

**Brownfield Cleanup Program (BCP)
Sub-Surface Soil Vapor Investigation Work Plan**

ECL Article 27/Title 14

37 Bittner Street
Rochester, New York 14604

NYSDEC Site #C828127

Prepared for:

234–250 Andrews Street, LLC



Prepared by:
Passero Associates
100 Liberty Pole Way
Rochester, NY 14604

July 11, 2008

PRIVILEGED AND CONFIDENTIAL

P.N. 25030.05H

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BROWNFIELD CLEANUP PROGRAM

37 Bittner Street
Rochester, New York 14604

NYSDEC Site No. C828127

July 11, 2008

1.0 INTRODUCTION

This Sub Surface Soil Vapor Investigation Work Plan describes specific activities to be undertaken during the investigation of 37 Bittner Street in the City of Rochester, New York pursuant to the Brownfield Cleanup Program Agreement between the New York State Department of Environmental Conservation (DEC) and 234-250 Andrews St. LLC.

1.1 Project Scope and Goals

The purpose of this Investigation is to further define the nature and extent of potential on-site impacts resulting from historic operations at the site. The extent of off-site impact, if any, will be evaluated at the property boundary. The results of this investigation will be used to evaluate remedial actions that might be required to render the site suitable for a mixed residential/commercial development. The basement and first floor are proposed for parking and commercial space; the upper floors will be residential apartments. Specifically, the investigation is intended to determine:

1. If the sub-surface vapors are contaminated (i.e., soil vapor as defined in Section 1.1, including vapors located immediately beneath the foundation or slab of a building)? If so, what is the nature and extent of contamination? What is/are the source(s) of the contamination?
2. What are the current and potential exposures to contaminated sub-surface vapors?

3. What actions, if any, are needed to prevent or mitigate exposures and to remediate sub-surface vapor contamination?

2.0 SITE HISTORY AND DESCRIPTION

The 37 Bittner Street parcel is located on the west side of Bittner Street, adjacent at the north side of the Kirstein Building parcel at 242 Andrews Street.

The subject site was utilized as a public gas station from 1925 through 1965.

2.1 Previous Investigations

In November and December, 2004, Day Environmental, Inc. (Day) identified soil and groundwater contamination on the north side of the subject site related to the presence of the historic gas station from 1925 to 1965.

During the soil boring and monitoring well installation conducted by Passero Associates as part of this Remedial Investigation, petroleum contamination has been confirmed in soil and groundwater on the northern portion of the site.

3.0 FIELD ACTIVITIES PLAN

This section outlines the activities that will be performed during the Sub-Surface Soil Vapor Investigation. The work will be conducted in accordance with Draft DER 10, "Technical Guidance for Site Investigations and Remediation" October, 2006 New York State Department of Health (NYSDOH), "Guidance for Evaluation Soil Vapor Intrusion in the State of New York."

3.1 Project Scope and Goals

Soil vapors will be investigated in conformance with the October 2006, New York State Department of Health (NYSDOH) "Guidance for Evaluation Soil Vapor Intrusion in the State of New York." The soil vapor investigation will be designed to address the following issues:

1. Are sub-surface vapors contaminated? If so, what is the nature and extent of contamination? What is/are the source(s) of the contamination?
2. What are the current and potential exposures to contaminated sub-surface vapors?
3. What actions, if any, are needed to prevent or mitigate exposures and to remediate sub-surface vapor contamination?

To evaluate the potential for off-site soil vapor contamination, four samples will be collected and analyzed for VOCs.

1. Boundary samples will be collected along the north, south, east and west property lines. The eastern boundary sample will be collected in close proximity to the northeast corner of the parcel, which has been determined to be the most highly contaminated portion of the Site (Figure 2).
2. The samples will be collected at a depth of 8 feet (BGS).

3.2 Preliminary Mapping and Utility Mark Out

Prior to conducting the sampling, the locations of all sub-surface utilities (power, phones, gas, and sewer) will be marked by Underground Facilities Protective Organization (UFPO).

3.3 Sampling Method

3.3.1 Soil Vapor Probe

1. A temporary stainless steel soil vapor probe will be installed at approximately 8 feet BGS or just above the water table. The probe will have a screened interval of 20 inches.
2. Implants will be fitted to the surface with ¼ inch diameter, laboratory grade, polyethylene tubing.
3. Soil vapor probes will be sealed above the sampling zone with bentonite slurry for a minimum distance of 3 feet to prevent outdoor air infiltration. The remainder of the borehole will be backfilled with grout.
4. Boreholes will be drilled to an approximate depth of eight feet BGS using a Geoprobe.

5. Glass beads will be used to create a sampling zone 1 to 2 feet in length.

3.3.2 *Soil Vapor Sampling*

1. The sub-surface soil vapor samples will be collected using 1 liter Summa canisters on the north, south, east and west site boundaries. The eastern boundary sample will be collected in close proximity to the northeast corner of the parcel, which has been determined to be the most highly contaminated portion of the Site (Figure 2).
2. A minimum of one volume of the sample tube will be extracted manually prior to sample collection.
3. The Summa Canisters will be calibrated for a two hour collection time and a flow rate of +/- 0.008 liters per minute.

3.3.3 *Purging Procedure*

Centek Labs provides equipment designed to meet the latest vapor intrusion guidelines in accordance with the NYSDEC and NYSDOH “October 2006: Final Soil Vapor Intrusion Guidance.” A three liter flux chamber is provided by Centek to serve as an enclosure for the tracer gas and sampling procedure. The sample tubing will be hooked to the union clamped to the inside of the flux chamber. Modeling clay will be placed around the tubing to seal the borehole. The surrounding asphalt parking lot will create a surface for the flux chamber; modeling clay will be used around the rim to seal the flux chamber. The tubing will be purged by drawing air from the tube with a 200 ml syringe provided by Centek Labs. The line will be purged three times.

3.3.4 *Tracer Gas*

Helium will be used as a tracer gas before collecting soil vapor samples to verify that adequate sampling techniques are being implemented (i.e., to verify infiltration of outdoor air is not occurring). We will utilize the tracer gas method as depicted in the NYSDOH “Guidance for Evaluating Soil Vapor Intrusion in

the State of New York” (Figure 3). We will use a portable monitoring device to analyze a sample of soil vapor for helium prior to collecting the sub-surface soil vapor samples. If the monitoring device detects the tracer gas we will re-seal the sample tube and repeat the procedure until there is no tracer gas detected.

3.3.5 *Field Sampling Log*

A field sampling log will be completed with the following information:

1. Sample identification,
2. Date and time of sample collection,
3. Sampling depth,
4. Identity of samplers,
5. Sampling methods and devices,
6. Purge volumes,
7. Volume of soil vapor extracted,
8. The vacuum of the canisters before and after samples were collected,
9. Apparent moisture content (dry, moist, saturated, etc.) of the sampling zone,
10. Chain of custody protocols and records used to track samples from sampling point to analysis.

3.3.6 *Time Frame*

Pending NYSDEC and NYSDOH approval of the Sub-Surface Soil Vapor Investigation Work Plan, Passero Associates will schedule this sub-surface soil vapor sampling anticipated to be conducted in one field day.

4.0 QUALITY ASSURANCE/QUALITY CONTROL PROTOCOLS

4.1 Project Manager

Peter S. Morton, C.P.G. is Passero Associates’ Certified Professional Geologist, licensed Asbestos Inspector, and licensed Lead Paint

Inspector. His 40 hour OSHA safety training is up to date. He will serve as Project Manager for this BCP.

4.2 Quality Assurance Officer

Our Director of Environmental Services, Arpad Kolozsvary, REM, IH, will serve as the Quality Assurance Officer. In conformance with DER-10, App 2A, Mr. Kolozsvary has a Bachelor of Science degree in chemistry. He acted as the President of Northeast Environmental Services prior to joining Passero Associates in 1990. Arpad has developed the Quality Assurance Plan and Sampling Plan relative to this BCP, and will interact with Centek Laboratory to ensure that all data is of usable quality.

4.3 Decontamination

The drilling augers and split-spoon samplers will be decontaminated by pressure washing in between each borehole if the equipment is to be re-used. The augers will be power-washed and the samplers will be washed withalconox and water. All decontamination water and soil cuttings generated at the Site will be containerized and characterized for disposal purposes.

4.4 Sampling Equipment

- The soil vapor probe will be stainless steel and the implants will be fitted to the surface with 1/4 inch diameter, laboratory grade, polyethylene tubing;
- The Summa canisters will be batch certified clean by Centek.
- The air samples collected in the Summa Canisters will be shipped by federal express in a cooler directly to Centek Laboratories.

4.5 Analytical Methods/Quality Assurance Table

MATRIX TYPE	SOIL	AQUEOUS	VAPOR
Number and Frequency of Samples Collected	4 boundary samples 1 waste characterization		4-8 to be determined
Number of Field and Trip Blanks			
Analytical Parameters	TCL VOCs & TICs TCL SVOCs & TICs PCB/pesticide TAL metals TCLP with RCRA characteristics	TCL VOCs & TICs TCL SVOCs & TICs PCB/pesticide TAL metals	VOCs 10-15
Analytical Methods Used	OLMO4.2; ILMO5.2	OLMO4.2; ILMO5.2	
Number and Type of matrix spike and matrix spike duplicates	Organic-1 MS/MSD per 20 samples Inorganic-1 MD/MS per 20	Organic-1 MS/MSD per 20 samples Inorganic-1 MD/MS per 20	
Number and Type of Duplicate Samples		1	
Number and Type of Split Samples			
Number and Type of performance evaluation			
Sample Preservation Method	cool 4°C	VOC-HCl SVOC- cool 4°C P/PCB-cool 4°C metals-HNO3	
Sample Container Volume and Type	1- 4 oz glass jar for each analysis	VOC-3- 40 ml vials SVOC, P/PCB- 2- 1L glass amber metals-1- 16oz plastic	
Sample holding Time	VOC-10 Days SVOC,P/PCB- 10 Days for Extraction, 40 for Analysis Metals-180 Days	VOC- 10Days SVOC,P/PCB-5 Days for Extraction, 40 Days for Analysis Metals - 180 Days	

4.6 Laboratory Analysis

4.6.1 Analytical Parameters

The samples will be analyzed for EPA Method TO-15 for a wide range of VOCs; the analytical results will be reported in micrograms per cubic meter.

4.7 Sample Storage and Handling

Samples will be placed on ice and stored in a cooler and transported directly to Centek Laboratories on the day they are collected, or packed on ice and expedited for overnight delivery to the laboratory.

4.8 Analytical Laboratory

The analytical laboratory that will perform all of the sub-surface soil vapor analyses will be Centek Laboratories. Centek Laboratories is a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory. Their QA/QC protocols are in conformance with DER-10 Section 2 “Quality Assurance for Sampling and Laboratory Analysis.

4.9 Data Usability Summary Report (DUSR)

All laboratory data generated during this sub-surface soil vapor investigation will be subjected to a DUSR.

5.0 HEALTH AND SAFETY PROTOCOLS

The Health and Safety Plan (HASP) will be followed during this the sub-surface soil vapor investigation. The HASP outlines specific health and safety practices and procedures associated with the 37 Bittner Street Brownfield Cleanup Program (BCP). The HASP presents information and procedures, including the assignment of responsibilities, personnel protection requirements, work practices and emergency response procedures for Passero Associates, P.C. who will be conducting field activities. The HASP is based on an assessment of potential health hazards at the site, using available historical information. The HASP will be followed in conformance with OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) regulations found in 29 CFR 1926.

All personnel and subcontractors who enter the site during field operations and are involved with remedial activities will be required to comply with this HASP.

PROJECT MANAGER:

Name: Gary W. Passero, P.E.
Telephone: Office: (585) 325-1000

SITE HEALTH AND SAFETY COORDINATOR

Name: Arpad Kolozsvary, R.E.M.
Telephone: Office: (585) 325-1000

FIELD MANAGER

Name: Peter S. Morton, C.P.G.
Telephone: Office: (585) 325-1000

MONROE COUNTY DEPARTMENT OF HEALTH

Name: Jeffrey Kosmala
Telephone: Office: (585) 753-5470

NEW YORK STATE DEPARTMENT OF HEALTH

Name: Debbie McNaughton
Telephone: Office: (585) 423-8069

This HASP addresses the requirements set forth in the OSHA regulations contained in 29 CFR Parts 1910 and 1926. Emergency Contacts has been included in Section 7.0 of this HASP, and can be readily detached for use in the event of an emergency requiring site evacuation, medical treatment, etc.

5.1 Background

Historic documents indicate that the Site was occupied by a public gas station from at least 1930 to 1960. Day's Phase II work in November and December 2004 identified gasoline-impacted soil and groundwater beneath the north portion of the site.

The results of Phase II sampling and known contaminants are discussed in Section 2.1 of the work plan.

5.2 Hazard Evaluation

5.2.1 Chemical Hazards

OSHA states that the HASP should be based on a thorough site characterization and analysis to determine the nature and extent of the actual hazards on a site. The Phase II generated by Day in 2004 and the data generated by Passero Associates during the RI are used as a basis for this HASP. The only contaminants are gasoline-related compounds:

Day 2004 Soil Sample

Volatile Organic Compounds	Concentration	NYSDEC TAGM 4046 Recommended Soil Cleanup Objective (ppb) ⁽¹⁾
STARS VOCs		
Benzene	ND	60
n-Butylbenzene	ND	10,000
sec-Butylbenzene	ND	10,000
tert-Butylbenzene	ND	10,000
Ethylbenzene	3,480	5,500
n-Propylbenzene	6,180	3,700
Isopropylbenzene	2,700	2,300
p-Isopropyltoluene	1,460	10,000
Toluene	194	1,500
1,2,4 – Trimethylbenzene	23,500 E	10,000
1,3,5 – Trimethylbenzene	12,800	3,300
Xylenes (total)	16,500	1,200
Total STARS VOCs	66,814	N/A
Total VOC TICs	146,310	N/A
Total TCL/STARS VOCs & TICs	213,124	10,000

37 Bittner Street
Table 3-Groundwater
September 13-15, 2007 and May 29-30, 2008

VOCs									
Compounds	D-1 ug/L 9/07	D-1 ug/L 5/08	S-1 ug/L 9/07	S-1 ug/L 5/08	MW-2 ug/L 9/07	MW-2 ug/L 5/08	MW-3 ug/L 9/07	MW-3 ug/L 5/08	TOGS 1.1.1 ug/L
Acetone	ND	88	ND	ND	ND	86	44	69	50
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	7
Chloromethane	ND	30	ND	ND	ND	ND	ND	ND	NA
2-Butanone	ND	ND	8	ND	ND	ND	18	ND	NA
Trichloroethene	8	4	ND	ND	4	5	8	ND	5
Benzene	170	110	2	ND	3	ND	310	110	1
4-Methyl-2-pentanone	13	7	13	ND	ND	ND	ND	ND	NA
2-Hexanone	ND	ND	4	ND	ND	ND	ND	ND	50
Toulene	130	98	10	ND	6	4	28	19	NA
Ethylbenzene	630D	700	1400D	1100	810D	570	760D	860	5
Styrene	ND	ND	11	ND	1	ND	6	8	5
Total Xylenes	1200D	970	2100D	1300	840D	390	950	1100	5
Cyclohexane	350D	400	510D	610	540D	560	500	800	NA
Methylcyclohexane	36	52	230D	340	190	250	180	380	NA
Isopropylbenzene	20	24	85	100	58	79	75	100	NA
Total TICs	5440	5,250	5410	4860	5960	5040	4670	4450	NA
Total TCL	7997	7733	9783	8310	8412	6984	7549	7896	NA

ND: Non-detect.

NA: Not Available.

TOGS: Technical and Operational Guidance Series.

37 Bittner Street
Table 3-Cont'd-Groundwater
September 13-15, 2007 and May 29-30, 2008

Compounds	VOCs								TOGS 1.1.1 ug/L
	MW-4 ug/L 5/08	MW-4 ug/L 9/07	MW-5 ug/L 5/08	MW-5 ug/L 9/07	MW-6 ug/L 5/08	MW-6 ug/L 9/07	MW-7 ug/L 5/08	MW-7 ug/L 9/07	
Acetone	35	ND	ND	ND	ND	ND	ND	ND	50
Chloroform	2	ND	ND	ND	ND	ND	ND	ND	7
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	
2-Butanone	18	ND	ND	ND	ND	ND	ND	ND	NA
Trichloroethene	5	4	ND	ND	ND	ND	ND	ND	5
Benzene	24	14	ND	ND	ND	ND	ND	ND	1
4-Methyl-2-pentanone	ND	ND	ND	ND	ND	ND	ND	ND	NA
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	50
Toulene	7	5	ND	ND	ND	ND	ND	ND	NA
Ethylbenzene	56	37	14	3	2	2	4	0.8	5
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	5
Total Xylenes	300	230	21	4	3	ND	6	ND	5
Cyclohexane	800D	690	12	3	2	2	3	ND	NA
Methylcyclohexane	200	340	2	ND	ND	ND	ND	ND	NA
Isopropylbenzene	89	53	ND	ND	ND	ND	ND	ND	NA
Total TICs	5490	4850	54	6	6	0	8	0	NA
Total TCL	7026	6223	103	16	13	4	21	0.8	NA

ND: Non-detect.

NA: Not Available.

TOGS: Technical and Operational Guidance Series

5.3 Responsibilities of Safety Personnel

The following roles have been identified for Passero project personnel:

Project Manager - The Project Manager has full responsibility for implementing and executing an effective program of employee protection and accident prevention. He is responsible for ensuring that Passero field personnel and subcontractors are properly trained.

Site Health and Safety Coordinator/Field Manager - The Site Health and Safety Coordinator or his/her designee will be responsible for enforcement of this HASP for personnel at the site. Ambient air levels will be monitored with an organic meter (OVM) during all drilling activities.

If unsafe work conditions are identified, the Site Health and Safety Coordinator is authorized to order site personnel to stop work; resolution of all on-site health and safety problems will be coordinated through the Project Manager.

5.4 Safe Work Practices

Site work will be carried out in conformance with OSHA HAZWOPER regulations.

The recommended general safety practices for working around the drilling subcontractor's equipment (i.e., drill rigs) are as follows:

- The drilling contractors will wear hard hats, protective footwear, and earplugs in conformance with OSHA 1926.
- The drilling contractor's equipment will always be inspected prior to use to check for obvious structural damage, loose nuts and bolts, loose or missing guards, cable guides or protective covers, fluid leaks, damaged hoses, cables, pressure gauges or pressure relief valves, and damaged drilling tools and equipment.

- Heavy equipment will not be operated within 20 feet of overhead wires. The site will be clear to ensure the project staff can move around the equipment safely.
- Hard hats and safety boots will be worn in the vicinity of the heavy equipment.
- The drilling contractor will keep the drilling location tidy. This will prevent personnel from tripping and will allow the safe and expeditious exit from the site.

5.5 Site Security

If any excavation relative to IRMs are to be left open overnight they will be securely fenced around the perimeter prior to our leaving the site.

5.6 Respiratory Protection

Based on Day's previous Phase II data, level D respiratory protection will be utilized, and will be upgraded as described below.

- During all drilling and sampling activities, ambient air will be screened with an Organic Vapor Meter (OVM). If reading greater than 25 ppm above background level is registered consistently for a five (5) minute period, Level C respiratory protection will be required.
- If readings greater than 50 ppm above background, work will be halted and Health and Safety issues will be re-evaluated.

5.7 Air Monitoring

Continuous air monitoring will be performed with the PID during all intrusive activities. Temporary upwind and downwind points will be monitored. Wind direction will be monitored throughout the work day; the locations of the monitoring points will be changed according to the wind direction.

5.8 Personal Protection Equipment

Field work will be performed utilizing Level D protective gear (i.e. field clothes). Surgical gloves will be worn while collecting environmental samples. Drillers will wear hard hats and steel-toed boots, and ear plugs in conformance with OSHA 1926.

5.9 Decontamination

A bermed decontamination pad lined with polyethylene sheeting will be constructed at the northwest corner of the site prior to drilling activities. All equipment will be decontaminated prior to entering the Site. Personnel and equipment will be decontaminated with a mixture ofalconox (or similar detergent) and water prior to leaving the site. All equipment will be pressure-washed between sample locations to prevent cross contamination. Rinse water will be collected and drummed to prevent runoff. The decontamination water generated within the decontamination pad will be containerized and characterized for disposal purposes.

5.10 Emergency Procedure and Contacts

The following standard emergency procedures will be used by on-site personnel. The Site Safety Officer shall be notified of any on-site emergencies and be responsible for ensuring that the appropriate procedures are followed.

A list of emergency contacts and phone #'s is provided on the following page:

- 911 - emergency situations requiring immediate response from police, fire department, or ambulance.
- (800) 457-7362 - NYSDEC Spill hotline
- (585) 226-5354 - NYSDEC Project Manager Charlotte B. Theobald
- (518) 402-7860 – NYSDOH
- (585) 274-6904 – MCDOH
- (800) 424-9300 - Chemtrec (chemical emergencies)

- (404) 633-5313 - Centers for Disease Control (biological agents)
- (800) 424-8802 - National Response Center
- (202) 426-0656 - USDOT Office of Hazardous Operations
- (202) 426-8802 - USDOT Regulatory Matters
- (800) 424-9346 - USEPA RCRA-Superfund Hotline

5.11 Regulatory Contacts

NYSDEC Region 8 Project Manager

Charlotte B. Theobald
585-226-5354

Monroe County Department of Health

Jeffrey Kosmala
585-753-5470

NYS Department of Health

Debbie McNaughton
585-423-8069

5.12 Personal Injury in the Work Zone

Upon notification of an injury in the Work Zone, the designated emergency signal of three blasts of a horn shall be sounded. The affected person should be decontaminated to the extent possible prior to movement. Contact will be made for an ambulance and with the designed medical facility. No persons shall re-enter the work area until the cause of the injury or symptoms is determined.

If the cause of the injury or loss of the injured person does not affect the performance of site personnel, operations may continue. If the injury increases the risk to others, the designated emergency signal of three blasts of a horn shall be sounded and all site personnel shall move to the designated area determined prior to start of project. Activities on-site will stop until the added risk is removed or minimized.

5.13 Fire/Explosion

Upon notification of a fire or explosion on-site, the designated emergency signal, two long blasts of a horn, shall be sounded and all site personnel assembled. The fire department shall be alerted and all personnel moved to a safe distance from the involved area.

In all situations, when on-site emergency results in evaluation of the work area, personnel shall not re-enter until:

1. The conditions resulting in the emergency have been corrected.
2. The hazards have been re-assessed.
3. The Site Safety Plan has been reviewed.
4. Site personnel have been briefed on any changes in the Site Safety Plan.

5.14 Route to Hospital


In the event of a medical emergency, the nearest hospital is Highland Hospital (Highland). Directions to Highland:

South on Bittner Street
Go right on Andrews Street to
Left on St. Paul
Merge with South Avenue
Highland Hospital on left
(map attached)

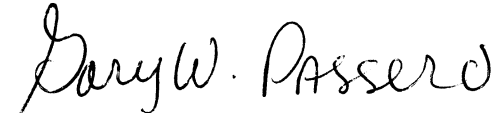
6.0 COMMUNITY AIR MONITORING PLAN (CAMP)

The NYSDOH Community Air Monitoring Plan (Appendix 1) will be followed during the duration of the soil vapor sampling event.

We, Peter S. Morton and Gary W. Passero, certify we are the people with primary responsibility for the day to day performance of the activities under Brownfield Site Cleanup Agreement Index # B8-0693-05-06 for NYSDEC Site #C828127 (37 Bittner Street) and that all activities will be performed in full accordance with the Remedial Investigation Work Plan.



Peter S. Morton, C.P.G.
Certified Professional Geologist



Gary W. Passero, P.E.
Chairman and CEO

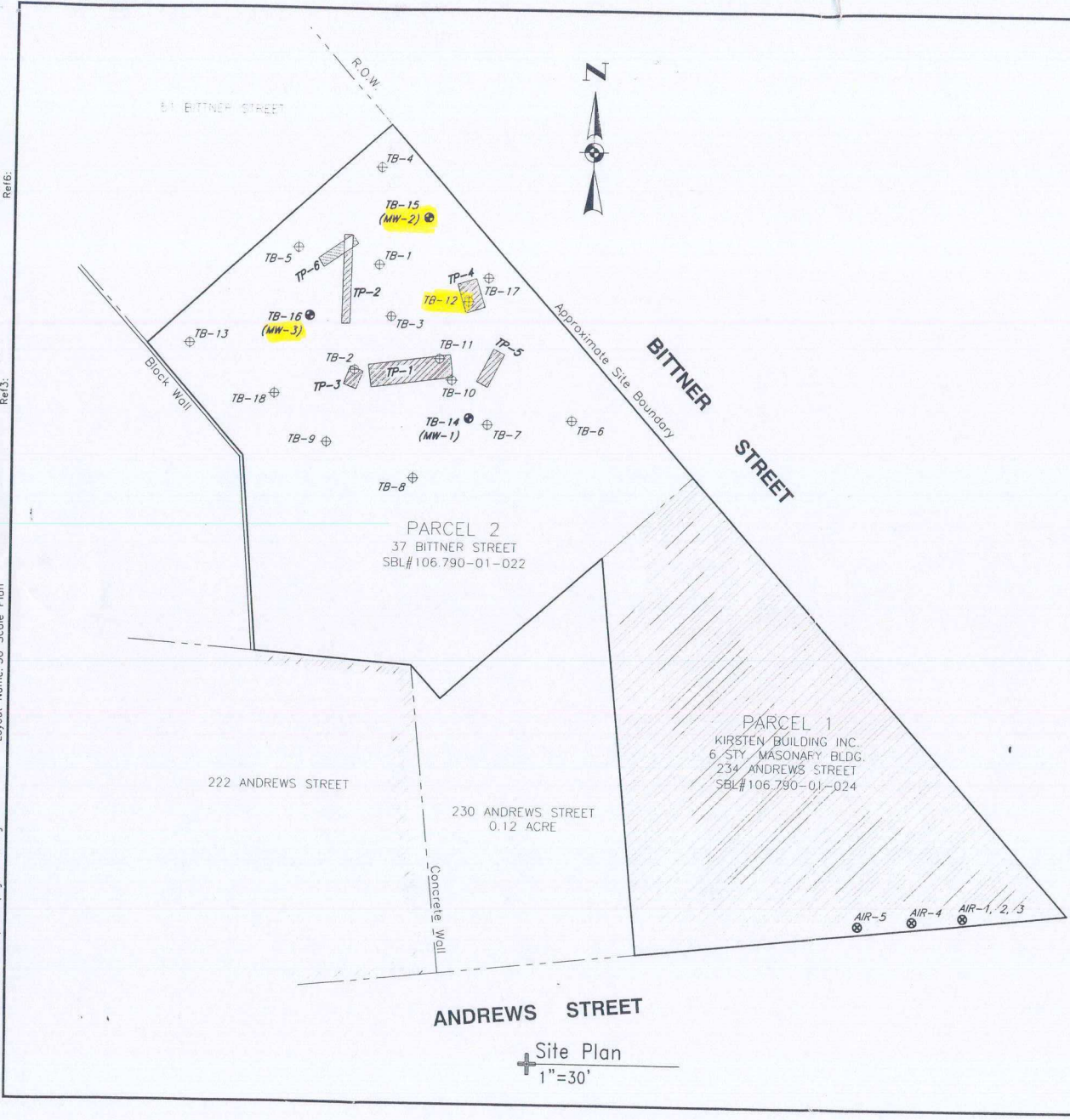
FIGURES

Ref4:
Ref5:
Ref6:

Ref1: Base-1.dwg
Ref2:
Ref3:

Xerox432AnsB-2; 11 x 17
Layout Name: 30 Scale Plan

Time Plotted: Wed Dec 15 15:35 2004
File Name: Phase 2-2004\3567\Figure-2.dwg



LEGEND:

- TB-9 ⊕ Test Boring Advanced On November 9 And December 7, 2004
- AIR-1 ⊕ Approximate Air Sample Location
- TB-14 (MW-1) ⊕ Monitoring Well Installed On December 7, 2004
- TP-3 ▨ Test Pit Excavated On December 6, 2004

NOTES:

1. Drawing produced from a map by Passero Associates, P.C. titled "Site Plan", project Andrews Street Kirsten Building Part of Lots 52, 53, 54, and 55 of the Atwater & Andrews Tract, City of Rochester, Monroe County, State of New York, drawing No. 1, dated October 2000, and from notes of a site visit by representatives of Day Environmental Inc.
2. Test Boring locations determined by tape measurement from existing site features. Locations should be considered accurate to the degree implied by the method used.
3. AIR-1 was collected beneath the slab in the basement on November 10, 2004.
4. AIR-2 through AIR-5 were collected on December 7, 2004. AIR-2 and AIR-3 were collected in the basement. AIR-2 was collected beneath the slab and AIR-3 was collected above the slab. AIR-4 was collected on the first floor and AIR-5 was collected on the sixth floor near an open window.

DATE	11-2004
DATE DRAWN	11-16-2004
DATE SAVED	12-15-2004
FIELD VERIFIED BY	JS
DRAWN BY	LRP/TW
SCALE	As Noted

day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14614-1008
NEW YORK, NEW YORK 10165-1617

DRAFT

PROJECT TITLE
242 ANDREWS STREET
ROCHESTER, NEW YORK

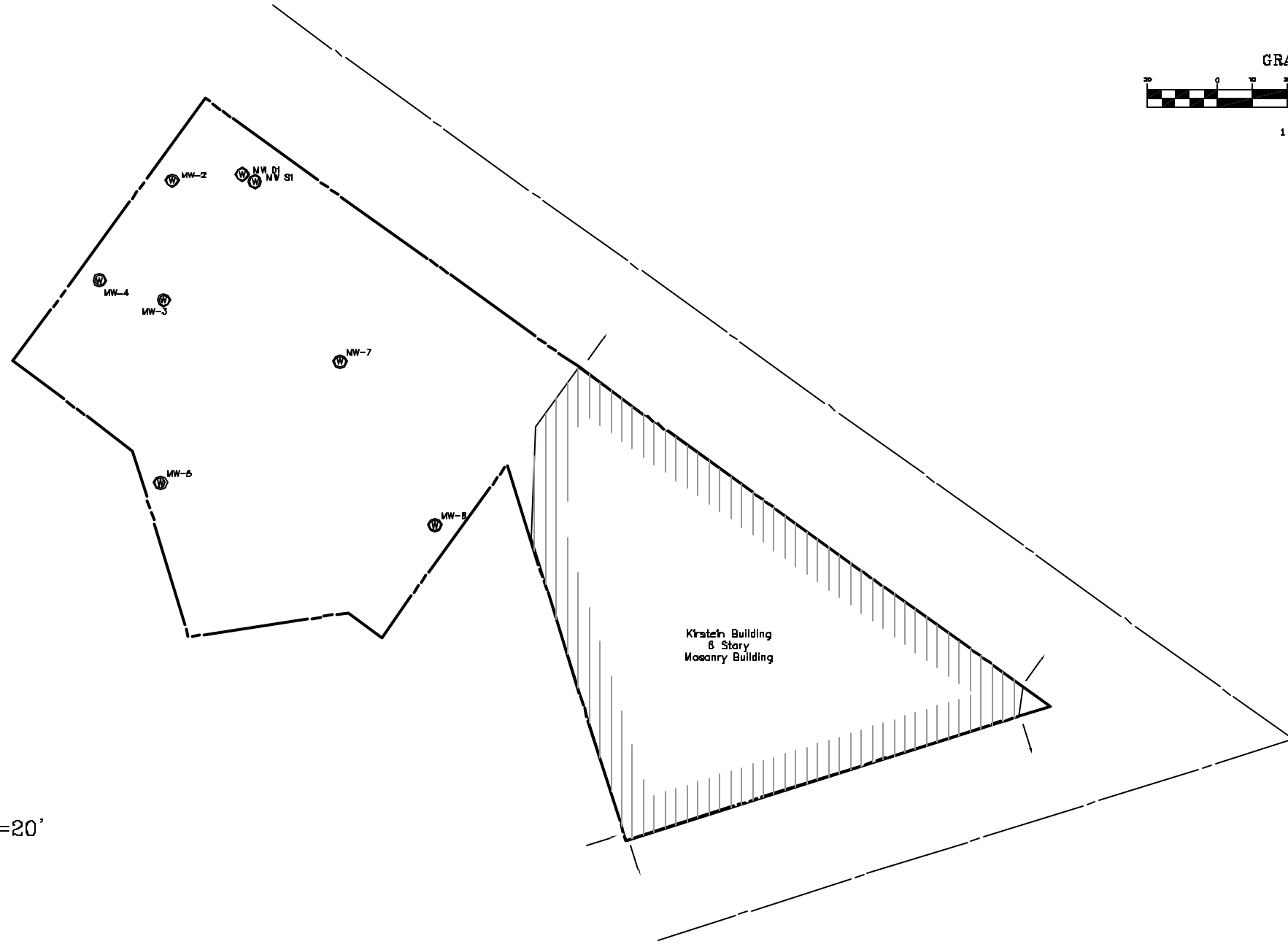
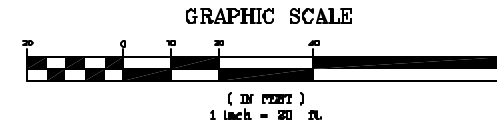
DRAWING TITLE
PHASE II ENVIRONMENTAL SITE ASSESSMENT
Site Plan

PROJECT NO
3567S-04

FIGURE 2



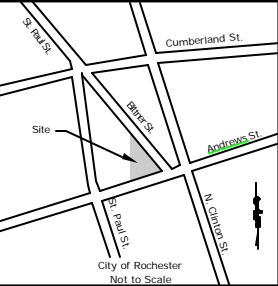
Passero Associates
 Rochester, NY • Fernandina Beach, FL
 www.passero.com



SCALE 1" = 20'

Revisions

No.	Description



Passero Associates

Principal-in-Charge: John F. Caruso, P. E.
 Project Manager: Ed Freeman, P. L. S.
 Designed by: Richard Celestino

Elizabeth Primus
 City or Town, State, Zip
 Client phone No.

Well Locations
 234-250 Andrews St.
 & 37 Bittner St.
 Part of Lots 52, 53, 54 & 55 of the
 Atwater & Andrews Tract in the
 City of Rochester, Monroe County, New York

Project No. 25030.05h

Drawing No. *	Sheet No. 1 of 4
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Scale: 1" = 20'

Date: 9-24-07

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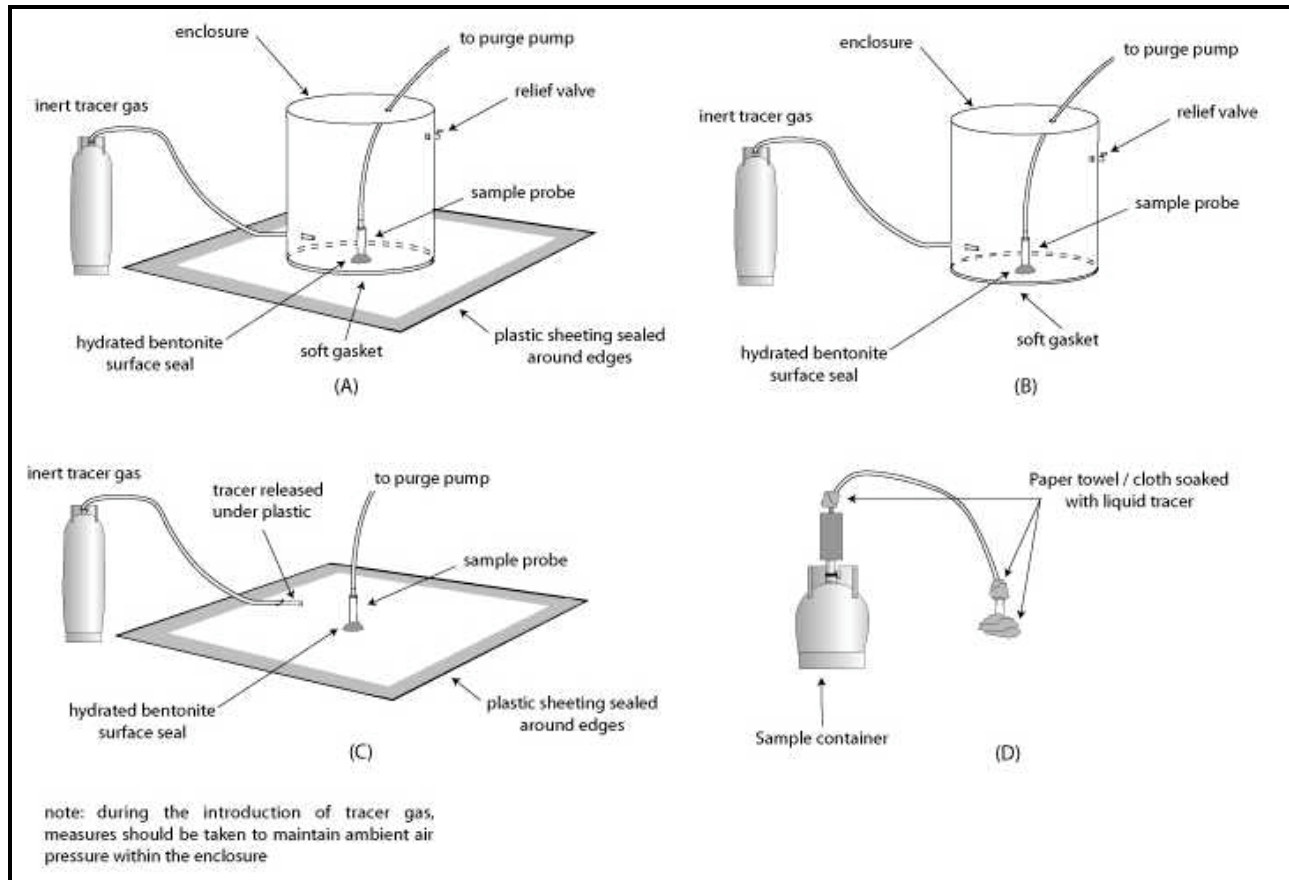
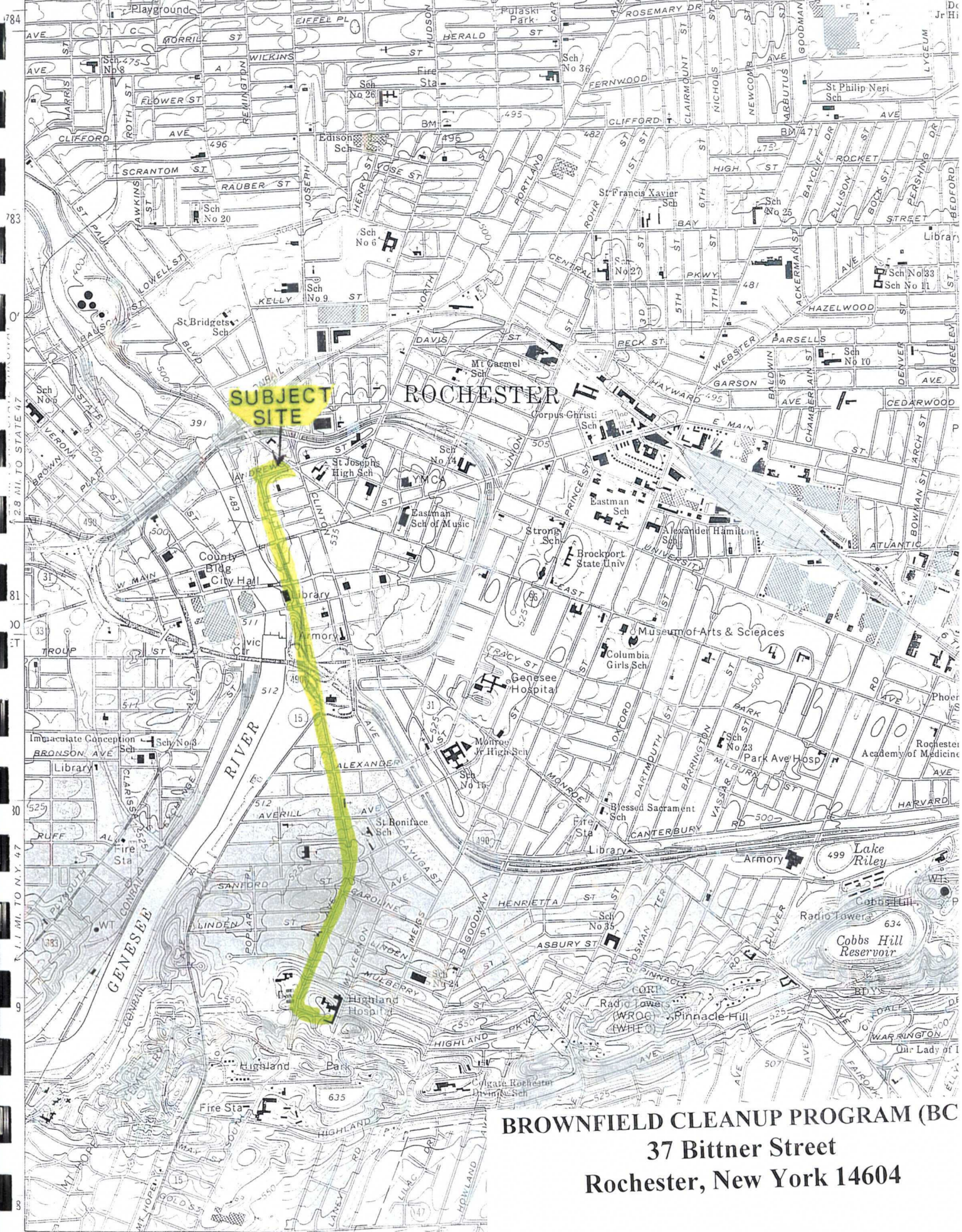


Figure 2.4

Schematics of generic tracer gas applications when collecting soil vapor samples

Because minor leakage around the probe seal should not materially affect the usability of the soil vapor sampling results, the mere presence of the tracer gas in the sample should not be a cause for alarm. Consequently, portable field monitoring devices with detection limits in the low ppm range are more than adequate for screening samples for the tracer. If high concentrations ($> 10\%$) of tracer gas are observed in a sample, the probe seal should be enhanced to reduce the infiltration of outdoor air.

Where permanent or semi-permanent sampling probes are used, tracer gas samples should be collected at each of the sampling probes during the initial stages of a soil vapor sampling program. If the results of the initial samples indicate that the probe seals are adequate, reducing the number of locations at which tracer gas samples are employed may be considered. At a minimum, tracer gas samples should be collected with at least 10% of the soil vapor samples collected in subsequent sampling rounds. When using permanent soil vapor probes as part of a long-term monitoring program, annual testing of the probe integrity is recommended. Where temporary probes are used, tracer gas should be used at every sampling location, every time.



SUBJECT SITE

ROCHESTER

**BROWNFIELD CLEANUP PROGRAM (BC
37 Bittner Street
Rochester, New York 14604**

Route to Hospital

APPENDIX 1
Community Air Monitoring Plan

New York State Department of Health Generic Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP 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 and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical-specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a **continuous** basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored **continuously** at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within $150 \text{ mcg}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.

June 20, 2000

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