



Environment

Prepared for:  
Consolidated Edison Co.,  
of New York, Inc.  
Long Island City, New York

Prepared by:  
AECOM  
Chestnut Ridge, NY  
60313672.100  
March, 2014

# Draft Remedial Investigation Work Plan Addendum

## Rye Gas Works

Former Manufactured Gas Plant Site,  
Rye, New York  
VCA #VC00571





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Prepared By [Anna Sullivan]

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Reviewed By [Eleanor Vivaudou]

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## List of Acronyms

ASTM	American Society of Testing Method
bgs	below ground surface
CAMP	Community Air Monitoring Plan
DER	Division of Environmental Remediation
DNAPL	dense nonaqueous phase liquid
EDR	Environmental Data Resource, Inc.
EH&S	Environmental Health & Safety
HASP	Health and Safety Plan
HSAs	hollow stem augers
IDW	investigation derived waste
MGP	Manufactured Gas Plant
NAPL	nonaqueous phase liquid
NAVD	North American Vertical Datum
NTU	nephelometric turbidity unit
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OLM/TLM	oil like material/tar like material
PAHs	polycyclic aromatic hydrocarbons
PID	photoionization detection
PIDs	photoionization detectors
QAPP	Quality Assurance Project Plan
RI	Remedial Investigation
RIWP	Remedial Investigation Work Plan
SC	Site Characterization

SCWP	Site Characterization Work Plan
TCL	Target Compound List
USEPA	United States Environmental Protection Agency
VOCs	volatile organic compound

## 1.0 Introduction

On behalf of The Consolidated Edison Company of New York, Inc. (Con Edison), AECOM has prepared this Remedial Investigation Work Plan (RIWP) Addendum to address environmental impacts identified during the Site Characterization (SC) and Remedial Investigation (RI) of the Rye Gas Works former Manufactured Gas Plant (MGP) site. The Rye Gas Works site is located at the Con Edison Rye Service Center at 178 Theodore Fremd Avenue in Rye, New York. A SC was performed at the site between June 2009 and March 2010 in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Site Characterization Work Plan (SCWP) dated December 18, 2008. The SC data were compiled and a Remedial Investigation (RI) scope was developed and submitted to NYSDEC in a letter report from Con Edison dated June 25, 2010. On August 24, 2010, NYSDEC, Con Edison, and AECOM met to discuss the SC findings and RI scope, and NYSDEC subsequently issued a comment letter dated September 1, 2010. A RIWP was developed in accordance with NYSDEC Division of Environmental Remediation (DER) document DER -10 based on the SC findings, the August 24, 2010 meeting with NYSDEC and NYSDEC's September 1, 2010 comments. The RIWP was submitted to NYSDEC in October 2010 (AECOM 2010) and approved by NYSDEC on November 16, 2010. The RI was initiated in December 2011 and completed in April 2012, with the exception of investigation locations situated north-northeast of the site at 125 Central Avenue where Con Ed could not come to terms on an access agreement with the owner to enter the property. The Remedial Investigation Report (RIR) was submitted to NYSDEC in July, 2013 (AECOM 2013) and approved by NYSDEC on September 9, 2013. NYSDEC's September 9, 2013 approval letter requested that the additional investigations recommended in the RIR be performed with the results presented in an Alternative Analysis Report (AAR)/Feasibility Study (FS).

This RIWP Addendum outlines the proposed investigation activities and the methods and guidelines for sample collection for the investigations recommended in the RIR. The majority of the proposed RI Addendum activities will be performed in accordance with the methods and guidelines followed during the SC and RI and are incorporated by reference to the SCWP. Two companion documents were developed as part of the SCWP and will be followed during the RI Addendum. The Quality Assurance Project Plan (QAPP) was provided as Appendix A of the SCWP and specifies procedures for data collection and quality control that also will be followed in the field and laboratory during the RI. The site-specific Health and Safety Plan (HASP) was provided as Appendix B of the SCWP and provides a description of the procedures that will be followed during the RI to protect the health and safety of the field-personnel and the public in the vicinity of the site. In addition, Con Edison Utility Clearance processes are provided in Appendix C of the SCWP, and AECOM field methods and procedures are compiled in Appendix D of the SCWP. These methods and procedures will be followed during the RI Addendum.

The site description, history, and pre-SC investigations are detailed in the SCWP and the SC and RI findings are included in the July 2013 RIR. Therefore, these details are not repeated in this RIWP Addendum.

## 2.0 Remedial Investigations Objectives

Based on the RIR, MGP residuals and service center residuals have impacted the subsurface soil, bedrock, overburden and bedrock groundwater quality at the site in the vicinity of the former MGP 6,000 and 100,000 cubic foot (cf) gas holder, oil tank, and tar pit structures, and the former service center USTs, likely through spills and leaks. These impacts have migrated to the northwestern and northern property boundaries but have generally been delineated to the south and east, although additional investigation of the extent of tar in bedrock south of MGP-MW-105D is warranted. These impacts have not been observed on the northwest side of I95, indicating that delineation has been achieved in this direction. These impacts have not been delineated to the north due to access constraints. Therefore, RI Addendum activities are recommended to further evaluate the horizontal and vertical extent of impacts within these media and to continue to evaluate the recoverability of dense nonaqueous phase liquid (DNAPL) in bedrock.

The SC and RI results demonstrate that MGP residuals have not significantly impacted soil gas at the site and that the vapor intrusion exposure pathway is not complete. An evaluation of the results from the program using New York State Department of Health (NYSDOH) guidance and decision matrices (NYSDOH, 2006) indicates that no further investigation of vapor intrusion, or remedial action is required at the site. However, based on detected concentrations of compounds in soil gas samples collected from MGP-SG-5 and MGP-SG-8 and the visible and/or analytical results for soil, bedrock, and groundwater in the northern portion of the site, as well as the residential property use to the north of the site, two additional soil gas sample locations were proposed in the RIWP. These samples could not be collected since access to the property north of the site was not granted. The additional investigation location proposed to the northeast of the site for this RI Addendum is situated in the sidewalk along the north side of Central Avenue to the northeast of the property where access was not granted. The proposed location is situated in-line with MGP-MW-104D to further delineate the tar and groundwater impacts identified in MGP-MW-104S/D and is located where Central Avenue is raised with fill to cross the rail lines and I-95. Therefore, it is anticipated that 10 feet or more of fill material used to elevate the roadway may be encountered above the native material and that the depth to water may be 14 feet below ground surface or deeper. Based on these conditions, soil vapor analysis beneath Central Avenue is not proposed in the RIWP Addendum.

The objectives of the RI Addendum are:

- Further evaluate the north-northeastern horizontal extent of overburden MGP-related soil and groundwater impacts.
- Further evaluate the north-northeastern and southwestern horizontal and vertical extent of MGP-related bedrock fracture and groundwater impacts.
- Evaluate the recoverability of DNAPL in bedrock fractures at the site.
- Further develop the data set necessary to allow preparation of an Alternative Analysis Report to evaluate and select possible remedial alternatives for the site.

### 3.0 Scope of Work

The investigative work outlined in this RIWP Addendum includes the following field tasks:

- Locating underground utilities in the new investigation areas
- Community air monitoring during invasive activities
- Advancement of soil borings and collection of subsurface soil samples
- Advancement of bedrock borings via air rotary drilling
- FLUTe NAPL and blank liner eversion and evaluation
- Borehole geophysical surveys
- Discrete bedrock fracture groundwater sampling via packer testing
- Monitoring well installation
- Monitoring well development
- DNAPL recoverability activities
- Groundwater sampling
- Surveying of new sampling points
- Investigation residuals management

All field work will follow methods and guidelines provided in this RIWP Addendum, the RIWP, and in the SCWP, including the QAPP (Appendix A), HASP (Appendix B), Con Edison Utility Clearance Process (Appendix C), and Field Methods and Procedures (Appendix D) of the SCWP. The proposed sampling locations for this RI Addendum are described in Section 4. The proposed investigation locations were selected to delineate the extent of previously identified soil, bedrock, and groundwater impacts. If soil observations and photoionization detection (PID) screening results indicate that the proposed borings and monitoring wells do not adequately define the extent of MGP residuals, additional investigation locations will be selected in the field in consultation with NYSDEC and Con Edison. Depending on their location, investigations at some of these locations will be performed during the mobilization of the proposed RI work and others may require subsequent mobilizations based on access issues.

A summary of the proposed RI Addendum Field Investigation activities is included in the following section.

## 4.0 Remedial Investigation Field Activities

### 4.1 Underground Utility Clearance

Prior to the initiation of intrusive field work, AECOM will follow the Con Edison Utility Clearance Process for Intrusive Activities Environmental Health and Safety (EH&S) Remediation Program (Appendix C of the SCWP) and contact Dig Safely New York to arrange for the location and marking of all underground utilities in the vicinity of the proposed bedrock and monitoring well locations. Copies of available city sewer and water maps from the site vicinity will also be obtained and reviewed during underground utility clearance procedures. Following review of the utilities in the site area, AECOM will contract a private company to locate all underground electric and gas utilities in the vicinity of each proposed subsurface sampling location using geophysical methods. Outlying areas where information is required to confirm the location of suspected utilities that may act as preferential migration pathways may also be surveyed using geophysical methods. Lastly, all boring/well locations will be hand or vacuum excavated to a depth of five feet to check for any utilities not located by Dig Safely or geophysical methods. The soil from each of the cleared locations will be field screened with a PID and visually described for textural composition and any contaminant characteristics.

### 4.2 Community Air Monitoring Program

Community air monitoring requires real-time monitoring for VOCs, particulates (*i.e.*, dust), and MGP related odors at the downwind perimeter of each designated work area when certain activities are in progress at the site. The community air monitoring is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (*i.e.*, off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative work activities. The Community Air Monitoring Plan (CAMP) provided in Attachment G of the HASP specifies action levels which require increased monitoring, corrective actions to abate emissions, and/or work shutdown for the SC. Photoionization detectors (PIDs) used to monitor VOCs will be equipped with a 10.6eV lamp.

### 4.3 Soil Boring and Subsurface Soil Sampling

The overburden soils will be drilled and continuously sampled at the two proposed bedrock well locations. The locations and soil sampling rationale are provided in Table 4-1. Actual soil sample intervals and the number of samples chosen for laboratory analysis will be selected in the field based on field conditions and biased to provide the required delineation. In general, two or three samples will be collected from each boring location; one at the depth interval with the greatest observed impact based on olfactory and visual observations and PID readings, and one below the deepest impacts or at the top of bedrock to provide vertical delineation and top of bedrock quality information. In the event that olfactory and visual observations and PID readings do not indicate impacts at a location, a minimum of two samples will be collected one at the groundwater interface one at the bedrock interface for laboratory analysis. The soil samples will be analyzed for volatile organic compounds (VOCs) using EPA Method 8260B and for polycyclic aromatic hydrocarbons (PAHs) using EPA Method 8270C.

Soil borings will be advanced using either hollow stem augers (HSA) or roto-sonic vibratory methods in accordance with the drilling, subsurface soil sampling, and decontamination procedures provided in Appendix D of the SCWP. Continuous samples will be collected from 5 feet until the base of each borehole and the soils will be field screened with a PID and visually described for textural composition and any contaminant characteristics. Borings will be advanced to the top of bedrock. The top of bedrock will be determined by sampler refusal and contents of the sampler. The borehole will be overdrilled into the top 5 feet of bedrock and a Schedule 40, 4-inch diameter steel casing will be grouted into the top of bedrock. After the grout has cured for a minimum of 24 hours, the borehole will be advanced through bedrock using air rotary drilling methods as described in subsection 4.5 below.

Investigation derived waste (IDW) generated during the drilling activities will be managed in accordance with Appendix D of the SCWP.

#### **4.4 Overburden Groundwater Monitoring Well Installation**

Additional groundwater investigations will be performed in the overburden through the installation of one shallow monitoring well. The proposed overburden monitoring well location is illustrated on Figure 4-1 and the rationale for its placement is summarized in Table 4-1. This well will be co-located with a proposed bedrock well.

The overburden monitoring well will be installed using hollow stem augers (HSAs) in accordance with monitoring well installation and development procedures provided in Appendix D of the SCWP. In general, the well will be constructed of 2-inch PVC with a 5 to 10 foot well screen with a 2 foot sump at the base of the well to collect any DNAPL that may be present, depending on the overburden thickness at this location. Quartz sand will be emplaced within the annulus to a minimum of 1' above the screened interval of the well and a 2 foot bentonite seal will be emplaced above the sandpack. Grout will be emplaced above the bentonite seal to grade. A flush-mounted, limited access road box will be used at the ground surface to complete the well and the surface will be restored to pre-existing conditions.

Following installation, the monitoring well will be developed to evacuate silts and other fine-grained sediments which may have accumulated within the well during its installation. Well development will not commence until at least 24 hours after well installation. A number of techniques may be used, including surging using a plunger, bailing, or pumping until the turbidity has stabilized (less than 50 nephelometric turbidity units [NTU] if possible). Special care will be taken to develop the well properly in order to ensure adequate hydraulic connection between the monitoring well and the aquifer and to obtain representative groundwater samples for chemical analysis.

#### **4.5 Bedrock Investigation**

Two deep bedrock borings will be drilled as part of the RI Addendum to further evaluate the extent of DNAPL and groundwater impacts detected in bedrock in MGP-MW-104D and MGP-MW-105D. During the RI Addendum, the deep bedrock borings will be advanced by air rotary methods rather than HQ wireline coring, similar to the RI. The proposed deep bedrock boring locations are illustrated on Figure 4-1 and the rationale for their placement is summarized in Table 4-1.

FLUTE eversion (NAPL and blank liner), geophysical surveys, and packer isolation and groundwater sampling of discrete fractures will be performed at each deep bedrock borehole location following the same methods and procedures as performed during the SC and detailed in the SCWP. These activities will provide fracture depth, orientation, and quality data. These data in combination with observations from the air rotary drilling will provide sufficient information to relate the additional RI

bedrock boring locations to the SC bedrock boring locations. The RI Addendum bedrock boring locations will extend to 200 feet below ground surface (bgs) rather than 150 ft bgs because MGP-related impacts were noted at depth in some of the SC bedrock boring locations.

After the borehole is drilled to its total depth, it will be developed by pumping and/or airlifting to remove cuttings and improve fracture flow to the borehole. A FLUTE NAPL liner will be everted into each borehole following development, to evaluate the potential presence, depth, and relative quantity of DNAPL-bearing fractures. A photographic log will be made of the FLUTE NAPL liner for each borehole. Following FLUTE lining activities, borehole geophysical surveys will be performed within each borehole and may include caliper, fluid temperature, fluid resistivity, acoustic televiewer, optical televiewer, and/or heat pulse flow meter. The full suite of geophysical tools may not be performed in boreholes containing significant amounts of tar. Specifically, optical televiewers and heat pulse flow meters cannot be used in boreholes with significant amounts of tar. Acoustic televiewers may be deployed through the FLUTE blank liner in boreholes with significant amounts of tar. The geophysical data and NAPL liner will be reviewed to select specific fracture zones for groundwater sampling via isolation packers in accordance with the isolation and sampling procedures specified in the SCWP. Groundwater samples collected from the specific zones will be analyzed for VOCs using EPA Method 8260B. A blank FLUTE liner will be everted into the borehole following groundwater sampling activities until future well completion methods are determined based on the combined field and analytical RI results.

#### **4.6 Groundwater Gauging and Sampling**

Following development, the newly installed RI Addendum overburden monitoring well will be allowed to stabilize for 2 weeks or more prior to groundwater gauging and sampling. The depth to water, total well depth, and NAPL thickness (if present) will be measured in all of the overburden and shallow bedrock monitoring wells prior to groundwater sampling activities. Groundwater samples have not been collected from the majority of the site monitoring wells since 2010 other than MGP-MW-113S which was sampled in 2012. Therefore, following gauging activities, all overburden and bedrock monitoring wells will be sampled in accordance with the groundwater sampling procedures provided in Appendix D of the SCWP to provide a recent data set of overburden and shallow bedrock groundwater quality. As discussed above, bedrock groundwater samples will be collected from discrete fracture zones during the RI bedrock investigations.

The monitoring wells will be sampled with a peristaltic pump using low-flow sampling methods with the tubing or pump placed at the approximate midpoint of the screened interval. At the ground surface, the water will pass through a sealed chamber containing probes that will measure the parameters to determine water quality. These include water temperature, dissolved oxygen, pH, conductivity, and oxidation-reduction potential. Samples of water discharging from the chamber will be collected at regular intervals and analyzed for turbidity using a hand-held field meter. After passing through this chamber, the water will be discharged to a calibrated 5-gallon bucket where the pumping rate will be calculated. When this bucket is full, the water will be transferred into a 55-gallon drum where it will be stored for future disposal. Pumping rates will be set below the maximum sustainable flow rate so as not to significantly lower the water level in the well. Groundwater analytical samples will be collected when water quality parameters have stabilized. Based on the SC groundwater analytical results, RI groundwater samples will be analyzed for TCL VOCs, PAHs, and total cyanide using EPA Methods 8260B, 8270C, and 9012A, respectively. All development and purge water will be managed in accordance with Appendix D of the SCWP.

## 4.7 NAPL Recoverability Evaluation

The recoverability of DNAPL at the site was evaluated as part of the RI by converting three FLUTE-lined bedrock boreholes that contained fractures with tar into recovery wells and gauging the wells to monitor DNAPL accumulation. The three locations that were converted to recovery wells are MGP-MW-TP4, MGP-MW-108D, and MGP-MW-104D. These wells, and bedrock monitoring well MW-12D where DNAPL was previously noted, were gauged periodically for the presence of DNAPL between April 2012 and June 2013. The gauging results are summarized in the RIR and show that up to 9.6 feet of DNAPL accumulated in MGP-MW-104D and 3.8 feet in MW-12D but has not been present in measurable quantity in MGP-MW-TP4 or MGP-MW-108D as of June 2013. DNAPL has been removed from the base of MGP-MW-104D and MW-12D and the recovery has been monitored. DNAPL removed from these wells was analyzed for the physical parameters listed below.

The samples were analyzed by PTS Laboratories of Santa Fe, California.

- Interfacial and surface tension by the DuNuoy Method – American Society of Testing Method (ASTM) D971
- Viscosity by ASTM D445
- Density by ASTM D1481
- Specific Gravity by API RP40

The DNAPL recovery wells and MW-12D will be gauged for the presence of DNAPL during the RI Addendum. DNAPL in the base of the wells will be removed and the recovery will be monitored and recorded in accordance with the RI procedures. DNAPL samples will be collected for analysis of the physical parameters listed above if it has collected in the base of MGP-MW-TP4 or MGP-MW-108D. Investigation derived waste generated during these activities will be managed in accordance with Appendix D of the SCWP.

## 4.8 Survey

A survey of the RI Addendum sampling points and other features of interest will be conducted at the end of the fieldwork by a New York State-licensed surveyor under the direct supervision of AECOM. All locations will be tied into the existing base map developed for the site. After the monitoring well is installed, a notch or mark will be made at the top of the inner casing. The vertical location of this point will be surveyed to a reference point determined in the field with accuracy of 0.01 of a foot. All elevations will be referenced to the North American Vertical Datum (NAVD) 1988. The horizontal locations of each point will be established from directly measuring from Site features with an accuracy of 0.1 foot.

## 4.9 Investigation Derived Waste Management

All investigation waste generated during the RI Addendum will be collected in properly labeled 55-gallon drums and grouped by environmental matrix (soil or groundwater). Subsequently, the drums will be characterized with laboratory analyses and properly disposed in accordance with Appendix D of the SCWP.

## 5.0 Alternative Analysis Report/Feasibility Study

At the completion of the RI Addendum field activities, the results of the RI Addendum work will be combined with the RIR data into a summary section in the beginning of the Alternative Analysis Report (AAR)/Feasibility Study (FS) for the site. The RI Addendum work may require additional phases of work not outlined in this RIWP Addendum or in the project schedule outlined in this RIWP Addendum if tar impacts are encountered at the proposed locations. When sufficient data has been collected to characterize the site, the AAR/FS will be prepared and will include:

- Executive summary
- Site description and history
- Descriptions of RI Addendum field activities performed and results including:
  - Updated field observations, field measurements, and laboratory analytical data summarized in tabular format
  - Updated plan-view and cross-section figures presenting laboratory analytical data and/or field observations of soil vapor, surface and subsurface soil, and groundwater, as appropriate
  - Updated geologic profiles summarizing both field observation and laboratory results as well as a top of bedrock elevation contour map, an overburden thickness isopach map, and overburden and bedrock groundwater elevation contour maps
  - Integration of field observations and measurements with laboratory analytical data to evaluate the nature and extent of contamination, and updated site conceptual model of potential contaminant migration
  - Updated qualitative human health exposure assessment
- Statement of Remedial Goals and Remedial Action Objectives;
- Evaluation of General Response Actions for feasibility;
- Evaluation of specific technologies within the selected General Response Actions for effectiveness;
- Development of remedial alternatives, using appropriate technologies identified for each media, with subsequent evaluation using a specified set of criteria; and
- Recommendation of an effective alternative and discussion of required pre-design data and activities.

Appendices to the report will include all pertinent data from the RI Addendum field activities,(including validated laboratory analytical results, stratigraphic boring and monitoring well construction logs, and all field sampling sheets [monitoring well development forms, aquifer testing results, groundwater sampling sheets, *etc.*]), as well as technology and costing details referenced in the AAR/FS process.

## 6.0 Schedule

Figure 6-1 provides a schedule of proposed RI Addendum and AAR/FS activities. The schedule dates are subject to change pending NYSDEC review and access agreements, however the duration of tasks should remain constant.

## Tables

**Table 4-1  
Summary of Proposed Remedial Investigation Sampling Locations  
Former Rye Gas Works Site**



Location ID	Rationale	Total Depth (ft bgs)	Completion Type	Analytical Sampling	
				Rationale	Laboratory Analysis
<b>OVERBURDEN MONITORING WELL AND BEDROCK BORINGS (See Figure 4-1 for proposed locations)</b>					
MGP-MW-111S	Northeast of MGP-MW-104S to evaluate the northwestern extent of shallow soil and groundwater impacts detected in MW-MW-104S and MGP-MW-103S.	TOB	Water table MW	Overburden soil: most impacted vertical extent TOB	VOCs, PAHs
MGP-MW-111D	Northeast of MGP-MW-104D and paired with MGP-MW-111S to evaluate the northeastern extent of bedrock NAPL and groundwater impacts noted in MGP-MW-104D.	200*	Open Hole Flute Lined	Discrete bedrock fracture zones TBD in field	VOCs
MGP-MW-115D	Southwest of MGP-MW-105D to evaluate the southwestern extent of bedrock NAPL and groundwater impacts noted in MGP-MW-105D.	200*	Open Hole Flute Lined	Overburden soil: most impacted vertical extent TOB Discrete bedrock fracture zones TBD in field	VOCs
<b>Notes:</b> ft bgs - feet below ground surface TOB - Top of Bedrock 200* - Estimated completion depth is approximately 200 ft bgs but the target depth is 50 feet below the deepest visible impact observed on site and will depend on ground surface elevation. MW - monitoring well VOCs - Volatile Organic Compounds by Method 8260B PAHs - Polycyclic aromatic hydrocarbons (PAHs) by Method 8270C					

## Figures



Table 6-1  
 Draft Schedule for RI Addendum Work plan and AAR/FS implementation  
 Rye Gas Works  
 Con Edison  
 Rye, New York

ID	Task Name	Duration	Start	Finish	2014												2015		
					1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd								
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
1	<b>Work plan</b>	<b>0 days</b>	<b>Mon 1/20/14</b>	<b>Mon 1/20/14</b>															
2	Development of WP addendum	20 days	Mon 12/30/13	Fri 1/24/14															
3	Con Ed Review	14 days	Mon 1/27/14	Thu 2/13/14															
4	NYSDEC review	65 days	Mon 2/17/14	Fri 5/16/14															
5	Address NYSDEC comment	30 days	Mon 5/19/14	Fri 6/27/14															
6	Final NYSDEC review and Approval	30 days	Mon 6/30/14	Fri 8/8/14															
7	Submittal of Final WP	0 days	Mon 1/20/14	Mon 1/20/14															
8																			
9	<b>Fieldwork</b>	<b>44 days</b>	<b>Fri 8/8/14</b>	<b>Thu 10/9/14</b>															
10	Utility Markout & Locate	2 days	Mon 8/11/14	Tue 8/12/14															
11	Preclear	2 days	Wed 8/13/14	Thu 8/14/14															
12	Bedrock location MW 111D, and MW115D	10 days	Mon 8/11/14	Fri 8/22/14															
13	fluting , conductivity, geophysical	7 days	Mon 8/25/14	Tue 9/2/14															
14	Monitoring Well installation shallow	2 days	Wed 9/3/14	Thu 9/4/14															
15	well devepoment	1 day	Fri 9/5/14	Fri 9/5/14															
16	Groundwater stabilization	14 days	Mon 9/8/14	Thu 9/25/14															
17	Groundwater sampling	10 days	Fri 9/26/14	Thu 10/9/14															
18	End of Field work	0 days	Fri 8/8/14	Fri 8/8/14															
19																			
20	<b>Report addendum and AAR/FS</b>	<b>191 days</b>	<b>Fri 10/10/14</b>	<b>Fri 7/3/15</b>															
21	Lab turnaround and Validation	20 days	Fri 10/10/14	Thu 11/6/14															
22	Boring logs and Data reduction	11 days	Fri 11/7/14	Fri 11/21/14															
23	Draft addendum, AAR and FS Reports	90 days	Mon 11/24/14	Fri 3/27/15															
24	Con Ed Comments	14 days	Mon 3/30/15	Thu 4/16/15															
25	Report Revisions	14 days	Fri 4/17/15	Wed 5/6/15															
26	Draft Report to NYSDEC	2 days	Thu 5/7/15	Fri 5/8/15															
27	NYSDEC review	30 days	Mon 5/11/15	Fri 6/19/15															
28	Address NYSDEC comments	10 days	Mon 6/22/15	Fri 7/3/15															
29	Final report to NYSDEC	0 days	Fri 7/3/15	Fri 7/3/15															

Project: Rye RI WPadd Date: Thu 1/23/14	Task		External Milestone		Manual Summary Rollup	
	Split		Inactive Task		Manual Summary	
	Milestone		Inactive Milestone		Start-only	
	Summary		Inactive Summary		Finish-only	
	Project Summary		Manual Task		Progress	
	External Tasks		Duration-only		Deadline	