

February 23, 2007

Mr. Josh Cook
MGP Remedial Section
Bureau of Western Remedial Action
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7010

**RE:** Soil Vapor Intrusion Evaluation Work Plan

28 Pike Street Section Port Jervis MGP Site NYSDEC Site No. 03-36-049V Port Jervis, New York

Dear Mr. Cook:

On behalf of our client Orange and Rockland Utilities (O&R), The RETEC Group, Inc. (RETEC) has prepared this letter to present a scope of work and methods for performing soil vapor intrusion (SVI) evaluation sampling at the 28 Pike Street section of the former Pike Street manufactured gas plant (MGP) site located in Port Jervis, New York. The sampling will be performed in accordance with the New York State Department of Health (NYSDOH) document entitled "Guidance for Evaluating Soil Vapor Intrusion in the State of New York", dated October 2006.

## **Background**

Two previous SVI sampling events have been performed at the property at 28 Pike Street. The results of these sampling events were submitted to the NYSDEC and the NYSDOH in the Phase II RI Report for the Port Jervis MGP site, dated October 25, 2005, and a Supplemental Investigation (SI) dated January 24, 2007. The NYSDOH has requested that an additional round of sampling be performed during the heating season to further evaluate the potential vapor intrusion pathway.

## **SVI Field Activities**

The number and location of the SVI samples will be consistent with the previous sampling performed at the property. The samples are summarized as follows:

## **SVI Sampling Summary**

28 Pike Street Section, Port Jervis MGP Site

Location	Indoor Air – Ambient	Sub-floor and Sub- slab	Total
Ambient	1		1
Inside Building	2 plus 1 duplicate	2	5
Total	4	2	6

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The approximate sampling locations are shown on the attached Figure 1. Consistent with NYSDOH specifications, a chemical inventory check will be performed to document current conditions with the regard to the storage of chemicals at the property building.

The SVI sampling will require two days to complete. The work will be conducted when the restaurant located on the first floor of the building is closed. On the first day, the chemical inventory check will be performed. A temporary sub-floor soil vapor sampling probe will be installed in the earthen floor of the basement, and a sub-slab insert will be installed beneath the concrete floor of the boiler room. On the second day, ambient air sample, indoor air samples, the sub-floor and sub-slab vapor samples will be collected concurrently.

The sub-slab vapor sample will be collected from immediately below the concrete floor slab of the boiler room floor by drilling a ¾-inch diameter hole through the concrete slab and placing Teflon® tubing in the hole. The sub-floor vapor sample will be collected by driving a post run tubing (PRT) probe to a depth of 5 feet below ground surface and retracting the probe to a depth of 4 feet. Airtight seals around these sampling devices will be created by filling the space between the tubing and the concrete or the area around the probe with hydrated bentonite clay or modeling clay. The integrity of the seals around the vapor probes or tubing will be confirmed by placing a helium-filled "shroud" around the insertion points. One to three volumes of air will be purged with a helium meter at a rate not to exceed 0.2 liters per minute. Detections of helium will indicate a leak in the seal, requiring that the seal be repaired or replaced. The samples will then be collected the next day in clean, 100% certified, 6-liter canisters for a period of approximately 2 hours. Following the vapor sample collection, all coring holes will be sealed and patched to match the existing grade.

Ambient and indoor air samples will be collected at the same time as the sub-floor and sub-slab samples at the locations shown on Figure 1. The ambient air sample will be collected outside the building at a location determined to be upwind of the building.

## **Laboratory Analyses and Reporting**

The laboratory will perform the analyses according to methods and procedures specified in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocols (ASP). The data package provided by the laboratory will meet the specifications of a full ASP Category B deliverable package. The methods and data package provided by the laboratory will be consistent with the specifications of the most current version of the ASP (July 2005). The laboratory performing the analyses will have current NYSDOH Environmental Laboratory Approval Program (ELAP) certification for all analyses performed. A NYSDEC Data Usability Summary Report (DUSR) will be prepared by a qualified chemist.

The laboratory samples will be analyzed for VOCs (including naphthalene) by U.S. EPA SW846 Method TO-15. The minimum reporting limit for the analysis will be at least 1 part per billion (1 to 7 micrograms per cubic meter depending on the molecular weight for each compound). The helium analysis will be performed using modified method ASTM D1945. In addition to the standard TO-15 list of compounds, several additional compounds will be analyzed for, including: indane, indene, thiophene, styrene, 2-methyl pentane, isopentane, 2,3-dimethyl pentane, isooctane, and methyl tert butyl ether (MTBE).

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If you have any questions regarding the information presented in this letter, please do not hesitate to contact me at (607) 277-5716. Following approval of the scope of work provided in this letter, RETEC will schedule the field sampling event. A letter report with an interpretation of the data will be prepared for submittal to NYSDEC and NYSDOH.

Sincerely,

The RETEC Group, Inc.

James H. Edwards Senior Geologist

JHE:mlr

Attachment

cc: Maribeth McCormick – O&R Kristin Kulow - NYSDOH

File: ORAN2-20146