Vapor Intrusion Sampling Results
30 and 34 Rowan Road
Cheektowaga, New York

Prepared by:

EnviroGroup Limited
Centennial, CO

May 15, 2009

Project No. LE-0614

EnviroGroup Limited
The environmental solutions company

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LE-0614

May 15, 2009

Mr. Robert McPeak, PE, LEP
Energy Solutions
143 West Street
New Milford, CT

Re: Transmittal Letter
Vapor Intrusion Sampling Results
30 and 34 Rowan Road, Cheektowaga, New York

Dear Mr. McPeak:

Enclosed please find five (5) copies of the Vapor Intrusion Sampling Results for 30 and 34 Rowan Road residences in Cheektowaga, New York. Subsequent to your submittal of this document to NYSDEC, please forward to me a copy of your cover letter to the Department.

Please feel free to contact me with any questions or comments.

Sincerely,
EnviroGroup Limited

E Lovenduski

Eric Lovenduski
Project Manager

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ENERGYSOLUTIONS

May 20, 2009
Ref. No. 31129-057

Mr. Jaspal Walia
Project Manager
New York State Department of Environmental Conservation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

Subject: Vapor Intrusion Sampling results, 30 and 34 Rowan Road
Leica, Inc. Site; Erie County, Cheektowaga, NY
Inactive Hazardous Waste Disposal Site No. 915156

Dear Mr. Walia:

Enclosed you will find two copies of the "Vapor Intrusion Sampling Results, 30 and 34 Rowan Road, Cheektowaga, New York" report prepared by EnviroGroup Limited for your review.

If you have any questions regarding this report, please feel free to call me at 801-303-1092.

Sincerely,

Robert E. McPeak, Jr., P.E., LEP
Department Manager, Environmental Services

Enclosure

cc:
C. Grabinski (w/out enclosure)
E. Lovenduski (w/out enclosure)
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EnviroGroup Limited
The environmental solutions company

Mr. Robert McPeak, PE, LEP
Energy Solutions
143 West Street
New Milford, CT

March 15, 2009

RE: Vapor Intrusion Sampling Results
30 and 34 Rowan Road, Cheektowaga, New York

Dear Mr. McPeak:

This letter presents a summary of the final laboratory data report (Attachment A) for air (indoor and ambient) and sub-slab vapor samples collected from the two homes at 30 and 34 Rowan Road on March 16 and March 26, 2009, in accordance with the January 21, 2009 approval of the revised Vapor Intrusion Investigation Work Plan from the New York State Department of Environmental Conservation (NYSDEC). The following sections of the letter describe the sampling procedures, results, and conclusions of the investigation.

Sampling Procedures

On March 16, 2009, two indoor air samples and one sub-slab vapor sample were collected at 30 Rowan Road, one indoor air and one sub-slab vapor sample were collected at 34 Rowan Road, and one ambient air sample was collected between the homes. The sub-slab vapor sample collected on March 16 at 30 Rowan Road was inadvertently not analyzed; therefore, another set of indoor air and sub-slab vapor samples was collected at this home on March 26, 2009. The sampling procedures are described below.

Sub-Slab Vapor Samples

In accordance with our December 23, 2008 Indoor Air Sampling and Analysis Plan, two sub-slab vapor samples (30 ROW-SS and 34 ROW-SS) were collected from the residences at 30 and 34 Rowan Road (Figure 1).

The two temporary sub-slab vapor implants (Figure 1) were constructed by drilling a ½ inch diameter hole through the building slab using a rotary hammer drill to a depth of approximately 2 inches below the bottom of the slab. Sub-slab vapor probes were constructed utilizing 1/8 inch outside diameter (O.D.) Nylaflow® tubing. Tubing inlets were placed at approximately 2 inches below the bottom of the concrete and the tubing extended up the center of the borehole to approximately 3 feet above ground surface and fitted with an air-tight valve. The annulus surrounding the tubing was backfilled with clean, glass beads to approximately 3 inches below the slab surface. The remaining annulus was backfilled to grade with sculpy modeling clay.

Sub-slab vapor probes were not disturbed for at least 1/2 hour after installation and before sampling. Sub-slab vapor samples were collected utilizing the same sampling procedure at each location, as follows:

- Three probe volumes (i.e., the volume of tubing) were calculated based on the diameter of the tubing and purged prior to sample collection;
- The flow rate for purging did not exceed 200 milliliters (ml) per minute;

- The flow rate for sampling was set for approximately 0.7 ml per minute (24 hours for 1 liter) and was controlled by laboratory-set regulators installed on the sample canisters;
- Sub-slab vapor samples were collected in 1 liter stainless steel canisters certified clean by Centek Laboratory (Centek), an Environmental Laboratory Approval Program (ELAP)-certified laboratory;
- Sample canisters were connected to the probe tubing by an air-tight valve, which allowed purging and tracer gas testing using a 60 milliliter (ml) calibrated gas-tight syringe; and
- The volume of each sub-slab vapor sample collected exceeded the minimum volume required to achieve the minimum reporting limit.

Tracer gas (helium) shrouds were placed over each sub-slab vapor sample location prior to sampling to ensure that ambient air was not being pulled into the canisters during sampling. This was accomplished by placing a clean, small plastic shroud over each probe location. An air-tight seal was placed on the ground surface around the edge of the shroud where it contacted the ground. Prior to purging or sampling activities, helium tracer gas was released via a small diameter tube, placed through the side of the shroud, into the enclosure beneath the shroud. The sub-slab vapor tube, fitted with an air-tight valve, extended up through the air-tight seal to the exterior side of the shroud. The valve was then connected to the sampling tube and canister (both outside of the shroud). A sample of the air inside the shroud was measured through a second port using a portable helium detector to determine the concentration of helium within the enclosure beneath the shroud.

Three purge volumes (calculated based on the volume of probe tubing and screen) were purged from the sub-slab vapor tube through the shroud and into a tedlar bag. The tedlar bag was then connected to a portable helium detector to measure the presence of helium gas in the purged vapors. If high concentrations (>10% of the shroud concentration) of helium had been observed in the sample, the sub-slab seal and shroud seal would have been checked and/or enhanced to reduce the infiltration of ambient air into the enclosure and another sample collected. If helium concentrations were less than 10%, a sample was collected and submitted for laboratory analysis. Helium gas was not detected in sub-slab vapor at any location during sub-slab sampling.

Indoor Air and Ambient Air Samples

Two indoor air samples (30 ROW-I and 34 ROW-IA) were collected contemporaneously with each sub-slab vapor sample at locations away from vents and windows using 1 liter stainless steel canisters, certified clean by Centek with laboratory set 24-hour flow regulators. Indoor air samples were collected at approximately 3 to 5 feet above the floor. It should be noted that two additional indoor air samples (30 ROW-IA and 30 ROW-IADUP) were collected from 30 Rowan Road. A contemporaneous sub-slab sample was collected with these indoor air samples. However, the sub-slab sample was not analyzed by the laboratory.

One ambient air sample was collected during sub-slab vapor and indoor air sampling activities using a 1 liter stainless steel canister certified clean by Centek with a laboratory set 24-hour flow regulator. The ambient air sample was collected at a location between 30 and 34 Rowan road approximately 4 feet above ground surface, to be representative of air which might be drawn into the building. The ambient air sample canister was hung on a ladder.

Laboratory Analyses

Sub-slab vapor, indoor air and ambient air samples were submitted to Centek Laboratory in Syracuse, New York for VOC analysis by EPA Method TO-15. Laboratory results are provided in Appendix A. Sampling information is provided in the field notes in Appendix B.

Data Validation

The results of data validation indicate that all of the data (with the exception of 6 compounds that were not detected in any sample that had recoveries above control limits in the laboratory LCS) meet laboratory quality control criteria, were collected properly, and are usable for the purposes of this investigation.

Investigation Results

The results of the indoor air, ambient air, and sub-slab vapor tests are summarized on Tables 1 and 2, which show concentrations for all TO-15 compounds that were detected above laboratory reporting limits in one or more samples (plus cis-1,2-dichloroethene and vinyl chloride, groundwater compounds of concern). Also shown are the New York State Department of Heath (NYSDOH) Air Guidance Values (AGV) concentrations (as available); the NYSDOH Decision Matrices to which certain compounds have been assigned; and residential[1] and commercial[2] indoor air background concentrations (NYSDOH 2006). The tables also indicate which volatile organic compounds (VOCs) have been detected in groundwater monitoring wells in the vicinity of the residences, and which VOCs were specifically identified in consumer product(s), if any, during the building survey.

Ambient Air Concentrations

Several VOCs were detected in the ambient air sample (ROW-AA) at concentrations that are generally typical for a suburban setting. Ambient air concentrations are shaded green when indoor air concentrations were similar to or lower than the ambient air concentrations, indicating ambient air as a potential source of these compounds. It should be noted that trichloroethene (TCE), cis-1,2 dichloroethene (cis-1,2-DCE), and vinyl chloride were not detected in the ambient air sample.

30 Rowan Road Indoor Air and Sub-Slab Vapor Results

The indoor air and sub-slab analytical results for the samples collected from 30 Rowan Road are presented on Table 1 and discussed below.

Indoor Air

The indoor air concentrations for most tested compounds at 30 Rowan Road were generally low, being either below the reporting limit (blue shading on Table 1), similar to or lower than the maximum ambient air levels measured (green shading), or within NYSDOH (2006) residential background ranges (light yellow shading)[3]. Only one compound (chloroform) was detected in excess of the NYSDOH Residential Indoor Air Background value as indicated by bright yellow shading on Table 1.

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[1] Both 90th percentile and upper fence concentrations are shown for residential indoor air.
[2] 90th percentile concentrations shown for commercial indoor air.
[3] In the case of 4-ethyltoluene, ethyl acetate, and isopropyl alcohol, concentrations are compared to the USEPA commercial background range, as no NYSDOH residential background value is available.

None of the indoor air concentrations exceeded the AGVs, where applicable. TCE concentrations were above the reporting limit of 0.21 $\mu g/m^3$ but less than 0.5 $\mu g/m^3$ in all samples, i.e., within the residential background range and below the NYSDOH AGV of 5 $\mu g/m^3$.

Sub-Slab Vapor Concentrations and Ratios

The sub-slab vapor concentrations of several VOCs at 30 Rowan Road were either below detection or similar to ambient air levels, as indicated by the blue and green shading on Table 1.

The potential source and significance of the other VOCs, detected in sub-slab vapor above ambient air levels, can be evaluated by examining the sub-slab to indoor air concentration ratio[4], as shown on Table 1. When contaminants were detected in the sub-slab vapor sample, sub-slab to indoor air ratios less than 1 (indoor air concentration higher than the sub-slab vapor concentration, shaded grey on Table 1) strongly suggest that the source of the VOCs detected in the sub-slab vapor is the building air. Ratios greater than 1 may indicate a subsurface source of at least a portion of the vapors, but do not necessarily indicate discernable impacts to indoor air, depending on the degree of attenuation that occurs as the vapors migrate across the slab. The potential for vapor intrusion impacts increases with higher sub-slab to indoor air ratios; ratios above 100 are shaded orange on Table 1. A ratio of 100 is only exceeded for carbon disulfide, cyclohexane, n-heptane, and toluene. However, none of these compounds have been detected in nearby groundwater. Carbon disulfide, cyclohexane, and n-heptane were not detected in indoor air on the day when the sub-slab vapor samples were collected. All indoor air values were an order of magnitude below typical background levels. Overall, the lines of evidence indicate that vapor intrusion is not occurring at discernable levels for these four compounds.

While the chloroform concentration was slightly above typical background concentrations for residential homes, as discussed above, chloroform was detected at significantly lower concentration in the sub-slab vapor and has not been detected in nearby groundwater; therefore, an indoor source is more likely than a vapor intrusion source. Chloroform is present in laundry bleach, public water supplies and other commercial products.

For the principle compounds of concern in groundwater (TCE, cis-1,2-DCE, and vinyl chloride), cis-1,2-DCE and vinyl chloride were not detected in any of the samples collected. The sub-slab to indoor air ratio for TCE at 30 Rowan Road was 3.6, which does not indicate a high potential for vapor intrusion impacts.

34 Rowan Road Indoor Air and Sub-Slab Vapor Results

The indoor air and sub-slab analytical results for the samples collected from 34 Rowan Road are presented on Table 2.

Indoor Air

The indoor air concentrations for most compounds tested at 34 Rowan Road were generally low, either being below the reporting limit (blue shading on Table 2), similar to or lower than the maximum ambient air levels measured (green shading), or within NYSDOH (2006) residential background ranges (light yellow shading)[5].

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[4] Note that this ratio is the inverse of the attenuation factor defined by Johnson and Ettinger (1991), or α.

[5] In the case of 4-ethyltoluene, ethyl acetate, and isopropyl alcohol, concentrations are compared to the USEPA commercial background range, as no NYSDOH residential background value is available.

Seven compounds (1,1,1-trichloroethane (TCA), 1,2-dichloroethane (1,2-DCA), chloroform, ethyl acetate, methyl isobutyl ketone (MIBK), tetrachloroethene (PCE), and TCE) were detected in indoor air above typical indoor air background values, as indicated by the bright yellow or magenta shading on Table 2. However, when compared to the associated sub-slab sample results, as discussed below, the detection of these compounds is more likely due to indoor air source(s). Further, two of the compounds (methyl isobutyl ketone, and TCE) were present in consumer products observed during the building survey. These compounds are shaded magenta on Table 2.

The TCE concentration was above the reporting limit of 0.21 $\mu g/m^3$ but below the NYSDOH AGV of 5 $\mu g/m^3$. PCE and TCA were above typical background concentrations, but were unlikely to be due to vapor intrusion based on sub-slab vapor concentrations that were lower than indoor air concentrations, as discussed below. Further, TCA, TCE, and PCE concentrations in groundwater at nearby monitoring wells MW-5 and MW-5A, located just to the north of these homes, were below detection (5 ug/L) in the last two sampling events (May 2007 and 2008).

Sub-Slab Vapor Concentrations and Ratios

The sub-slab vapor concentrations of several VOCs were either below detection or similar to ambient air levels, as indicated by the blue and green shading on Table 2.

As described in detail above, the potential source and significance of VOCs detected in sub-slab vapor above ambient air levels can be evaluated by examining the sub-slab to indoor air concentration ratio, based on collocated samples. A sub-slab to indoor air ratio of 100 was not exceeded for any of the VOCs analyzed at 34 Rowan Road. In fact, the highest ratio was 3.8 for carbon disulfide, indicating that none of the compounds detected in indoor air were due to vapor intrusion. The data indicates clearly that the VOCs detected in nearby monitoring wells (MW-5 and MW-5A) have not affected the sub-slab vapor or indoor air at the residence.

Conclusions

None of the VOCs detected in indoor air at 30 or 34 Rowan Road exceeded the NYSDOH AGVs, where applicable.

The probable source of each VOC detected in the indoor air at 30 and 34 Rowan Road is indicated by the color shading of each compound name on Tables 1 and 2, (far left column) based on the various lines of evidence discussed above. First, several compounds are shaded blue, because all indoor air concentrations were below detection. Other compounds are attributed to ambient air (green shading), because all indoor air concentrations were similar to or lower than ambient air concentrations. The remaining compounds are all attributed to sources other than known groundwater contamination, based on various lines of evidence as discussed above.

The color used to shade each compound (far left column) indicates the predominant line of evidence, although more than one line of evidence usually supports the source attribution decision. In general, compounds with consistently low sub-slab to indoor air ratios (less than 1) are shaded gray, indicating that an indoor source is highly likely. The remaining compounds are shaded light yellow or magenta, indicating the concentrations are within NYSDOH residential background, or from identified indoor sources, respectively, based on consistency with typical background concentration levels, relatively low sub-slab vapor to indoor air ratios, and a lack of detection in groundwater (as applicable).

The data shows that the VOCs detected in nearby groundwater monitoring wells (MW-5 and MW-5A) have not migrated to the sub-slab or indoor air giving clear indication that the local groundwater has not affected the sub-slab vapor or indoor air of the residences.

Recommendations

When the indoor air and sub-slab vapor concentrations of those compounds assigned to NYSDOH (2006) decision matrices are compared to the matrices, no further action is indicated for the vapor intrusion pathway. This finding is also consistent with our evaluation of the various lines of evidence for all compounds detected in the indoor air at both 30 and 34 Rowan Street, as discussed above.

Should you have any questions regarding the information included in this letter, please contact us at 801-303-1092.

Respectfully submitted,
Eric Lovenduski

E Lovenduski

Project Manager

Cc: Carl Grabinski
Briana Sye Marvuglio

Attachments:
Table 1 – Summary of Indoor Air, Sub-slab and Ambient Air Analytical Results 30 Rowan Road
Table 2 – Summary of Indoor Air, Sub-slab and Ambient Air Analytical Results 34 Rowan Road
Figure 1 – Sample Location Map
Attachment A - Final laboratory analytical results (SDG CO903028 & CO903054)
Attachment B – Resident questionnaires and chemical inventories

TABLE 1
SUMMARY OF INDOOR AIR, SUB-SLAB VAPOR, AND AMBIENT AIR ANALYTICAL RESULTS (UG/M3)
30 ROWAN ROAD, CHEEKTOWAGA, NY

SAMPLE TYPE:				Sub-slab	Indoor Air			Sub-slab/Indoor Air Ratio	Ambient Air				
SAMPLE LOCATION:													
SAMPLE IDENTIFICATION:	Detected in Groundwater Near Building	NYSDOH Air Guideline Value	NYSDOH Decision Matrix	30 ROW-SS	30 ROW-IA	30 ROW-IADUP	30 ROW-I	30ROWSS/30ROWI	ROW-AA	NYSDOH Residential Indoor Air Background (90th%)	NYSDOH Residential Indoor Air Background (Upper Fence)	EPA BASE (2001) Commercial Indoor Air Background (90%)	Source of VOC Identified During Building Survey
SAMPLE DATE:				3/26/2009	3/16/2009	3/16/2009	3/26/2009	3/26/2009	3/16/2009				
PARAMETERS													
1,1,1-Trichloroethane			2	ND < 0.83	ND < 0.83	ND < 0.83	ND < 0.83		ND < 0.83	3.1	2.5	20.6	
1,2,4-Trimethylbenzene				72	2	1.1	0.9	80.0	0.65 J	9.5	9.8	9.5	
1,2-Dichloroethane				0.99	ND < 0.62	ND < 0.62	ND < 0.62	> 1.6	ND < 0.62	<0.25	0.4	<0.9	
1,3,5-Trimethylbenzene				24	1	ND < 0.75	ND < 0.75	> 32.0	ND < 0.75	3.6	3.9	3.7	
1,4-Dichlorobenzene				1	ND < 0.92	ND < 0.92	ND < 0.92	> 1.1	ND < 0.92	1.3	1.2	5.5	
2,2,4-trimethylpentane				ND < 0.71	1.9	2.5	ND < 0.71		9.9	6.5	5	4.5	
2-Butanone (MEK)				9.6	1.9	1.9	1.8	5.3	ND < 0.9	16	16	12	
4-Ethyltoluene				18	0.6 J	ND < 0.75	ND < 0.75	> 24.0	ND < 0.75	NV	NV	3.6	
Acetone	yes			46	24	22	14	3.3	67	110	115	99	
Benzene				46	1.1	1.1	0.81	56.8	1	15	13	9.4	
Carbon Disulfide				130	ND < 0.47	ND < 0.47	ND < 0.47	> 276.6	ND < 0.47	NV	NV	4.2	
Carbon Tetrachloride			1	ND < 0.96	0.51 J	0.51 J	0.32	< 3.0	0.51 J	0.8	1.3	<1.3	
Chloroform				0.65 J	1	1.1	1.5	0.4	ND < 0.74	1.4	1.2	1.1	
Chloromethane				ND < 0.31	ND < 0.31	ND < 0.31	0.71	< 0.4	0.82	3.3	4.2	3.7	
cis-1,2-Dichloroethene	yes		2	ND < 0.6	ND < 0.6	ND < 0.6	ND < 0.6		ND < 0.6	<0.25	0.4	<1.9	
Cyclohexane				88	0.59	0.52	ND < 0.52	> 169.2	0.7	8.1	6.3	NV	
Dichlorodifluoromethane (Freon 12)				2	2.1	2.3	1.9	1.1	2.1	15	10	16.5	
Ethyl acetate				4.2	0.73 J	0.62 J	0.81 J	5.2	ND < 0.92	NV	NV	5.4	
Ethylbenzene				17	1.4	1.4	1.1	15.5	ND < 0.66	7.3	6.4	5.7	
n-Heptane				110	1.2	1.2	ND < 0.62	> 177.4	0.67	19	18	NV	
Hexane				150	2	1.7	4	37.5	1.3	18	14	10.2	
Isopropyl alcohol				ND < 0.37	9.5	4.8	22	< 0.02	ND < 0.37	NV	NV	250	
Methyl Isobutyl ketone				ND < 1.2	1.1 J	1.2 J	ND < 1.2		0.67 J	2.2	1.9	6	
Methyl tert-Butyl Ether				ND < 0.55	ND < 0.55	ND < 0.55	ND < 0.55		ND < 0.55	26	14	11.5	
Methylene chloride		60		0.74	6.2	1.5	ND < 0.53	> 1.4	1	22	16	10	
Styrene				4.3	ND < 0.65	ND < 0.65	ND < 0.65	> 6.6	ND < 0.65	1.3	1.4	1.9	
Tetrachloroethene		100	2	12	2.1	0.83 J	ND < 1	> 12.0	ND < 1	2.9	2.5	15.9	
Toluene				960	4.7	4.4	3.3	290.9	2.9	58	57	43	
Trichloroethene	yes	5	1	1.2	0.49	0.44	0.33	3.6	ND < 0.22	0.5	0.5	4.2	
Trichlorofluoromethane (Freon 11)				0.8 J	1.1	1.4	0.97	0.8	1.3	17	12	18.1	
m,p-Xylene	yes			74	5.8	4.9	3.8	19.5	1.1 J	12	11	22.2	
o-Xylene	yes			26	1.8	1.4	1.1	23.6	0.44 J	7.6	7.1	7.9	
Vinyl Chloride	yes		1	ND < 0.39	ND < 0.39	ND < 0.39	ND < 0.1		ND < 0.39	<0.25	0.4	<1.9	

Notes:

1) ug/m^3 - Microgram per cubic meter.

2) Parameters listed were detected in a minimum of one sample.

3) ND - Not detected at the reporting limit shown.

Explanation of Color Coding

	not detected in indoor air (sub-slab values are also colored if not detected).
	Similar to ambient air concentrations (likely due to ambient air)
	indoor air higher than sub-slab concentration (probable above ground source)
	less than or equal to upper fence residential background concentration or commercial background where no residential values (NYSDOH, 2006)
	above upper fence residential background concentration or commercial background where no residential values (NYSDOH, 2006)
	sub-slab vapor to indoor air ratio > 100:1

TABLE 2
SUMMARY OF INDOOR AIR, SUB-SLAB VAPOR, AND AMBIENT AIR ANALYTICAL RESULTS (UG/M3)
34 ROWAN ROAD, CHEEKTOWAGA, NY

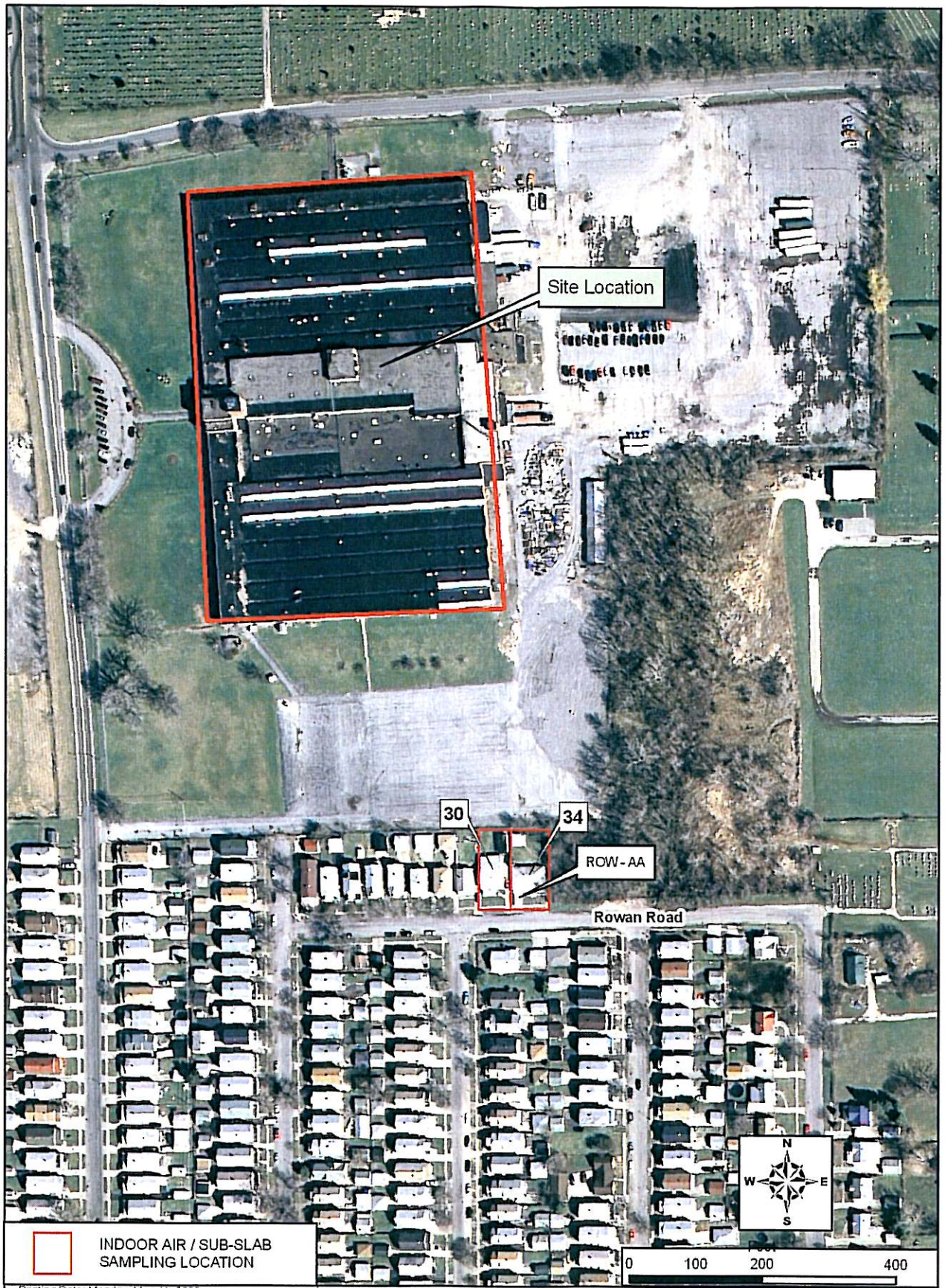
SAMPLE TYPE:				Sub-slab	Indoor Air	Sub-slab/Indoor Air Ratio	Ambient Air				
SAMPLE LOCATION:											
SAMPLE IDENTIFICATION:	Detected in Groundwater Near Building	NYSDOH Air Guideline Value	NYSDOH Decision Matrix	34 ROW-SS	34 ROW -IA	34ROWSS/34ROW IA	ROW-AA	NYSDOH Residential Indoor Air Background (90th%)	NYSDOH Residential Indoor Air Background (Upper Fence)	EPA BASE (2001) Commercial Indoor Air Background (90%)	Source of VOC Identified During Building Survey
SAMPLE DATE:				3/16/2009	3/16/2009	3/16/2009	3/16/2009				
PARAMETERS											
1,1,1-Trichloroethane			2	2.3	4.8	0.48	ND < 0.83	3.1	2.5	20.6	
1,2,4-Trimethylbenzene				6.9	7.5	< 0.92	0.65 J	9.5	9.8	9.5	
1,2-Dichloroethane				ND < 0.62	2.4	< 0.26	ND < 0.62	<0.25	0.4	<0.6	
1,3,5-Trimethylbenzene				2.7	2.6	1.04	ND < 0.75	3.6	3.9	3.7	
1,4-Dichlorobenzene				ND < 0.92	ND < 0.92		ND < 0.92	1.3	1.2	5.5	
2,2,4-trimethylpentane				ND < 0.71	1.1	< 0.65	0.9	6.5	5	4.5	
2-Butanone (MEK)				6 J	2.6	2.31	ND < 0.9	16	16	12	
4-Ethyltoluene				1.4	3.5	0.40	ND < 0.75	NV	NV	3.6	
Acetone	yes			25	36	0.69	67	110	115	89	
Benzene				4.8	2.8	1.71	1	15	13	9.4	
Carbon Disulfide				1.8	ND < 0.47	3.83	ND < 0.47	NV	NV	4.2	
Carbon Tetrachloride			1	ND < 0.96	0.51	< 1.88	0.51 J	0.8	1.3	<1.3	
Chloroform				ND < 0.74	1.6	< 0.46	ND < 0.74	1.4	1.2	1.1	
Chloromethane				ND < 0.31	1.1	< 0.28	0.82	3.3	4.2	3.7	
cis-1,2-Dichloroethene	yes		2	ND < 0.6	ND < 0.6		ND < 0.6	<0.25	0.4	<1.9	
Cyclohexane				7.7	3.5	2.20	0.7	8.1	6.3	NV	
Dichlorodifluoromethane (Freon 12)				2.3	2.3	1.00	2.1	15	13	16.5	
Ethyl acetate				ND < 0.92	8.1	< 0.11	ND < 0.92	NV	NV	5.4	
Ethylbenzene				1.9	3.2	0.59	ND < 0.66	7.3	6.4	5.7	
n-Heptane				14	5.4	2.59	0.67	19	18	NV	
Hexane				14	10	1.40	1.3	18	14	10.2	
Isopropyl alcohol				ND < 0.37	ND < 0.37		ND < 0.37	NV	NV	250	
Methyl Isobutyl ketone				13	4.9	2.65	0.67 J	2.2	1.9	6	yes
Methyl tert-Butyl Ether				ND < 0.55	2.4	< 0.23	ND < 0.55	26	14	11.5	
Methylene chloride		60		1	7.8	0.13	1	22	16	10	
Styrene				ND < 0.65	1.2	< 0.54	ND < 0.65	1.3	1.4	1.9	
Tetrachloroethene		100	2	1.8	5.6	0.29	ND < 1	2.9	2.5	15.9	
Toluene				19	11	1.73	2.9	58	57	43	
Trichloroethene	yes	5	1	ND < 0.82	0.6	< 1.37	ND < 0.22	0.5	0.5	4.2	yes
Trichlorofluoromethane (Freon 11)				1.5	2.6	0.58	1.3	17	12	18.1	
m,p-Xylene	yes			9	12	0.75	1.1 J	12	11	22.2	
o-Xylene	yes			3	3.4	0.88	0.44 J	7.6	7.1	7.9	
Vinyl Chloride	yes		1	ND < 0.39	ND < 0.39		ND < 0.39	<0.25	0.4	<1.8	

Notes:

1) ug/m^3 - Microgram per cubic meter.
2) Parameters listed were detected in a minimum of one sample.
3) ND - Not detected at the reporting limit shown.
4) J - estimated concentration
5) NV - No value determined for this compound.

Explanation of Color Coding

- not detected in indoor air (sub-slab values are also colored if not detected).
- Similar to ambient air concentrations (likely due to ambient air)
- Indoor air higher than sub-slab concentration (probable above ground source)
- less than or equal to upper fence residential background concentration or commercial background where no residential values (NYSDOH, 2006)
- above upper fence residential background concentration or commercial background where no residential values (NYSDOH, 2006)
- sub-slab vapor to indoor air ratio > 100:1
- probable source identified (not related to known groundwater or soil contamination)



Printing Date: Monday, May 11, 2009
File: R:\Energy_Solutions\LE0614_Leica_Buffalo\GIS\Figure2.mxd

EnviroGroup Limited
Centennial, Colorado

Figure 1
LE-0614

Leica Area C, Cheektowaga, NY

LOCATIONS OF INDOOR AIR AND SUB-SLAB VAPOR SAMPLING

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Eric Lovenduski Date/Time Prepared 3/16/07

Preparer's Affiliation [illegible] LTD Phone No. 518-258-3857

Purpose of Investigation Former Leica Facility - As required by NYSDOH

1. OCCUPANT:

Interviewed: Y / N

Last Name: Page First Name: Helen

Address: 30 Rowan Road

County: Erie

Home Phone: 716-998-3412 Office Phone: _____

Number of Occupants/persons at this location 3 Age of Occupants Mid 40's - Mid 50's

2. OWNER OR LANDLORD: (Check if same as occupant X)

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

(Residential) ~~Industrial~~ School Church Commercial/Multi-use Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
(Cape Cod)	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? 1

If the property is commercial, type?

Business Type(s) _____

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

Other characteristics:

Number of floors 2 Building age 75

Is the building insulated? Y / (N) How air tight? Tight / (Average) / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

N/A

Airflow near source

N/A

Outdoor air infiltration

N/A

Infiltration into air ducts

N/A

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other _____
c. Basement floor:	concrete	dirt	stone	other _____
d. Basement floor:	uncovered	covered	covered with _____	
e. Concrete floor:	unsealed	sealed	sealed with _____	
f. Foundation walls:	poured	block	stone	other _____
g. Foundation walls:	unsealed	sealed	sealed with Paint	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: 6 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Cracks in north foundation walls, sealed with concrete, but water enters during heavy rains and snow melts

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural Gas

Boiler/furnace located in:	Basement	Outdoors	Main Floor	Other _____
Air conditioning:	Central Air	Window units	Open Windows	None

Are there air distribution ducts present? (Y) / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

unable to locate cold air return

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally (Seldom) Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	Laundry
1st Floor	living space / bedroom
2nd Floor	Bedrooms
3rd Floor	N/A
4th Floor	N/A

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

b. Does the garage have a separate heating unit? Y / N / (NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / (NA) Please specify_____

d. Has the building ever had a fire? Y / (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where?_____

f. Is there a workshop or hobby/craft area? Y / (N) Where & Type?_____

g. Is there smoking in the building? Y / (N) How frequently?_____

h. Have cleaning products been used recently? Y / (N) When & Type?_____

i. Have cosmetic products been used recently? Y / (N) When & Type?_____

j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____

l. Have air fresheners been used recently? Y / N When & Type? _____

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? Outside Rarely used

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? _____

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? _____

Are there odors in the building? Y / N
If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)
Yes, use dry-cleaning infrequently (monthly or less)
Yes, work at a dry-cleaning service
No
Unknown

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply:	Public Water	Drilled Well	Driven Well	Dug Well	Other: _____
Sewage Disposal:	Public Sewer	Septic Tank	Leach Field	Dry Well	Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

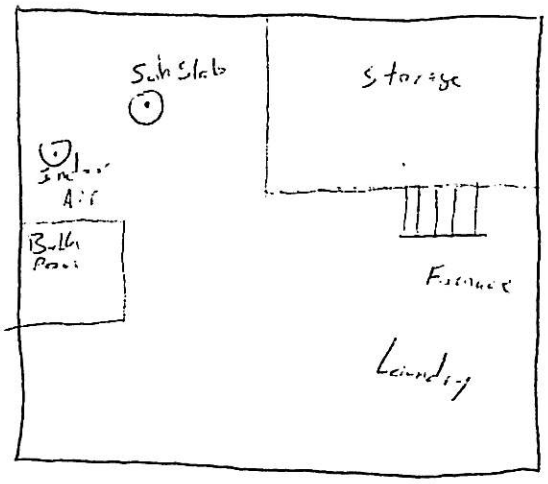
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? N/A Y / N

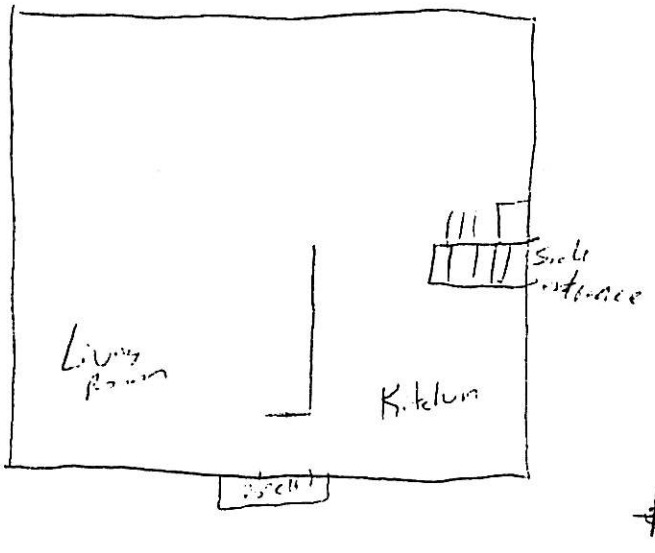
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: N/A

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo** Y / N
Basement	Laundry Detergent					
	Fabric Softner					
	Latex Paint	1gal	Opened	Ethylene Glycol/Acrylic Resin		N
	Acrylic Paint	1gal	Opened	Toluene, Acrylic Resin, MEK		
	Lacquer			Methyl isobutyl Ketone		

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

OSR – 3

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Eric Lavendusky Date/Time Prepared 3/16/07

Preparer's Affiliation Envirogroup LTD Phone No. 514-258-3559

Purpose of Investigation Former Leica Site

1. OCCUPANT:

Interviewed: (Y) N

Last Name: Adair First Name: Steven

Address: 34 Rawson Road Cheektowaga, NY

County: Erie

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location 3 Age of Occupants 40's and 1-5 yr old child

2. OWNER OR LANDLORD: (Check if same as occupant ✓)

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

(Residential) School Commercial/Multi-use
Industrial Church Other: _____

If the property is residential, type? (Circle appropriate response)

(Ranch)	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) _____

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

Other characteristics:

Number of floors 1 Building age 25

Is the building insulated? (Y) N How air tight? Tight (Average) Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

NA

Airflow near source

NA

Outdoor air infiltration

NA

Infiltration into air ducts

NA

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other _____
c. Basement floor:	concrete	dirt	stone	other _____
d. Basement floor:	uncovered	covered	covered with Carpet	
e. Concrete floor:	unsealed	sealed	sealed with _____	
f. Foundation walls:	poured	block	stone	other _____
g. Foundation walls:	unsealed	sealed	sealed with _____	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

occasionally wet in ½ bathroom basin wall

Basement/Lowest level depth below grade: 5-6 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

-Crack in wall (inside wall) of ½ Bath

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Nat Gas

Boiler/furnace located in:	Basement	Outdoors	Main Floor	Other _____
Air conditioning:	Central Air	Window units	Open Windows	None

Are there air distribution ducts present? (Y) / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

7. OCCUPANCY

Is basement/lowest level occupied? Full-time (Occasionally) Seldom Almost Never

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement	TV Room and Laundry room, H/C Bath, play area finished
1st Floor	Living space, bedrooms
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? (Y) N

b. Does the garage have a separate heating unit? Y (N) / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) (Y) / N / NA
Please specify Car [redacted]

d. Has the building ever had a fire? Y (N) When? _____

e. Is a kerosene or unvented gas space heater present? Y (N) Where? _____

f. Is there a workshop or hobby/craft area? Y (N) Where & Type? _____

g. Is there smoking in the building? Y / (N) How frequently? _____

h. Have cleaning products been used recently? (Y) N When & Type? Typical floor cleaning 1st Floor

i. Have cosmetic products been used recently? (Y) N When & Type? Hairspray/cologne

j. Has painting/staining been done in the last 6 months? Y / (N) Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / (N) Where & When? _____

l. Have air fresheners been used recently? (Y) N When & Type? Plug in/spray - occasionally in Rest rooms

m. Is there a kitchen exhaust fan? (Y) / N If yes, where vented? _____

n. Is there a bathroom exhaust fan? Y / (N) If yes, where vented? _____

o. Is there a clothes dryer? (Y) N If yes, is it vented outside? (Y) / N

p. Has there been a pesticide application? Y / (N) When & Type? _____

Are there odors in the building? Y / (N)
If yes, please describe: _____

Do any of the building occupants use solvents at work? (Y) N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)
Yes, use dry-cleaning infrequently (monthly or less)
Yes, work at a dry-cleaning service
(No)
Unknown

Is there a radon mitigation system for the building/structure? Y / (N) Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply:	(Public Water)	Drilled Well	Driven Well	Dug Well	Other: _____
Sewage Disposal:	(Public Sewer)	Septic Tank	Leach Field	Dry Well	Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

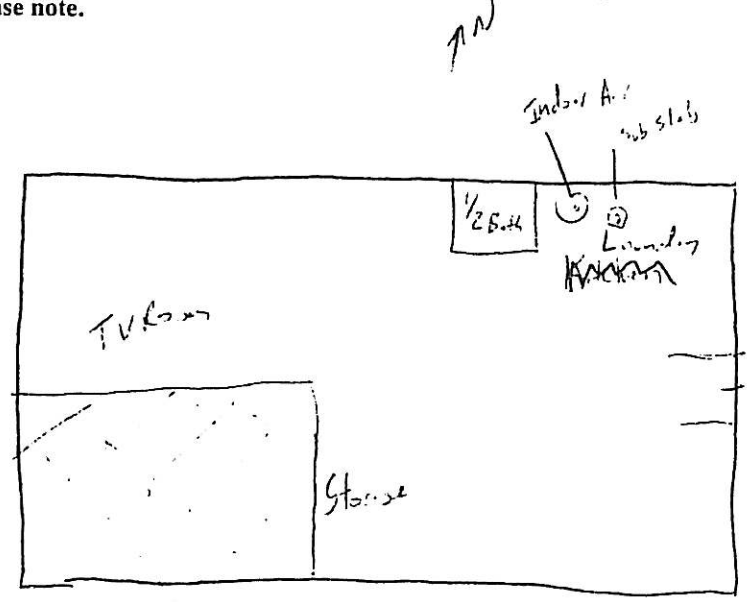
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

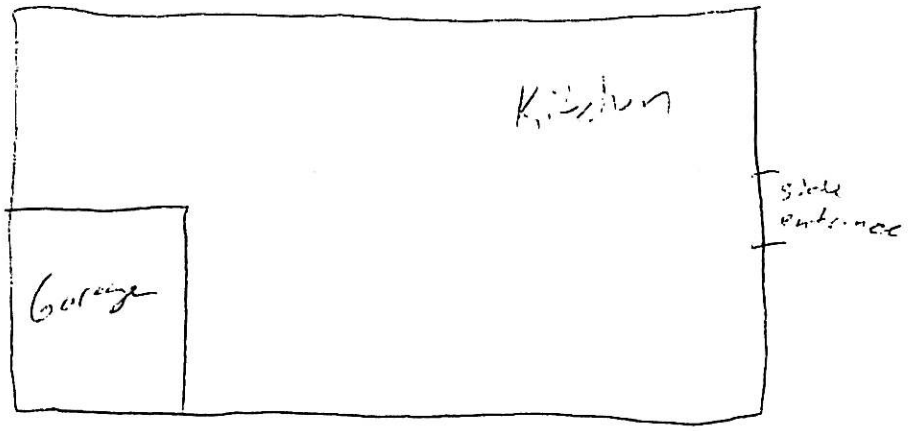
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
	Silicon Spray Lube	11 oz	unused - aerosol	TCE		
	Wallpaper stripper	2 gal	opened	Propylene Glycol, Dipropylene glycol, methyl ether		
	Insect Repellent	6 oz	used	23% DEET		
	Pipe Thread Sealant	1.5 oz	used	Diacetone Alcohol		
	Pipe joint Compound	5 oz	used	$Ca(CO_3)$ / Hydrocarbon 0.1		

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

AIR CANISTER FIELD RECORD

PROJECT INFORMATION:

Project: 30 Rowan Rd Indoor Air
Job No: 0134-003-100
Location: 30 Rowan Rd, Cheektowaga, NY
Field Staff: BMG
Client: Enviro Group

SAMPLE I.D.: 30ROWS

Size of Canister: 1 liter
Canister Serial No.: 236 Centek ✓
Flow Controller No.: 174 Centek ✓
Sample Date(s): 3-26-09
Shipping Date:
Sample Type: ☐ Indoor Air ☐ Outdoor Air
☒ Subslab, complete section below ☐ Soil Gas
Soil Gas Probe Depth: 5 inches (concrete 4")

WEATHER CONDITIONS:

Ambient Air Temp. - A.M.: 45°F
Ambient Air Temp. - P.M.: 45°F
Wind Direction: Not able to determine
Wind Speed: 0-5 mph
Precipitation: light rain

FIELD SAMPLING INFORMATION:

READING	TIME	VACUUM (inches Hg) or PRESSURE (psig)	DATE	INITIALS
Lab Vacuum (on tag)		NA		
Field Vacuum Check [1]		NA		
Initial Field Vacuum [2]	815	29.5 ✓	3-26	BG
Final Field Vacuum [3]	825	3.0 ✓	3-27	BG
Duration of Sample Collection	1 hr 10 min			

LABORATORY CANISTER PRESSURIZATION: NA

Initial Vacuum (inches Hg and psia)		
Final Pressure (psia)		
Pressurization Gas		

SUBSLAB SHROUD:

Shroud Helium Concentration: 31.9%
Calculated tubing volume: 15 x 3 = 45
Purged Tubing Volume Concentration: 2000 ppm
Is the purged volume concentration less than or equal to 10% in shroud?
☒ YES, continue sampling
☐ NO, improve surface seal and retest

COMPOSITE TIME (hours)	FLOW RATE RANGE (ml/min)
15 Min.	316 - 333
0.5 Hours	158 - 166.7
1	79.2 - 83.3
2	39.6 - 41.7
4	19.8 - 20.8
6	13.2 - 13.9
8	9.9 - 10.4
10	7.92 - 8.3
12	6.6 - 6.9
24	3.5 - 4.0

NOTES:

1 Vacuum measured using portable vacuum gauge (provided by Lab)
2 Vacuum measured by canister gauge upon opening valve
3 Vacuum measured by canister gauge prior to closing valve

Signed: BMG

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

AIR CANISTER FIELD RECORD

PROJECT INFORMATION:

Project: 30 Rowan Rd Indoor Air
Job No: 0134-003-100
Location: 30 Rowan, Cheektowaga, NY
Field Staff: BWG
Client: Enviro Group

SAMPLE I.D.: 30ROWIA

Size of Canister: 1 liter
Canister Serial No.: 225 ✓
Flow Controller No.: 292 ✓
Sample Date(s): 3-26-09
Shipping Date:
Sample Type: ☒ Indoor Air ☐ Outdoor Air
☐ Subslab, complete section below ☐ Soil Gas
Soil Gas Probe Depth:

WEATHER CONDITIONS:

Ambient Air Temp. - A.M.: 45°F
Ambient Air Temp. - P.M.: 46°F
Wind Direction: Not able to determine (Low and swirling)
Wind Speed: 0-5 mph
Precipitation: light rain

FIELD SAMPLING INFORMATION:

READING	TIME	VACUUM (inches Hg) or PRESSURE (psig)	DATE	INITIALS
Lab Vacuum (on tag)		NA		
Field Vacuum Check [1]		NA		
Initial Field Vacuum [2]	822	28 ✓	3-26	BG
Final Field Vacuum [3]	826	2.2 ✓	3-27	BG
Duration of Sample Collection	1 hr 4 min			

LABORATORY CANISTER PRESSURIZATION: NA

Initial Vacuum (inches Hg and psia)		
Final Pressure (psia)		
Pressurization Gas		

SUBSLAB SHROUD: NA

Shroud Helium Concentration:
Calculated tubing volume: x 3 =
Purged Tubing Volume Concentration:
Is the purged volume concentration less than or equal to 10% in shroud?
☐ YES, continue sampling
☐ NO, improve surface seal and retest

COMPOSITE TIME (hours)	FLOW RATE RANGE (ml/min)
15 Min.	316 - 333
0.5 Hours	158 - 166.7
1	79.2 - 83.3
2	39.6 - 41.7
4	19.8 - 20.8
6	13.2 - 13.9
8	9.9 - 10.4
10	7.92 - 8.3
12	6.6 - 6.9
24	3.5 - 4.0

NOTES:

1 Vacuum measured using portable vacuum gauge (provided by Lab)
2 Vacuum measured by canister gauge upon opening valve
3 Vacuum measured by canister gauge prior to closing valve

Signed:

Centek Laboratories, LLC

143 Midler Park Drive
Syracuse, NY 13206
Phone: 315-431-9730 Fax: 315-431-9731 Emergency: 315-416-2751 / 416-2752

Chain of Custody

Site Name: Leicka
Project:
PO#: LE0614
Other:

Detection Limit	Report Level
☐ 5ppbv	☐ Level I
☒ 1ug/M3	☐ Level II
☐ 1ug/M3 +TCE .25	☒ Cat "B" Like

Turnaround Time:	Check One	Rush TAT Surcharge %	Due Date:
5 Business Days	☐	0%	
4 Business Days	☐	35%	
3 Business Days	☒	50%	4-1-09 Email
2 Business Days	☐	75%	
Next Day by 5pm	☐	100%	
Next Day by Noon	☐	150%	
Same Day	☐	200%	

Company: Enviro Group
Report: Eric Lovenduski
46 Lake Ave
Saratoga Springs, NY 12866
Phone: 518-258-3859
Fax:
Email: Elovenduski@enviroqroup.com

Company: Same
Invoice: Same
Phone:
Fax:
Email:

Sample ID	Date Sampled	Canister Number	Regulator Number	Analysis Request	Comments	Vacuum Start/Stop
30ROWS	3-26-09	236	174	TO 15 (ug/m3)	Due 4-1-09 via E-mail	29.5 / 3.0
30 ROWIA	3-26-09	225	292	TO 15 (1ug + TCE)	Due 4-1-09 via Email	28 / 2.2

Chain of Custody	Print Name	Signature	Date/Time	Courier:
Sampled by:	Brock Greene		3-27-09	Fed Ex
Relinquished by:	Brock Greene		3-27/1500	
Received at Lab by:				

www.CentekLabs.com

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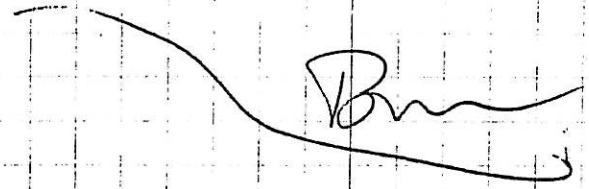
Location 30 Rowan, Chelsea Date 3-26-09

Project / Client Enviro Group

700 BG on site talk to owner
start setting up
815 Finished testing seal and started
to sample 30ROWS (subslab)
822 started to sample 30ROWIA
850 cleaned up and left site



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Location 30 Rowan Rd Date 3-27-09

Project / Client Enviro Group

800 BG on site talk to owner
825 Stopped 30ROWS with 3.0 "Hg
826 Stopped 30ROWIA with 2.2 "Hg
Packed up samples and cleaned up
Patched hole with concrete crack
patch.
915 left site