	0.46%	2,012	2,030							
EE8	1/4/13	955461.820	927751.086	4	11.47	1.109.0	1.071.0	1.073.5	-3	54.61	4.232	2.2%	6.348	3.3%	680.0	0.35%	2,134	1.527							
CC8	1/4/13	955462.780	927739.124	4	11.47	1,109.0	1,070.0	1,072.5	-3	56.04	5,640	2.9%	8,460	4.3%	900.0	0.46%	2,437	2,030							
GG10	1/4/13	955474.673	927764.155	4	11.47	1,109.0	1,074.0	1,076.5	-3	50.30	4,236	2.4%	6,354	3.6%	690.0	0.39%	1,959	1,524							
EE10	1/4/13	955475.633	927752.193	5	17.20	1,109.0	1,072.0	1,074.0	-2	45.31	4,232	2.7%	6,348	4.0%	690.0	0.43%	1,919	1,524							
CC10	1/4/13	955476.592	927740.232	3	8.60	1,109.0	1,070.0	1,072.0	-2	60.18	5,636	2.7%	8,454	4.0%	890.0	0.42%	2,350	2,032							
EF12	1/4/13	955489 445	927753 301	2	5.73	1,109.0	1,075.0	1,077.0	-2	57 10	5,636	2.9%	0,470 8.454	4.3%	900.0 880.0	0.46%	2,100	2,034							
CC12	1/4/13	955490.404	927741.339	2	5.73	1.109.0	1.070.0	1.073.0	-3	64.32	5.652	2.5%	8.478	3.8%	920.0	0.41%	2,515	2.032							
FF8	1/5/13	955450.982	927756.236	6	34.40	1,109.0	1,072.0	1,074.5	-3	21.75	4,232	5.5%	6,348	8.3%	680.0	0.89%	1,767	1,524							
FF10	1/5/13	955464.794	927757.344	6	34.40	1,109.0	1,072.0	1,074.5	-3	21.75	4,236	5.5%	6,354	8.3%	700.0	0.92%	1,760	1,527							
CC9	1/5/13	955469.686	927739.678	4	11.47	1,109.0	1,070.0	1,072.0	-2	56.04	4,236	2.2%	6,354	3.2%	670.0	0.34%	2,190	1,521							
FF13	1/5/13	955485.512	927759.005	6	34.40	1,109.0	1,073.0	1,075.5	-3	21.16	5,648	7.6%	8,472	11.4%	880.0	1.18%	2,214	2,031		10		000	7.045.00		
GG13	1/5/13	955483.498	927765 816	5	8.60	1,109.0	1,070.0	1,072.5	-3	47.76 52.47	4,228	2.5%	6 354	3.8%	670.0	0.39%	2,034	1,527	CH-155-CC11	10		800	7.04E-08		
DD10	1/7/13	955465.753	927745.382	5	17.20	1,109.0	1.071.0	1.073.0	-2	46.54	5.632	3.4%	8.448	5.2%	890.0	0.54%	2,375	2.030							
DD13	1/7/13	955486.471	927747.043	6	34.40	1,109.0	1,071.0	1,073.5	-3	22.33	5,636	7.2%	8,454	10.8%	890.0	1.14%	2,534	2,034							
AA21	1/7/13	955497.068	927734.567	2	5.73	1,109.0	1,070.0	1,073.0	-3	64.32	5,640	2.5%	8,460	3.7%	890.0	0.39%	2,510	2,041							
BB20	1/7/13	955494.336	927735.635	5	17.20	1,109.0	1,070.0	1,073.0	-3	47.76	4,228	2.5%	6,342	3.8%	700.0	0.42%	2,035	1,523							
FF15	1/7/13	955499.324	927760.112	4	11.47	1,109.0	1,074.0	1,076.0	-2	50.30	7,060	4.0%	10,590	6.0%	1,120.0	0.63%	2,856	2,545							
GG15	1/7/13	955500.283	927766 924	2 1	5.73 2.87	1,109.0	1,071.0	1,074.0	-3	59.69	5,640	2.0%	8,472 8,460	3.9%	920.0	0.42%	2,440	2,034							
EE15	1/7/13	955510.163	927754.962	1	2.87	1.109.0	1.073.0	1.075.0	-2	63.20	5.640	2.5%	8.460	3.8%	900.0	0.41%	2,304	2,030	CH-ISS-EE15	15		470	1.91E-7		
BB22	1/7/13	955515.848	927740.877	1	2.87	1,109.0	1,071.0	1,073.5	-3	66.71	7,052	3.0%	10,578	4.5%	1,120.0	0.48%	2,603	2,543							
GG17	1/7/13	955523.016	927768.031	0	0.00	1,109.0	1,075.0	1,077.0	-2	63.30	5,652	2.5%	8,478	3.8%	930.0	0.42%	2,442	2,033							
CC16	1/7/13	955518.028	927743.554	2	5.73	1,109.0	1,071.0	1,073.5	-3	62.68	5,640	2.6%	8,460	3.8%	910.0	0.41%	2,449	2,031							
EE17	1/7/13	955523.975	927756.069	0	0.00	1,109.0	1,073.0	1,075.5	-3	67.02	7,064	3.0%	10,596	4.5%	1,100.0	0.47%	2,617	2,543							
6G10	1/7/13	955536 828	927769 138	0	0.00	1,109.0	1,071.0	1,074.0	-3	63 30	7,000	2.6%	8 484	4.3%	880.0	0.44%	2,112	2,030							
DD11	1/8/13	955472.659	927745.936	6	34.40	1.109.0	1.071.0	1.073.0	-2	22.33	5.636	7.2%	8.454	10.8%	900.0	1.15%	1.822	2,000	CH-ISS-DD11	20		530	7.47E-07		
EE13	1/8/13	955496.351	927753.854	6	34.40	1,109.0	1,073.0	1,075.0	-2	21.16	4,232	5.7%	6,348	8.5%	690.0	0.93%	1,785	1,524							
CC13	1/8/13	955497.310	927741.893	5	17.20	1,109.0	1,070.0	1,073.0	-3	47.76	4,236	2.5%	6,354	3.8%	670.0	0.40%	2,030	1,521							
FF16	1/8/13	955506.230	927760.666	5	17.20	1,109.0	1,074.0	1,076.0	-2	42.86	7,060	4.7%	10,590	7.0%	1,110.0	0.74%	3,751	2,535							
DD16	1/8/13	955507.189	927748.704	4	<u> </u>	1,109.0	1,072.0	1,074.0	-2	53.17	5,640	3.0%	8,460	4.5%	900.0	0.48%	2,384	2,029							
EF16	1/8/13	955517.069	927755 516	2	5.73	1,109.0	1,073.0	1,077.5	-3	59.38	5,630	2.9%	8 460	4.3%	900.0	0.40%	2,469	2,033							
AA22	1/8/13	955519.902	927738.069	3	8.60	1.109.0	1.071.0	1.073.5	-3	58.64	5.644	2.7%	8.466	4.1%	890.0	0.43%	2,000	2,000							
GG18	1/8/13	955529.922	927768.585	2	5.73	1,109.0	1,075.0	1,077.0	-2	56.08	4,228	2.1%	6,342	3.2%	680.0	0.35%	2,163	1,526							
EE18	1/8/13	955530.881	927756.623	1	2.87	1,109.0	1,073.0	1,075.5	-3	63.20	5,640	2.5%	8,460	3.8%	910.0	0.41%	2,451	2,033							
AA24	1/8/13	955532.881	927740.008	1	2.87	1,109.0	1,071.0	1,074.0	-3	66.71	7,052	3.0%	10,578	4.5%	1,120.0	0.48%	2,608	2,542		40		4.45	4.055.07		
FF24	1/9/13	955561.478	927765.096	0	0.00	1,109.0	1,076.0	1,078.5	-3 1	63.20	5,648	2.6%	8,472	3.9%	910.0	0.42%	2,364	2,030	CH-ISS-FF24	10		445	1.25E-07		
GG21	1/9/13	955550 640	927770 246	0	0.00	1 109.0	1,075.0	1,078.5	-4	61 44	5,636	2.5%	0,400 8 454	3.0%	900.0	0.41%	2,442	2,031							
EE21	1/9/13	955551.599	927758.284	0	0.00	1,109.0	1,074.0	1,076.5	-3	65.16	5,644	2.5%	8,466	3.7%	910.0	0.40%	2,523	2,035							
AA27	1/9/13	955551.337	927742.820	0	0.00	1,109.0	1,074.0	1,076.0	-2	65.16	5,644	2.5%	8,466	3.7%	920.0	0.40%	2,520	2,030							
FF21	1/9/13	955540.760	927763.435	1	2.87	1,109.0	1,074.0	1,076.5	-3	61.44	5,636	2.6%	8,454	3.9%	890.0	0.41%	2,380	2,034							
DD21	1/9/13	955541.719	927751.473	0	0.00	1,109.0	1,073.0	1,075.0	-2	67.02	5,644	2.4%	8,466	3.6%	880.0	0.37%	2,603	2,030							
AA25	1/9/13	955539.390	927741.030	1	2.87	1,109.0	1,072.0	1,074.5	-3	64.95	5,648	2.5%	8,472	3.7%	880.0	0.39%	2,534	2,030							

CONSTRUCTION COMPLETION REPORT **NEW YORK STATE ELECTRIC & GAS CORPORATION** CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

		ISS Column	Coordinates			E	levations (f	ft)	Clay				Grout	Mass					Sample	•			P	ermeability (cm/se	ec)
						ISS C	olumn		Toe-In	Final Column	BFS	5	PC	;	Bento	onite	Grout	Water		Depth	UCS	(psi)			
Column				# of	Overlap Area			Top of	Depth	Volume		-		·			Volume	Volume		(ft			28-Days	56-Days	84-Days
ID	Date	Northing	Easting	Overlaps	s (sf)	Тор	Bottom	Clay	(ft)	(CY)	(lbs)	(%)	(lbs)	(%)	(lbs)	(%)	(gal)	(gal)	ID No.	bgs)	7-Day	28-Day	(cm/sec)	(cm/sec)	(cm/sec)
								Project	t Totals:	54,528.98	4,936,366	3.2%	7,404,550	4.8%	806,304	0.53%	2,257,674	1,898,923							
CC17	1/9/13	955524.934	927744.108	3	8.60	1,109.0	1,071.0	1,074.0	-3	58.64	5,636	2.7%	8,454	4.1%	900.0	0.44%	2,298	2,035	CH-ISS-CC17	15		190	1.01E-06	1.45E-06 (6.90E-07)	
GG22	1/10/13	955557.546	927770.800	2	5.73	1,109.0	1,077.0	1,079.5	-3	52.78	4,236	2.3%	6,354	3.4%	680.0	0.37%	2,031	1,523							
EE22	1/10/13	955558.505	927758.838	3	8.60	1,109.0	1,075.0	1,077.5	-3	52.47	4,228	2.3%	6,342	3.4%	670.0	0.36%	2,035	1,528			_				
GG20	1/10/13	955543.734	927769.692	3	8.60	1,109.0	1,075.0	1,078.0	-3	52.47	4,240	2.3%	6,360	3.5%	680.0	0.37%	2,036	1,521			_				
DD22	1/10/13	955548.625	927752.027	2	5.73	1,109.0	1,073.0	1,075.5	-3	59.38	5,640	2.7%	8,460	4.1%	900.0	0.43%	2,300	2,030							
AA26	1/10/13	955545.571	927741.964	2	5.73	1,109.0	1,073.0	1,075.0	-2	59.38	5,644	2.7%	8,466	4.1%	900.0	0.43%	2,305	2,032							
EE19	1/10/13	955537.787	927757.177	3	8.60	1,109.0	1,073.0	1,075.5	-3	55.56	4,228	2.2%	6,342	3.3%	690.0	0.35%	2,166	1,524	CH-ISS-EE19	20		480	1.25E-07		
CC18	1/10/13	955531.840	927744.662	3	8.60	1,109.0	1,071.0	1,074.0	-3	58.64	5,644	2.7%	8,466	4.1%	920.0	0.45%	2,290	2,032							
FF19	1/10/13	955526.948	927762.327	4	11.47	1,109.0	1,074.0	1,076.5	-3	50.30	4,228	2.4%	6,342	3.6%	660.0	0.37%	1,950	1,519							
AA29	1/11/13	955561.884	927744.467	0	0.00	1,109.0	1,075.0	1,078.0	-3	63.30	5,660	2.5%	8,490	3.8%	930.0	0.42%	2,469	2,033							
AA28	1/11/13	955557.076	927743.692	3	8.60	1,109.0	1,075.0	1,077.0	-2	52.47	7,068	3.8%	10,602	5.8%	1,170.0	0.64%	3,456	2,543							
CC22	1/11/13	955559.464	927746.876	2	5.73	1,109.0	1,075.0	1,077.0	-2	56.08	4,240	2.2%	6,360	3.2%	700.0	0.36%	2,163	1,524							
AA1	1/11/13	955374.153	927722.461	0	0.00	1,109.0	1,073.0	1,075.5	-3	67.02	5,648	2.4%	8,472	3.6%	900.0	0.38%	2,600	2,035							
BB1	1/11/13	955372.909	927725.902	2	5.73	1,109.0	1,073.0	1,075.5	-3	59.38	5,640	2.7%	8,460	4.1%	900.0	0.43%	2,300	2,030							
BB2	1/11/13	955377.504	927726.268	5	17.20	1,109.0	1,073.0	1,075.0	-2	44.09	4,232	2.7%	6,348	4.1%	670.0	0.43%	1,860	1,525							
AA2	1/11/13	955380.635	927722.921	4	11.47	1,109.0	1,073.0	1,075.0	-2	51.73	4,240	2.3%	6,360	3.5%	700.0	0.39%	2,004	1,520	CH-ISS-AA2	10		605	4.95E-08		
FF23	1/12/13	955554.572	927764.542	5	17.20	1,109.0	1,075.0	1,078.0	-3	41.64	4,232	2.9%	6,348	4.3%	690.0	0.47%	1,750	1,524							
DD23	1/12/13	955555.532	927752.580	5	17.20	1,109.0	1,074.0	1,076.5	-3	42.86	4,240	2.8%	6,360	4.2%	700.0	0.47%	1,800	1,526							
EE20	1/12/13	955544.693	927757.731	5	17.20	1,109.0	1,074.0	1,076.0	-2	42.86	4,236	2.8%	6,354	4.2%	700.0	0.47%	2,280	1,524							
CC20	1/12/13	955545.652	927745.769	4	11.47	1,109.0	1,073.0	1,075.0	-2	51.73	4,236	2.3%	6,354	3.5%	710.0	0.39%	2,020	1,523							
FF20	1/12/13	955533.854	927762.881	6	34.40	1,109.0	1,074.0	1,076.5	-3	20.57	4,240	5.9%	6,360	8.8%	700.0	0.97%	1,665	1,528							
DD20	1/12/13	955534.813	927750.919	4	11.47	1,109.0	1,072.0	1,074.5	-3	53.17	4,240	2.3%	6,360	3.4%	690.0	0.37%	2,068	1,523							
FF18	1/12/13	955520.042	927761.773	5	17.20	1,109.0	1,074.0	1,076.5	-3	42.86	4,240	2.8%	6,360	4.2%	710.0	0.47%	1,809	1,532	CH-ISS-FF18	15		630	5.11E-08		
DD18	1/12/13	955521.001	927749.812	4	11.47	1,109.0	1,072.0	1,074.5	-3	53.17	4,236	2.3%	6,354	3.4%	700.0	0.38%	2,160	1,525							
CC21	1/14/13	955552.558	927746.323	6	34.40	1,109.0	1,074.0	1,076.0	-2	20.57	4,240	5.9%	6,360	8.8%	690.0	0.96%	1,661	1,526							
FF22	1/14/13	955547.666	927763.988	6	34.40	1,109.0	1,075.0	1,077.0	-2	19.98	4,236	6.0%	6,354	9.1%	700.0	1.00%	2,112	1,525							
CC19	1/14/13	955538.746	927745.215	6	34.40	1,109.0	1,072.0	1,074.0	-2	21.75	4,240	5.6%	6,360	8.3%	710.0	0.93%	1,899	1,520							
DD19	1/14/13	955527.907	927750.365	6	34.40	1,109.0	1,072.0	1,074.5	-3	21.75	4,248	5.6%	6,372	8.3%	690.0	0.90%	1,771	1,529							
FF17	1/14/13	955513.136	927761.220	6	34.40	1,109.0	1,074.0	1,076.5	-3	20.57	4,248	5.9%	6,372	8.8%	690.0	0.96%	2,071	1,519							
DD17	1/14/13	955514.095	927749.258	6	34.40	1,109.0	1,072.0	1,074.0	-2	21.75	4,244	5.6%	6,366	8.3%	710.0	0.93%	1,936	1,524							
CC14	1/14/13	955504.216	927742.447	5	17.20	1,109.0	1,070.0	1,073.0	-3	47.76	9,884	5.9%	14,826	8.8%	1,610.0	0.96%	4,456	3,558	CH-ISS-CC14	20		770	1.06E-07		

Notes:

- 1. PC = Portland cement.
- 2. BFS = Blast furnace slag.
- 3. CY = cubic yards.
- 4. kg = kilograms.
- 5. gal = gallons.
- 6. bss = below solidified surface.
- 7. psi = pounds per square inch.
- 8. cm/sec = centimeters per second.
- 9. UCS = unconfined compressive strength.
- 10. - = Sample Not Analized
- The ISS rig auger used for this site was 8-feet in diameter.
 Columns were mixed with a minimum three passes of the auger.
- 13. All permeability samples were collected by ARCADIS except those proivded in parenthesis (), which were collected by GeoCon.
- 14. The only 84-day permeability sample was also collected by GeoCon.

TABLE 4 CONCRETE TRANSPORTED TO T.H. KINSELLA FOR RECYCLING

Date Transported Offsite	Ticket No.	Quantity (Tons)
	2186477	19.40
8/23/2012	2186336	19.10
	2186478	37.43
	2188741	36.79
	2188749	40.00
	2188764	22.23
	2188765	34.72
	2188791	46.91
	2188797	34.75
	2188817	21.40
0/5/2012	2188829	30.45
9/3/2012	2188847	40.90
	2188858	33.60
	2188864	18.31
	2188869	31.73
	2188906	35.98
	2188922	31.52
	2188929	31.17
	2188932	18.21
	2188990	32.61
	2189002	30.55
	2189019	32.38
	2189046	29.90
	2189057	31.76
	2189063	16.31
9/6/2012	2189083	33.05
3/0/2012	2189105	29.78
	2189113	30.33
	2189123	16.91
	2189148	31.07
	2189160	30.74
	2189167	18.02
	2189171	28.19
	2189221	28.00
9/7/2012	2189257	25.97
	2189231	31.52
	TOTAL:	1,061.69

TABLE 5

WASTE SHIPMENT SUMMARY FOR MATERIAL TRANSPORTED TO SENECA MEADOWS LANDFILL FOR DISPOSAL

Date Transported Offsite	Location of Source Material	Manifest Document No.	Trailer No. (Trailer No. / Pup No.)	Riccelli Truck No.	Daily Truck No.	Quantity (Tons)
9/21/2012	OU1 Soil	1	AR-96353 / 32260PA	318	1	64.45
	OU1 Soil	2	AS-56368 / 19788PC	830	2	39.98
	OU1 Soil	3	AU-59419 / 14996PB	837	3	36.60
	OU1 Soil	4	AH-67410 / 11980PC	319	4	27.97
	OU1 Soil	5	AM-41050 / 11981PC	14	5	25.77
	OU1 Soil	6	AR-96315 / 99718PA	824	6	28.18
	OU1 Soil	7	AU-59419 / 14996PB	837	7	32.98
	OU1 Soil	8	AT-24331 / 32791JU	308	8	22.77
	OU1 Soil	9	AM-41087 / 11982PC	19	9	21.19
	OU1 Soil	10	AR-96079 / 32787JU	309	10	25.53
	OU1 Soil	11	AH-67410 / 11980PC	319	11	28.70
	OU1 Soil	12	AM-41050 / 11981PC	14	12	30.35
	OU1 Soil	13	AS-56368 / 19788PC	830	13	26.64
	OU1 Soil	14	AR-96353 / 32260PA	318	14	28.68
9/24/2012	ISS Spoil	15	AM-41087 / 11982PC 7A402 / T414	19	1	22.79
	ISS Spoil	16	AM-41089 / 76207PA	17	2	27.34
	ISS Spoil	17	AI-24331 / 32791JU	308	3	28.71
	ISS Spoil	18	AR-96079 / 32787JU	309	4	26.61
	ISS Spoil	19	AU-54919	837	5	34.95
	ISS Spoil	20	AH-67409 / 17264PC	59	6	23.79
	OU1 Soil	21	1563B3	846	7	25.62
	OU1 Soil	22	1504B3	839	8	30.93
	OU1 Soil	23	AR-96353	318	9	37.23
	OU1 Soil	24	56368	830	10	29.59
	OU1 Soil	25	AH-67410 / 11980PC	319	11	31.50
	OU1 Soil	26	AM-41050 / 11981PC	14	12	32.95
	OU1 Soil	27	AM-41087 / 11982PC	19	13	29.52
	Debris	28	AM-41089 / 76207PA	17	14	27.80
	Debris	29	AI-24331 / 32791JU	308	15	27.80
	Debris	30	AR-96079 / 32787JU	309	16	27.95
	Debris	31	AU-59419	837	17	34.36
	Debris	32	AH-67409 / 17264PC	59	18	27.03
9/25/2012	OU1 Soil	33	AR-96353	318	1	29.59
	OU1 Soil	34	AS-56368	830	2	37.59
	OU1 Soil	35	AM-41089 / 76207PA	17	3	27.64
	Debris	36	AT-24331 / 32791JU	308	4	29.23
	OU1 Soil	37	AR-96079 / 32787JU	309	5	30.76
	Debris	38	AH-67410 / 11980PC	319	6	32.84
	Debris	39	AM-41087 / 11982PC	19	7	31.23
	OU1 Soil	40	AM-41050 / 11981PC	14	8	37.59
	OU1 Soil	41	AH-67409 / 17264PC	59	9	35.16
	OU1 Soil	42	AM-41089 / 76207PA	17	10	29.42
	Debris	43	AI-24331 / 32791JU	308	11	31.10
	OU1 Soil	44	AR-96079 / 32787JU	309	12	32.52
	Debris	45	AH-67410 / 11980PC	319	13	30.00
	Debris	46	AR-96353	138	14	35.28
	Debris	47	AM-41050 / 11981PC	14	15	34.21

TABLE 5 WASTE SHIPMENT SUMMARY FOR MATERIAL TRANSPORTED TO SENECA MEADOWS LANDFILL FOR DISPOSAL

Date Transported Offsite	Location of Source Material	Manifest Document No.	Trailer No. (Trailer No. / Pup No.)	Riccelli Truck No.	Daily Truck No.	Quantity (Tons)
9/26/2012	OU1 Soil	48	ND	839	1	33.96
	Debris	49	ND	139	2	38.42
	OU1 Soil	50	ND	131	3	43.83
	OU1 Soil	51	ND	59	4	33.52
	OU1 Soil	52	ND	144	5	34.54
	Debris	53	ND	17	6	35.30
	Debris	54	ND	14	7	35.66
	Debris	55	ND	319	8	33.22
	OU1 Soil	56	ND	19	9	33.29
	Debris	57	ND	309	10	36.92
	Debris	58	ND	308	11	35.46
	Debris	59	ND	59	12	32.03
	Debris	60	ND	131	13	38.89
	Debris	61	ND	17	14	31.00
	Debris	62	ND	139	15	34.87
	Debris	63	ND	839	16	41.41
	OU1 Soil	64	ND	144	17	38.41
	Debris	65	ND	14	18	31.95
	Debris	66	ND	319	19	33.22
	OU1 Soil	67	ND	19	20	30.18
	Debris	68	ND	308	21	35.81
	Debris	69	ND	309	22	36.34
9/27/2012	Debris	70	ND	839	1	36.36
	Debris	71	ND	131	2	27.26
	Debris	72	ND	139	3	35.79
	Debris	73	ND	144	4	32.10
	Debris	74	ND	14	5	27.68
	Debris	75	ND	319	6	31.11
	Debris	76	ND	19	7	33.05
	Debris	77	ND	17	8	31.02
	Debris	78	ND	59	9	30.51
	Debris	79	ND	51	10	32.30
	Debris	80	ND	11	11	29.92
	Debris	81	ND	78	12	35.79
	Debris	82	ND	309	13	33.51
	Debris	83	ND	308	14	37.06
	Debris	84	ND	251	15	37.54
	Debris	85	ND	839	16	35.03
	Debris	86	ND	14	17	34.82
	Debris	87	ND	319	18	34.93
	Debris	88	ND	19	19	33.26
	Debris	89	ND	131	20	35.71
	OU1 Soil	90	ND	17	21	30.86
	OU1 Soil	91	ND	59	22	35.11
	Debris	92	ND	144	23	33.39
	OU1 Soil	93	ND	139	24	32.82
	Debris	94	ND	308	25	37.42

TABLE 5 WASTE SHIPMENT SUMMARY FOR MATERIAL TRANSPORTED TO SENECA MEADOWS LANDFILL FOR DISPOSAL

Date						
Transported	Location of Source	Manifest	Trailer No.	Riccelli Truck	Daily Truck	
Offsite	Material	Document No.	(Trailer No. / Pup No.)	No.	No.	Quantity (Tons)
9/28/2012	OU1 Soil	95	ND	131	1	35.65
	OU1 Soil	96	ND	839	2	33.63
	OU1 Soil	97	ND	309	3	34.74
	Debris	98	ND	14	4	31.76
	OU1 Soil	99	ND	19	5	30.10
	OU1 Soil	100	ND	17	6	31.25
	OU1 Soil	101	ND	59	7	28.34
	OU1 Soil	102	ND	319	8	25.93
	OU1 Soil	103	ND	308	9	33.43
	Debris	104	ND	309	10	34.79
	OU1 Soil	105	ND	144	11	27.59
	Debris	106	ND	139	12	31.99
	OU1 Soil	107	ND	14	13	31.41
	OU1 Soil	108	ND	17	14	32.86
	Debris	109	ND	839	15	32.49
10/1/2012	OU1 Soil	110	ND	139	1	25.59
	OU1 Soil	111	ND	839	2	36.86
	OU1 Soil	112	ND	19	3	29.27
	OU1 Soil	113	ND	59	4	29.19
	OU1 Soil	114	ND	144	5	34.14
	OU1 Soil	115	ND	319	6	36.97
	OU1 Soil	116	ND	309	7	32.16
	OU1 Soil	117	ND	17	8	30.36
	OU1 Soil	118	ND	14	9	33.23
	Debris	119	ND	845	10	34.27
	Debris	120	ND	308	11	34.39
	OU1 Soil	121	ND	618	12	35.71
	Debris	122	ND	846	13	33.42
	OU1 Soil	123	ND	120	14	31.38
	OU1 Soil	124	ND	139	15	48 14
	OU1 Soil	125	ND	839	16	36.30
	Debris	126	ND	144	17	34 52
	OU1 Soil	127	ND	59	18	31.47
	Dehris	128	ND	309	10	33.77
	Debris	120	ND	319	20	28.00
	OLI1 Soil	120	ND	17	20	31.47
	OUI Soil	131	ND	845	21	36.55
	OUI Soil	132	ND	14	22	33.73
	OUI Soil	133	ND	308	23	36.51
	Debris	134	ND	10	24	31.96
	Debris	125	ND	619	25	22.09
		135		946	20	33.00
	OUI Soil	130	ND	120	27	34.40
10/2/2012		10/		109	20	37 00
10/2/2012	Dobris	130		144	2	31.09
	Debris	109		144	2	34.00
	Debris	140		14	3	30.05
		141	ND	319	4	31.15
	Detroit	142	ND	309	5	38.45
	Debris	143	ND	59	6	32.67
	Debris	144	ND	/8	/	35.71
	Debris	145	ND	308	8	34.48
	Debris	146	ND	19	9	30.83
1	OU1 Soil	147	ND	17	10	32.65

TABLE 5 WASTE SHIPMENT SUMMARY FOR MATERIAL TRANSPORTED TO SENECA MEADOWS LANDFILL FOR DISPOSAL

Date						
Transported	Location of Source	Manifest	Trailer No.	Riccelli Truck	Daily Truck	
Offsite	Material	Document No.	(Trailer No. / Pup No.)	No.	No.	Quantity (Tons)
10/2/2012	Debris	148	ND	51	11	32.33
	OU1 Soil	149	ND	139	12	35.90
	OU1 Soil	150	ND	846	13	32.34
	OU1 Soil	151	ND	618	14	30.44
	OU1 Soil	152	ND	14	15	34.40
	OU1 Soil	153	ND	319	16	34.01
	OU1 Soil	154	ND	309	17	35.11
	OU1 Soil	155	ND	144	18	35.32
	OU1 Soil	156	ND	59	19	32.03
	OU1 Soil	157	ND	839	20	35.47
	Debris	158	ND	78	21	38.15
	OU1 Soil	159	ND	308	22	40.78
	OU1 Soil	160	ND	19	23	35.55
	OU1 Soil	161	ND	17	24	34.84
	OU1 Soil	162	ND	139	25	34.76
	OU1 Soil	163	ND	846	26	36.80
	OU1 Soil	164	ND	618	27	40.22
10/12/2012	ISS Spoil	165	ND	839	1	27.35
	ISS Spoil	166	ND	618	2	32.83
	ISS Spoil	167	ND	144	3	26.69
	ISS Spoil	168	ND	114	4	35.94
	ISS Spoil	169	ND	131	5	34.14
	ISS Spoil	170	ND	117	6	38.92
	ISS Spoil	171	ND	115	7	40.90
	ISS Spoil	172	ND	59	8	34 46
	ISS Spoil	173	ND	51	9	30.53
	ISS Spoil	174	ND	14	10	33.06
	ISS Spoil	175	ND	19	10	33.24
	ISS Spoil	176	ND	319	12	35.58
	ISS Spoil	170	ND	309	12	32.29
	ISS Spoil	178	ND	17	14	32.23
	ISS Spoil	170	ND	823	15	40.51
	ISS Spoil	180	ND	618	16	36.98
	ISS Spoil	181	ND	839	10	34.49
	ISS Spoil	182	ND	144	18	30.47
	ISS Spoil	183	ND	131	10	30.41
	ISS Spoil	184	ND	114	20	35.12
10/15/2012	ISS Spoil	185	ND	131	1	33.57
10/10/2012	ISS Spoil	186	ND	618	2	38.45
	ISS Spoil	187	NB	144	3	27 58
	ISS Spoil	188	ND	830	3	3/ 11
	133 Spoil	190	ND	120	4	29.17
		109	ND	120	5	42.22
	155 Spoil	190		1/2	7	43.32
		102	AR-28920	143	0	42.27
	100 Spoil	192	154307	214	0	43.37
	100 Spoil	193	AM-30361 / 10798PC	212	9	30.37
	100 Spoll	194	AR-96080 / 11424PC	313	10	33.80
	100 0mmil	195	AR-40449 / 11423PC	312	11	34.09
	155 Spoil	196	AM-41050 / 11981PC	14	12	31.21
	155 Spoil	197	AH-67410 / 11980PC	319	13	29.58
	155 Spoil	198	AM-41087 / 11982PC	19	14	29.57
	ISS Spoil	199	1544C7	131	15	40.50
	ISS Spoil	200	1549B2	618	16	46.36

TABLE 5 WASTE SHIPMENT SUMMARY FOR MATERIAL TRANSPORTED TO SENECA MEADOWS LANDFILL FOR DISPOSAL

Date						
Transported	Location of Source	Manifest	Trailer No.	Riccelli Truck	Daily Truck	
Offsite	Material	Document No.	(Trailer No. / Pup No.)	NO.	NO.	Quantity (Tons)
10/15/2012	ISS Spoil	201	1562B3	144	17	33.62
	ISS Spoil	202	15643B	839	18	34.58
	ISS Spoil	203	AR-28920	143	19	41.19
	ISS Spoil	204	1543C7	114	20	46.63
	ISS Spoil	205	1631B3	115	21	28.80
	ISS Spoil	206	AR-96080 / 11424PC	313	22	29.26
	ISS Spoil	207	AM-30361 / 10798PC	311	23	28.51
	ISS Spoil	208	AR-40449 / 11423PC	312	24	32.13
10/16/2012	ISS Spoil	209	1563B3	846	1	29.67
	ISS Spoil	210	AM-41087 / 11982PC	19	2	29.30
	ISS Spoil	211	AH-67410 / 11980PC	319	3	27.99
	ISS Spoil	212	AM-41050 / 11981PC	14	4	29.77
	ISS Spoil	213	15643B	839	5	30.75
	ISS Spoil	214	1544C7	131	6	38.86
	ISS Spoil	215	1562B3	144	7	30.85
	ISS Spoil	216	AW-54858 / 11653PC	318	8	26.34
	ISS Spoil	217	1550B2	120	9	37.68
	ISS Spoil	218	1549B2	618	10	36.53
	ISS Spoil	219	AR-40449 / 11423PC	312	11	29.71
	ISS Spoil	220	15/307	114	12	31.22
	ISS Spoil	221	1631B3	115	13	34.04
	ISS Spoil	221	AM 20261 / 10708BC	311	14	30.37
	ISS Spoil	222	ANI-303017 10798FC	846	15	36.37
	ISS Spoil	223	1503B3	830	15	35.28
	ISS Spoil	224	15043B	144	10	34.31
	133 Spoil	225	1502B3	144	17	22.04
	ISS Spoil	220	AM-41050 / 11981 PC	14	10	33.04
	ISS Spull	227	AH-67410/11980PC	319	19	32.21
	ISS Spoil	228	154407	131	20	36.22
	ISS Spoil	229	1550B2	120	21	28.21
	ISS Spoll	230	AM-41087 / 11982PC	19	22	36.04
	ISS Spull	231	1549B2	010	23	41.00
	ISS Spoil	232	AR-40449 / 11423PC	312	24	38.83
	ISS Spoil	233	154307	114	25	38.04
	155 Spoil	234	AM-30361 / 10798PC	311	20	38.48
40/47/0040	155 Spoil	235	1563B3	840	21	37.60
10/17/2012	ISS Spoil	236	15643B	839	1	36.14
	ISS Spoil	237	1562B3	144	2	39.64
	ISS Spoil	238	AM-41050 / 11981PC	14	3	36.45
	155 Spoil	239	AH-67410 / 11980PC	319	4	34.58
	155 Spoil	240	1544C7	131	5	42.05
	ISS Spoil	241	1549B2	618	6	36.34
	ISS Spoil	242	ND	139	7	39.34
	ISS Spoil	243	1550B2	120	8	38.24
	155 Spoil	244	AR-40449 / 11423PC	312	9	37.52
	ISS Spoil	245	AM-30361 / 10798PC	311	10	35.32
	ISS Spoil	246	1563B3	846	11	36.65
	ISS Spoil	247	1543C7	114	12	34.72
	ISS Spoil	248	15643B	839	13	37.49
	ISS Spoil	249	1562B3	144	14	34.27
	ISS Spoil	250	1544C7	131	15	26.14
	ISS Spoil	251	AM-41050 / 11981PC	14	16	29.00
	ISS Spoil	252	AH-67410 / 11980PC	319	17	31.58
	ISS Spoil	253	1549B2	618	18	32.44
10/17/2012	ISS Spoil	254	4668B2	139	19	34.63
	ISS Spoil	255	1550B2	120	20	36.55
	ISS Spoil	256	AR-40449 / 11423PC	312	21	29.64
1	ISS Spoil	257	AM-30361 / 10798PC	311	22	32.79

TABLE 5

WASTE SHIPMENT SUMMARY FOR MATERIAL TRANSPORTED TO SENECA MEADOWS LANDFILL FOR DISPOSAL

Date						
Transported	Location of Source	Manifest	Trailer No.	Riccelli Truck	Daily Truck	
Offsite	Material	Document No.	(Trailer No. / Pup No.)	No.	No.	Quantity (Tons)
10/18/2012	ISS Spoil	258	15643B	839	1	38.53
	ISS Spoil	259	1562B3	144	2	33.38
	ISS Spoil	260	AH-67410 / 11980PC	319	3	32.53
	ISS Spoil	261	AM-41087 / 11982PC	19	4	30.13
	ISS Spoil	262	AM-41050 / 11981PC	14	5	32.90
	ISS Spoil	263	1543C7	114	6	28.00
	ISS Spoil	264	1544C7	131	7	38.02
	ISS Spoil	265	1549B2	618	8	33.35
	ISS Spoil	266	AR-40449 / 11423PC	312	9	34.65
	ISS Spoil	267	AM-30361 / 10798PC	311	10	26.87
	ISS Spoil	268	4668B2	139	11	29.00
	ISS Spoil	269	1550B2	120	12	34.91
	ISS Spoil	270	15643B	839	13	34.67
	ISS Spoil	271	AM-41087 / 11982PC	19	14	34.78
	ISS Spoil	272	AM-41050 / 11981PC	14	15	32.34
	ISS Spoil	273	AH-67410 / 11980PC	319	16	32.47
	ISS Spoil	274	1543C7	114	17	31.85
	ISS Spoil	275	1550B2	120	18	35.77
10/19/2012	OU1 Soil	276	15643B	839	1	32.28
	OU1 Soil	277	1543C7	114	2	22.54
	OU1 Soil	278	1562B3	144	3	23.54
	OU1 Soil	279	1544C7	131	4	21.93
	OU1 Soil	280	1549B2	618	5	23.52
	OU1 Soil	281	160BB3	117	6	27.36
	ISS Spoil	282	ND	262	7	26.01
	ISS Spoil	283	4668B2	139	8	25.30
	ISS Spoil	284	AR-40449 / 11423PC	312	9	24.65
	ISS Spoil	285	AM-30361 / 10798PC	311	10	29.63
	OU1 Soil	286	15643B	839	11	34.52
	OU1 Soil	287	1562B3	144	12	35.94
	OU1 Soil	288	1543C7	114	13	34.70
	OU1 Soil	289	1544C7	131	14	34.77
	OU1 Soil	290	1549B2	618	15	31.48
10/22/2012	OU1 Soil	291	1550B2	120	1	33.67
	OU1 Soil	292	15643B	839	2	37.67
	OU1 Soil	293	1608B3	117	3	35.60
	OU1 Soil	294	AH-67410 / 11980PC	319	4	29.03
	OU1 Soil	295	AM-41060 / 11981PC	14	5	30.26
	OU1 Soil	296	AM-41087 / 11982PC	19	6	31.81
	OU1 Soil	297	AM-30361 / 10798PC	311	7	22.07
	OU1 Soil	298	AR-40449 / 11423PC	312	8	36.17
	OU1 Soil	299	AH-67407 / 13065PC	54	9	33.10
	OU1 Soil	300	4668B2	139	10	41.35
	OU1 Soil	301	1544C7	131	11	35.90
	OU1 Soil	302	1543C7	114	12	38.35
	OU1 Soil	303	1549B2	618	13	38.69
	OU1 Soil	304	1562B3	144	14	32.06
	OU1 Soil	305	AH-67410 / 11980PC	319	15	27.73
	OU1 Soil	306	AM-41050 / 11981PC	14	16	27.88
10/22/2012	OU1 Soil	307	AM-41087 / 11982PC	19	17	27.11
	OU1 Soil	308	15643B	839	18	38.15
	OU1 Soil	309	AR-40449 / 11423PC	312	19	31.57
	OU1 Soil	310	AH-67407 / 13065PC	54	20	31.56
	OU1 Soil	311	1550B2	120	21	37.20
Date Transported Offsite	Location of Source Material	Manifest Document No.	Trailer No. (Trailer No. / Pup No.)	Riccelli Truck No.	Daily Truck No.	Quantity (Tons)
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10/23/2012	OU1 Soil	312	1608B3	117	1	26.15
	OU1 Soil	313	1544C7	131	2	39.11
	OU1 Soil	314	AR-40449 / 11423PC	312	3	28.50
	OU1 Soil	315	1562B3	144	4	32.62
	OU1 Soil	316	AH-67407 / 13065PC	54	5	31.30
	OU1 Soil	317	ND	315	6	31.97
	OU1 Soil	318	1543C7	114	7	31.80
	OU1 Soil	319	ND	16	8	29.67
	OU1 Soil	320	1549B2	618	9	41.26
	OU1 Soil	321	AL-52081 / 11421PC	86	10	31.55
	ISS Spoil	322	15643B	839	11	31.82
	ISS Spoil	323	1550B2	120	12	35.53
	ISS Spoil	324	1544C7	131	13	32.73
	ISS Spoil	325	1608B3	117	14	43.03
	ISS Spoil	326	AR-40449 / 11423PC	312	15	32.21
	ISS Spoil	327	1562B3	144	16	31.24
	ISS Spoil	328	AH-67407 / 13065PC	54	17	30.53
	ISS Spoil	329	AR-40867 / 11651PC	315	18	34.79
	ISS Spoil	330	1543C7	114	19	45.56
10/25/2012	ISS Spoil	331	154C37	114	1	28.05
	ISS Spoil	332	1562B3	144	2	28.59
	ISS Spoil	333	15643B	839	3	29.93
	ISS Spoil	334	1608B3	117	4	29.35
	ISS Spoil	335	1544C7	131	5	32.43
	ISS Spoil	336	AR-40867 / 11651PC	315	6	32.82
	ISS Spoil	337	1550B2	120	7	37.26
	ISS Spoil	338	AR-40449 / 11423PC	312	8	31.62
	ISS Spoil	339	AH-67407 / 13065PC	54	9	28.13
	ISS Spoil	340	4668B2	139	10	25.59
	ISS Spoil	341	1549B2	618	11	37.27
	ISS Spoil	342	AR-28920	143	12	27.78
	OU1 Soil	343	1543C7	114	13	39.57
	OU1 Soil	344	1562B3	144	14	33.26
	OU1 Soil	345	15643B	839	15	36.02
11/2/2012	OU1 Soil	346	15643B	839	1	33.14
	OU1 Soil	347	1562B3	144	2	31.27
	OU1 Soil	348	4668B2	139	3	33.25
	OU1 Soil	349	ND	117	4	38.68
	ISS Spoil	350	1819B3	116	5	38.00
	ISS Spoil	351	1550B2	120	6	37.31
	ISS Spoil	352	1549B2	618	7	36.03
11/13/2012	ISS Spoil	353	AH-67410 / 11980PC	319	1	30.54
	ISS Spoil	354	AM-41050 / 11981PC	14	2	26.94
	ISS Spoil	355	AM-41087 / 11982PC	19	3	26.14
	ISS Spoil	356	AS-56049 / 13064PC	60	4	30.35
	ISS Spoil	357	AR-40867 / 11651PC	315	5	30.19
	ISS Spoil	358	AH-67407 / 13065PC	54	6	27.39
	ISS Spoil	359	T408	48	7	28.89
	ISS Spoil	360	AH-67410 / 11980PC	319	8	26.83
	ISS Spoil	361	AM-41050 / 11981PC	14	9	31.17

Date Transported Offsite	Location of Source Material	Manifest Document No.	Trailer No. (Trailer No. / Pup No.)	Riccelli Truck No.	Daily Truck No.	Quantity (Tons)
11/14/2012	ISS Spoil	362	AH-67410 / 11980PC	319	1	36.36
	ISS Spoil	363	AM-41087 / 11982PC	19	2	39.41
	ISS Spoil	364	AH-67407 / 13065PC	54	3	37 19
	ISS Spoil	365	AS-56049 / 13064PC	60	4	32.51
	ISS Spoil	366	T408	48	5	38.71
	ISS Spoil	367	AM-41050 / 11981PC	14	6	34.66
	ISS Spoil	368	AN-62658 / 9608PA	35	7	35.39
	ISS Spoil	369	AR-40449 / 11423PC	312	8	37.68
	ISS Spoil	370	AN 20261 / 10708PC	311	9	37.20
	ISS Spoil	371	AM-303017 10798FC	319	10	30.61
	ISS Spoil	371	AH-674107 11980PC	54	11	30.22
	ISS Spoil	372	AH-6/407 / 13065PC	10	12	30.22
	ISS Spoil	274	AM-41087 / 11962FC	19	12	26.25
	ISS Spoil	275	1400	40	14	26.97
	133 Spoil	375	AS-56049 / 13064PC	14	14	30.87
11/15/2012		370	AM-41050711981PC	210	15	34.00
11/15/2012	ISS Spoil	377	AH-6/410/11980PC	319	1	33.82
	ISS Spoil	378	AM-41087 / 11982PC	19	2	34.65
	ISS Spoil	379	AM-41050 / 11981PC	14	3	33.35
	ISS Spoil	380	AS-56049 / 13064PC	60	4	36.89
	ISS Spoil	381	T408	48	5	39.61
	ISS Spoil	382	AH-67410 / 11980PC	319	6	33.99
	ISS Spoil	383	AM-41087 / 11982PC	19	/	39.13
	ISS Spoil	384	AM-41050 / 11981PC	14	8	37.11
	ISS Spoil	385	AS-56049 / 13064PC	60	9	36.69
	ISS Spoil	386	T408 / 11421PC	48	10	37.13
11/16/2012	ISS Spoil	387	AM-41050 / 11981PC	14	1	33.34
	ISS Spoil	388	AH-67410 / 11980PC	319	2	36.19
	ISS Spoil	389	AS-56049 / 13064PC	60	3	26.65
	ISS Spoil	390	T408 / 11421PC	48	4	28.17
	ISS Spoil	391	AM-30359 / 13069PL	11	5	31.23
	ISS Spoil	392	AM-41087 / 11982PC	19	6	30.43
	ISS Spoil	393	AM-41050 / 11981PC	14	7	37.01
	ISS Spoil	394	AH-67410 / 11980PC	319	8	34.16
	ISS Spoil	395	AS-56049 / 13064PC	60	9	35.33
11/19/2012	ISS Spoil	396	AM-41050 / 11981PC	14	1	31.60
	ISS Spoil	397	AH-67410 / 11980PC	319	2	32.19
	ISS Spoil	398	AM-41087 / 11982PC	19	3	39.43
	ISS Spoil	399	AM-41060 / 18397PB	75	4	32.43
	ISS Spoil	400	T408 / 11421PC	48	5	30.87
	ISS Spoil	401	AR-96080 / 11424PC	313	6	37.72
	ISS Spoil	402	AS-56049 / 13064PC	60	7	39.45
	ISS Spoil	403	AR-40867 / 11651PC	315	8	36.68
	ISS Spoil	404	AM-41088 / 11420PC	18	9	34.97
	ISS Spoil	405	AW-54858 / 11653PC	318	10	35.41
11/19/2012	ISS Spoil	406	AH-67407 / 13065PC	54	11	35.39
	ISS Spoil	407	AR-40449 / 11423PC	312	12	30.82
	ISS Spoil	408	AM-41050 / 11981PC	14	13	28.22
	ISS Spoil	409	AM-41060 / 18397PB	75	14	31.68
	ISS Spoil	410	T408 / 11421PC	48	15	31.55
	ISS Spoil	411	AR-96080 / 11424PC	313	16	36.81
	ISS Spoil	412	AS-56049 / 13064PC	60	17	35.09

WASTE SHIPMENT SUMMARY FOR MATERIAL TRANSPORTED TO SENECA MEADOWS LANDFILL FOR DISPOSAL

Date						
Transported	Location of Source	Manifest	Trailer No.	Riccelli Truck	Daily Truck	
Offsite	Material	Document No.	(Trailer No. / Pup No.)	No.	No.	Quantity (Tons)
11/20/2012	ISS Spoil	413	AM-41050 / 11981PC	14	1	31.23
	ISS Spoil	414	AH-67410 / 11980PC	319	2	31.20
	ISS Spoil	415	AN-62658 / 9608PA	35	3	32.94
	ISS Spoil	416	AS-56049 / 13064PC	60	4	35.10
	ISS Spoil	417	AS-56350 / 18392	47	5	33.38
	ISS Spoil	418	ND	315	6	39.34
	ISS Spoil	419	AM-41088 / 11420PC	18	7	32 57
	ISS Spoil	420	AN 74690 / 11652BC	317	8	34.47
	ISS Spoil	120	T409 / 11421 DC	/8	9	34.37
		421	1406/11421PC		10	33.40
	155 Spoil	422	BA-74504 / 11650PC	314	10	33.49
	ISS Spoll	423	AH-67410 / 11980PC	319	11	32.46
	ISS Spoil	424	AN-62658 / 9608PA	35	12	31.33
	ISS Spoil	425	AS-56049 / 13064PC	60	13	35.29
11/28/2012	Debris	426	4668B2	139	1	29.56
	Debris	427	AN-62544 / 10799PC	316	2	27.97
	ISS Spoil	428	AM-41050 / 11981PC	14	3	29.28
	ISS Spoil	429	AH-67410 / 11980PC	319	4	29.84
	ISS Spoil	430	AH-67408 / 18396PB	63	5	31.27
	ISS Spoil	431	AH-67406 / 19485PB	64	6	34.04
	ISS Spoil	432	AS-56049 / 13064PC	60	7	31.96
	ISS Spoil	433	AR-96317	620	8	31.16
	ISS Spoil	434	AN-62658 / 9608PA	35	9	38.99
	ISS Spoil	435	AM-41088 / 11/20PC	18	10	35.63
	ISS Spoil	436	ANI 74600 / 11652DC	317	10	38.76
	ISS Spoil	430	AN-74690 / 11652PC	317	10	36.70
	100 Op sil	437	BA-74504 / 11650PC	314	12	30.30
	ISS Spoil	438	1408 / 11421PC	48	13	37.00
	ISS Spoil	439	AN-62544 / 10799PC	316	14	40.61
	ISS Spoil	440	AM-41050 / 11981PC	14	15	39.23
	ISS Spoil	441	AH-67410 / 11980PC	319	16	41.64
	ISS Spoil	442	AH-67406 / 19485PB	64	17	43.75
	ISS Spoil	443	AR-96080 / 11424PC	313	18	44.83
	ISS Spoil	444	AM-41060 / 18397PB	75	19	39.74
	ISS Spoil	445	AS-56049 / 13064PC	60	20	39.42
	ISS Spoil	446	AH-67408 / 18396PB	63	21	37.00
	ISS Spoil	447	AT-24330 / 11422PC	76	22	39.30
	ISS Spoil	448	AR-96317	620	23	32.30
	ISS Spoil	449	AN-62658 / 9608PA	35	24	36.34
	ISS Spoil	450	AM-41088 / 11420PC	18	25	34.40
	ISS Spoil	451	AN-74690 / 11652PC	317	26	37 10
	ISS Spoil	452	T408 / 11/21PC	48	27	35.66
11/20/2012	Debrie	453	AR-06000 / 1142400	212	1	26.50
11/25/2012	Debrie	455	AR-30000 / 11424FC	/7	2	26.03
		404	AS-0000/ 18392	+1	2	33.01
		400		14	3	25.01
		400	AIVI-4 1000 / 11981PC	14	4 F	33.40
	100 0mmil	40/	AM-41087 / 11982PC	19	5	33.50
	155 Spoil	458	AH-67410 / 11980PC	319	6	31.47
	ISS Spoil	459	AR-96317	620	1	32.27
	ISS Spoil	460	AN-62544 / 10799PC	316	8	36.83
	ISS Spoil	461	AN-74690 / 11652PC	317	9	29.04
	ISS Spoil	462	AM-41088 / 11420PC	18	10	32.71
	Debris	463	AT-24330 / 11422PC	76	11	34.21
	Debris	464	ND	315	12	33.05
	Debris	465	AR-40449 / 11423PC	312	13	33.78
	ISS Spoil	466	AH-67408 / 18396PB	63	14	36.25
	ISS Spoil	467	AN-62658 / 9608PA	35	15	31.95
	ISS Spoil	468	AM-30361 / 10798PC	311	16	33.45
	ISS Spoil	469	T408 / 11421PC	48	17	39.42
	ISS Spoil	470	BA-74504 / 11650PC	314	18	36.98
		471	AS-56040 / 12064DC	03	10	30.00
	198 Spoil	472	AD 06090 / 44404DC	312	20	27 /7
	100 0001	4/2	AR-90000 / 11424PC	313	20	21.41

Date						
Transported Offsite	Location of Source Material	Manifest Document No.	Trailer No. (Trailer No. / Pup No.)	Riccelli Truck No.	Daily Truck No.	Quantity (Tons)
11/29/2012	ISS Spoil	473	AS-56350 / 18392	47	21	31.80
	ISS Spoil	474	AH-67406 / 19485PB	64	22	27.74
	ISS Spoil	475	AM-41087 / 11982PC	19	23	27.54
	ISS Spoil	476	AM-41050 / 11981PC	14	24	28.90
	ISS Spoil	477	AR-96317	620	25	23.10
	ISS Spoil	478	AN-62544 / 10799PC	316	26	31.74
11/30/2012	ISS Spoil	479	AR-40867 / 11651PC	315	1	33.60
	ISS Spoil	480	AL-52081 / 11421PC	48	2	35.32
	ISS Spoil	481	BA-74504 / 11650PC	314	3	33.64
	ISS Spoil	482	AR-96080 / 11424PC	313	4	34.43
	ISS Spoil	483	AM-30361 / 10798PC	311	5	34.99
	ISS Spoil	484	AN-62658 / 9608PA	35	6	35.38
	ISS Spoil	485	AS-56350 / 18392	47	7	32.00
	ISS Spoil	486	AH-67406 / 19485PB	64	8	33.74
	ISS Spoil	487	AS-56049 / 13064PC	60	9	29.47
	ISS Spoil	488	AM-41050 / 11981PC	14	10	30.97
	ISS Spoil	489	AH-67408 / 18396PB	63	11	31.55
	ISS Spoil	490	AH-67410 / 11980PC	319	12	34.24
	ISS Spoil	491	AN-62544 / 10799PC	316	13	34.02
	ISS Spoil	492	4668B2	139	14	28.81
	ISS Spoil	493	AR-40867 / 11651PC	315	15	37.68
	ISS Spoil	494	AL-50281 / T408 / 11421PC	48	16	36.94
	ISS Spoil	495	BA-74504 / 11650PC	314	17	36.83
	ISS Spoil	496	AR-96080 / 11424PC	313	18	33.62
	ISS Spoil	497	AM-30361 / 10798PC	311	19	36.89
-	Debris	498	AN-62658 / 9608PA	35	20	33.77
	Debris	499	AN-67406 / 19485PB	64	21	32.65
	Debris	500	AS-56350 / 18392	47	22	26.72
	Debris	501	AH-67408 / 18396PB	63	23	31.85
	Debris	502	AS-56049 / 13064PC	60	24	37.61
	Debris	503	AM-41050 / 11981PC	14	25	33.38
	Debris	504	AH-67410 / 11980PC	319	26	30.50
12/3/2012	Debris	505	15643B	839	1	35.18
	Debris	506	4664B2	700	2	29.93
	Debris	507	1563B3	846	3	23.94
	Debris	508	1550B2	120	4	28.60
	Debris	509	AH-67410 / 11980PC	319	5	30.61
	Debris	510	AM-41050 / 11981PC	14	6	27.75
	Debris	511	15643B	839	7	35.85
	Debris	512	4664B2	700	8	32.76
12/4/2012	Debris	513	AR-40867 / 11651PC	315	1	32.49
	Debris	514	AM-41060 / 18397PB	/5	2	33.21
	Debris	515	AR-40449 / 11423PC	312	3	37.22
	Debric	516	AM-30361 / 10798PC	311	4	34.58
	Debris	51/	AH-6/410 / 11980PC	319	5	35.10
	Debris	518	AM-41090 / 111419PC	10	0	30.30
	Debris	519	AM-41087 / 11982PC	19	/	34.04
	Debris	520	AL-52081 / 1408 / 11421PC	48	8	35.98
	Debris	521	AM-41050 / 11981 PC	14	9	35.20
	Debris	522	AK-96080 / 11424PC	313	10	34.03
	Debris	523	AS-56049 / 13064PC	25	12	30.3∠ 20.47
		524	AN-62658 / 9608PA	30	12	30.17
	100 Sp011	525	AK-40867 / 11651PC	315	13	30.10
	100 50011	520	AIM-41060 / 1839/PB	10	14	30.00
	100 Spoil	520	AIVI-30301 / 10/98PC	310	10	34.34
	lee encil	520	AH-07410/11980PC	10	10	40.11
	100 50011	529	AM-41087 / 11982PC	19	1/	30.93
	100 50011	530	AM-41090 / 111419PC	10	10	41.08 26.77
	lee encil	522	AL-02001 / 1408 / 11421PC	40 210	19	20.16
	199 2001	03Z	AR-40449 / 11423PC	312	20	39.10

Date						
Transported Offsite	Location of Source Material	Manifest Document No.	Trailer No. (Trailer No. / Pup No.)	Riccelli Truck No.	Daily Truck No.	Quantity (Tons)
12/4/2012	ISS Spoil	533	AM-41050 / 11981PC	14	21	34.03
	ISS Spoil	534	AS-56049 / 13064PC	60	22	37.59
	ISS Spoil	535	AR-96080 / 11424PC	313	23	37.03
	ISS Spoil	536	AN-62658 / 9608PA	35	24	41.11
12/6/2012	OU2 soil	537	AM-41090 / T11419PC	16	1	30.22
	OU2 soil	538	AM-41088 / 11420PC	18	2	30.40
	OU2 soil	539	AN-62658 / 9608PA	35	3	35.00
	OU2 soil	540	AS-56049 / 13064PC	60	4	33.23
	OU2 soil	541	AM-41087 / 11982PC	19	5	32.49
	OU2 soil	542	AM-41050 / 11981PC	14	6	33.83
	OU2 soil	543	AH-67410 / 11980PC	319	7	31.24
	OU2 soil	544	AM-41090 / T11419PC	16	8	36.78
	OU2 soil	545	AM-41088 / 11420PC	18	9	36.76
	OU2 soil	546	AS-56049 / 13064PC	60	10	35.80
	OU2 soil	547	AM-41087 / 11982PC	19	11	35.66
	OU2 soil	548	AN-62658 / 9608PA	35	12	35.18
	OU2 soil	549	AM-41050 / 11981PC	14	13	39.76
	OU2 soil	550	AH-67410 / 11980PC	319	14	37.99
12/7/2012	OU2 soil	551	AL-52081 / T408 / 11421PC	48	1	32.20
12/1/2012	OU2 soil	552	AS-56049 / 13064PC	60	2	35.12
	OLI2 soil	553	AN-62658 / 9608PA	35	3	34.31
	OLI2 soil	554	AM 41088 / 11420BC	18	4	34 15
	OLI2 soil	555	AM 41050 / 11081PC	10	5	33.51
	OLI2 soil	556	AM 41097 / 11092PC	19	6	35.11
	OU2 soil	557	AH 67410 / 11080PC	310	7	35.10
	OU2 soil	558	AL 52091 / T409 / 11421DC	48	8	37.69
	OLI2 soil	559	AL-52081 / 1408 / 11421FC	-+0 60	0	38.72
	OU2 soil	560	AS-56049 / 13064PC	25	9 10	27.25
	OU2 soil	561	AN-02036 / 9000FA	14	11	27.15
	OU2 soil	562	AM-41050 / 11981PC	210	12	37.13
12/11/2012	OU2 soil	562	AH-67410/11980PC	217	12	30.40
12/11/2012	OU2 soil	564	AN-74690 / 11652PC	10	2	22.25
	OU2 soil	504	AM-41088 / 11420PC	10	2	33.33
	OU2 soil	505	AS-56049 / 13064PC	80	3	32.00
	OU2 soll	000	AN-62658 / 9608PA	35	4	32.64
	OU2 soil	100	AN-67406 / 19485PB	64	5	31.49
	OU2 soll	568	AM-41050 / 11981PC	14	6	32.64
	OU2 soil	569	AM-41087 / 11982PC	19	/	35.87
	OU2 soil	570	AM-30361 / 10798PC	311	8	33.76
	ISS Spoil	571	AH-67410 / 11980PC	319	9	37.29
	ISS Spoil	572	AN-74690 / 11652PC	317	10	35.69
	ISS Spoil	573	AM-41088 / 11420PC	18	11	37.34
	ISS Spoil	574	AS-56049 / 13064PC	60	12	38.35
	ISS Spoil	575	AM-41050 / 11981PC	14	13	37.97
	ISS Spoil	576	AN-62658 / 9608PA	35	14	37.22
12/12/2012	ISS Spoil	577	1608B3	262	1	29.50
	ISS Spoil	578	1550B2	120	2	27.48
	ISS Spoil	579	AN-74690 / 11652PC	317	3	37.12
	ISS Spoil	580	AM-30361 / 10798PC	311	4	37.11
	ISS Spoil	581	AH-67406 / 19485PB	64	5	34.55
	ISS Spoil	582	4668B2	139	6	40.45
	ISS Spoil	583	AS-56049 / 13064PC	60	7	39.21
	ISS Spoil	584	AN-62658 / 9608PA	35	8	36.68
	ISS Spoil	585	1543C7	114	9	32.33

WASTE SHIPMENT SUMMARY FOR MATERIAL TRANSPORTED TO SENECA MEADOWS LANDFILL FOR DISPOSAL

Date						
Transported	Location of Source	Manifest	Trailer No.	Riccelli Truck	Daily Truck	
Offsite	Material	Document No.	(Trailer No. / Pup No.)	No.	No.	Quantity (Tons)
12/14/2012	ISS Spoil	586	BA-74504 / 11650PC	314	1	31.80
	ISS Spoil	587	AL-52081 / T408 / 11421PC	48	2	35.13
	ISS Spoil	588	AM-41089	16	3	33.88
	ISS Spoil	589	AH-67406 / 19485PB	64	4	36.22
	ISS Spoil	590	1550B2	120	5	37.41
	ISS Spoil	591	4668B2	139	6	29.11
	ISS Spoil	592	AS-56049 / 13064PC	60	7	37.12
	ISS Spoil	593	1543C7	114	8	31.03
	ISS Spoil	594	BA-74504 / 11650PC	314	9	38.68
	ISS Spoil	595	1550B2	120	10	38.30
	ISS Spoil	596	ND	139	11	29.23
12/20/2012	OU2 soil	597	AN-74690 / 11652PC	317	1	26.69
	OU2 soil	598	AW-54858 / 11653PC	318	2	31.73
	OU2 soil	599	AR-28920	143	3	27.04
	OU2 soil	600	BA-74504 / 11650PC	314	4	34.79
	OU2 soil	601	1549B2	618	5	31.34
	OU2 soil	602	ND	139	6	31.90
	OU2 soil	603	1543C7	114	7	33.34
	OU2 soil	604	AN-74690 / 11652PC	317	8	30.86
	OU2 soil	605	AW-54858 / 11653PC	318	9	29.88
	OU2 soil	606	AR-28920	143	10	28.68
	OU2 soil	607	AM-41060 / 18397PB	75	11	31.81
	OU2 soil	608	AM-41088 / 11420PC	18	12	34.09
12/28/2012	OU2 soil	609	AW-71347 / 11288PC	RT-16	1	19.09
,,	OU2 soil	610	AW-71346	RT-17	2	20.22
	OU2 soil	611	1631B3	115	3	26.43
	OLI2 soil	612	1601B3	117	4	24.08
	OU2 soil	613	15643B	839	5	30.56
	OLI2 soil	614	13043B	139	6	22.34
	OU2 soil	615	1562B3	133	7	24.41
	OU2 soil	616	162182	115	8	26.16
	OLI2 soil	617	156428	839	9	28.92
1/2/2013	OU2 soil	618	150430	144	1	31.61
1/2/2013	OU2 soil	619	1002B3	608	2	35.85
	OU2 soil	620		25	2	22.77
	OU2 soil	620	AN-62658 / 9608PA	76	3	35.77
	OU2 soil	621	AT-24330 / 11422PC	120	4 <i>F</i>	30.74
	OU2 soil	622	ND	139	5	33.43
	OU2 soll	623	AS-56049 / 13064PC	60	6	33.65
	OU2 soil	624	15643B	839	/	37.30
	OU2 soll	625	1603B3	117	8	35.11
		©∠b	AH-67406/19485PB	04	9	32.40
	100 Spoil	620	AR-40867 / 11651PC	315	10	37.03
	100 Spoll	028 600	1562B3	144	11	30.28
1/0/2012	100 Spoll	629	1660B3	008	12	33.33
1/9/2013	100 Openi	030	1562B3	144	1	20.33
	ISS Spoil	631	AR-28920	143	2	28.32
	ISS Spoil	632	1608B3	141	3	26.33
	ISS Spoil	633	AM-41088 / 11420PC	18	4	32.16
	ISS Spoil	634	AS-56049 / 13064PC	60	5	38.86
	ISS Spoil	635	AH-67406 / 19485PB	64	6	35.71
	ISS Spoil	636	AT-24330 / 11422PC	76	7	37.63
	ISS Spoil	637	AH-67407 / 13065PC	54	8	35.33
	ISS Spoil	638	1550B2	120	9	41.40
	ISS Spoil	639	AH-67408 / 18396PB	63	10	32.76
	ISS Spoil	640	AN-62544 / 10799PC	316	11	35.69
	ISS Spoil	641	1608B3	117	12	33.53
	ISS Spoil	642	1682C5	701	13	26.26
	ISS Spoil	643	BC-12593	51	14	24.23
	ISS Spoil	644	AH-64237	59	15	26.87
	ISS Spoil	645	AT-24328	78	16	28.39

Date						
Transported	Location of Source	Manifest	Trailer No.	Riccelli Truck	Daily Truck	
Offsite	Material	Document No.	(Trailer No. / Pup No.)	No.	No.	Quantity (Tons)
1/9/2013	ISS Spoil	646	AM-41089	17	17	31.88
	ISS Spoil	647	AR-96079	309	18	34.56
	ISS Spoil	648	1828C8	619	19	29.70
	ISS Spoil	649	AT-24331 / 32791JU	308	20	29.47
	ISS Spoil	650	AM-30359	11	21	26.08
	ISS Spoil	651	1549B2	618	22	29.37
	ISS Spoil	652	AM-41088 / 11420PC	18	23	28.98
	ISS Spoil	653	1562B3	144	24	36.33
	ISS Spoil	654	1608B3	141	25	29.27
	ISS Spoil	655	AR-28920	143	26	27.51
1/10/2013	ISS Spoil	656	AH-67407 / 13065PC	54	1	29.45
	ISS Spoil	657	AM-41088 / 11420PC	18	2	32.93
	ISS Spoil	658	BC-12593	51	3	31.08
	ISS Spoil	659	AH-67408 / 18396PB	63	4	30.20
	ISS Spoil	660	AM-41090	16	5	30.57
	ISS Spoil	661	AS-56049 / 13064PC	60	6	33.87
	ISS Spoil	662	AH-67406 / 19485PB	64	7	31.11
	ISS Spoil	663	AN-62544 / 10799PC	316	8	32.91
	ISS Spoil	664	AT-24328	78	9	31.60
	ISS Spoil	665	AH-64237	59	10	32.39
1/15/2013	ISS Spoil	666	ND	16	1	25.94
	ISS Spoil	667	AN-74690 / 11652PC	317	2	30.25
	ISS Spoil	668	AM-30361 / 10798PC	311	3	27.01
	ISS Spoil	669	AH-67408 / 18396PB	63	4	28.81
	ISS Spoil	670	AH-67410 / 11980PC	319	5	31.28
	ISS Spoil	671	AM-41050 / 11981PC	14	6	31 10
	ISS Spoil	672	ANI-74690 / 11652PC	317	7	31.06
	ISS Spoil	673	AM 20261 / 10708PC	311	8	32.44
	ISS Spoil	674	AM-50501/10798FC	63	9	31.87
	ISS Spoil	675	AH-67410 / 11980PC	319	10	31.07
1/21/2013	ISS Spoil	676	16691PC	302	1	15 41
1/2 1/2010	ISS Spoil	677	18651PB	62	2	16.10
1/22/2013	Sewer Excavation	678	1660P2	608	1	25.88
1/22/2010	Sewer Excavation	679	156282	144	2	23.00
	Sewer Excavation	680	130203	139	3	34 75
	Sewer Excavation	681	400862	262	4	31.52
	Sewer Excavation	682	ND	701	5	24.18
	Sewer Excavation	683	ND AM 41000	16	5	24.10
	Sewer Excavation	684	AM 41088 / 11420DC	18	7	26.32
	Sewer Excavation	685	AIVI-41088711420FC	708	8	26.73
		000	AU-59420 / T220	100	0	20.42
	Sewer Excavation	686	BD-20025 / 16702 PC	838	9	31.02
	Sewer Excavation	687	4667B3 / 13608PB	845	10	26.39
	Sewer Excavation	688	AU-59417	135	11	36.20
	Sewer Excavation	689	AM-30361 / 10798PC	311	12	28.65
	ISS Spoil	690	1660B3	608	13	36.63
	ISS Spoil	691	1562B3	144	14	31.24
	ISS Spoil	692	4668B2	139	15	41.53
1/24/2013	ISS Spoil	693	ND	117	1	27.85
'	ISS Spoil	694	4668B2	139	2	31.94
	ISS Spoil	695	AH-67408 / 18396PB	63	3	28.27
	ISS Spoil	696	1550B2	120	4	26.28
	ISS Spoil	697	AM-30361 / 10798PC	311	5	26.08
	ISS Spoil	698	15643B	839	6	32.13
	ISS Spoil	699	1563R3	846	7	30.61
	ISS Spoil	700	ΔH-67407 / 13065PC	54		28.05
	ISS Spoil	701	15/207	114	۵ ۵	39.17
	ISS Spoil	702	104007	315	10	31.97
	ISS Spoil	702		607	11	33.72
	ISS Spoil	704	1660100	302	12	18 50

Date						
Transported	Location of Source	Manifest	Trailer No.	Riccelli Truck	Daily Truck	Our stiller (Town)
Offsite	Material	Document No.	(Trailer No. / Pup No.)	NO.	NO.	Quantity (Tons)
1/24/2013	ISS Spoil	705	AM-41090	16	13	20.27
	ISS Spoil	706	AR-96317	708	14	23.55
	ISS Spoil	707	15643B	839	15	29.45
1/25/2013	ISS Spoil	708	1603B3	117	1	23.88
	ISS Spoil	709	15643B	839	2	29.93
	ISS Spoil	710	1682C5	157	3	28.19
	ISS Spoil	711	ND	701	4	19.72
	ISS Spoil	712	1543C7	114	5	24.12
	ISS Spoil	713	4668B2	139	6	23.72
	ISS Spoil	714	1608B3	262	7	22.12
	ISS Spoil	715	1464C5	825	8	25.65
	ISS Spoil	716	1603B3	117	9	23.08
	ISS Spoil	717	15643B	839	10	35.17
	ISS Spoil	718	1682C5	157	11	26.95
	ISS Spoil	719	1603B3	701	12	34.51
	ISS Spoil	720	1543C7	114	13	26.75
	ISS Spoil	721	AS-56302	134	14	27.52
1/28/2013	ISS Spoil	722	1682C5	157	1	28.61
	ISS Spoil	723	1682C5	701	2	31.54
	ISS Spoil	724	1543C7	114	3	26.40
	ISS Spoil	725	1562B3	144	4	24.28
	ISS Spoil	726	1682C5	262	5	26.94
	ISS Spoil	727	4668B2	139	6	29.67
	ISS Spoil	728	1682C5	157	7	35.46
	ISS Spoil	729	1682C5	701	8	29.84
	ISS Spoil	730	1562B3	144	9	24.41
	ISS Spoil	731	4668B2	139	10	32.95
	ISS Spoil	732	168205	262	11	27.71
	ISS Spoil	733	AU-59418 / 13868PC	607	12	32.09
	ISS Spoil	734	1543C7	114	13	34.06
1/31/2013	ISS Spoil	735	AH-67407 / 13065PC	54	1	31.25
	ISS Spoil	736	1682C5	157	2	33.30
	ISS Spoil	737	168205	701	3	37.17
	ISS Spoil	738	AT-24330 / 11422PC	76	4	36.01
	ISS Spoil	739	1608B3	141	5	33.45
	ISS Spoil	740	AM-41090	16	6	33.00
	ISS Spoil	741	AS-56049 / 13064PC	60	7	33.44
	ISS Spoil	742	4668B2	139	8	29.39
	ISS Spoil	743	154307	114	9	31.52
	ISS Spoil	744	1819B3 / 13902PC	116	10	35.14
	Liner/Soil	745	AS-56302	134	11	32 31
	Liner/Soil	746	AH-67408 / 18396PB	63	12	28.91
	ISS Spoil	747	AN-74690 / 11652PC	317	13	26.47
	ISS Spoil	748	168205	701	10	37.94
	ISS Spoil	749	168205	157	15	39.30
	ISS Spoil	7.10	4668B2	139	16	31.75
	ISS Spoil	751	160883	141	17	30.93
2/1/2013	ISS Spoil	752	AN-74690 / 11652DC	317	1	27.34
2,1,2010	ISS Spoil	753	156202	144	2	30.67
	ISS Spoil	75/	150203	846	2	31.05
	ISS Spoil	755		62	3	30.72
	100 Spoil	756		316	+ 5	20.72
	100 Spoil	757	AIN-025542	1/2	5	23.13
	100 Spoil	759	AK-28920	140	0	34.09
	100 Spoil	750	101903 / 13902PC	120	1	42.02
1	iss spoil	109	4008B2	139	Ö	43.02

Date						
Transported	Location of Source	Manifest	Trailer No.	Riccelli Truck	Daily Truck	
Offsite	Material	Document No.	(Trailer No. / Pup No.)	No.	No.	Quantity (Tons)
2/4/2013	ISS Spoil	760	AN-74690 / 11652PC	317	1	24.04
	ISS Spoil	761	AM-41050 / 11981PC	14	2	27.16
	ISS Spoil	762	AH-67407 / 13065PC	54	3	31.09
	ISS Spoil	763	AN-62658 / 9608PA	35	4	30.02
	ISS Spoil	764	AR-96080 / 11424PC	313	5	32.09
	ISS Spoil	765	AN-74690 / 11652PC	317	6	28.90
	ISS Spoil	766	1819B3 / 13902PC	116	7	28.06
	ISS Spoil	767	AW-71346	T-17	8	23.84
	ISS Spoil	768	AM-41050 / 11981PC	14	9	27.57
2/5/2013	ISS Spoil	769	AN-74690 / 11652PC	317	1	24.56
	ISS Spoil	770	AW-54858 / 11653PC	318	2	28.22
	ISS Spoil	771	AR-40449 / 11423PC	312	3	28.80
	ISS Spoil	772	AM-41090	16	4	27.70
	ISS Spoil	773	AW-71346	T-17	5	24.70
	ISS Spoil	774	AM-41088 / 11420PC	18	6	28.93
	ISS Spoil	775	AH-67407 / 13065PC	54	7	32.54
	ISS Spoil	776	AN-62544 / 10799PC	316	8	25.95
	ISS Spoil	777	AT-24330	76	9	31.42
	ISS Spoil	778	AH-67410 / 11980PC	319	10	28.78
	ISS Spoil	779	AM-41050 / 11981PC	14	11	28.66
	ISS Spoil	780	AR-96080 / 11424PC	313	12	29.11
	ISS Spoil	781	AN-62658	35	13	28.49
	ISS Spoil	782	18656PB	307	14	20.77
	ISS Spoil	783	AN-74690 / 11652PC	317	15	31.09
	ISS Spoil	784	AM-30361 / 10798PC	311	16	17.62
	ISS Spoil	785	AW-54858 / 11653PC	318	17	39.71
	ISS Spoil	786	AR-40449 / 11423PC	312	18	35.16
	ISS Spoil	787	AM-41090	16	19	31.67
	ISS Spoil	788	AW-71346	T-17	20	29.32
	ISS Spoil	789	AM-41088 / 11420PC	18	21	33.46
	ISS Spoil	790	AH-67407 / 13065PC	54	22	33.50
	ISS Spoil	791	AN-62544 / 10799PC	316	23	30.32
	ISS Spoil	792	AH-67410 / 11980PC	319	24	30.76
	ISS Spoil	793	AM-41050 / 11981PC	14	25	33.27
2/6/2013	ISS Spoil	794	AN-74690 / 11652PC	317	1	28.81
	ISS Spoil	795	AM-41088 / 11420PC	18	2	30.17
	ISS Spoil	796	AW-54858 / 11653PC	318	3	35.28
	ISS Spoil	797	AR-40449 / 11423PC	312	4	35.03
	ISS Spoil	798	AM-41090	16	5	30.89
	ISS Spoil	799	AS-56049 / 13064PC	60	6	33.09
	ISS Spoil	800	AW-71346	RT-17	7	27.58
	ISS Spoil	801	AT-24330	76	8	33.64
	ISS Spoil	802	AW-71347 / 11288PC	RT-16	9	31.33
	ISS Spoil	803	AN-62544 / 10799PC	316	10	30.00
	ISS Spoil	804	AM-41088 / 11420PC	18	11	29.68
	ISS Spoil	805	1631B3	115	12	34.43
	ISS Spoil	806	AW-54858 / 11653PC	318	13	32.93
	ISS Spoil	807	AR-40449 / 11423PC	312	14	33.22
	ISS Spoil	808	AM-41090	16	15	29.20
	ISS Spoil	809	AW-71346 / 11287PC	RT-17	16	33.27
	ISS Spoil	810	AW-71347 / 11288PC	RT-16	17	31.93
	ISS Spoil	811	AT-24330	76	18	33.31
	ISS Spoil	812	AS-56049 / 13064PC	60	19	32.74
	ISS Spoil	813	AN-62544 / 10799PC	316	20	31.50

Date						
Transported	Location of Source	Manifest	Trailer No.	Riccelli Truck	Daily Truck	
Offsite	Material	Document No.	(Trailer No. / Pup No.)	No.	No.	Quantity (Tons)
2/7/2013	ISS Spoil	814	AN-74690 / 11652PC	317	1	30.02
	ISS Spoil	815	AM-41088 / 11420PC	18	2	28.98
	ISS Spoil	816	AW-54858 / 11653PC	318	3	31.53
	ISS Spoil	817	AR-40449 / 11423PC	312	4	31.20
	ISS Spoil	818	AM-41090	16	5	29.79
	ISS Spoil	819	AS-56049 / 13064PC	60	6	33.29
	ISS Spoil	820	AT-24330 / 11422PC	76	7	31.13
	ISS Spoil	821	AH-67407 / 13065PC	54	8	29.33
	ISS Spoil	822	AN-62544 / 10799PC	316	9	27.67
	ISS Spoil	823	AH-67406 / 19485PB	64	10	32.06
	ISS Spoil	824	AN-7/690 / 11652PC	317	11	34.05
	ISS Spoil	825	AM-41088 / 11420PC	18	12	37.46
	ISS Spoil	826	ANI 41000	16	12	34.72
	ISS Spoil	020	AIM-41090	76	14	24.02
		027	AT-243307 11422PC	210	14	34.93
	ISS Spoil	020	AW-54858 / 11653PC	510	15	37.04
	ISS Spoll	829	AH-67407 / 13065PC	54	10	34.01
	ISS Spoil	830	AN-62544 / 10799PC	316	17	33.03
	ISS Spoil	831	AR-40449 / 11423PC	312	18	35.35
	ISS Spoil	832	AH-67406 / 19485PB	64	19	35.25
2/8/2013	ISS Spoil	833	AN-74690 / 11652PC	317	1	31.05
	ISS Spoil	834	AM-41088 / 11420PC	18	2	32.74
	ISS Spoil	835	AM-41090	16	3	34.21
	ISS Spoil	836	AW-54858 / 11653PC	318	4	32.97
	ISS Spoil	837	AR-40449 / 11423PC	312	5	33.96
	ISS Spoil	838	AW-71346 / 11287PC	RT-17	6	29.42
	ISS Spoil	839	AH-67406 / 19485PB	64	7	33.23
	ISS Spoil	840	AH-67407 / 13065PC	54	8	31.63
	ISS Spoil	841	AS-56049 / 13064PC	60	9	37.73
	ISS Spoil	842	AN-62544 / 10799PC	316	10	31.71
	ISS Spoil	843	AN-74690 / 11652PC	317	11	32.17
	ISS Spoil	844	AM-41088 / 11420PC	18	12	32.09
	ISS Spoil	845	AW-54858 / 11653PC	318	13	36.99
	ISS Spoil	846	AR-40449 / 11423PC	312	14	35.85
	ISS Spoil	847	AW-71346 / 11287PC	RT-17	15	26.04
	ISS Spoil	848	AH-67406 / 19485PB	64	16	33.00
	ISS Spoil	849	AN-62544 / 10799PC	316	17	33.76
	ISS Spoil	850	AH-67407 / 13065PC	54	18	30.92
	ISS Spoil	851	AS-56049 / 13064PC	60	19	34.49
2/11/2013	ISS Spoil	852	ATT-67407 / 19965	345	1	33.08
	ISS Spoil	853	AL-52081 / T408 / 19964MD	344	2	33.57
	ISS Spoil	854	AS-56350 / 19962	342	3	37.30
	ISS Spoil	855	AW-71347 / 11288PC	RT-16	4	33.22
	ISS Spoil	856	AW-71346 / 11287PC	RT-17	5	35.60
	ISS Spoil	857	AW-54858 / 11653PC	318	6	36.33
	ISS Spoil	858	4667B3	845	7	34 56
	ISS Spoil	859	AN-74690	317	8	32 54
	ISS Spoil	860	AN-62544 / 10799PC	316	9	37.25
	ISS Spoil	861	ΔΤ-2/330	76	10	38 43
	ISS Spoil	862	AS-56049 / 12064DC	60	11	35.03
	ISS Spoil	863	169205	701	12	30.83
	100 Spoil	864		210	12	34.22
	100 Spoil	004	AK-40449 / 11423PU		13	34.33 25.25
	100 Spoil	000	AW-71347 / 11288PC	DT 47	14	30.∠0 27.00
	100 Spoil	000	AW-/1346 / 11287PC	KI-1/	15	37.02
	155 Sp01	000	AH-67407	345	16	35.23
	155 Spoil	808	AL-52081	344	17	32.22
	155 Spoil	808	AW-54858 / 11653PC	318	18	31.28
	ISS Spoil	870	AS-56350 / 19962	342	19	33.67

Date						
Transported Offsite	Location of Source Material	Manifest Document No.	Trailer No. (Trailer No. / Pup No.)	Riccelli Truck No.	Daily Truck No.	Quantity (Tons)
2/11/2013	ISS Spoil	871	4667P2	845	20	35.35
2/11/2013	ISS Spoil	872	4007 B3	60	20	37.32
	ISS Spoil	873	AB 40440 / 11422PC	312	27	37.78
	ISS Spoil	874	AR-404497 11423FC	317	22	31.10
2/12/2013	ISS Spoil	875	AIN-74090	345	1	35.83
2/12/2013	ISS Spoil	876	AL 52081	344	2	30.82
	ISS Spoil	877	AL-52061	342	2	36.59
	ISS Spoil	878	AB 40440 / 11422BC	312	3	38.87
	ISS Spoil	870	AR-40449 / 11423PC	912 PT-17		32.37
	ISS Spoil	880	AW-71346/11287FC	RT-16	5	34.70
		991	AW-71347 / 11286FC	60	7	26.45
	ISS Spoil	001	AS-560497 13064PC	219	/ 0	30.43
		002	AVV-54858 / 11653PC	216	0	33.22
	ISS Spoil	003	AN-62544 / 10799PC	310	9	32.01
	ISS Spoll	884	A1-24330	76	10	35.18
	ISS Spoll	685	AN-74690	317	11	33.47
	ISS Spoll	886	AL-52081	344	12	35.83
	Waterline	887	AR-40449 / 11423PC	312	13	36.78
	Waterline	888	AW-71346 / 11287PC	RT-17	14	37.14
	ISS Spoil	889	AW-71347 / 11288PC	RI-16	15	37.38
	ISS Spoil	890	AS-56049 / 13064PC	60	16	39.19
	ISS Spoil	891	AT-67407	345	17	35.00
	ISS Spoil	892	AW-54858 / 11653PC	318	18	40.53
	ISS Spoil	893	AT-24330	76	19	39.42
2/13/2013	Waterline	894	AT-67407	345	1	35.97
	Waterline	895	AL-52081	344	2	35.12
	ISS Spoil	896	AR-40449 / 11423PC	312	3	38.00
	ISS Spoil	897	AW-54858 / 11653PC	318	4	37.85
	ISS Spoil	898	AN-74690	317	5	34.93
	ISS Spoil	899	AW-71347 / 11288PC	RT-16	6	33.42
	ISS Spoil	900	AW-71346 / 11287PC	RT-17	7	32.66
	ISS Spoil	901	AS-56049 / 13064PC	60	8	37.60
	ISS Spoil	902	AT-24330	76	9	37.47
	ISS Spoil	903	AN-62544 / 10799PC	316	10	33.56
	ISS Spoil	904	AR-40449 / 11423PC	312	11	42.81
	ISS Spoil	905	AW-71347 / 11288PC	RT-16	12	36.94
	ISS Spoil	906	AN-74690	317	13	37.37
	ISS Spoil	907	AS-56049 / 13064PC	60	14	40.46
	ISS Spoil	908	AT-24330	76	15	41.73
	ISS Spoil	909	AN-62544 / 10799PC	316	16	34.83
	ISS Spoil	910	AW-54858 / 11653PC	318	17	40.11
2/14/2013	drain/swale	911	AL52081	344	1	34.28
	drain/swale	912	AT67407	345	2	35.72
	drain/swale	913	AS56350	342	3	39.90
	drain/swale	914	AR40449/11423PC	312	4	37.97
	drain/swale	915	1543C7	114	5	39.41
	drain/swale	916	4667B3	845	6	29.97
	drain/swale	917	AW71346/11287PC	RT-17	7	33.83
	drain/swale	918	AW54858/11653PC	318	8	37.06
	drain/swale	919	AN62544/10799PC	316	9	35.28
	drain/swale	920	AT67407	345	10	35.52
	ISS Spoil	921	AL52081	344	11	33.02
	ISS Spoil	922	AR40449/11423PC	312	12	44.31
	ISS Spoil	923	AW71346/11287PC	RT-17	13	41.64
	ISS Spoil	924	AW54858/11653PC	318	14	22.81

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

Date						
Transported Offsite	Location of Source Material	Manifest Document No.	Trailer No. (Trailer No. / Pup No.)	Riccelli Truck No.	Daily Truck No.	Quantity (Tons)
2/18/2013	Garage Excavation	925	AR40449/11423PC	312	1	33.23
	Garage Excavation	926	AW54858/11653PC	318	2	34.03
	Garage Excavation	927	AL52081	344	3	24.72
	Garage Excavation	928	AS56350	342	4	30.20
	Garage Excavation	929	T408/11421PC	48	5	18.58
	Garage Excavation	930	19967MD	347	6	22.38
	Garage Excavation	931	AN74690	317	7	16.75
	Garage Excavation	932	AR40449/11423PC	312	8	35.02
	Garage Excavation	933	AW54858/11653PC	318	9	30.00
2/19/2013	Garage Excavation	934	4661B3	262	1	20.93
	Garage Excavation	935	AR28920	143	2	23.47
	Garage Excavation	936	T408/11421PC	48	3	16.43
	Garage Excavation	937	4661B3	262	4	29.72
	Garage Excavation	938	AR28920	143	5	23.81
2/20/2013	Garage Excavation	939	AR40449/11423PC	312	1	24.01
	Garage Excavation	940	AS56049/13064PC	60	2	29.44
	Garage Excavation	941	AR40449/11423PC	312	3	31.28
	Garage Excavation	942	AT67407	345	4	33.40
2/21/2013	Garage Excavation	943	AR28920	143	1	29.01
	Garage Excavation	944	4661B3	262	2	36.69
	Garage Excavation	945	AT67407	345	3	33.70
	Garage Excavation	946	AR28920	143	4	39.20
	Garage Excavation	947	4661B3	262	5	44.60
					TOTAL:	31,155,20

Notes:
All material shipped to Seneca Meadows Landfill was shipped by Riccelli Trucking Inc, transporter identification number 7A-401.
ISS Spoil is a mixture of soil and excess ISS grout sent offsite for disposal as non hazardous waste.

TABLE 6 WASTE SHIPMENT SUMMARY FOR MATERIAL TRANSPORTED TO ESMI FOR THERMAL TREATMENT

Date Transported Offsite	Location of Source Material	Manifest Document No.	Transporter Name	Transporter ID No.	Truck No.	ESMI Ticket No.	Weight Received (Tons)
	OU1 Pre-ISS Excavation Soil	1	JBG Transport	5A-683	JG-002	2057902	36.25
44/0/0040	OU1 Pre-ISS Excavation Soil	2	JBG Transport	5A-683	RT-55	2057908	45.08
	OU1 Pre-ISS Excavation Soil	3	Galusha	5A-735	RG-05	2057913	42.34
11/9/2012	OU1 Pre-ISS Excavation Soil	4	Galusha	5A-735	RG-01	2057916	38.01
	OU1 Pre-ISS Excavation Soil	5	Galusha	5A-735	RG-17-D3	2057917	35.66
	OU1 Pre-ISS Excavation Soil	6	Galusha	5A-735	RG-19	2057918	32.61
	OU1 Former Holder Interior Soil	7	JBG Transport	5A-683	RT-55	2058152	32.30
	OU1 Former Holder Interior Soil	8	JBG	5A-683	JG-002	2058153	38.01
	OU1 Former Holder Interior Soil	9	Galusha	5A-735	RG-808	2058151	42.48
12/2/2012	OU1 Former Holder Interior Soil	10	Galusha	5A-735	RG-17	2058155	38.46
12/3/2012	OU1 Former Holder Interior Soil	11	Galusha	5A-735	RG-12	2058156	33.06
	OU1 Former Holder Interior Soil	12	Galusha	5A-735	RG-19	2058157	34.14
	OU1 Former Holder Interior Soil	13	Galusha	5A-735	RG-06-D9R	2058161	37.93
	OU1 Former Holder Interior Soil	14	Galusha	5A-735	RG-20	2058162	34.71
						TOTAL:	521.04

Location ID:	Commercial Use	CH-SP-WS-00-001				
Data Callested	SCOs	00/07/40	09/20/42	00/06/12	00/06/12	00/10/12
Sample Name:	(Exceedances Shaded)	CH-SP-WS-00-001	CH-SP-NA-002	09/00/12 CH-EX-WS-NA-001	09/00/12 CH-EX-WS-NA-002	CH-EX-WS-NA-003
Sample Name.	Material Handling:	Relise	Relise	Relise	Re-Use	Offsite Disposal
PCBs	material Handling.	110 030	ine ose	110 030	110 030	Chance Disposal
Aroclor-1016		<0.11	<0.12	<0.11	<0.12	<0.12
Aroclor-1221		<0.11	<0.12	<0.11	<0.12	<0.12
Aroclor-1232		<0.11	<0.12	<0.11	<0.12	<0.12
Aroclor-1242		<0.11	<0.12	<0.11	<0.12	<0.12
Aroclor-1248		<0.11	<0.12	<0.11	<0.12	<0.12
Aroclor-1254		<0.11	<0.12	<0.11	<0.12	<0.12
Aroclor-1260		<0.11	<0.12	<0.11	<0.12	<0.12
Total PCBs	1	<0.11	<0.12	<0.11	<0.12	<0.12
Pesticides						
4,4'-DDD	92	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
4,4'-DDE	62	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
4,4'-DDT	47	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
Aldrin	0.68	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
Alpha-BHC	3.4	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
Alpha-Chlordane	24	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
Beta-BHC	3	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
Delta-BHC	500	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
Dieldrin	1.4	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
Endosulfan I	200	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
Endosulfan II	200	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
Endosulfan Sulfate	200	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
Endrin	89	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
Gamma-BHC (Lindane)	9.2	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
Heptachlor	15	<0.0072	<0.0078	<0.0077	<0.0074	<0.0076
VOCs						
1,1,1-Trichloroethane	500	<0.0044	<0.0036	<0.13	<0.13	<0.14
1,1-Dichloroethane	240	<0.0044	<0.0036	<0.13	<0.13	<0.14
1,1-Dichloroethene	500	<0.0044	<0.0036	<0.13	<0.13	<0.14
1,2,4-Trimethylbenzene	190	0.0030 J	0.00089 J	0.36	0.58	0.39
1,2-Dichlorobenzene	500	<0.0044	<0.0036	<0.13	<0.13	<0.14
1,2-Dichloroethane	30	<0.0044	<0.0036	<0.13	<0.13	<0.14
1,3,5-Trimethylbenzene	190	0.0011 J	<0.0090	0.11 J	0.18 J	0.15 J
1,3-Dichlorobenzene	280	<0.0044	<0.0036	<0.13	<0.13	<0.14
1,4-Dichlorobenzene	130	<0.0044	<0.0036	<0.13	<0.13	<0.14
1,4-Dioxane	130	< 0.055	<0.045	<1.6	<1.6	<1.7

Location ID:	Commercial Use	CH-SP-WS-00-001	CH-SP-NA-002	CH-EX-WS-NA-001	CH-EX-WS-NA-002	CH-EX-WS-NA-003
Date Collected:	(Exceedances	08/27/12	08/29/12	09/06/12	09/06/12	09/10/12
Sample Name:	Shaded)	CH-SP-WS-00-001	CH-SP-NA-002	CH-EX-WS-NA-001	CH-EX-WS-NA-002	CH-EX-WS-NA-003
	Material Handling:	Re-Use	Re-Use	Re-Use	Re-Use	Offsite Disposal
VOCs (cont.)					•	•
2-Butanone	500	<0.011	<0.0090	<0.32	<0.32	<0.34
Acetone	500	0.038	0.063	<0.32	<0.32	<0.34
Benzene	44	0.013	<0.00090	0.030 J	0.064	0.13
Carbon Tetrachloride	22	<0.0044	<0.0036	<0.13	<0.13	<0.14
Chlorobenzene	500	<0.0044	<0.0036	<0.13	<0.13	<0.14
Chloroform	350	<0.0044	<0.0036	<0.13	<0.13	<0.14
cis-1,2-Dichloroethene	500	<0.0044	< 0.0036	<0.13	<0.13	<0.14
Ethylbenzene	390	0.00057 J	0.0025 J	0.046 J	0.23	0.041 J
Methyl tert-butyl ether	500	<0.0044	< 0.0036	<0.13	<0.13	<0.14
Methylene Chloride	500	0.0077	0.0080	<0.13	<0.13	<0.14
n-Butylbenzene	500	<0.011	<0.0090	0.058 J	0.057 J	0.016 J
n-Propylbenzene	500	<0.011	<0.0090	0.015 J	0.015 J	<0.34
sec-Butylbenzene	500	<0.011	<0.0090	0.015 J	<0.32	<0.34
tert-Butylbenzene	500	<0.011	<0.0090	<0.32	<0.32	<0.34
Tetrachloroethene	150	<0.0044	<0.0036	<0.13	<0.13	<0.14
Toluene	500	0.0054 J	0.0010 J	0.051 J	0.14 J	0.23 J
trans-1,2-Dichloroethene	500	<0.0044	<0.0036	<0.13	<0.13	<0.14
Trichloroethene	200	0.0023 J	<0.0036	<0.13	<0.13	<0.14
Vinyl Chloride	13	<0.0044	<0.0036	<0.13	<0.13	<0.14
Xylenes (total)	500	0.0045	0.0014 J	0.19	0.45	0.62

Location ID:	Commercial Use	CH-SP-WS-00-001	CH-SP-NA-002	CH-FX-WS-NA-001	CH-FX-WS-NA-002	CH-EX-WS-NA-003
Date Collected:	SCUS (Excoordances	08/27/12	08/29/12	09/06/12	09/06/12	09/10/12
Sample Name:	(Exceedances Shaded)	CH-SP-WS-00-001	CH-SP-NA-002	CH-EX-WS-NA-001	CH-EX-WS-NA-002	CH-EX-WS-NA-003
	Material Handling:	Re-Use	Re-Use	Re-Use	Re-Use	Offsite Disposal
SVOCs						
2-Methylphenol	500	<11	<0.57	<5.6	<5.7	<60
3&4-Methylphenol		0.72 J	<0.57	<5.6	<5.7	3.4 J
Acenaphthene	500	0.85 J	<0.11	2.2	4.9	4.9 J
Acenaphthylene	500	11	0.054 J	14	18	40
Anthracene	500	8.6	0.061 J	8.4	12	62
Benzo(a)anthracene	5.6	35	0.26	32	28	180
Benzo(a)pyrene	1	29	0.19	30	26	160
Benzo(b)fluoranthene	5.6	37	0.23	34	27	230
Benzo(g,h,i)perylene	500	13	0.092 J	20	14	87
Benzo(k)fluoranthene	56	15	0.11	15	10	84
Chrysene	56	24	0.19	27	23	140
Dibenzo(a,h)anthracene	0.56	4.4	0.029 J	5.4	4.0	29
Dibenzofuran	350	1.7 J	<0.11	1.5	2.3	19
Fluoranthene	500	56	0.32	37	36	350
Fluorene	500	3.0	0.026 J	4.4	11	22
Hexachlorobenzene	6	<5.5	<0.28	<2.8	<2.8	<30
Indeno(1,2,3-cd)pyrene	5.6	14	0.091 J	19	13	95
Naphthalene	500	3.4	0.021 J	4.9	9.0	34
Pentachlorophenol	6.7	<11	<0.57	<5.6	<5.7	<60
Phenanthrene	500	19	0.13	18	35	160
Phenol	500	<5.5	<0.28	<2.8	<2.8	<30
Pyrene	500	43	0.26	42	42	250
Total PAHs (NDs at 1/2)		320 J	2.1 J	310	310	1,900 J
Total PAHs <500 (Yes/No):		Yes	Yes	Yes	Yes	No
Inorganics						
Arsenic	16	6.10	6.50	9.10	8.20	10.6
Barium	400	71.4	91.6	72.4	99.9	64.4
Beryllium	590	<0.440	0.480	0.560	0.560	0.450
Cadmium	9.3	<0.440	<0.390	0.790	<0.450	<0.420
Chromium	1,500	15.3	14.6	20.0	16.1	11.9
Chromium, hexavalent		<0.450	<0.460	<0.450	<0.450	<0.480
Chromium, trivalent		15.3	14.5	20.0	15.8	11.9
Copper	270	24.5	17.0	29.0	37.0	39.7
Cyanide	27	7.30	4.00	10.8	11.8	62.0

Location ID: Date Collected: Sample Name:	Commercial Use SCOs (Exceedances Shaded)	CH-SP-WS-00-001 08/27/12 CH-SP-WS-00-001	CH-SP-NA-002 08/29/12 CH-SP-NA-002	CH-EX-WS-NA-001 09/06/12 CH-EX-WS-NA-001	CH-EX-WS-NA-002 09/06/12 CH-EX-WS-NA-002	CH-EX-WS-NA-003 09/10/12 CH-EX-WS-NA-003
	Material Handling:	Re-Use	Re-Use	Re-Use	Re-Use	Offsite Disposal
Inorganics (cont.)						
Lead	1,000	91.0	14.0	138	90.4	140
Manganese	10,000	533	459	438	571	387
Mercury	2.8	0.260	0.0360	0.710	0.760	0.790
Nickel	310	19.8	20.4	24.5	24.7	16.4
Selenium	1,500	<1.10	<0.960	<1.10	<1.10	<1.10
Silver	1,500	<0.550	<0.480	<0.570	<0.570	<0.530
Zinc	10,000	98.9	62.1	206	109	111

Location ID:	Commercial Use SCOs	CH-EX-WS-NA-004	CH-EX-WS-NA-005	CH-EX-WS-NA-009
Date Collected:	(Exceedances	09/12/12	09/12/12	11/01/12
Sample Name:	Shaded)	CH-EX-WS-NA-004	CH-EX-WS-NA-005	CH-EX-WS-NA-009
	Material Handling:	Re-Use	Re-Use	Re-Use
PCBs			•	
Aroclor-1016		<0.11	<0.11	<0.11
Aroclor-1221		<0.11	<0.11	<0.11
Aroclor-1232		<0.11	<0.11	<0.11
Aroclor-1242		<0.11	<0.11	<0.11
Aroclor-1248		<0.11	<0.11	<0.11
Aroclor-1254		<0.11	<0.11	<0.11
Aroclor-1260		<0.11	<0.11	<0.11
Total PCBs	1	<0.11	<0.11	<0.11
Pesticides				
4,4'-DDD	92	<0.0072	<0.007	<0.0079
4,4'-DDE	62	<0.0072	<0.007	<0.0079
4,4'-DDT	47	<0.0072	<0.007	<0.0079
Aldrin	0.68	<0.0072	<0.007	<0.0079
Alpha-BHC	3.4	<0.0072	<0.007	<0.0079
Alpha-Chlordane	24	<0.0072	<0.007	<0.0079
Beta-BHC	3	<0.0072	<0.007	<0.0079
Delta-BHC	500	<0.0072	<0.007	<0.0079
Dieldrin	1.4	<0.0072	<0.007	<0.0079
Endosulfan I	200	<0.0072	<0.007	<0.0079
Endosulfan II	200	<0.0072	<0.007	<0.0079
Endosulfan Sulfate	200	<0.0072	<0.007	<0.0079
Endrin	89	<0.0072	<0.007	<0.0079
Gamma-BHC (Lindane)	9.2	<0.0072	<0.007	<0.0079
Heptachlor	15	<0.0072	<0.007	<0.0079
VOCs				
1,1,1-Trichloroethane	500	<0.0036	<0.11	<0.0012
1,1-Dichloroethane	240	<0.0036	<0.11	<0.0012
1,1-Dichloroethene	500	<0.0036	<0.11	<0.0012
1,2,4-Trimethylbenzene	190	0.0063 J	0.083 J	0.00053 J
1,2-Dichlorobenzene	500	<0.0036	<0.11	<0.0012
1,2-Dichloroethane	30	<0.0036	<0.11	<0.0012
1,3,5-Trimethylbenzene	190	0.012	0.032 J	<0.0031
1,3-Dichlorobenzene	280	<0.0036	<0.11	<0.0012
1,4-Dichlorobenzene	130	<0.0036	<0.11	<0.0012
1,4-Dioxane	130	<0.045	<1.4	<0.015

Location ID: Date Collected: Sample Name:	Commercial Use SCOs (Exceedances Shaded)	CH-EX-WS-NA-004 09/12/12 CH-EX-WS-NA-004	CH-EX-WS-NA-005 09/12/12 CH-EX-WS-NA-005	CH-EX-WS-NA-009 11/01/12 CH-EX-WS-NA-009	
	Material Handling:	Re-Use	Re-Use	Re-Use	
VOCs (cont.)					
2-Butanone	500	<0.0090	<0.28	<0.0031	
Acetone	500	0.052	<0.28	0.072	
Benzene	44	0.014	0.025 J	0.00055	
Carbon Tetrachloride	22	<0.0036	<0.11	<0.0012	
Chlorobenzene	500	<0.0036	<0.11	<0.0012	
Chloroform	350	<0.0036	<0.11	<0.0012	
cis-1,2-Dichloroethene	500	<0.0036	<0.11	<0.0012	
Ethylbenzene	390	0.0024 J	0.019 J	0.00029 J	
Methyl tert-butyl ether	500	<0.0036	<0.11	<0.0012	
Methylene Chloride	500	0.0095	<0.11	<0.0012	
n-Butylbenzene	500	0.0024 J	0.024 J	<0.0031	
n-Propylbenzene	500	<0.0090	<0.28	<0.0031	
sec-Butylbenzene	500	<0.0090	<0.28	<0.0031	
tert-Butylbenzene	500	<0.0090	<0.28	<0.0031	
Tetrachloroethene	150	<0.0036	<0.11	<0.0012	
Toluene	500	0.0066 J	0.036 J	0.00060 J	
trans-1,2-Dichloroethene	500	<0.0036	<0.11	<0.0012	
Trichloroethene	200	<0.0036	<0.11	<0.0012	
Vinyl Chloride	13	<0.0036	<0.11	<0.0012	
Xylenes (total)	500	0.0074	0.081 J	0.0012	

Location ID:	Commercial Use			
Dete Collected	SCOs	00/42/42	CH-EX-WS-NA-005	CH-EA-WO-INA-009
Date Collected:	(Exceedances		09/12/12	
Sample Name:	Snaded)	CH-EX-WS-NA-004	CH-EX-WS-NA-005	CH-EX-WS-NA-009
SVOCa	Material Handling:	Ke-Use	Re-Use	Re-Use
2 Mathulahanal	500	.E.C	-11	.2.0
2-Weinyiphenoi	500	<5.6	<11	<3.0
		<5.6	<11	<3.0
Acenaphthene	500	2.7	1.7 J	1.4
Acenaphthylene	500	9.9	17	1.8
Anthracene	500	6.0	11	3.6
Benzo(a)anthracene	5.6	16	35	6.3
Benzo(a)pyrene	1	14	31	5.7
Benzo(b)fluoranthene	5.6	16	34	6.6
Benzo(g,h,i)perylene	500	9.4	17	3.2
Benzo(k)fluoranthene	56	5.8	10	2.7
Chrysene	56	12	28	5.3
Dibenzo(a,h)anthracene	0.56	2.7	5.0	0.94
Dibenzofuran	350	1.0 J	1.6 J	1.5
Fluoranthene	500	21	46	11
Fluorene	500	4.7	8.0	2.1
Hexachlorobenzene	6	<2.8	<5.4	<1.5
Indeno(1,2,3-cd)pyrene	5.6	8.5	15	2.9
Naphthalene	500	3.0	6.6	1.8
Pentachlorophenol	6.7	<5.6	<11	<3.0
Phenanthrene	500	15	30	7.9
Phenol	500	<2.8	<5.4	<1.5
Pyrene	500	23	54	9.4
Total PAHs (NDs at 1/2)		170	350 J	73
Total PAHs <500 (Yes/No):		Yes	Yes	Yes
Inorganics			•	
Arsenic	16	7.40	9.20	6.70
Barium	400	151	121	55.6
Beryllium	590	0.660	0.530	0.480
Cadmium	9.3	<0.420	0.650	0.320 B
Chromium	1,500	15.3	12.2	13.7
Chromium, hexavalent		<0.460	<0.440	<0.480
Chromium, trivalent		15.3	12.2	13.5
Copper	270	30.6	27.3	19.5
Cyanide	27	25.8	6.10	0.920

Location ID: Date Collected: Sample Name:	Commercial Use SCOs (Exceedances Shaded)	CH-EX-WS-NA-004 09/12/12 CH-EX-WS-NA-004	CH-EX-WS-NA-005 09/12/12 CH-EX-WS-NA-005	CH-EX-WS-NA-009 11/01/12 CH-EX-WS-NA-009
	Material Handling:	Re-Use	Re-Use	Re-Use
Inorganics (cont.)				
Lead	1,000	120	189	18.3
Manganese	10,000	480	436	346
Mercury	2.8	0.430	0.180	0.0720
Nickel	310	20.6	19.4	21.5
Selenium	1,500	<1.00	<0.970	0.420 B
Silver	1,500	<0.520	<0.480	<0.530
Zinc	10,000	103	137	67.4

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

Notes:

- 1. Samples were collected by ARCADIS on the dates indicated.
- 2. VOCs = Volatile Organic Compounds.
- 3. SVOCs = Semi-Volatile Organic Compounds.
- 4. PCBs = Polychlorinated Biphenyls.
- 5. PAHs = Polycyclic Aromatic Hydrocarbons.
- 6. Samples were analyzed by Accutest Laboratories, Inc. (Accutest) located in Marlbourough, Massachusetts for:
 - VOCs using United States Environmental Protection Agency (USEPA) SW-846 Method 8260.
 - SVOCs using USEPA SW-846 Method 8270.
 - Inorganics using USEPA SW-846 Methods 6010, 7471 and 335.4.
 - PCBs using USEPA SW-846 Method 8082.
 - Pesticides using USEPA SW-846 Method 8081.
- 7. All concentrations reported in dry weight parts per million (ppm), which is equivalent to milligrams per kilogram (mg/kg).
- 8. Data qualifiers are defined as follows:
 - < Constituent not detected at a concentration above the reported detection limit.
 - J Indicates that the associated numerical value is an estimated concentration.
- 9. 6 NYCRR Part 375 Soil Cleanup Objectives (SCOs) are from Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375-6.8(b).
- 10. Shading indicates that the result exceeds the 6 NYCRR Part 375 Commercial Use SCO.
- 11. -- = No 6 NYCRR Part 375 SCO listed.
- 12. Total PAHs were calculated as the sum of the following, which is consistent with the
 - NYSDEC list from: http://www.dec.ny.gov/chemical/24922.html:
 - 2-Methylnaphthalene
 - Acenaphthene
 - Acenaphthylene
 - Anthracene
 - Benzo(a)anthracene
 - Benzo(a)pyrene
 - Benzo(b)fluoranthene
 - Benzo(g,h,i)perylene
 - Benzo(k)fluoranthene
 - Chrysene
 - Dibenzo(a,h)anthracene
 - Fluoranthene
 - Fluorene
 - Indeno(1,2,3-cd)pyrene
 - Naphthalene
 - Phenanthrene
 - Pyrene
- 13. Re-use = soil was reused onsite as subsurface fill below a demarcation layer.

TABLE 8 OU2 PETROLEUM-IMPACTED SOIL DOCUMENTATION SAMPLE RESULTS (ppm)

Location ID:	CP-51 Fuel Oil	CH-VB-10	CH-VB-11	CH-VB-12	CH-VS-1	CH-VS-2	CH-VS-3	CH-VS-4	CH-VS-5	CH-VS-6	CH-VS-13
Date Collected:	Contaminated	02/20/13	02/18/13	02/19/13	02/19/13	02/19/13	02/19/13	02/18/13	02/20/13	02/20/13	02/20/13
Sample Name:	Soil + MTBE	CH-VB-10	CH-VB-11	CH-VB-12	CH-VS-1	CH-VS-2	CH-VS-3	CH-VS-4	CH-VS-5	CH-VS-6	CH-VS-13
VOCs											
1 1 1-Trichloroethane		<0.390	<1 10	<0.00280	<0.00300	<1 20	<0.600	<0 710 [<0 590]	<0.540	<0.610	<0.00340
1 1-Dichloroethane		<0.390	<1.10	<0.00280	<0.00300	<1.20	<0.600	<0 710 [<0 590]	<0.540	<0.610	<0.00340
1.1-Dichloroethene		< 0.390	<1.10	<0.00280	< 0.00300	<1.20	<0.600	<0.710 [<0.590]	<0.540	<0.610	< 0.00340
1 2 4-Trimethylbenzene	3.6	22.0	93.1	0.00550	0.00310 J	1.03.J	0.0705.1	35.9 [36.0]	0.0726.1	59.2	0 128
1 2-Dichlorobenzene		<0.390	<1 10	<0.00280	<0.00300	<1.20	<0.600	<0 710 [<0 590]	<0.540	<0.610	<0.00340
1 2-Dichloroethane		<0.390	<1.10	<0.00280	<0.00300	<1.20	<0.600	<0 710 [<0 590]	<0.540	<0.610	<0.00340
1.3.5-Trimethylbenzene	8.4	5.25	30.4	0.00330 J	0.00210 J	0.297 J	<1.50	13.0 [12.6]	<1.40	9.04	0.0339
1.3-Dichlorobenzene		<0.390	<1.10	<0.00280	<0.00300	<1.20	<0.600	<0 710 [<0 590]	<0.540	<0.610	<0.00340
1.4-Dichlorobenzene		< 0.390	<1.10	< 0.00280	< 0.00300	<1.20	<0.600	<0.710 [<0.590]	< 0.540	<0.610	< 0.00340
1.4-Dioxane		<4.90	<14.0	<0.0240	< 0.0260	<14.0	<7.50	<8.90 [<7.40]	<6.80	<7.60	< 0.0300
2-Butanone		<0.980	<2.70	0.0246	0.0190	<2.90	<1.50	<1.80 [<1.50]	<1.40	<1.50	0.0411
Acetone		<0.980	<2.70	0.290	0 219 B	<2.90	<1.50	<1.80 [<1.50]	<1.40	<1.50	0.306
Benzene	0.06	<0.0980	1.33	0.00250	0.00200	<0.290	<0.150	<0.180 [<0.150]	<0.140	<0.150	0.00400
Carbon Tetrachloride		< 0.390	<1.10	<0.00280	< 0.00300	<1.20	<0.600	<0.710 [<0.590]	<0.540	<0.610	< 0.00340
Chlorobenzene		< 0.390	<1.10	< 0.00280	< 0.00300	<1.20	<0.600	<0.710 [<0.590]	< 0.540	<0.610	< 0.00340
Chloroform		<0.390	<1.10	<0.00280	<0.00300	<1.20	<0.600	<0 710 [<0 590]	<0.540	<0.610	<0.00340
cis-1 2-Dichloroethene		<0.390	<1.10	<0.00280	<0.00300	<1.20	<0.600	<0 710 [<0 590]	<0.540	<0.610	<0.00340
Ethylbenzene	1	3.51	27.5	0.000960.1	0.000530.1	0.253.1	<0.600	0 472 J [0 535 J]	<0.540	6.68	0.0103
Methyl tert-butyl ether		<0.390	<1 10	<0.00280	<0.00300	<1.20	<0.600	<0 710 [<0 590]	<0.540	<0.610	<0.00340
Methylene Chloride		<0.390	<1.10	<0.00280	<0.00300	<1.20	<0.600	<0 710 [<0 590]	<0.540	<0.610	<0.00340
n-Butylbenzene	12	2.53	12.2	0.00250 J	0.000720.1	7 71	0 407 J	9 08 [7 04]	0 197 J	6.94	0.0152
n-Propylbenzene	3.9	2 71	25.8	0.00610	0.00340.1	4 52	<1.50	10.4 [10.9]	<1.40	6.12	0.0130
sec-Butylbenzene	11	0.566.1	4 43	0.00260.1	0.000760.1	5.29	0.301.1	2 77 [2 33]	0.0769.1	1.62	0.00450.1
tert-Butylbenzene	59	<0.980	0.538.1	<0.00550	<0.00600	0.647.1	<1.50	0.444 [<1.50]	<1 40	<1.50	<0.00690
Tetrachloroethene		<0.390	<1 10	<0.00280	<0.00300	<1.20	<0.600	<0 710 [<0 590]	<0.540	<0.610	<0.00340
Toluene	0.7	<0.980	1.82 J	0.00380 J	0.00280 J	<2.90	<1.50	<1 80 [<1 50]	<1.40	<1.50	0.0127
trans-1 2-Dichloroethene		<0.390	<1 10	<0.00280	<0.00300	<1.00	<0.600	<0 710 [<0 590]	<0.540	<0.610	<0.00340
Trichloroethene		< 0.390	<1.10	<0.00280	< 0.00300	<1.20	<0.600	<0.710 [<0.590]	<0.540	<0.610	< 0.00340
Vinyl Chloride		< 0.390	<1.10	< 0.00280	< 0.00300	<1.20	<0.600	<0.710 [<0.590]	< 0.540	<0.610	< 0.00340
Xvlenes (total)	0.26	7.66	73.7	0.00450	0.00280 J	0.418 J	< 0.600	7.82 [8.91]	< 0.540	13.7	0.0576
SVOCs			-								
2-Methylphenol		<0.610	<3.50	<0.710	<0.670	<0.760	<0.570	<0.670 [<0.640]	<0.610	<0.700	<3.00
3&4-Methylphenol		<0.010	<3.50	<0.710	<0.670	<0.760	<0.570		<0.610	<0.700	<3.00
Acenaphthene	20	0.0588 1	<0.690	0.128	0.164	0.138	<0.070	<0.070 [<0.040]	<0.010	1.67	<0.00
Acenaphthylene	100	0.264	0.244.1	0.0938.1	0.104	<0.150	<0.110	<0.130 [<0.130]	0.0629.1	0.511	<0.000
Anthracene	100	0.191	<0.690	0.123.1	0.278	<0.150	<0.110	<0.130 [<0.130]	0.0906.1	0.900	<0.000
Benzo(a)anthracene	1	0.623	0.355.1	0.158	0.548	<0.150	<0.110	<0.130 [<0.130]	0.00000	0.954	<0.000
Benzo(a)pyrene	1	0.659	<0.690	<0.100	0.490	<0.150	<0.110	<0.130 [<0.130]	0.285	0.001	<0.000
Benzo(b)fluoranthene	1	0.426	0.455.1	0.125.1	0.552	<0.150	<0.110	<0.130 [<0.130]	0.114.1	0.459	0 164 .1
Benzo(g h i)pervlene	100	0.394	0 799	0.0839.1	0.294	<0.150	<0.110	<0.130 [<0.130]	0.0927.1	0.100	<0.600
Benzo(k)fluoranthene	0.8	0.482	0.398.1	0.0941.1	0.157	<0.150	<0.110	<0.130 [<0.130]	0.114.1	0.495	<0.000
Chrysene	1	0.487	0.366 J	0.125.1	0.446	<0.150	<0.110	<0.130 [<0.130]	0 147	0.725	<0.000
Dibenzo(a h)anthracene	0.33	<0.120	<0.690	<0.140	0.0927.1	<0.150	<0.110	<0.130 [<0.130]	<0.120	<0.140	<0.600
Dibenzofuran		<0.120	<0.690	<0.140	0.0671.1	0.213	<0.110	<0.130 [<0.130]	<0.120	0.875	<0.600
Eluoranthene	100	0.951	0.495.1	0.239	0.851	<0.150	<0.110	<0.130 [<0.130]	0.273	2.06	0.296.1
Fluorene	30	0.0938.1	<0.690	0.117.1	0.228	0.148.1	<0.110	<0.130 [<0.130]	0.0520.1	1 15	<0.600
Hexachlorobenzene		<0.310	<1 70	<0.350	<0.330	<0.380	<0.290	<0.330 [<0.320]	<0.300	<0.350	<1.50
Indeno(1 2 3-cd)nvrene	0.5	0 441	<0.690	<0.140	0.257	<0.150	<0.200	<0 130 [<0 130]	<0.000	0.385	<0.600
Naphthalene	12	0.296	1 14	0 186	0.465	<0.150	<0.110	0 166 [0 104]	0.0806	16.6	<0.000
Pentachlorophenol		<0.610	<3.50	<0.710	<0.670	<0.760	<0.570		<0.610	<0.700	<3.00
Phenanthrene	100	0 444	0.228	0.390	0.829	0.0564	<0.010	<0 130 [<0 130]	0 144	2.54	<0.00
Phenol		<0.310	<1 70	<0.350	<0.320	<0.380	<0.110		<0.144	<0.350	<1.50
Pyrene	100	0.987	0.479.1	0.255	0.892	<0.000	<0.230	<0.000 [<0.020]	0.272	2.35	0.219.1
Total PAHs		6.86.1	7.03.1	2.33.1	6.82.1	1.32.1	<0.880	1 14 [1 08.1]	2 10 1	31.9	4.58.1
		0.000	1.000	2.000	0.02.0	1.02.0	-0.000		2.100	01.0	1.000

OU2 PETROLEUM-IMPACTED SOIL DOCUMENTATION SAMPLE RESULTS (ppm)

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

Notes:

- 1. Samples were collected by ARCADIS on the dates indicated.
- 2. VOCs = Volatile Organic Compounds.
- 3. SVOCs = Semi-Volatile Organic Compounds.
- 4. PCBs = Polychlorinated Biphenyls.
- 5. PAHs = Polycyclic Aromatic Hydrocarbons.
- 6. Samples were analyzed by Accutest Laboratories, Inc. (Accutest) located in Marlbourough, Massachusetts for:
- VOCs using United States Environmental Protection Agency (USEPA) SW-846 Method 8260.
 - SVOCs using USEPA SW-846 Method 8270.
 - Inorganics using USEPA SW-846 Methods 6010, 7471 and 335.4.
- 7. All concentrations reported in dry weight parts per million (ppm), which is equivalent to milligrams per kilogram (mg/kg).
- 8. Data qualifiers are defined as follows:
 - Constituent not detected at a concentration above the reported detection limit.
 - J Indicates that the associated numerical value is an estimated concentration.
 - B Analyte was also detected in the associated method blank.
- 9. 6 NYCRR Part 375 Soil Cleanup Objectives (SCOs) are from Title 6 of the Official Compilation of Codes,
 - Rules and Regulations of the State of New York (6 NYCRR) Part 375-1.8(d).
- 10. Shading indicates that the result exceeds the CP-51 Soil Cleanup Level for Fuel Oil Contaminated Soil.
- 11. - = CP-51 SCO listed.
- 12. Total PAHs were calculated as the sum of the following, which is consistent with the
 - NYSDEC list from: http://www.dec.ny.gov/chemical/24922.html:
 - 2-Methylnaphthalene
 - Acenaphthene
 - Acenaphthylene
 - Anthracene
 - Benzo(a)anthracene
 - Benzo(a)pyrene
 - Benzo(b)fluoranthene
 - Benzo(g,h,i)perylene
 - Benzo(k)fluoranthene
 - Chrysene
 - Dibenzo(a,h)anthracene
 - Fluoranthene
 - Fluorene
 - Indeno(1,2,3-cd)pyrene
 - Naphthalene
 - Phenanthrene
 - Pyrene

PRE- AND POST-CONSTRUCTION SAMPLING RESULTS FOR "NATIVE" SOILS IN STAGING AREA LIMITS (ppm)

			Soil Analytical Results (ppm)				
	Residential Use	Pre-Con	struction	Post-Cor	Post-Construction		
Location ID:	SCOs	CH-SP-1	CH-SP-2	CH-SP-1A	CH-SP-2A		
Date Collected:	(Exceedances	8/7/2012	8/7/2012	2/6/2013	2/6/2013		
Sample Name:	Rolded)	CH-SP-1	CH-SP-2	CH-SP-1A	CH-SP-2A		
PCBs	Dolded)		011 01 2		011 01 27		
Aroclor-1016		<0 150	<0.120	<0 140	<0.120		
Aroclor-1221		<0.150	<0.120	<0.140	<0.120		
Aroclor-1221		<0.150	<0.120	<0.140	<0.120		
Aroclor-1242		<0.150	<0.120	<0.140	<0.120		
Aroclor-1248		<0.150	<0.120	<0.140	<0.120		
Aroclor-1254		<0.150	<0.120	0.0439.1	0.0600.1		
Aroclor-1260		0.0744	0.0325 1	<0.04333	<0.00000		
Total PCBs	1	0.0744.1	0.0325.1	0.0439.1	0.0600.1		
VOCs		0.07 ++ 0	0.0020 0	0.0400 0	0.00000		
1 1 1 Trichloroothana	100	<0.00460	<0.00460	<0.00220	-0.00140		
1,1,1-Thenloroethane	100	<0.00400	<0.00400	<0.00220	<0.00140		
1,1-Dichloroothono	100	<0.00400	<0.00400	<0.00220	<0.00140		
1.2.4-Trimethylbenzene	100		<0.00400	<0.00220			
1,2,4- Minetryidenzene	100	<0.01103	<0.00160	<0.003403	<0.00300 J		
1,2-Dichloroothana	100	<0.00400	<0.00400	<0.00220	<0.00140		
1,2-Dichloroelliane	2.3	<0.00400	<0.00400	<0.00220			
	47	<0.0110.3	<0.0110.3	<0.00340 3	<0.00300 J		
	0.8	<0.00400	<0.00400	<0.00220	<0.00140		
1,4-Dichiorobenzene	9.0	<0.00400	<0.00400	<0.00220	<0.00140		
2-Butanone	100	<0.0370	<0.0370	0.0738 1	0.0361		
	100	0.244	0.212	0.560 D I	0.03013		
Benzene	2.9	0.0120	0.212	0.00110	0.000750 1		
Carbon Tetrachloride	1 4	<0.00120	<0.000550 5		<0.0007303		
Chlorobenzene	1.4	<0.00400	<0.00460	<0.00220	<0.00140		
Chloroform	100	<0.00400	<0.00460	<0.00220	<0.00140		
cis-1 2-Dichloroethene	59	<0.00460	<0.00460	<0.00220	<0.00140		
Ethylbenzene	30	<0.00460	<0.00460	0.000220	0.000360.1		
Methyl tert-butyl ether	62	<0.00460	<0.00460	<0.0000000	<0.0000000		
Methylene Chloride	51	0.0100	0.00670	<0.00220	<0.00140		
n-Butylenzene	100	<0.0100	<0.00070	<0.00220			
n-Propylbenzene	100	<0.0110.1	<0.0110.1	<0.00540.1	<0.000000		
sec-Butylbenzene	100	<0.0110.1	<0.0110.1	<0.00540.1	<0.000000		
tert-Butylbenzene	100	<0.0110 J	<0.0110 J	<0.00540 J	<0.00360 J		
Tetrachloroethene	5.5	<0.00460	<0.00460	<0.00220	<0.00140		
Toluene	100	0.00300 J	0.00340 J	0.00260 J	0.00240 J		
trans-1.2-Dichloroethene	100	< 0.00460	< 0.00460	<0.00220	<0.00140		
Trichloroethene	10	0.109	0.0673	<0.00220	<0.00140		
Vinyl Chloride	0.21	< 0.00460	< 0.00460	<0.00220	<0.00140		
Xvlenes (total)	100	< 0.00460	< 0.00460	0.00280 J	0.00160 J		
SVOCs							
2-Methylphenol	100	<0.730	<0.610	<0.680	<0.580		
3&4-Methylphenol		<0.730	<0.610	<0.000	<0.580		
Acenaphthene	100	<0.150	<0.0120	<0.000	0 183		
Acenaphthylene	100	0.0288 J	<0.120	<0.140	<0.120		
Anthracene	100	0.0294 J	<0.120	<0.140	0.339		
Benzo(a)anthracene	1	0.117 J	0.0890 J	0.0665 J	0.517		
Benzo(a)pyrene	1	0.0987 J	0.0865 J	0.236	0.471		
Benzo(b)fluoranthene	1	0.144 J	0.124	0.0681 J	0.372		
Benzo(g.h.i)pervlene	100	0.0857 J	0.0736 J	<0.140	0.192		
Benzo(k)fluoranthene	1	0.0467 J	0.0415 J	<0.140	0.265		
Chrysene	1	0.125 J	0.0915 J	0.0590 J	0.406		
Dibenzo(a,h)anthracene	0.33	<0.150	<0.120	0.170	0.193		

PRE- AND POST-CONSTRUCTION SAMPLING RESULTS FOR "NATIVE" SOILS IN STAGING AREA LIMITS (ppm)

	Residential Use	Pre-Con	struction	Post-Cor	Post-Construction		
Location ID:	SCOs	CH-SP-1	CH-SP-2	CH-SP-1A	CH-SP-2A		
Date Collected:	(Exceedances	8/7/2012	8/7/2012	2/6/2013	2/6/2013		
Sample Name:	Bolded)	CH-SP-1	CH-SP-2	CH-SP-1A	CH-SP-2A		
SVOCs (cont.)							
Dibenzofuran	14	0.0333 J	<0.120	<0.140	0.0888 J		
Fluoranthene	100	0.192	0.138	0.108 J	1.38		
Fluorene	100	<0.150	<0.120	<0.140	0.165		
Hexachlorobenzene	0.33	< 0.360	<0.310	<0.340	<0.290		
Indeno(1,2,3-cd)pyrene	0.5	0.0643 J	0.0611 J	0.211	0.303		
Naphthalene	100	0.140 J	0.0143 J	<0.140	0.0560 J		
Pentachlorophenol	2.4	<0.730	<0.610	<0.680	<0.580		
Phenanthrene	100	0.155	0.0614 J	0.0685 J	1.27		
Phenol	100	<0.360	<0.310	<0.340	<0.290		
Pyrene	100	0.195	0.130	0.0889 J	0.983		
Total PAHs		1.65 J	1.21 J	1.57 J	7.16 J		
Pesticides							
4,4'-DDD	2.6	<0.0097	<0.0082	<0.0089	0.0038 J		
4,4'-DDE	1.8	<0.0097	<0.0082	<0.0089	<0.0078		
4,4'-DDT	1.7	<0.0097	<0.0082	<0.0089 J	0.0079 J		
Aldrin	0.019	<0.0097	<0.0082	<0.0089	<0.0078		
Alpha-BHC	0.097	<0.0097	<0.0082	<0.0089	0.0088		
Alpha-Chlordane	0.91	<0.0097	<0.0082	<0.0089	<0.0078		
Beta-BHC	0.072	<0.0097	<0.0082	<0.0089	<0.0078		
Delta-BHC	100	<0.0097	<0.0082	<0.0089	<0.0078		
Dieldrin	0.039	<0.0097	<0.0082	<0.0089	<0.0078		
Endosulfan I	4.8	<0.0097	<0.0082	<0.0089	<0.0078		
Endosulfan II	4.8	<0.0097	<0.0082	<0.0089	<0.0078		
Endosulfan Sulfate	4.8	<0.0097	<0.0082	<0.0089	<0.0078		
Endrin	2.2	<0.0097	<0.0082	<0.0089	<0.0078		
Endrin Aldehyde		NA	NA	<0.0089	<0.0078		
Endrin Ketone		NA	NA	<0.0089	<0.0078		
Gamma-BHC (Lindane)	0.28	<0.0097	<0.0082	<0.0089 J	<0.0078		
Gamma-Chlordane		NA	NA	<0.0089	<0.0078		
Heptachlor	0.42	<0.0097	<0.0082	<0.0089	<0.0078		
Heptachlor Epoxide		NA	NA	<0.0089	<0.0078		
Methoxychlor		NA	NA	<0.0089	<0.0078		
		NA	NA	<0.089	<0.078		
inorganics	4.0	10.0	10.1	0.00	0.50		
Arsenic	16	10.2	12.4	6.60	9.50		
Barium	350	/4./	56.6	157	79.5		
	14	0.560	0.540	0.440 B	0.430		
Cadmium	2.5	0.620	0.780	0.830	0.880		
Chromium havevelent	36	17.5	16.4	17.8 0.100 P	17.5		
Chromium, nexavalent		<0.500	<0.490	0.190 B	<0.480		
Corpor		17.5	10.4	17.0	17.0 45.9		
Cupper	270	JZ.9	29.1	35.0 0.0410 P	40.0		
Lead	400	64.8	<0.140 /8.0	0.0410 B	<0.140 07.7		
Manganese	2 000	500	307	00.7 A63	31.1 Δ07		
Mercury	0.81	1 30	0,0000	0 170	0 350		
Nickel	1/0	2/ 7	25.2	21.6	26.2		
Selenium	36	0 230 R	<1 10	1 30	1 40		
Silver	36	<0.230 D	<0.550	<0.570	<0.480		
Zinc	2,200	138	285	153	182		

PRE- AND POST-CONSTRUCTION SAMPLING RESULTS FOR "NATIVE" SOILS IN STAGING AREA LIMITS (ppm)

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC & GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

Notes:

- 1. Samples were collected by ARCADIS on the dates indicated.
- 2. VOCs = Volatile Organic Compounds.
- 3. SVOCs = Semi-Volatile Organic Compounds.
- 4. PCBs = Polychlorinated Biphenyls.
- 5. PAHs = Polycyclic Aromatic Hydrocarbons.
- 6. Samples were analyzed by Accutest Laboratories, Inc. (Accutest) located in Marlbourough, Massachusetts for:
 - VOCs using United States Environmental Protection Agency (USEPA) SW-846 Method 8260.
 - SVOCs using USEPA SW-846 Method 8270.
 - Inorganics using USEPA SW-846 Methods 6010, 7471 and 335.4.
 - PCBs using USEPA SW-846 Method 8082.
 - Pesticides using USEPA SW-846 Method 8081.
- 7. All concentrations reported in dry weight parts per million (ppm), which is equivalent to milligrams per kilogram (mg/kg).
- 8. Data qualifiers are defined as follows:
 - < Constituent not detected at a concentration above the reported detection limit.
 - J Indicates that the associated numerical value is an estimated concentration.
 - B- Analyte was also detected in the associated method blank.
- 9. 6 NYCRR Part 375 Soil Cleanup Objectives (SCOs) are from Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375-6.8(b).
- 10. Bolding indicates that the result exceeds the 6 NYCRR Part 375 Residential Use SCO.
- 11. - = No 6 NYCRR Part 375 SCO listed.
- 12. Total PAHs were calculated as the sum of the following, which is consistent with the NYSDEC list from: http://www.dec.ny.gov/chemical/24922.html:
 - 2-Methylnaphthalene
 - Acenaphthene
 - Acenaphthylene
 - Anthracene
 - Benzo(a)anthracene
 - Benzo(a)pyrene
 - Benzo(b)fluoranthene
 - Benzo(g,h,i)perylene
 - Benzo(k)fluoranthene
 - Chrysene
 - Dibenzo(a,h)anthracene
 - Fluoranthene
 - Fluorene

Indeno(1,2,3-cd)pyrene

- Naphthalene
- Phenanthrene
- Pyrene
- 13. Analytical results have been validated by ARCADIS.

TABLE 10 TREATED WATER CHARACTERIZATION RESULTS (ppb)

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

Discharge Monitoring Results - Treated Batch 1

			Sample Results			Mass Loading	
			EFF-110112-1	EFF-110112-2	Average	(20.000-Gallon Batch	Meets
Date Collected:	SPDES Permit Limits		11/01/12	11/01/12	Concentration	Discharge/Day)	Limits
Constituent	(µg/L)	(lb/d)	(µg/L)	(µg/L)	(mg/L)	(lb/day)	(Yes/No)
Iron	4,000	1.20E+00	41.4 B	49.6 B	0.0455	7.59E-03	Yes
Manganese	2,000	6.00E-01	292	289	0.291	4.86E-02	Yes
Cyanide	800	2.40E-01	<0.01	<0.01	0.00001	1.67E-06	Yes
Benzene	5.0	1.50E-03	<0.50	<0.50	0.0005	8.35E-05	Yes
Ethylbenzene	5.0	1.50E-03	<1.0	<1.0	0.001	1.67E-04	Yes
Toluene	5.0	1.50E-03	<1.0	<1.0	0.001	1.67E-04	Yes
Xylenes (Total)	5.0	1.50E-03	<1.0	<1.0	0.001	1.67E-04	Yes
Napthalene	10	3.00E-03	<5.0	<5.0	0.005	8.35E-04	Yes
Parameter	(S.U.)		(S.U.)	(S.U.)			
рН	6.0-9.0		7.4	7.5			

Discharge Monitoring Results - Treated Batch 2

			Sample Results			
			EFF-111512-2	Mass Loadir	ng Calculation	
				(20,000-Gal	lon Maximum	Meets
Date Collected:	SPDES Permit Limits		11/15/12	Discharge/Day)		Limits
Constituent	(µg/L)	(lb/d)	(µg/L)	(mg/L)	(lb/day)	(Yes/No)
Iron	4,000	1.20E+00	31.2 B	0.0312	5.21E-03	Yes
Manganese	2,000	6.00E-01	47.3	0.0473	7.90E-03	Yes
Cyanide	800	2.40E-01	<0.01	0.00001	1.67E-06	Yes
Benzene	5.0	1.50E-03	<0.50	0.0005	8.35E-05	Yes
Ethylbenzene	5.0	1.50E-03	<1.0	0.001	1.67E-04	Yes
Toluene	5.0	1.50E-03	<1.0	0.001	1.67E-04	Yes
Xylenes (Total)	5.0	1.50E-03	<1.0	0.001	1.67E-04	Yes
Napthalene	10	3.00E-03	<5.0	0.005	8.35E-04	Yes
Parameter	(S	5.U.)	(S.U.)			
рН	6.0)-9.0	7			

TABLE 10 TREATED WATER CHARACTERIZATION RESULTS (ppb)

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

Discharge Monitoring Results - Treated Batch 3

			Sample Results	Mass Loadir	ng Calculation	Monto
Date Collected:	SPDES Permit Limits		12/14/12	Discharge/Day)		Limits
Constituent	(µg/L)	(lb/d)	(µg/L)	(mg/L)	(lb/day)	(Yes/No)
Iron	4,000	1.20E+00	862	0.862	2.16E-01	Yes
Manganese	2,000	6.00E-01	949	0.949	2.38E-01	Yes
Cyanide	800	2.40E-01	<10	0.010	2.50E-03	Yes
Benzene	5.0	1.50E-03	<0.50	0.0005	1.25E-04	Yes
Ethylbenzene	5.0	1.50E-03	<1.0	0.001	2.50E-04	Yes
Toluene	5.0	1.50E-03	<1.0	0.001	2.50E-04	Yes
Xylenes (Total)	5.0	1.50E-03	<1.0	0.001	2.50E-04	Yes
Napthalene	10	3.00E-03	<5.0	0.005	1.25E-03	Yes
Parameter	(S.U.)		(S.U.)			
pН	6.0-9.0		7.6			

Discharge Monitoring Results - Treated Batch 4

Date Collected:	SPDES Permit Limits		Sample Results EFF-010913-1 01/09/13	Mass Loading Calculation (28,342 Gallon Maximum Discharge/Day)		Meets Limits
Constituent	(µg/L)	(lb/d)	(µg/L)	(mg/L)	(lb/day)	(Yes/No)
Iron	4,000	1.20E+00	<100	0.1	2.37E-02	Yes
Manganese	2,000	6.00E-01	<15	0.015	3.55E-03	Yes
Cyanide	800	2.40E-01	<10	0.010	2.37E-03	Yes
Benzene	5.0	1.50E-03	<0.50	0.0005	1.18E-04	Yes
Ethylbenzene	5.0	1.50E-03	<1.0	0.001	2.37E-04	Yes
Toluene	5.0	1.50E-03	<1.0	0.001	2.37E-04	Yes
Xylenes (Total)	5.0	1.50E-03	<1.0	0.001	2.37E-04	Yes
Napthalene	10	3.00E-03	<5.0	0.005	1.18E-03	Yes
Parameter	(S.U.)		(S.U.)			
рН	6.0-9.0		6.5			

TABLE 10 TREATED WATER CHARACTERIZATION RESULTS (ppb)

CONSTRUCTION COMPLETION REPORT NEW YORK STATE ELECTRIC GAS CORPORATION CORTLAND-HOMER FORMER MGP SITE HOMER, NEW YORK

Discharge Monitoring Results - Treated Batch 5

Date Collected:	SPDES Permit Limits		Sample Results EFF-020113-1 02/01/13	Mass Loading Calculation (15,000 Gallon Maximum Discharge/Day)		Meets Limits
Constituent	(µg/L)	(lb/d)	(µg/L)	(mg/L)	(lb/day)	(Yes/No)
Iron	4,000	1.20E+00	70.9	0.709	8.88E-02	Yes
Manganese	2,000	6.00E-01	8.5	0.009	1.13E-03	Yes
Cyanide	800	2.40E-01	2.1	0.002	2.63E-04	Yes
Benzene	5.0	1.50E-03	<0.50	0.0005	6.26E-05	Yes
Ethylbenzene	5.0	1.50E-03	<1.0	0.001	1.25E-04	Yes
Toluene	5.0	1.50E-03	<1.0	0.001	1.25E-04	Yes
Xylenes (Total)	5.0	1.50E-03	<1.0	0.001	1.25E-04	Yes
Napthalene	10	3.00E-03	<5.0	0.005	6.26E-04	Yes
Parameter	(S.	.U.)	(S.U.)			
рН	6.0-9.0		7.7			

Notes:

2. The State Pollution Discharge Elimination System (SPDES) Permit Limits are from the SPDES Equivalent Discharge Permit issued for this project on October 1, 2009.

3. The SPDES Permit was extended to November 1, 2013 per an October 22, 2012 letter from the NYSDEC to NYSEG.

4. $\mu g/L = micrograms per Liter.$

5. lb/day = pounds per day.

6. mg/L = milligrams per Liter.

7. S.U. = standard units.

^{1.} Samples were collected by ARCADIS on the dates indicated.

FIGURES





PLOTTED: 1/18/2016 1:56 PM PLOTSTYLETABLE: PLTFULL.CTB PAGESETUP: LYR:(Opt)ON=*;OFF=*REF* ADVER: 19.1S (LMS TECH) F TM:(Opt) PM ACAI PM:J. BRUSSEL ⁻ /ED: 1/18/2016 1:55 LD:(Opt) PIC:(Opt) a LAYOUT: 1 SAV 2000 ALLEN 23N01.dw HOWES, R. / /G\SMP\1312:







- 2. BASE MAPPING COMPILED FROM VARIOUS SOURCES INCLUDING NEW YOUR STATE ELECTRIC & GAS (NYSEG) EXISTING PLANIMETRIC AND UTILITY INFORMATION, DIGITIZED INFORMATION FROM NYSDOT RECORD PLANS TITLED RECONSTRUCTION OF ROUTE 11 IN THE TOWN OF CORTLANDVILLE AND VILLAGE OF HOMER - DATED 5-17-02, DIGITIZED AERIAL IMAGERY FROM THE NEW YORK STATE GIS CLEARINGHOUSE, AND FIELD A FIELD SURVEY PERFORMED BY AECOM - DATED MAY 13, 2011.
- THE LOCATION OF MONITORING WELLS MW-6, -11, -14R, -17, -18, -314, -32A, AND -33 WERE SURVEYED ON NOVEMBER 21, 2013 BY NYSEG. THE LOCATION OF MONITORING WELL MW-36 WAS SURVEYED ON JANUARY 30, 2014 BY ARCADIS.
- 4. VBW TRENCH AND SSP LOCATIONS ARE APPROXIMATE.
- 5. VBW VERTICAL BARRIER WALL
- 6. SSP STEEL SHEET PILE
- 7. ISS IN-SITU SOIL SOLIDIFICATION











LEGEND:

EXISTING MONITORING WELL LOCATION

FORMER MONITORING WELL LOCATION (DECOMMISSIONED IN JULY/AUGUST 2012)

- ---- FORMER MGP STRUCTURE
 - APPROXIMATE PROPERTY BOUNDARY
 - APPROXIMATE HIGHWAY BOUNDARY
 - GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
 - GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

GROUNDWATER FLOW DIRECTION

NOTES:

- 1. BASEMAP SUPPLIED BY AECOM OF LATHAM, NEW YORK DRAWING NUMBER 3 AT A SCALE OF 1"=60', ENTITLED "NYSEG - REMEDIAL DESIGN FOR FORMER CORTLAND-HOMER MGP SITE" DATED APRIL 16, 2012.
- 2. BASE MAPPING COMPILED FROM VARIOUS SOURCES INCLUDING NEW YOUR STATE ELECTRIC & GAS (NYSEG) EXISTING PLANIMETRIC AND UTILITY INFORMATION, DIGITIZED INFORMATION FROM NYSDOT RECORD PLANS TITLED RECONSTRUCTION OF ROUTE 11 IN THE TOWN OF CORTLANDVILLE AND VILLAGE OF HOMER - DATED 5-17-02, DIGITIZED AERIAL IMAGERY FROM THE NEW YORK STATE GIS CLEARINGHOUSE, AND FIELD A FIELD SURVEY PERFORMED BY AECOM - DATED MAY 13, 2011.
- THE LOCATION OF MONITORING WELLS MW-6, -11, -17, AND 3. -18 WERE SURVEYED ON NOVEMBER 21, 2013 BY NYSEG. ALL OTHER MONITORING WELL LOCATIONS ARE APPROXIMATE.

 	80'	160'				
NEW YORK STATE FORMER CO HC CONSTRUCTIO	ELECTRIC & GAS RTLAND-HOMER OMER, NEW YORK ON COMPLETI	CORPORATION MGP SITE				
PRE-CONSTRUCTION GROUNDWATER MONITORING WATER TABLE MAP APRIL 16, 2012						
ARCA	DIS DIS built assets	FIGURE 4				




S AREA	****		
ISRUCTIC)N	_	
1,115 FT)			
			LEGEND:
	HHHHHHHHH		REMOVED/FORMER BUILDINGS
****			REMOVED/FORMER MGP STRUCTURE
	x-		APPROXIMATE PROPERTY BOUNDARY
			APPROXIMATE HIGHWAY BOUNDARY
			ISS AREA - EXCAVATED TO AVERAGE DEPTH OF 4 FEET BGS PRIOR TO ISS
		[]]]]]]	ISS SPOIL PIT EXCAVATED TO AVERAGE DEPTH OF 4 FEET
ER BUILDINGS			VBW TRENCH - EXCAVATED TO AVERAGE DEPTH OF 5 FEET BGS PRIOR TO SSP INSTALLATION
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	VBW-SSP
			PETROLEUM IMPACTED SOIL REMOVAL AREA - EXCAVATED TO AVERAGE DEPTH OF 5 FEET
I. D. BOOTI	4		REMEDIAL EXCAVATION SIDE WALL DOCUMENTATION SAMPLE LOCATION
		<b>A</b>	REMEDIAL EXCAVATION BOTTOM DOCUMENTATION SAMPLE LOCATION
		×1110.00	SPOT ELEVATION AT EXCAVATION/ TRENCH BOTTOM
-FORMER PURIFYING HOUSE		— —1111.0- — —	BOTTOM OF EXCAVATION/ TRENCH CONTOUR
	NC	DTES:	
	1.	BASEMAP SUPPL DRAWING NUMBE "NYSEG - REMED CORTLAND-HOMI	IED BY AECOM OF LATHAM, NEW YORK ER 3 AT A SCALE OF 1"=60', ENTITLED IAL DESIGN FOR FORMER ER MGP SITE" DATED APRIL 16, 2012,
1	2.	BASE MAPPING C INCLUDING NEW EXISTING PLANIM DIGITIZED INFOR TITLED RECONST CORTLANDVILLE DIGITIZED AERIAI GIS CLEARINGHC PERFORMED BY	COMPILED FROM VARIOUS SOURCES YOUR STATE ELECTRIC & GAS (NYSEG) METRIC AND UTILITY INFORMATION, MATION FROM NYSDOT RECORD PLANS IRUCTION OF ROUTE 11 IN THE TOWN OF AND VILLAGE OF HOMER - DATED 5-17-02, LIMAGERY FROM THE NEW YORK STATE JUSE, AND FIELD A FIELD SURVEY AECOM - DATED MAY 13, 2011.
	3.	EXCAVATION SPO BASED ON SURVI OF GROTON, NY.	DT ELEVATIONS AND CONTOURS ARE EY PERFORMED BY KLUMPP LAND SURVEY
	4.	BGS - BELOW GR	OUND SURFACE
	5.	ISS - IN-SITU SOIL	SOLIDIFICATION
	6.	OU - OPERABLE (	JNIT
	7.	VBW - VERTICAL	BARRIER WALL
AIK		SSP - STEEL SHE	EP PILE
	— -,	0	30' 60'
	ĺ		GRAPHIC SCALE
	NEW `	YORK STATE E	LECTRIC & GAS CORPORATION
	CON	FORMER COR HON ISTRUCTIO	ITLAND-HOMER MGP SITE /IER, NEW YORK N COMPLETION REPORT
RFACE /	ls DOC	S/EXCAV UMENTA	ATION LIMITS AND TION SOIL SAMPLING DCATIONS
		RCAE	FIGURE FIGURE FOR The sector of the sect



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# **RECORD DRAWINGS**



# **RECORD DRAWINGS**

# CORTLAND-HOMER FORMER MANUFACTURED GAS PLANT SITE CONSTRUCTION COMPLETION REPORT



APHIC SCALE

NEW YORK

NEW YORK STATE ELECTRIC & GAS CORPORATION BINGHAMTON, NEW YORK

JULY 2016



ARCADIS OF NEW YORK, INC.

NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

# **INDEX TO DRAWINGS**

COVER

- 1 PRE-REMEDIATION SITE CONDITIONS
- 2 ISS COLUMN QA/QC SAMPLING LOCATIONS, AND ISS AND STEEL SHEET PILE ELEVATIONS
- 3 RE-USE SOIL BACKFILL AND DEMARCATION LAYER LOCATIONS
- 4 POST-REMEDIATION SOIL COVER SYSTEM AND SITE CONDITIONS



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# LEGEND:

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EXISTING MONITORING WELL
FORMER MONITORING WELL LOCATION (DECOMMISSIONED IN JULY/AUGUST 2012
REMOVED/FORMER BUILDINGS
FORMER MGP STRUCTURE
APPROXIMATE PROPERTY BOUNDARY
APPROXIMATE HIGHWAY BOUNDARY
PRE-REMEDIATION SURFACE CONTOUR
BENCH MARK (CONTROL POINT)
UTILITY POLES
HYDRANT
OVERHEAD UTILITY
FIBER OPTIC
STORM SEWER
SANITARY SEWER
NATURAL GAS
WATER

# NOTES:

- 1. BASEMAP SUPPLIED BY AECOM OF LATHAM, NEW YORK DRAWING NUMBER 3 AT A SCALE OF 1"=60', ENTITLED "NYSEG REMEDIAL DESIGN FOR FORMER CORTLAND-HOMER MGP SITE" DATED APRIL 16, 2012.
- 2. BASE MAPPING COMPILED FROM VARIOUS SOURCES INCLUDING NEW YOUR STATE ELECTRIC & GAS (NYSEG) EXISTING PLANIMETRIC AND UTILITY INFORMATION, DIGITIZED INFORMATION FROM NYSDOT RECORD PLANS TITLED RECONSTRUCTION OF ROUTE 11 IN THE TOWN OF CORTLANDVILLE AND VILLAGE OF HOMER - DATED 5-17-02, DIGHTZED AERIAL IMAGERY FROM THE NEW YORK STATE GIS CLEARINGHOUSE, AND A FIELD SURVEY PERFORMED BY AECOM - DATED MAY 13, 2011.
- 3. FORMER SEPTIC SYSTEM AND OIL TANK TAKEN FROM A PLAN ENTITLED "INVESTIGATION OF FORMER COAL GASIFICATION SITES", DATED 1987 BY E.C. JORDAN CO.
- THE LOCATIONS OF MONITORING WELLS MW-6, -11, -14R, -17, -18, -31, -32 AND -33 WERE SURVEYED ON NOVEMBER 21, 2013 BY NYSEG. THE LOCATION OF MONITORING WELL MW-36 WAS SURVEYED ON JANUARY 30, CONTRACT AND A MONITORING WELL MW-36 WAS SURVEYED ON JANUARY 30, 2014 BY ARCADIS.
- 5. ELEVATIONS ARE RELATIVE TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).
- 6. HORIZONTAL COORDIANTES ARE RELATIVE TO THE NEW YOUR STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD 83).

SURVEY CONTROL	NAE	NAVD 88 ELEVATION	
DESCRIPTION	NORTHING	EASTING	
BL-4	955265.77	927659.37	
BL-5	955726.20	927708.72	1114.17
CTL-3	955540.68	837762.53	

RECORD DRAWINGS TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, THESE RECORD DRAWINGS SUBSTANTIALLY REPRESENT THE PROJECT AS CONSTRUCTED.

09\DWG\SMP\13123B01.DWG, DATED 7/1/2014) DA	ГЕ <u>6/28/16 BY John C-Bri</u>	isul
CORPORATION • BINGHAMTON, NEW YORK	ARCADIS Project No. B0013123.0001.00006	
COMPLETION REPORT	Date JULY 2016	1
ON SITE CONDITIONS	ARCADIS 6723 TOWPATH ROAD P.O. BOX 66 SYRACUSE, NY 13214-0066 TEL. 315.446.9120	





REMOVED/FORMER BUILDINGS

----- APPROXIMATE PROPERTY BOUNDARY

REMOVED/FORMER MGP STRUCTURE

APPROXIMATE HIGHWAY BOUNDARY

VBW TRENCH - EXCAVATED TO AVERAGE DEPTH OF 5 FEET BGS PRIOR TO SSP INSTALLATION VBW-SSP

OU1 FORMER HOLDER PERIMETER COLUMN (105 TOTAL)

- OU1 FORMER HOLDER INTERIOR COLUMN (48 TOTAL)
- OU1 PERIMETER COLUMN (223 TOTAL)
- OU1 INTERIOR COLUMN (432 TOTAL)
- OU2 COLUMN (165 TOTAL)
- QA/QC SAMPLING LOCATION
- BENCHMARK (CONTROL POINT) TOP OF PILING SPOT ELEVATION

### NOTES:

- BASEMAP SUPPLIED BY AECOM OF LATHAM, NEW YORK DRAWING NUMBER 3 AT A SCALE OF 1"=60", ENTITLED "NYSEG REMEDIAL DESIGN FOR FORMER CORTLAND-HOMER MGP SITE" DATED APRIL 16, 2012.
- 2. BASE MAPPING COMPILED FROM VARIOUS SOURCES INCLUDING NEW YOUR STATE ELECTRIC & GAS (NYSEG) EXISTING PLANIMETRIC AND UTILITY INFORMATION, DIGITIZED INFORMATION FROM NYSDOT RECORD PLANS TITLED RECONSTRUCTION OF ROUTE 11 IN THE TOWN OF CORTLANDVILLE AND VILLAGE OF HOMER DATED 5-17-02, DIGITIZED AERIAL IMAGERY FROM THE DATE OF THE SECONSTRUCTION OF CORTLAND VILLAGE OF HOMER DATED 5-17-02, DIGITIZED AERIAL IMAGERY FROM THE NEW YORK STATE GIS CLEARINGHOUSE, AND FIELD A FIELD SURVEY PERFORMED BY AECOM - DATED MAY 13, 2011.
- 3. THE OU1 PERIMETER ISS COLUMNS (EXCEPT FOR BETWEEN THE VBWs) EXTENDED 4 FEET INTO THE SILT /CLAY LAYER. THE OUT INTERIOR, FORMER HOLDER PERIMETER, FORMER HOLDER INTERIOR, AND OUZ ISS COLUMNS EXTENDED AT LEAST 2 FEET INTO THE SILT/CLAY LAYER.
- THE INFORMATION HEREON WITHIN THE ISS AREA IS BASED ON FIELD SURVEY COMPLETED GEO-CON PERFORMED FROM SEPTEMBER 2012 TO JANUARY 2013.
- 5. THE VBW & SSP INFORMATION HEREON ARE BASED ON SURVEY PERFORMED BY (KLUMPP) LAND SURVEYING OF GROTON, NY. BENCHMARK COORDINATES USED BY KLUMPP ARE PROVIDED ON THIS DRAWING.
- THE ISS COLUMNS MEASURE 8 FEET IN DIAMETER.
- 7. ISS IN-SITU SOIL SOLIDIFICATION
- 8. OU OPERABLE UNIT

SURVEY CONTROL	NAD 83		NAVD 88	
DESCRIPTION	NORTHING	EASTING	LLEVATION	
BL-4	955265.77	927659.37	-	
BL-5	955726.20	927708.72	1114.17	
CTL-3	955540.68	927762.53		
BM	955623.82	927679.71	1114.45	

RECORD	DRAWINGS

TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, THESE RECORD DRAWINGS SUBSTANTIALLY REPRESENT THE PROJECT AS CONSTRUCTED.

09\DWG\SMP\13123B06.DWG, DATED 7/1/2014) DA	т <u>е 6/28/16 ву John C. Br</u>	nosel
CORPORATION • BINGHAMTON, NEW YORK	ARCADIS Project No. B0013123.0001.00006	
COMPLETION REPORT	Date JULY 2016	2
STEEL SHEET PILE /ATIONS	ARCADIS 6723 TOWPATH ROAD P.O. BOX 66 SYRACUSE, NY 13214-0066 TEL. 315.446.9120	2

(n15) al f13 aa1  $\triangle$ 

1108.52 ×





REMOVED/FORMER BUILDINGS REMOVED/FORMER MGP STRUCTURE APPROXIMATE PROPERTY BOUNDARY APPROXIMATE HIGHWAY BOUNDARY RE-USE SOIL LIMITS ISS AREA - EXCAVATED TO AVERAGE DEPTH OF 4 FEET BGS PRIOR TO ISS ORANGE CONSTRUCTION FENCE IN-PLACE AS DEMARCATION LAYER VBW TRENCH - EXCAVATED TO AVERAGE DEPTH OF 5 FEET BGS PRIOR TO SSP INSTALLATION VBW-SSP **X-(**1111.82) **RE-USE SOIL SPOT ELEVATION** ¥ 1113.38 CLEAN FILL SPOT ELEVATION  $\square$ BENCHMARK/CONTROL POINT 

# NOTES:

- 1. BASEMAP SUPPLIED BY AECOM OF LATHAM, NEW YORK DRAWING NUMBER 3 AT A SCALE OF 1"=60', ENTITLED "NYSEG - REMEDIAL DESIGN FOR FORMER CORTLAND-HOMER MGP SITE" DATED APRIL 16, 2012.
- BASE MAPPING COMPILED FROM VARIOUS SOURCES INCLUDING NEW YOUR STATE ELECTRIC & GAS (NYSEG) EXISTING PLANIMETRIC AND UTILITY INFORMATION, DIGITIZED INFORMATION FROM NYSDOT RECORD PLANS TITLED RECONSTRUCTION OF ROUTE 11 IN THE TOWN OF CORTLANDVILLE AND VILLAGE OF HOMER - DATED 5-17-02, DIGITIZED AERIAL IMAGERY FROM THE NEW YORK STATE GIS CLEARINGHOUSE, AND FIELD A FIELD SURVEY PERFORMED BY AECOM - DATED MAY 13, 2011.
- ELEVATIONS ARE RELATIVE TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).
- SPOT ELEVATIONS AND LIMITS OF DEMARCATION LAYER ARE BASED ON SURVEY PERFORMED BY KLUMPP LAND SURVEYING OF GROTON, NY DURING REMEDIAL ACTIVITIES AND RESTORATION ACTIVITIES. SEE DRAWING 2 FOR BENCHMARK COORDINATES.
- 5. VBW STEEL SHEET PILE LOCATIONS ARE APPROXIMATE
- 6. BGS BELOW GROUND SURFACE
- 7. ISS IN-SITU SOIL SOLIDIFICATION
- 8. OU OPERABLE UNIT
- 9. VBW VERTICAL BARRIER WALL
- 10. SSP STEEL SHEET PILE
- 11. NYSDOT- NEW YORK STATE DEPARTMENT OF TRANSPORTATION.

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE,
NFORMATION AND BELIEF, THESE RECO
DAMINGS SUBSTANTIALLY DEDDESENT

INFORMATION AND BELIEF, THESE RECORD
DRAWINGS SUBSTANTIALLY REPRESENT THE
PROJECT AS CONSTRUCTED.

09\DWG\SMP\13123B07.DWG, DATED 7/1/2014) DA	TE 6/28/16 BY John C. Bru	sel
CORPORATION • BINGHAMTON, NEW YORK	ARCADIS Project No. B0013123.0001.00006	
COMPLETION REPORT	Date JULY 2016	2
BACKFILL AND AYER LOCATIONS	ARCADIS 6723 TOWPATH ROAD P.O. BOX 66 SYRACUSE, NY 13214-0066 TEL. 315.446.9120	Э



## LEGEND:

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APPROXIMATE	PROPERTY	BOUNDAR'	Y

- APPROXIMATE HIGHWAY BOUNDARY
- EXISTING MONITORING WELL
- BENCH MARK/CONTROL POINT FINAL GRADE SPOT ELEVATION
- ----- 1114.0----- FINAL GRADE CONTOUR

CLEAN COVER SYSTEM CONSISTING OF AT LEAST 24 INCHES OF CLEAN FILL OR CLEAN FILL PLUS ASPHALT PAVEMENT TOTALING AT LEAST 24 INCHES

CLEAN COVER SYSTEM CONSISTING OF AT LEAST

OVERHEAD UTILITY
FIBER OPTIC
STORM SEWER

NEW SANITARY SEWER

NATURAL GAS

NEW WATER LINE

7+00 NYSDOT STATIONING

# NOTES:

- 1. BASEMAP SUPPLIED BY AECOM OF LATHAM, NEW YORK DRAWING NUMBER 3 AT A SCALE OF 1"=60", ENTITLED "NYSEG REMEDIAL DESIGN FOR FORMER CORTLAND-HOMER MGP SITE" DATED APRIL 16, 2012.
- 2. BASE MAPPING COMPILED FROM VARIOUS SOURCES INCLUDING NEW YOUR STATE ELECTRIC & GAS (NYSEG) EXISTING PLANIMETRIC AND UTILITY INFORMATION, DIGITIZED INFORMATION FROM NYSDOT RECORD PLANS TITLED RECONSTRUCTION OF ROUTE 11 IN THE TOWN OF CORTLANDVILLE AND VILLAGE OF HOMER DATED 5-17-02, DIGITIZED AERIAL IMAGERY FROM THE NEW YOUR OF THE DOLD TO A SUPPORT OF THE DISC. NEW YORK STATE GIS CLEARINGHOUSE, AND FIELD A FIELD SURVEY PERFORMED BY AECOM - DATED MAY 13, 2011.
- 3. ELEVATIONS ARE RELATIVE TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).
- 4. HORIZONTAL COORDINATES ARE RELATIVE TO THE NEW YORK STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD 83).
- 5. SPOT ELEVATIONS FOR TOP OF CLEAN COVER SYSTEM (FINAL GRADES) AND NEW UTILITY ALIGNMENTS ARE BASED ON SURVEY PERFORMED BY KLUMPP LAND SURVEYING OF GROTON, NY DURING REMEDIAL ACTIVITIES AND RESTORATION ACTIVITIES. SEE DRAWING 2 FOR BENCHMARK COORDINATES.

RECORD DRAWINGS

TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, THESE RECORD DRAWINGS SUBSTANTIALLY REPRESENT THE PROJECT AS CONSTRUCTED.

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CORPORATION • BINGHAMTON, NEW YORK	ARCADIS Project No. B0013123.0001.00006	
COMPLETION REPORT	Date JULY 2016	Λ
N SOIL COVER SYSTEM CONDITIONS	ARCADIS 6723 TOWPATH ROAD P.O. BOX 66 SYRACUSE, NY 13214-0066 TEL. 315.446.9120	4